# Montlake Triangle and Lower Rainier Vista

## UNIVERSITY OF WASHINGTON

Project No. 203593  
Date of Specifications: March 20, 2012

<table>
<thead>
<tr>
<th>CIVIL AND STRUCTURAL</th>
<th>LANDSCAPE AND DESIGN</th>
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<tr>
<td>KPFF Consulting Engineers</td>
<td>Gustafson Guthrie Nichol</td>
</tr>
<tr>
<td>1601 Fifth Avenue, Suite 1600</td>
<td>1101 Alaskan Way, Floor 3</td>
</tr>
<tr>
<td>Seattle, WA 98101</td>
<td>Seattle, WA 98101</td>
</tr>
<tr>
<td>(206) 622-5822</td>
<td>(206) 903-6802</td>
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<tr>
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</tr>
<tr>
<td>1601 Fifth Avenue, Suite 1400</td>
<td>13104 N5 85th Street</td>
</tr>
<tr>
<td>Seattle, WA 98101</td>
<td>Kirkland, WA 98083</td>
</tr>
<tr>
<td>(206) 256-0800</td>
<td>(425) 822-8397</td>
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<tr>
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<tr>
<td>LTK Engineering Services</td>
<td>Shannon &amp; Wilson</td>
</tr>
<tr>
<td>505 Fifth Avenue South, Suite 640</td>
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</tr>
<tr>
<td>Seattle, WA 98104</td>
<td>Seattle, WA 98103</td>
</tr>
<tr>
<td>(206) 288-1780</td>
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</tr>
</tbody>
</table>
TABLE OF CONTENTS – VOLUME I

**Division 00 – Procurement and Contracting Requirements**
- 00 50 00 University of Washington General Contractor/Construction Manager Contract
- 00 50 00 Attachment No. 1 – Summary Matrix of Cost Allocation
- 00 50 00 Attachment No. 2 – Form of Construction Cost Estimate – Summary
- 00 50 01 Agreement for Preconstruction Services
- 00 50 01 Attachment B – Insurance Requirements
- 00 50 01 Attachment C – Prevailing Wages
- 00 72 00 General Conditions for GC/CM Projects at the University of Washington
- 00 73 20 Contractor Performance Evaluation Program

**Division 01 - General Requirements**
- 01 11 00 Summary of Work
- 01 11 01 Summary of Work – Hazardous Materials
- 01 23 00 Alternates
- 01 25 00 Substitution Procedures
- 01 26 00 Contract Modification Procedures
- 01 29 76 Progress Payment Procedures
- 01 31 00 Project Management & Coordination
- 01 31 19 Project Meetings
- 01 32 16 Construction Progress Schedule
- 01 33 00 Submittal Procedures
- 01 35 00 Electronic Communications
- 01 35 23 Owner Safety Requirements
- 01 42 00 References
- 01 45 00 Contractor Quality Control
- 01 45 23 Testing and Inspection Services
- 01 50 00 Temporary Facilities and Controls
- 01 50 26 Traffic Regulation
- 01 56 39 Temporary Tree and Plant Protection
- 01 57 13 Temporary Erosion and Sediment Control
- 01 58 00 Project Identification
- 01 71 23 Field Engineering
- 01 73 30 Alteration Project Procedures
- 01 74 00 Construction Waste Management
- 01 77 00 Closeout Procedures
- 01 78 36 Warranties

Appendix A Division 00 and 01 Forms
Appendix B Washington State Prevailing Wage Rate Information
Appendix C Hazardous Materials Survey
### TABLE OF CONTENTS – VOLUME I (continued)

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Metro Construction Requirements</td>
</tr>
<tr>
<td>E</td>
<td>Geotechnical Data</td>
</tr>
<tr>
<td>F</td>
<td>DPD Inspection Schedules</td>
</tr>
</tbody>
</table>

### TABLE OF CONTENTS – VOLUME II

#### Division 02 – Existing Conditions

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 41 13</td>
<td>Selective Site Demolition</td>
</tr>
<tr>
<td>02 80 00</td>
<td>Facilities Remediation</td>
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<tr>
<td>02 83 00</td>
<td>Lead Related Activities</td>
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#### Division 03 – Concrete

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>03 30 00</td>
<td>Cast-In-Place Concrete</td>
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<td>03 33 00</td>
<td>Architectural Concrete</td>
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<td>03 37 13</td>
<td>Shotcrete</td>
</tr>
<tr>
<td>03 38 00</td>
<td>Post-Tensioned Concrete</td>
</tr>
<tr>
<td>03 45 00</td>
<td>Precast Architectural Concrete</td>
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#### Division 03 – Masonry

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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>04 22 00</td>
<td>Concrete Unit Masonry</td>
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#### Division 05 – Metals

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<td>Structural Steel Framing</td>
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<td>05 73 00</td>
<td>Decorative Metal Railings</td>
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</tbody>
</table>

#### Division 07 – Thermal and Moisture Protection

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>07 14 13</td>
<td>Fluid-Applied Rubberized Asphalt Waterproofing</td>
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<tr>
<td>07 92 05</td>
<td>Joint Sealants</td>
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</tbody>
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#### Division 09 – Finishes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 90 00</td>
<td>Painting and Coating</td>
</tr>
<tr>
<td>09 96 23</td>
<td>Graffiti-Resistant Coatings</td>
</tr>
<tr>
<td>09 97 13</td>
<td>Exterior Steel Coatings</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS – VOLUME II (continued)

## Division 10 – Specialties

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 44 13</td>
<td>Fire Extinguisher Cabinets</td>
</tr>
<tr>
<td>10 44 16</td>
<td>Fire Extinguishers</td>
</tr>
</tbody>
</table>

## Division 12 – Furnishings

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 93 00</td>
<td>Site Furnishings</td>
</tr>
</tbody>
</table>

## Division 26 – Electrical

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 00 00</td>
<td>General Electrical Requirements</td>
</tr>
<tr>
<td>26 05 19</td>
<td>Low-Voltage Electrical Power Conductors and Cables</td>
</tr>
<tr>
<td>26 05 26</td>
<td>Grounding and Bonding for Electrical Systems</td>
</tr>
<tr>
<td>26 05 43</td>
<td>Underground Ducts and Raceways for Electrical Systems</td>
</tr>
<tr>
<td>26 05 43.13</td>
<td>Excavation and Backfill</td>
</tr>
<tr>
<td>26 05 43.19</td>
<td>Handholes and Hardware</td>
</tr>
<tr>
<td>26 05 53</td>
<td>Electrical Systems Identification</td>
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<tr>
<td>26 09 33.19</td>
<td>Architectural Dimming System</td>
</tr>
<tr>
<td>26 51 00</td>
<td>Exterior Lighting</td>
</tr>
<tr>
<td>26 51 00.A</td>
<td>Attachment A – Exterior Fixtures</td>
</tr>
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## Division 31 – Earthwork

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>31 00 00</td>
<td>Earthwork</td>
</tr>
<tr>
<td>31 00 00.A</td>
<td>Attachment A - Fluidized Thermal Backfill</td>
</tr>
<tr>
<td>31 23 23</td>
<td>EPS Geofoam Fill</td>
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<tr>
<td>31 32 19</td>
<td>MSE Retaining Walls</td>
</tr>
<tr>
<td>31 32 36</td>
<td>Soil Nailing</td>
</tr>
<tr>
<td>31 36 00</td>
<td>Gabion Boxes</td>
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<tr>
<td>31 50 00</td>
<td>Excavation Shoring</td>
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<td>31 63 27</td>
<td>Drilled Piers</td>
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<tr>
<td>31 63 33</td>
<td>Drilled Micropiles</td>
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<tr>
<td>31 66 05</td>
<td>OCS Pole Foundations</td>
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## Division 32 – Exterior Improvements

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<tr>
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<td>Porous Flexible Paving</td>
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<td>Rigid Paving</td>
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<td>32 14 43</td>
<td>Porous Unit Pavers</td>
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<td>32 17 23</td>
<td>Pavement Marking</td>
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<tr>
<td>32 31 19</td>
<td>Fences and Gates</td>
</tr>
<tr>
<td>32 80 00</td>
<td>Landscape Irrigation</td>
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</tbody>
</table>

Conformed Set
TABLE OF CONTENTS – VOLUME II (continued)

**Division 32 – Exterior Improvements (continued)**

<table>
<thead>
<tr>
<th>Code</th>
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<td>Soil Preparation</td>
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**Division 33 – Utilities**

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<td>Storm Drainage Utilities</td>
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**Division 34 – Transportation**

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<tbody>
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<td>OCS Wood Poles</td>
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<td>34 23 22</td>
<td>ETB OCS Conductors</td>
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<tr>
<td>34 23 33</td>
<td>ETB OCS Steel Wire Rope and Synthetic Rope</td>
</tr>
<tr>
<td>34 23 36</td>
<td>ETB OCS Fittings and Hardware</td>
</tr>
<tr>
<td>34 23 91</td>
<td>ETB OCS Testing</td>
</tr>
</tbody>
</table>

END OF TABLE OF CONTENTS
University of Washington

General Contractor/Construction Manager (GC/CM) 
Contract

for

Montlake Triangle Project

Project Number 203593
TABLE OF CONTENTS

Article 1  DEFINITIONS .................................................................................................................1
  1.1. Architect ................................................................................................................ 1
  1.2 Construction Work ................................................................................................1
  1.3 Contract Documents ..............................................................................................1
  1.4 General Contractor/Construction Manager ...........................................................2
  1.5 Maximum Allowable Construction Cost ..............................................................2
  1.6 Negotiated Support Services .................................................................................2
  1.7 Owner ....................................................................................................................2
  1.8 Percent Fee ............................................................................................................2
  1.9 Total Contract Cost ...............................................................................................2

Article 2  THE CONTRACT DOCUMENTS ....................................................................................2
  2.1. Contract Documents ..............................................................................................2

Article 3  WORK OF THIS CONTRACT .........................................................................................2
  3.1. General .................................................................................................................. 2
    3.1.1 Phases .....................................................................................................3
    3.1.2 Construction Cost Estimates ..................................................................3
    3.1.3 Green Roads ...........................................................................................3
    3.1.4 CPARB Reporting .................................................................................3
  3.2 Work During Preconstruction ............................................................................3
    3.2.1 General ...................................................................................................3
    3.2.2 Schematic Design Phase ........................................................................3
    3.2.3 Design Development Phase ...................................................................4
    3.2.4 Construction Documents Phase .............................................................6
  3.3 Work During Construction ...................................................................................7
    3.3.1 General ...................................................................................................7
    3.3.2 Meetings and Tours ................................................................................7
    3.3.3 Superintendence/Coordination ...............................................................7
    3.3.4 Planning and Layout ..............................................................................7
    3.3.5 Staffing ...................................................................................................7
    3.3.6 Inspections .............................................................................................7
    3.3.7 Building Permit Change..........................................................................8
    3.3.8 Certificate of Occupancy .......................................................................8
    3.3.9 Substantial Completion ...........................................................................8
    3.3.10 LEED Certification ................................................................................8
  3.4 Work During Commissioning ...............................................................................8

Article 4  RELATIONSHIP OF THE PARTIES ................................................................................8
  4.1. General .................................................................................................................. 8
  4.2 Partnering ..............................................................................................................9

Article 5  DATE OF COMMENCEMENT, TIME OF COMPLETION, LIQUIDATED DAMAGES ...9
  5.1 Subject to Funding ................................................................................................9
  5.2 Time is of the Essence ..........................................................................................9
  5.3 Date of Commencement .......................................................................................9
  5.4 Substantial Completion .......................................................................................10
  5.5 Substantial Completion Liquidated Damages .....................................................10
Article 6 TOTAL CONTRACT COST .........................................................................................10
6.1 General ................................................................................................................10
6.2 Determination .....................................................................................................10
6.3 Preconstruction Services .....................................................................................10
6.4 Maximum Allowable Construction Cost ("MACC") .........................................10
   6.4.1 Calculation ...........................................................................................10
   6.4.2 Contractor Responsibility .....................................................................11
   6.4.3 Risk Contingency Account ..................................................................11
   6.4.4 Documentation ...................................................................................11
   6.4.5 Negotiated Support Services ................................................................11
   6.4.6 Subcontract Plan ..................................................................................11
6.5 Percent Fee and Specified General Conditions ...................................................12
   6.5.1 Percent Fee ...........................................................................................12
   6.5.2 Specified General Conditions Work ....................................................12
6.6 Subcontract Buyout Procedure ...........................................................................12
   6.6.1 Award to Low Bidder ..........................................................................12
   6.6.2 Updated Subcontract Plan and Other Requirements ............................12
   6.6.3 Bid Documents Reproduction Costs ....................................................13
   6.6.4 Bidding ..................................................................................................13
   6.6.5 Negotiations .........................................................................................13
   6.6.6 Award or Rebid ....................................................................................13
   6.6.7 Bid Protest ............................................................................................13
   6.6.8 Savings .................................................................................................13
   6.6.9 Subcontractor Non-Performance .........................................................13
   6.6.10 Owner-Furnished Equipment ...............................................................14
6.7 Contractor Cost Accounting ...............................................................................14
   6.7.1 Accounting ...........................................................................................14
6.8 Performance and Payment Bond .........................................................................14

Article 7 SUBCONTRACTING ............................................................................................14
7.1 Competitive Bidding Required ...........................................................................14
7.2 Self-Performance by GC/CM .............................................................................14
7.3 Prequalification ...................................................................................................14
7.4 Subcontractor Bid Packages ...............................................................................14
7.5 Cost of Subcontracting Process ........................................................................14
7.6 Solicitations of Subcontractors ...........................................................................15
7.7 Subcontractor Bonding .....................................................................................15
7.8 Subcontract Agreements .....................................................................................15

Article 8 MISCELLANEOUS PROVISIONS ........................................................................15
8.1 Builder's Risk ......................................................................................................15
8.2 Audit ..................................................................................................................15
8.3 Sales Tax .............................................................................................................15

Attachment 1 - "Summary Matrix of Cost Allocation"
Attachment 2 - "Form of Construction Cost Estimate - Summary"
Attachment 3 - Summary of Complete Cost Estimate
UNIVERSITY OF WASHINGTON
GENERAL CONTRACTOR/CONSTRUCTION MANAGER (GC/CM) CONTRACT

PROJECT: Montlake Triangle Project

THIS CONTRACT is made and entered into by and between THE BOARD OF REGENTS of the UNIVERSITY OF WASHINGTON (Owner), and ______________ (Contractor) hereinafter referred to as Parties. This Contract shall be effective on the last date set forth on the signature page. This Contract shall be the agreed basis of performing, and compensating for, all work identified herein.

In Consideration of the mutual covenants and agreements of the Parties herein contained, the Contractor agrees to furnish all material, labor, tools, equipment, apparatus, facilities, etc., necessary to perform and complete in an acceptable manner all general contractor and all construction management services and the Work called for in the Contract Documents for a total not to exceed Total Contract Cost (TCC) of:

Percent Fee of the MACC (%)

Fixed Amount for Specified General Conditions

Maximum Allowable Construction Cost (MACC)

Total Contract Cost:

Preconstruction Services

Total Contract Cost plus Preconstruction Services:

This Contract is entered into pursuant to the provisions of RCW 39.10.210 and 39.10.340 through 39.10.410. Contractor agrees, as required by RCW 39.10.350, if the Work cannot be completed for the agreed Maximum Allowable Construction Cost (MACC), excepting increases due to Owner directed changes, regulatory changes, design errors or omissions, or unforeseen site conditions, any and all additional costs shall be the sole responsibility of the Contractor and Contractor hereby assumes liability for such costs without reimbursement by the Owner.

ARTICLE 1
DEFINITIONS

In addition to the definitions set forth in the General Conditions for GC/CM Projects at the University of Washington, the following definitions shall apply to this Contract.

1.1 Prime Engineering Consultant, “A/E” or “Engineer” refers to KPFF.

1.2 Construction Work. The term “Construction Work” shall mean all Work performed during the construction phase of the Project.

1.3 Contract Documents. The “Contract Documents” consist of the following:

1.3.1 This General Contractor/Construction Manager Contract;

1.3.2 Any documents referenced herein and attached to this Contract, including but not limited to Attachment 1, “Summary Matrix of Cost Allocation”. In the event of a conflict or inconsistency, the provisions of this Contract, Division 00, or Division 01 shall take precedence over Attachment 1;
1.3.3 The following documents are incorporated herein by reference, as if set forth herein in full: a.) General Conditions for GC/CM Projects at the University of Washington; b.) any Modifications and Supplemental Conditions to the General Conditions; c.) Drawings and Specifications with all Addenda and modifications thereof; d.) change orders issued after execution of this Contract; e.) the RFP document for selection of the GC/CM and the Contractor’s Response to Request for Proposal; f.) the Request For Final Proposals for GC/CM Services (RFP) issued by the Owner and its addenda and the Contractor’s written response to the RFP including Contractor’s Percent Fee bid and Fixed Amount for Specified General Conditions Work; g.) Federal provisions as outlined in Appendix “YY” and “ZZ and h.) other documents listed in this Contract.

1.4 General Contractor/Construction Manager. “General Contractor/Construction Manager” (GC/CM) means a firm with which the Owner has selected and negotiated a Maximum Allowable Construction Cost to provide services during the design phase and to act as general contractor and construction manager during the construction phase. The terms “GC/CM” and “Contractor” are used interchangeably in this Contract.

1.5 Maximum Allowable Construction Cost. The “Maximum Allowable Construction Cost” (MACC) means the maximum cost of the work to construct the project including a percentage for risk contingency, negotiated support services, and approved change orders.

1.6 Negotiated Support Services. “Negotiated Support Services” means items the GC/CM would normally manage or perform on a construction project including, but not limited to surveying, hoisting, safety enforcement, provision of toilet facilities, temporary heat, cleanup, and trash removal.

1.7 Owner. “Owner” refers to the University of Washington as represented by the Owner’s Representative.

1.8 Percent Fee. “Percent Fee” means the percentage amount on the MACC to be earned by the GC/CM as overhead and profit and as further defined in Section 6.5 of this GC/CM Contract.

1.9 Total Contract Cost. "Total Contract Cost" (TCC) means the fixed amount for the detailed Specified General Conditions work, the negotiated Maximum Allowable Construction Cost, and the Percent Fee on the negotiated Maximum Allowable Construction Cost.

ARTICLE 2
THE CONTRACT DOCUMENTS

2.1 Contract Documents. The Contract Documents, as defined in Article 1, of this Contract, form the complete agreement between the Parties, and are as fully a part of the Contract as if attached to this Contract or repeated herein. The Contract Documents represent the entire and integrated agreement between the Parties and supersede prior negotiations, representation or agreements, either written or oral, including, but not limited to, the Agreement for Preconstruction Services. In the event of any inconsistencies between the component parts of the Contract Documents, the order of precedence of the documents shall be as stated in Part 1.02 of the General Conditions for GC/CM Projects at the University of Washington.

ARTICLE 3
WORK OF THIS CONTRACT

3.1 General. The Contractor will work collaboratively and proactively with the Owner and Architect to proceed with the planning, design, and development of the Work in a manner which supports the Owner's efforts to keep costs within the Owner’s budget. The Contractor shall provide Construction Management (CM) services throughout the Project, from the preconstruction period through construction and shall closely coordinate such work with the A/E and Owner. The Contractor shall provide CM services, including but not limited to: a) assistance in identifying safe work practices and requirements for
construction; b) assessing and recommending site logistics requirements; c) recommending phasing, sequencing of work and construction scheduling; d) providing cost-estimating including Negotiated Support Services budgeting; e) determining and reconciling constructability issues and performing constructability analysis of the design documents prior to subcontract bidding; f) assessing alternative construction options for cost savings; g) identifying products for Value Engineering (VE) and engineering systems for life cycle cost considerations and recommending all work necessary to support their implementation and; h) participating in Owner’s Design and Construction Documents Phases coordination reviews. In addition, the GC/CM shall work with local labor and subcontracting markets to generate viable pricing alternatives. The Contractor shall provide full general contracting services for construction of the Project in accordance with the requirements of the Contract Documents and RCW 39.10.210 and 39.10.340 through 39.10.410, except to the extent work is specifically indicated in the Contract Documents to be the responsibility of others.

3.1.1 Phases. The development of the Project may be comprised of various phases with design, construction documentation and permitting for multiple scopes of the Work to expedite the Project. To the extent possible, work during Preconstruction will be synchronized to allow construction cost estimating and coordination reviews to occur simultaneously for each Phase.

3.1.2 Construction Cost Estimates. The Contractor shall prepare construction cost estimates in the format provided in Attachment 2 “Form of Construction Cost Estimate - Summary” of this Contract at every Phase and for the MACC negotiations, unless otherwise approved by the Owner.

3.1.3 Green Roads. Although Green Roads certification is not a requirement for the Project, the Contractor will assist the Owner and Engineer in identifying and implementing Sustainable Design opportunities that are practicable for the Project. The GC/CM will track the implemented Sustainable Design elements for the Project and provide a summary report for the Owner at the conclusion of the Project.

3.1.4 CPARB Reporting. Provide the Owner any project information required to be submitted by the Contractor in accordance with the provisions of chapter 39.10 RCW and the requirements of the Capital Projects Advisory Review Board (CPARB).

3.1.5 Federal provisions Reporting. Provide the Owner any project information required to be submitted by the contractor in accordance with the federal provisions as outlined in Appendix “YY” and “ZZ”.

3.2 Work During Preconstruction.

3.2.1 General. The Contractor shall actively participate as a member of the Project team with the Owner and the Architect during the Design and Construction Documents Phases prior to construction. The Contractor shall be responsible for providing necessary consulting expertise to the Owner to ensure that the program scope, the construction budget and the Project schedule are met. During this preconstruction period, the Contractor shall provide the appropriate professional personnel that were named in response to the Request for Proposals for GC/CM Services and other such personnel as necessary to perform the required Preconstruction Services, including but not limited to, a professional project manager or higher level person to attend all meetings described herein and provide or oversee the services the Contractor is obligated to perform to ensure development of the most functional, constructible and cost effective Project. Work to prepare for and conduct MACC negotiations is not a part of the work contemplated under this section and will not be paid for by the Owner.
3.2.1.1 Prior to execution of this Contract the Parties entered into an Agreement for Preconstruction Services. Upon execution of this Contract that Agreement shall be superseded by the terms and conditions set forth in this Contract. Any compensation not paid under the Agreement for Preconstruction Services shall be paid in accordance with this Contract.

3.2.2 Schematic Design Phase. Due to the development of the project the schematic design has been completed under a previous project.

3.2.3 60% Design Phase. In addition to the general services normally provided by a construction manager or a contractor during preconstruction, the Contractor shall provide the following services during the Design Development Phase:

3.2.3.1 Attend biweekly Project Management meetings conducted by the Engineer and the Intermediate and Final Design Development Phase review meetings conducted by Owner. Anticipate a minimum of three (3) days for each Design Phase meeting.

3.2.3.2 Provide constructability comments and estimating services when requested by the Engineer and approved by the Owner to evaluate critical elements of the design as they are formulated.

3.2.3.3 Monitor the development of the Design Development documents. Provide VE and constructability reviews of elements of the design when requested by the A/E and approved by Owner.

3.2.3.4 Work with the Owner and Engineer to develop preliminary phasing plans for all Construction Work affecting University or public operations.

3.2.3.5 Prepare a time-scaled master Summary Schedule bar chart and tabular report representing planned progress of the total Project in approximately 150 to 200 activities from the start of Design Development thru Notice to Proceed of construction and Final Completion utilizing the latest version of Primavera Project Planner or similar software acceptable to the Owner. The Summary Schedule shall identify work to be performed by the A/E, the Contractor and Owner including permitting and other influencing work and the work of major Subcontractors. In developing the activities for this schedule the Contractor shall consult with both the Owner and A/E to ensure that the responsibility for and duration of these activities are accurate. Indicate milestones for early subcontract buyout packages and/or material procurement packages. The Summary Schedule shall accurately summarize the anticipated detailed network diagram that is to be submitted as the Contractor’s Progress Schedule.

3.2.3.6 Identify subcontract bid packages and material procurement packages that could be advertised prior to the completion of Construction Documents. If the Owner concurs that the Project will benefit and funds are available the Owner may, at its option, elect to authorize the Contractor to advertise and award subcontracts or material procurements for long lead-time items in advance of completion of Construction Documents. The Owner’s decision to not authorize these early activities shall not constitute delay. Contractor assumes any and all risks related to or associated with its recommendation to advertise and award subcontracts and/or material procurements in advance of the completion of Construction Documents, including but not limited to increased cost of the work caused by escalation, inflation, market conditions, or further development of the Construction Documents. Owner assumes risks of cost increases due to Owner directed changes, regulatory changes, design errors or omissions and unforeseen site conditions. All
provisions of this Contract and RCW 39.10.210, and 39.10.340 through 39.10.410 otherwise applicable to subcontract bidding shall apply to any early advertising and award of subcontracts and/or material procurements.

3.2.3.7 Review the Final Design Development drawings and specifications and provide general coordination assessment comments, constructability comments of the design and conduct a safe working conditions hazards analysis. Validate accepted VE recommendations are implemented.

3.2.3.8 Verify that the Design Development documents reflect the existing Project Site conditions.

3.2.3.9 Prepare construction cost estimate for the entire Work in CSI modified UnIFORMAT, or other format approved by Owner, based upon the Final Design Development documents. Upon completion of the estimate, the Contractor and the Engineer shall reconcile their estimates and present to the Owner one estimate of the construction cost based upon mutually agreed assumptions including: the date of commencement of construction, duration of construction, escalation factors, design contingency and Negotiated Support Services costs. The cost estimate shall be updated to include Owner’s and Contractor’s document review comments to achieve a total reconciliation of the Phase. In the event that the reconciled estimate is higher than the Owner's TCC budget, and as directed by the Owner, the Contractor shall present to the Owner a list of VE cost-savings equal to or greater than the amount the estimate exceeds the budget and continue to work with the Architect to define a scope that is within the budget.

3.2.3.10 Update VE tracking system monthly for discussion at Project Management meetings.

3.2.4 90% and Final Phase. In addition to the general services provided by a construction manager during preconstruction, the Contractor shall provide the following services during the Construction Documents Phase.

3.2.4.1 Attend monthly Project Management meetings conducted by the Engineer and Intermediate and Final CD Phase review meetings conducted by the Owner. Anticipate a minimum of four (4) review days for each CD Phase meeting.

3.2.4.2 Provide constructability comments and estimating services when requested by the Engineer and approved by the Owner to evaluate critical elements of the design as they are formulated.

3.2.4.3 Work with the Engineer to develop final phasing plans for construction work affecting University or public operations.

3.2.4.4 Update the master Summary Schedule, to reflect changes that have occurred during design or to reflect a change or more refined schedule for procurement of materials, subcontract buyout or construction and construction phasing activities. Provide updates at the Project Management meetings and a final update with the final Subcontract Plan.

3.2.4.5 Prepare procurement documents for long-lead time materials if and when authorized by Owner.

3.2.4.6 Manage contracts for building engineering systems per RCW 39.04.290, if any.
3.2.4.7 Complete an interdisciplinary Quality Assurance check of the final Construction Documents submittal or submittals, if the Construction Documents are phased, to validate the documents are complete and coordinated. Provide comments to the Engineer and Owner. Verify that the comments are incorporated into the Construction Documents.

3.2.4.8 Provide a constructability analysis of each subcontract bid package.

3.2.4.9 Verify that the Construction Documents reflect the existing Project Site conditions.

3.2.4.10 Prepare a construction cost estimate for the entire Work in CSI modified Uniformat, or other format approved by Owner, based upon the Final Construction Documents submittal. Upon completion of the estimate the Contractor and the Engineer shall reconcile their estimates and present to the Owner one estimate of the construction cost based upon mutually agreed assumptions including: the date of commencement of construction, duration of construction, escalation factors, design contingency and Negotiated Support Services costs. The cost estimate shall be updated to include Owner’s and Contractor’s document review comments to achieve a total reconciliation for the Phase. If the reconciled estimate exceeds the MACC agreed to between the Parties, because of Owner directed changes, regulatory changes or unforeseen site conditions the Contractor shall take whatever actions are necessary in conjunction with the Engineer and Owner to reduce the cost of the Work to within the MACC. If the estimate exceeds the agreed MACC because of increases other than Owner directed changes, regulatory changes, design errors or omissions, or unforeseen conditions, any and all additional costs shall be the sole responsibility of the Contractor.

3.2.4.11 Monitor the development of the construction documents. Identify changes to the approved Design Development documents and update VE tracking system monthly for discussion at Project management meetings.

3.2.4.12 Provide the Owner any project information required to be submitted by the contractor in accordance with the federal provisions as outlined in Appendix “YY” and “ZZ”.

3.3 Work During Construction

3.3.1 General. During construction the Contractor shall provide all services required of a general contractor and construction manager to execute the Work. Some details of Contractor’s work are provided below but this list shall in no way limit the Contractor's overall duty to provide GC/CM services.

3.3.2 Meetings and Tours. The Contractor shall conduct weekly Construction Progress Meetings and provide all schedules, logs and other information of construction activities to support the meeting. Contractor will record and distribute meetings minutes for same. The Contractor shall also; conduct separate weekly safety, and Subcontractor meeting(s) and maintain minutes for same; and attend Project Principals Oversight meetings and Disputes Review Board meetings with representatives from the Owner and the A/E for each meeting held until Final Completion is achieved, or as otherwise approved by Owner. Upon advanced notice the Contractor shall conduct site tours for the Owner and other officials as required.

3.3.3 Superintendence/Coordination. The Contractor shall be responsible for superintendence, providing ongoing coordination between crafts, job site safety, housekeeping, quality control, settling
disputes between Subcontractors, negotiating any Change Orders with the Subcontractors (Owner expects the Contractor to negotiate with Subcontractors but reserves the right to reject any Subcontractor proposal), negotiating Change Orders with the Owner, reviewing, coordinating and forwarding submittals, substitution requests, and Requests for Information (RFIs) to the Owner's Representative for action and for responding to all correspondence related to the effort required for any procurement activities that arise from a Subcontractor's inability or unwillingness to perform.

3.3.4 Planning and Layout. The Contractor shall be responsible for the planning and layout of the Work, and for the coordination of layout work provided by separate trades for their own work, to insure that no conflict exists with the work of other trades. Contractor shall also be responsible for the Maintenance of Traffic (MOT) plan and all coordination and approvals needed to successfully implement the plan requirements.

3.3.5 Staffing. The Contractor shall provide sufficient staff of project managers, traffic engineers, field engineers, superintendents, surveyors, Health and Safety Officers, CQC representatives, testing engineers, scheduling engineers, cost engineers, clerical and accounting personnel, etc. to ensure that:

3.3.5.1 Change Order Proposals are submitted to the Owner within seven (7) calendar days of the receipt by the Contractor of the Subcontractor’s proposal; only changes negotiated between Contractor and Subcontractor are acceptable.

3.3.5.2 RFIs are reviewed and forwarded to the Owner's Representative as expeditiously as possible to not cause delay to the Project.

3.3.5.3 Submittals are reviewed for completeness and forwarded to the Owner's Representative within five (5) days of receipt.

3.3.5.4 Replies to correspondence from Subcontractor, Owner, and other outside agencies are provided within seven (7) calendar days.

3.3.5.5 For a minimum of ninety (90) calendar days after Substantial Completion or until Final Completion is achieved, whichever is later, provide adequate qualified on-site staff that is authorized to act on behalf of the Contractor to coordinate and insure that any outstanding work items, Punch Lists, testing and commissioning are completed, at no additional cost to the Owner.

3.3.5.6 Traffic is not impacted beyond the approved MOT plan with any changes timely requested and coordinated with all stakeholders.

3.3.5.7 All requirements of the Contract Documents are satisfied.

3.3.6 Inspections. Special inspection required by the appropriate building officials and regulatory agencies will be provided by the Owner per Division 01 of the Specifications. The Contractor shall be responsible to ensure that the Owner's inspectors are given notice and are afforded timely and appropriate access to the Work to make their inspections.

3.3.7 Building Permit Change. The Contractor shall perform all work required to make Building Permit changes and updates. Building Permit changes and updates shall be, if approved by Owner, incorporated into the appropriate subcontract package(s) and the Contract Documents by change order.
3.3.8 **Certificate of Occupancy.** The Contractor shall obtain a Certificate of Occupancy and the required operating permits necessary for the Owner to take beneficial occupancy of the Project or any partially completed portion of the Project when notified in writing by the Owner.

3.3.9 **Substantial Completion.** Substantial Completion, for purposes of Section 6.07 of the General Conditions for GC/CM Projects at the University of Washington and Article 5 of this Contract, shall include those activities necessary to: a.) obtain a Certificate of Occupancy; and b.) compliance with the requirements of Section 01 77 00, “Closeout Procedures”

**ARTICLE 4**

**RELATIONSHIP OF THE PARTIES**

4.1 **General.**

4.1.1 The Contractor accepts the relationship of trust and confidence established by this Contract and covenants with the Owner to cooperate with the Owner and Architect through every Phase of the Work and utilize the Contractor's best skill, efforts and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best way and most expeditious and economical manner consistent with the interests of the Owner. The Contractor recognizes that the Owner has a separate agreement with the Architect to design the Project and to provide certain construction administration services necessary to ensure that the construction is in accordance with the Contract Documents. The Contractor further recognizes that in order for the Project to be completed on time and within budget the Contractor and the Architect and the Owner will have to closely cooperate on a regular basis to revise plans, Drawings, Specifications, materials, methods, estimates, schedules, and budgets as necessary to meet the Owner's financial constraints.

4.1.2 The Owner agrees to exercise best efforts to assist the Contractor to perform the Work in the best way and most expeditious manner by timely furnishing and approving information required by the Contractor and making payments to the Contractor in accordance with the requirements of the Contract Documents.

4.2 **Partnering.**

4.2.1 The Owner and Contractor agree to utilize the "partnering" concept for this Project. Partnering emphasizes a cooperative approach to problem-solving involving all key parties to the Project: Owner, Engineer, Contractor and principal Subcontractors.

4.2.2 Two workshops to define partnering relationships will be scheduled not-to-exceed one day each or as mutually agreed. The Owner, A/E and the Contractor will participate in one partnering session during preconstruction as soon as practicable. The Owner, A/E, Contractor, and principal Subcontractors when known, shall participate in a second partnering session. Principal Subcontractors should include: civil, structural, electrical, mechanical, and others as the Contractor and Owner jointly agree are appropriate. The purpose of the workshops shall be:

4.2.2.1 To establish mutual understanding of partnering concepts;
4.2.2.2 To develop the mission statement and goals for the Project for all parties;
4.2.2.3 To develop a process so that critical issues can be quickly resolved.
4.2.3 The Owner will be responsible for providing the facilities for the workshops, as well as a facilitator and any workshop materials. The Contractor shall pay one-third ($\frac{1}{3}$) of the costs for the facilitator and facilities not-to-exceed Two Thousand Dollars ($2,000.00). The Contractor is expected to provide key Project personnel for the workshop at no additional cost to the Owner.

4.2.4 At the conclusion of each workshop it is anticipated that a definitive working arrangement for partnering will be agreed upon and committed to in writing by the participants. Parties may withdraw from the partnering arrangement upon written notice to the others. Should the partnering arrangement be terminated, claims or disputes settled or changes approved during the existence of the partnering arrangement shall not be affected.

ARTICLE 5
DATE OF COMMENCEMENT, TIME OF COMPLETION, LIQUIDATED DAMAGES

5.1 Subject to Funding. If the Owner determines, in its sole discretion, that sufficient funds are not available, then the Owner shall have the right to immediately terminate this Contract for its convenience at any time during Preconstruction Services. In the event it does so, it will compensate the Contractor for the value of the Preconstruction Services it has performed, if any. However, the Contractor shall not be entitled to any compensation for damages, lost profits, or payment of any other kind.

5.2 Time is of the Essence. It is understood that time is of the essence in performing the Work, and the Contractor shall provide the necessary equipment, personnel and services to commence on the date this Contract is executed and be substantially complete within the time periods set forth herein.

5.3 Date of Commencement. The date of commencement of the Preconstruction Services set forth in section 3.2 herein shall be issuance of the Preconstruction Services Agreement. The date of commencement of all other work including the Construction Work shall be by a Notice to Proceed letter to the Contractor specifying the work that is being authorized. Any work performed prior to issuance of the Contract or Notice to Proceed shall be at the Contractor’s sole risk and expense.

5.4 Substantial Completion. Owner anticipates issuing a Notice to Proceed regarding the Construction Work on or about December 1, 2013. It should be noted this date is as per the interagency Memorandum of Agreement funding document. The University believes there is an opportunity to revise the start date to early 2012, with the date depending on permit issuance, for this project to commence prior to SP1 (Montlake Bridge, by others) and early enough to not impact this other work. This Notice to Proceed will allow the Contractor to begin site mobilization and then begin construction. All Work delineated in the Contract Documents, not including Preconstruction Services, shall be substantially complete within Three Hundred Sixty Five (365) calendar days of the date specified in the Notice to Proceed to begin Construction Work.

5.5 Substantial Completion Liquidated Damages. For failure to achieve Substantial Completion by the time specified for Construction Work in section 5.4 herein, Contractor shall pay Owner $2,520.00 per day in liquidated damages for each and every calendar day from the date when Substantial Completion should have been achieved to the date Substantial Completion is effectively achieved.

ARTICLE 6
TOTAL CONTRACT COST

6.1 General. The TCC has been mutually negotiated and agreed to by the Parties. The Contractor agrees that the Project is adequately defined, that Construction Documents are at least 90% complete, and has
determined that the Project is sufficiently clear and understandable for the Contractor to agree to the TCC in this Contract. The TCC is defined in Article 1 herein.

6.1.1 This Contract is entered into pursuant to the provisions of RCW 39.10.210 and 39.10.340 through 39.10.410. Contractor agrees, as required by RCW 39.10.350, if the Work cannot be completed for the agreed MACC any additional costs, except as provided below, shall be the responsibility of the Contractor and Contractor hereby assumes liability for such costs without reimbursement by the Owner. Owner agrees that cost increases due to Owner-directed changes, regulatory changes, design errors or omissions and unforeseen site conditions are the Owner’s responsibility.

6.2 Determination. The Total Contract Cost was determined through a negotiation of the MACC conducted prior to execution of this Contract. The MACC negotiations are separate from and not part of the Preconstruction Services work. The Contractor will not be reimbursed for MACC negotiations work.

6.3 Preconstruction Services. Prior to execution of this Contract, Preconstruction Services were provided pursuant to an Agreement for Preconstruction Services. Upon execution of this Contract, this Contract replaces and supersedes said Agreement and all work shall be performed in accordance with this Contract. Total compensation for Preconstruction Services, excluding Washington State Sales Tax, is identified on page one (1) of this Contract. (This includes services performed under the Agreement for Preconstruction Services and this Contract.) The money for this work is not included in the Total Contract Cost. Any amount that exceeds the total compensation agreed to will be at the Contractor’s sole cost and expense unless there are scope changes in the Preconstruction Services authorized by change order or amendment.

6.3.1 The following mark-ups are allowed for Preconstruction Phase change orders and amendments.

6.3.1.1 General Liability and B&O Tax.

6.3.1.2 Fee as bid on work of Subcontractors.

6.4 Maximum Allowable Construction Cost (“MACC”).

6.4.1 Calculation. The MACC is the amount, mutually agreed to between the Owner and Contractor that is required to complete all Work as described in the Contract Documents. The negotiated MACC shall include funds for all costs through the life of the Project, except those required for:

6.4.1.1 Preconstruction work.

6.4.1.2 Percent Fee.

6.4.1.3 Fixed Amount of Specified General Conditions work.

6.4.1.4 Owner-directed changes.

6.4.1.5 Other changes due to:

   (1) Design errors or omissions;

   (2) Unforeseen site conditions, hidden or omitted; and

   (3) Regulatory changes at variance with the Contract Documents.

6.4.1.6 Washington State Sales Tax.

6.4.2 Contractor Responsibility: The Contractor shall be responsible for: a.) all costs related to Subcontractor claims or charges that result from mistakes or omissions in the subcontract buyout; b.) coordination errors and coordination omissions related to the Coordinated Shop Drawings work of specification Section 01 33 00 “Submittal Procedures;” c.) interference between
Subcontractor and the GC/CM; d.) interference between Subcontractors and other Subcontractors; and e.) the Contractor's failure to coordinate the Work it self-performs with Work of other Subcontractors.

6.4.3 **Risk Contingency Account:** A Risk Contingency Account has been established in the amount of 2.5% of the Total for Subcontract Costs as identified in Attachment 3, Summary of Complete Cost Estimate. The Risk Contingency Account is included in the MACC. The Contractor may utilize the Risk Contingency Account established herein to pay for items for which it is responsible, as defined in section 6.4.2 herein, except that the Contractor may not use the Risk Contingency Account for items that are defined as Percent Fee or as Specified General Conditions in sections 6.5.1 and 6.5.2 herein. The Contractor's use of the Risk Contingency Account must be approved in advance by the Owner. The Contractor shall provide the Owner monthly updates on the use of the Risk Contingency Account. Any funds remaining in the Risk Contingency Account shall be returned to the Owner with the corresponding Percent Fee. No incentives may be paid to the Contractor from this Account or savings from this Account.

6.4.4 **Documentation.** As part of the MACC negotiations the Contractor has provided the following documentation, which documents are incorporated herein by reference as part of this Contract as though fully included herein:

6.4.4.1 The Contract Documents used as the basis of developing and negotiating the MACC dated ____________________.

6.4.4.2 A complete cost estimate dated _____________________. The summary of the complete cost estimate is included as Attachment 3 to this Contract and shall be consistent with format provided in Attachment 2 “Form of Construction Cost Estimate – Summary.”

6.4.5 **Negotiated Support Services.** The estimated costs for items identified as Negotiated Support Services in Attachment 1 “Summary Matrix of Cost Allocation” to this Contract shall be specifically identified and included in the MACC and identified as the Negotiated Support Services costs to be reimbursed by the Owner on a direct cost basis based upon the schedule and duration identified in section 5.4 herein, and/or paid as a lump sum based upon the percent complete. The costs for management required to administer the Negotiated Support Services Work shall be included in the Fixed Amount for Specified General Conditions.

6.4.6 **Subcontract Plan:** Upon execution of this Contract, the Contractor shall submit to the Owner a Subcontract Plan developed during MACC negotiations, in a format satisfactory to the Owner, outlining the Subcontract packages and procurement schedule for each package the Contractor intends to prepare to execute the Project. The Subcontract Plan shall include a statement regarding the work the Contractor intends (if any) to bid on to self-perform and an affidavit stipulating that such work is customarily performed by the Contractor.

6.5 **Percent Fee and Specified General Conditions.**

6.5.1 **Percent Fee.** The Contractor submitted a dollar amount on the Form of Proposal which represented the Percent Fee stated as a percentage of the estimated MACC. The actual Percent Fee of the MACC stated on page one (1) of this Contract is a set dollar amount calculated by multiplying the proposed fee percentage by the actual negotiated MACC. The Percent Fee amount shall be adjusted based on deductive or additive change orders by multiplying the proposed fee percentage by the actual amount of the change order. The Percent Fee shall cover the following:

6.5.1.1 All profit of the Contractor for this Project.
6.5.1.2 All regional and home office overhead expenses, including labor and materials, travel, phone, facsimile, postage, and other incidental office expenses attributed to work on this Project that is not specifically identified in the Specified General Conditions Work.

6.5.1.3 All overhead expenses of the Contractor for participation in and the support of the Subcontractor bidding process of the Project.

6.5.1.4 Other than retail sales tax, the fee shall cover all taxes owed by the Contractor including City and State B&O tax.

6.5.1.5 Contractor’s performance and payment bond.

6.5.2 Specified General Conditions Work. This Contract identifies the dollar amount for the “Fixed Amount for Specified General Conditions” Work. The Specified General Conditions Work shall consist of all requirements of the Contract contained in the General Conditions for GC/CM Projects at the University of Washington, any Modifications and Supplemental Conditions to the General Conditions, the GC/CM Contract and the Division 01 Specifications. Attachment 1 “Summary Matrix of Cost Allocation” to this Contract summarizes some of the costs associated with Specified General Conditions Work. Any cost that is not specifically identified in the “Summary Matrix of Cost Allocation” shall be covered by the amount bid for Specified General Conditions, unless otherwise identified in this Contract. Specified General Conditions Work must be performed at the expense of the Contractor and may not be made part of a subcontract bid except when so required by the Specifications and approved by the Owner.

6.6 Subcontract Buyout Procedure.

6.6.1 Award to Low Bidder. When subcontract bid packages are awarded, they shall be awarded to the eligible (as defined in RCW 39.10.400) responsible bidder submitting the low responsive bid.

6.6.2 Updated Subcontract Plan and Other Requirements. Before soliciting subcontract bids the Contractor shall submit, for review and approval by the Owner: a.) an updated Subcontract Plan outlining the subcontract packages with bid package estimates and a procurement schedule for each package; b.) a MWBE Plan outlining the outreach and voluntary goal achievement strategies the Contractor intends to implement, and addressing the Contractor’s proposed actions to comply with the requirements of Part 10 of the General Conditions for GC/CM Projects at the University of Washington; c.) bidding instructions; d.) standard Subcontractor agreements; e.) verification that all federal provisions are address including Buy America Requirements and f.) the updated Summary Schedule required by sections 3.2.3 and 3.2.4 herein.

6.6.2.1 No “Allowances” shall be included in Subcontractor bid documents if not included in the MACC negotiations or without prior approval of the Owner. Denial or approval of any allowance shall not result in a change in the MACC. If the Owner agrees an allowance is appropriate within a Bid Package Estimate (BPE) the following procedures will be implemented:

(1) Contractor will provide a schedule of Allowances included in the BPE.

(2) Allowances will be tracked by Contractor on a Time & Materials (T&M) basis and shown on the Schedule of Values as a discrete line item for each appropriate Subcontractor.

(3) A deductive Change Order will be issued at the end of the Project for any remaining Allowances.
6.6.3 **Bid Documents Reproduction Costs.** Reproductions of bid sets as required for bidding and conforming documents to provide a consolidated Construction Document due to phased permitting and partial Construction Document issuance is an Owner’s expense.

6.6.4 **Bidding.** The Contractor shall bid out subcontracts in accordance with its approved updated Subcontract Plan and in accordance with all requirements stipulated in RCW 39.10.340 through 39.10.410. During subcontract buyout, the Contractor may request a change in its Subcontract Plan, and the Owner will not unreasonably withhold approval, provided the sum of all final bid package estimates in the Subcontract Plan as revised does not exceed the MACC.

6.6.5 **Negotiation.** If the low responsive bid for a particular bid package is greater than the bid package estimate, then the provisions of RCW 39.10.380 shall apply. If the lowest responsive bid does not exceed the bid package estimate by One Hundred Twenty-Five Thousand Dollars ($125,000) for bid packages below Ten Million Dollars ($10,000,000), or two percent (2%) for bid packages with bid package estimates greater than Ten Million Dollars ($10,000,000), then the Contractor may negotiate an adjustment to that bid based upon agreed changes to the subcontract package between the Owner and Contractor to bring the bid within the amount of the bid package estimate, which, for purposes of this Contract, shall be considered to be the “Available Funds.” All time delays and costs, including A/E costs associated with the negotiations and/or changes to the Construction Documents shall be the responsibility of the Contractor.

6.6.6 **Award or Rebid.** If the Contractor chooses not to negotiate under the provisions of section 6.6.5 above or if the low conforming bid exceeds the bid package estimate by more than the amount permitting negotiations, the Contractor shall award the bid package to the low responsive responsible bidder at no additional cost to the Owner. Provided unusual circumstances exist, Contractor may request and Owner, at its sole option may agree to a change in the scope of the work for the bid package. The Contractor may then rebid, but all time delays, including construction schedule impacts, and costs to rebid, including reproduction costs and any A/E costs to the Owner associated with changes to the Construction Documents, shall be the responsibility of the Contractor and the MACC shall not be changed.

6.6.7 **Bid Protest.** Contractor shall be responsible for reviewing and responding to bid protests and shall adhere to the requirements of RCW 39.10.380 in the event of a bid protest.

6.6.8 **Savings.** If the Contractor is successful in awarding contracts for all of its subcontracts in its approved updated Subcontract Plan in an amount less than the negotiated MACC, any remaining savings shall be returned to the Owner along with the Percent Fee percentage multiplied by the savings, or utilized to fund additive alternates or other Work as directed by the Owner.

6.6.9 **Subcontractor Non-Performance.** If any Subcontractor to whom a bid package has been awarded is unable to perform for whatever reason, the Contractor shall have the option to rebid or negotiate for the performance of the work or perform the work itself. The Contractor shall bear all risk and/or be responsible for cost overruns occasioned by a Subcontractor’s inability to perform.

6.6.10 **Owner-Furnished Equipment.** The Contractor shall perform all work required to subcontract the installation of Owner Furnished Contractor Installed (OFCI) and Owner Existing Contractor Installed (OECI) equipment.

6.7 **Contractor Cost Accounting.**

6.7.1 **Accounting.** Starting with the award of the first bid package, the Contractor shall, in accordance with directions given and formats developed by the Owner, provide Owner with monthly reports, including but not limited to, showing expenditures on all bid packages, all Contract changes, and
all Negotiated Support Services costs including forecast-to-Final Completion updates. Contractor claims shall be accounted for separately.

6.8 **Performance and Payment Bond.** Prior to execution of this Contract by the Owner the Contractor shall provide the Owner with performance and payment bonds in a form and with a surety acceptable to the Owner for the full amount of the TCC.

**ARTICLE 7**

**SUBCONTRACTING**

7.1 **Competitive Bidding Required.** Other than the Specified General Conditions and Negotiated Support Services work, all Work on the Project shall be competitively bid with public bid openings. Subcontract work shall not be issued for bid until the Contractor has completed the requirements of section 6.6.2 herein.

7.2 **Self-Performance by GC/CM.** The Contractor may bid on subcontract work and/or supply of equipment and materials which it customarily performs or supplies. Contractor’s interest in the Work shall not diminish its duty to aggressively seek competition for bid packages. In the event the Contractor will be bidding on subcontract work the bid opening will be managed by the Owner and notice of the Contractor’s intention to bid shall be included in the public solicitation for bids for that bid package. In no event may the value of the subcontract work performed by the Contractor exceed thirty percent (30%) percent of the MACC. The Contractor must provide staff to superintend and manage subcontract packages it undertakes that is separate and distinct from the staff involved in the management of this Contract. In no event may the Contractor or its subsidiaries purchase equipment or materials for installation or warranty.

7.3 **Prequalification.** When in the best interest of the Project and critical to the successful completion of a subcontractor bid package the Owner and Contractor may determine Subcontractor eligibility to bid based on the criteria set forth in RCW 39.10.400. Subcontract bid packages shall be awarded to the responsible pre-qualified bidder submitting the low responsive bid.

7.4 **Subcontractor Bid Packages.** The Contractor may: a.) with approval by the Owner organize and solicit bids for the subcontract work in whatever combinations or packages it chooses; b.) not use any Allowances except as provided in section 6.6.2 herein; and c.) not use any Alternates without approval of the Owner, unless such Alternates were specified in the MACC.

7.4.1 Contractor shall submit: a) a draft and final bid package specific scope of work, and; b) Bid Forms for each subcontract package for Owner’s review prior to bidding. Changes to the final bid package documents shall not occur without Owner’s approval.

7.5 **Cost of Subcontracting Process.** As part of the Specified General Conditions Work the Contractor shall be responsible for all costs associated with the subcontracting process including, but not necessarily limited to:

7.5.1 Developing solicitations for subcontract packages.
7.5.2 Pre-qualification and subcontract procurement.
7.5.3 Site tours.
7.5.4 Responding to questions from bidders.
7.5.5 Providing bid opening facility.
7.5.6 Bidding in accordance with the requirements of this Section.
7.5.7 Contractor award.
7.6 Solicitations of Subcontractors. Solicitations of Subcontractors by the Contractor shall be made in accordance with the following procedures:

7.6.1 A representative from the Owner will be present at each bid opening to observe the procedure. In the event the Contractor is bidding on a subcontract package, the Owner will conduct the bid opening.

7.6.2 Solicitations for bids will be advertised in advance in the Seattle Daily Journal of Commerce newspaper.

7.6.3 Bidders may obtain the bid results by telephone from the Contractor. All such calls will be referred to the Contractor.

7.6.4 Responsiveness requirements and bidding procedures will be described in each bid solicitation and, along with subcontractor MWBE joint venture requests, will be reviewed with the Owner prior to each bid opening.

7.7 Subcontractor Bonding. For subcontract bid packages with a bid estimate over $300,000 the Contractor shall require a bid bond in the amount of 5% of the amount bid from Subcontractors who bid. The Contractor shall require a performance and payment bond from all Subcontractors who are awarded a contract over $300,000, in the amount of the subcontract. The Contractor may require a performance and payment bond of any other Subcontractor, provided that such requirement is set forth in the subcontract bid documents. The Contractor acknowledges that all costs of subcontractor bonding are included in the negotiated MACC on page 1 of this Contract.

7.8 Subcontract Agreements. Subcontract agreements used by the GC/CM shall be in compliance with all of the applicable provisions of chapter 39.10 RCW.

ARTICLE 8
MISCELLANEOUS PROVISIONS

8.1 Builders Risk. Owner shall provide Builder’s Risk Insurance per Article 2.06 of the General Conditions for GC/CM Projects at the University of Washington. Contractor is responsible for all losses up to the policy deductible. The policy deductible for this Project is ten thousand Dollars ($10,000) per occurrence. A specimen of the policy is available for inspection at the University of Washington Risk Management Office.

8.2 Audit. Owner shall have the right to audit. Upon request by Owner, Contractor shall provide Owner full access to all of Contractor’s data, records, accounts or materials relevant to the performance of this Contract.

8.3 Sales Tax. The actual amount of sales tax to be paid to the Contractor will be based on the then current sales tax percentage applied to actual MACC progress payments, inclusive of approved change orders. For the purposes of invoicing, the Contractor shall not include sales tax as part of the TCC in its pay applications, but the appropriate amount of sales tax will be added by the Owner to each progress payment collected by the Contractor from the Owner, and paid to the State by the Contractor.

IN WITNESS WHEREOF, the Parties hereto have executed this Contract by having their authorized representatives affix their signatures below.
### ATTACHMENT 1 – SUMMARY MATRIX OF COST ALLOCATION

<table>
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<tr>
<th>ITEM</th>
<th>Document Reference</th>
<th>Fee Specified General Conditions</th>
<th>MACC</th>
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ATTACHMENT 2 – FORM OF CONSTRUCTION COST ESTIMATE – SUMMARY

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**Line Number**

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<td>Escalation ( _____% a year times _____years x Line 1)</td>
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THIS AGREEMENT is made and entered into by and between the University of Washington (Owner) and ____________________, (Contractor). This Agreement shall be effective on the last signature date set forth below, and shall be the agreed basis for the performance of and compensation for Preconstruction Services for the above project.

RECITALS:

A. Owner intends to design and construct the above project utilizing the services of a General Contractor/Construction Manager (“GC/CM”).

B. Contractor has submitted the highest scoring proposal to provide GC/CM services, part of which includes preconstruction services.

C. Owner and Contractor agree as follows:

AGREEMENT:

1. Scope of Work: Contractor agrees to furnish all services necessary to perform Preconstruction Services as called for in the Preconstruction Work Plan in Attachment A, and also as described in Article 3.2 of the GC/CM Contract, Article 9 of the Request for Final Proposals for GC/CM Services, and Section 9.10 of the Request for Proposals for GC/CM Services for the above project. Contractor also agrees to provide all professional personnel necessary to perform the required Preconstruction Services including those named in response to Section 9.3 of the Request for Proposals for GC/CM Services.

2. Compensation: Owner will pay Contractor the agreed-upon sum of $__________, excluding Washington State sales tax for such services. The Contractor will be paid monthly for its services based on actual time and expenses without markup, not-to-exceed the total compensation set forth above. Any amount that exceeds the total compensation agreed to will be at the Contractor’s sole cost and expense unless there are scope changes in the Preconstruction Services authorized by change order or amendment.

3. Early Subcontract Bidding: Consistent with RCW 39.10.370, the Contractor may bid major subcontract bid packages before the Owner and Contractor reach an agreement on the MACC for the project. In the event the Contractor chooses to do so, before soliciting such subcontract bids, the Contractor shall submit, for review and approval by the Owner: a) a Subcontract Plan outlining the subcontract packages with bid package estimates and a procurement schedule for each package; b) an MWBE plan incorporating the requirements of Part 10 of the General Conditions for GC/CM Projects at the University of Washington; c) bidding instructions; d) standard Subcontract agreements; and e) an updated Summary Schedule as described in sections 3.2.3 and 3.2.4 of the GC/CM Contract. All costs associated with bidding of such bid packages shall be the responsibility of
the Contractor. Only to the extent that the Contractor has included the costs of such subcontract bidding in its bid for Specified General Conditions work, and only if the Owner and GC/CM execute a GC/CM contract, will the Contractor be reimbursed for the costs of such subcontract bidding.

4. **Inability to Execute GC/CM Contract:** This Agreement is solely for Preconstruction Services. In entering into this Agreement, Owner and Contractor recognize that they may not be able to negotiate a MACC for this project. Accordingly, Owner and Contractor are not relying on the assumption that a GC/CM Contract will subsequently be signed. In the event Owner and Contractor do not successfully negotiate a MACC for this project, as defined in the Request for Final Proposals for GC/CM Services, this Agreement will be terminated and Contractor will be paid the value of its Preconstruction Services to the date of termination and will not be entitled to any other compensation, damages, loss of profits or payment of any other kind.

5. **Prevailing Wages:** To the extent that any of the work of this Agreement is subject to the payment of prevailing wages, the Contractor shall comply with all applicable provisions of Chapter 39.12 of the Revised Code of Washington concerning prevailing wages, shall provide the Owner with all documents required therein, and shall pay not less than the prevailing rate of wage to such laborers, workers, or mechanics in each trade or occupation required for the work whether performed by the Contractor, subcontractor, or other person doing or contracting to do the whole or any part of the work subject to prevailing wages and contemplated by this Agreement. The execution date of this Agreement shall be the effective date for any prevailing wages required to be paid under this Agreement. In any case, the Contractor shall not pay any person described herein less than the hourly minimum rate of wage.

6. **Statement of Intent to Pay Prevailing Wages:** Prior to the Owner paying the Contractor for any work under this Agreement, whether such work is subject to prevailing wages or not, the Contractor shall file with the Owner a Statement of Intent to Pay Prevailing Wages for itself, and a Statement of Intent to Pay Prevailing Wages for any subcontractor of any tier that performed work subject to prevailing wages during the period for which payment is sought. All such Statements of Intent to Pay Prevailing Wages must be approved by the Department of Labor and Industries prior to filing them with the Owner.

7. **Retainage:** The Owner shall withhold 5% of each payment to the Contractor under this Agreement as retainage in accordance with the provisions of chapter 60.28 RCW.

8. **Payment and Performance Bonds:** A separate Payment Bond and Performance Bond, each for 100% of the amount of the Agreement, including any amendments
or changes to the Agreement and state sales tax, shall be furnished to the Owner for the work of this Agreement, using AIA Document A312, or other form acceptable to the Owner.

9. **Amendments:** Owner may authorize by unilateral amendment to this Agreement the performance of additional work by the Contractor when deemed necessary by Owner, provided that the Contractor may, within 14 calendar days from the date of the Owner’s unilateral amendment, submit a written objection of the amendment to the Owner. If such an objection is filed with the Owner within the time specified, the amendment shall not become effective unless signed by both parties. Any amendment for additional work shall be individually authorized in writing by Owner prior to performance by the Contractor.

**ATTACHMENTS:** The following documents, whether attached hereto or not, are hereby incorporated by reference and made a part of this Agreement, as if set forth herein in full:

1. Attachment A: Preconstruction Work Plans (on Owner’s Scope Attachment form)
2. Attachment B: Insurance Requirements
3. Attachment C: Prevailing Wage Information
4. Terms and conditions relating to Preconstruction Services from the following documents:
   a. Request for Final Proposals (RFFP) for GC/CM Services
   b. GC/CM Contract (as included in the RFFP)
   c. Request for Proposals (RFP) for GC/CM Services.

This Agreement constitutes the entire understanding between the Contractor and the Owner relative to the matters identified herein. Upon receipt of this signed Agreement, Contractor is authorized to proceed.

**OWNER:**

University of Washington

By: ________________________________
     Signature                  Date

Richard K. Chapman
Associate Vice President
for Capital Projects

**CONTRACTOR:**

[Enter Contractor’s Business Name]

By: ________________________________
     Signature                  Date

Name: ____________________________________

Conformed Set
A. General Requirements:

1. Prior to undertaking any work under this Agreement, the Contractor shall procure and maintain continuously for the duration of this Agreement, at no expense to the Owner, insurance coverage as specified below, in connection with the performance of the work of this Agreement by the Contractor, its agents, representatives, employees and/or subcontractors.

2. The Contractor’s insurance shall be primary as respects the Owner, and any other insurance maintained by the Owner shall be excess and non-contributory with Contractor’s insurance.

3. Except with respect to the limits of insurance, and any rights or duties specifically assigned to the first named insured, the Contractor’s Commercial General Liability and Commercial Automobile Liability insurance coverage shall apply as if each named insured were the only named insured, and separately to each insured against whom claim is made or suit is brought.

4. Failure of the Contractor to fully comply with the insurance requirements of this Agreement will be considered a material breach of contract and, at the option of the Owner, will be cause for such action as may be available to the Owner under other provisions of this Agreement or otherwise in law, including immediate termination of the Agreement.

B. Required Insurance Coverage: The following are the types and amounts of insurance coverage that must be maintained by the Contractor during the term of this Agreement. The Contractor must provide acceptable evidence of such coverage prior to beginning work under this Agreement.

1. Commercial General Liability Insurance. A policy of Commercial General Liability insurance including bodily injury, property damage, and products/completed operations, written on an occurrence form, with the following minimum coverage:

   $1,000,000 each occurrence, and
   $2,000,000 aggregate

Subcontractors not covered under Contractor’s policy shall have the following minimum coverage:

   $1,000,000 each occurrence, and
   $2,000,000 aggregate

Coverage shall extend to cover the use of all equipment on the site or sites of the work of this Agreement.
2. **Commercial Automobile Liability Insurance.** A policy of Commercial Automobile Liability Insurance, including coverage for owned, non-owned, leased or hired vehicles written on an insurance industry standard form (CA 00 01) or equivalent, with the following minimum coverage:

$1,000,000 combined single limit coverage

C. **Additional Insured Endorsement:** The Board of Regents of the University of Washington shall be used to designate Owner on Additional Insured documentation.

D. **Proof of Insurance and Insurance Expiration:**

1. The Contractor shall furnish certificates of insurance and policy endorsements as evidence of compliance with the insurance requirements of the Agreement. Such certificates and endorsements must be signed by a person authorized by that insurance company to bind coverage on its behalf.

2. The Contractor shall include all subcontractors at any tier as insureds, and ensure that the Contractor’s coverage of subcontractors under the Contractor’s policies is not excluded by any policy provision or endorsement. Alternatively, the Contractor shall:

   a.) Obtain from each subcontractor not insured under the Contractor’s policy or policies of insurance, evidence of insurance meeting all the requirements of this Agreement, and
   b.) Maintain such evidence on file for a period of one year after the completion of this Agreement and, upon request, submit such evidence to the Owner for examination.

3. The Contractor’s insurance shall not be reduced or canceled without forty-five (45) days prior written notice to the Owner. The Contractor shall not permit any required insurance coverage to expire during the term of this Agreement.

4. The Owner reserves the right to require complete, certified copies of all required insurance policies at any time during the term of this Agreement, or to waive any of the insurance requirements of this Agreement at its sole discretion.

E. **Carrier Review and Approval Authority:** Insurance policies, deductibles, self-insured retentions, and insurance carriers will be subject to review and approval by the Owner. All insurance shall be carried with companies that are financially responsible. All carriers of insurance or reinsurers must have and maintain a
rating of “A” or better as identified in the A. M. Best Insurance Rating Guide, most recent edition. Insurance carriers or reinsurers who do not have a rating of “A” or better may not be used without written approval of the Owner.
Prevailing Wage Rates Information

Washington State Department of Labor and Industries

The applicable effective prevailing wage rates for this Project are determined by (a) the bid submittal date, and (b) the county where the Project is located.

The applicable effective date for prevailing wage rates for this Project is: **June 7, 2011**

The County where this Project is located is: **King**.

Current prevailing wage rate information, including the applicable Benefit Code Key, may be obtained through the following sources:

**Online** from the Washington State Department of Labor and Industries at:


**Hard Copies** may be obtained upon request from the University of Washington Capital Projects Office at:

University of Washington  
Capital Projects Office  
Attention: Cindy Magruder  
University Facilities Building  
Seattle, WA 98195-2205  
Box 352205  
Email: magruder@u.washington.edu  
Phone: (206) 221-4396  
Fax (206) 221-6226

**In Person**: In addition, current prevailing wage information is available for viewing at the location noted above.
PART 1 – GENERAL PROVISIONS

1.01 DEFINITIONS

A. “Application for Payment” means a written request submitted by Contractor to A/E for payment of Work completed in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Owner or A/E may require.

B. “Architect,” “Engineer,” or “A/E” means a person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.

C. “Change Order” means a written instrument signed by Owner and Contractor stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any, and (3) the extent of the adjustment in the Contract Time, if any.

D. “Claim” means Contractor’s exclusive remedy for resolving disputes with Owner regarding the terms of a Change Order or a request for equitable adjustment, as more fully set forth in Part 8.

E. “Contract Award Amount” is the sum of the Base Bid and any accepted Alternates.

F. “Contract Documents” means the Advertisement for Bids, Instructions for Bidders, completed Form of Proposal, General Conditions, Modifications to the General Conditions, Supplemental Conditions, Public Works Contract, other Special Forms, Drawings and Specifications, and all addenda and modifications thereof.

G. “Contract Sum” is the total amount payable by Owner to Contractor for performance of the Work in accordance with the Contract Documents.

H. “Contract Time” is the number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.

I. “Contractor” means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.

J. “Drawings” are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, and may include plans, elevations, sections, details, schedules, and diagrams.

K. “Final Acceptance” means the written acceptance issued to Contractor by Owner after Contractor has completed the requirements of the Contract Documents.

L. “Final Completion” means that the Work is fully and finally completed in accordance with the Contract Documents.

M. “Force Majeure” means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in paragraph 3.05A.

N. “Notice” means a written notice which has been delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended or, if delivered or sent by registered or certified mail, to the last business address known to the party giving notice.

O. “Notice to Proceed” means a notice from Owner to Contractor that defines the date on which the Contract Time begins to run.

P. “Owner” means the state agency, institution, or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.

Q. “Person” means a corporation, partnership, business association of any kind, trust, company, or individual.

R. “Prior Occupancy” means Owner’s use of all or parts of the Project before Substantial Completion.

S. “Progress Schedule” means a schedule of the Work, in a form satisfactory to owner, as further set forth in section 3.02.
T. “Project” means the total construction of which the Work performed in accordance with the Contract Documents may be the whole or a part and which may include construction by Owner or by separate contractors.

U. “Project Manual” means the volume usually assembled for the Work which may include the bidding requirements, sample forms, and other Contract Documents.

V. “Project Record” means the separate set of Drawings and Specifications as further set forth in paragraph 4.02A.

W. “Schedule of Values” means a written breakdown allocating the total Contract Sum to each principle category of Work, in such detail as requested by Owner.

X. “Specifications” are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

Y. “Subcontract” means a contract entered into by Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for or in connection with the Work.

Z. “Subcontractor” means any person, other than Contractor, who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.

AA. “Substantial Completion” means that stage in the progress of the Work where Owner has full and unrestricted use and benefit of the facilities for the purpose intended, as more fully set forth in section 6.07.

AB. “Work” means the construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

1.02 ORDER OF PRECEDENCE

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

1. Change Orders to signed GC/CM Contract.
3. Supplemental Conditions to GC/CM General Conditions.
4. Modifications to GC/CM General Conditions.
5. GC/CM General Conditions.
6. Specifications—provisions in Division 1 shall take precedence over provisions of any other Division.
7. Drawings—in case of conflict within the Drawings, large scale drawings shall take precedence over small scale drawings.

1.03 EXECUTION AND INTENT

Contractor makes the following representations to Owner:

1. The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents;

2. Contractor has carefully reviewed the Contract Documents, visited and examined the Project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof;

3. Contractor is financially solvent, able to pay its debts as they mature, and possesses sufficient working capital to complete the Work and...
perform Contractor’s obligations required by the Contract Documents; and

4. Contractor is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform the obligations required by the Contract Documents and has sufficient experience and competence to do so.

PART 2 – INSURANCE AND BONDS

2.01 CONTRACTOR’S LIABILITY INSURANCE

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

The certificate holder shall be:
University of Washington
Capital Projects Office, Box 352205
Seattle, WA 98195

A. Contractor shall maintain the following insurance coverage during the Work and for one year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by section 5.16.

1. General liability on the ISO 1986 New Occurrence Form or its equivalent which will include:
   a. Completed operations/products liability;
   b. Explosion, collapse, and underground; and
   c. Employer’s liability coverage.

2. Automobile liability

B. Contractor shall comply with the Washington State Industrial Insurance Act and, if applicable, the Federal Longshoremen’s and Harbor Workers’ Act and the Jones Act.

C. All insurance coverages shall protect against claims for damages for personal and bodily injury or death, as well as claims for property damage, which may arise from operations in connection with the Work whether such operations are by Contractor or any Subcontractor.

D. All insurance coverages shall name the University of Washington as additional insured with respect to liability arising out of work performed by contractor, be endorsed to be primary and non-contributory with any insurance maintained by the University of Washington, provide a waiver of any rights of subrogation against the University of Washington, and contain a severability of interest provision in favor of the University of Washington, and all insurance certificates shall evidence full compliance with the above enumerated requirements.

2.02 COVERAGE LIMITS

The coverage limits shall be as follows:

A. Limits of Liability shall not be less than $5,000,000 Combined Single Limit for Bodily Injury and Property Damage (other than Automobile Liability) Each Occurrence; Personal Injury and Advertising Liability Each Occurrence.

B. $2,000,000 Annual Aggregate for Products and Completed Operations Liability.

C. $1,000,000 Combined Single Limit for Automobile Bodily Injury and Property Damage Liability, Each Accident or Loss.

2.03 INSURANCE COVERAGE CERTIFICATES

A. Prior to commencement of the Work, Contractor shall furnish Owner a completed certificate of insurance coverage.

B. All insurance certificates shall name Owner’s Project number and Project title.
Section 00 72 00
GENERAL CONDITIONS for GC/CM Projects at the University of Washington
Page 5 of 41

C. All insurance certificates shall specifically require 45 days prior notice to Owner of cancellation or any material change, except 30 days for surplus line insurance.

2.04 PAYMENT AND PERFORMANCE BONDS

Performance/Payment Bond. The Contractor shall include within its Contractor’s Fee the premium for providing a performance/payment bond in the estimated Guaranteed Contract Cost. If the actual Guaranteed Contract Cost is less than eighty five percent (85%) of this amount, the Owner shall be entitled to a credit based on the Contractor’s actual reduction in premium cost, if any. If the actual GCC is more than one hundred percent (100%) of this amount or is subsequently increased above that amount by Change Order, the Owner shall compensate the Contractor for the increase in premium on an actual cost basis.

2.05 ADDITIONAL BOND SECURITY

Contractor shall promptly furnish additional security required to protect Owner and persons supplying labor or materials required by the Contract Documents if:

A. Owner has a reasonable objection to the surety; or

B. Any surety fails to furnish reports on its financial condition if required by Owner.

2.06 BUILDER’S RISK

A. Owner will purchase and maintain Builder’s Risk property insurance in the amount of the Contract Sum including all Change Orders for the Work on a replacement cost basis excluding earthquake and flood coverage until Substantial Completion. Contractor shall be responsible for all losses up to the policy deductible. A specimen policy is available for inspection.

B. Owner and Contractor waive all subrogation rights against each other, any Subcontractors, and separate contractors described in section 5.19 and 5.20, if any, and any of their subcontractors, for damages caused by fire or other perils to the extent covered by property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

C. If Contractor believes it has a loss that is covered by Builder’s Risk Insurance and it is likely to exceed the policy deductible, Contractor shall notify the Owner within 48 hours.

PART 3 – TIME AND SCHEDULE

3.01 PROGRESS AND COMPLETION

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

3.02 CONSTRUCTION SCHEDULE

A. Unless otherwise provided in Division 1, Contractor shall, within 14 days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule. The Progress Schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.

B. The Progress Schedule shall be in the form of a bar chart, or a critical path method analysis, as specified by Owner. The preliminary Progress Schedule may be general, showing the major portions of the Work, with a more detailed Progress Schedule submitted as directed by Owner.

C. Owner shall return comments on the preliminary Progress Schedule to Contractor within 14 days of receipt. Review by Owner of Contractor’s schedule does not constitute an approval or acceptance of Contractor’s construction means, methods, or sequencing, or its ability to complete the Work within the Contract Time. Contractor shall revise and resubmit its schedule, as necessary. Owner may withhold a portion of progress payments until a

Last Revised: July 29, 2010
Progress Schedule has been submitted which meets the requirements of this section.

D. Contractor shall utilize and comply with the Progress Schedule. On a monthly basis, or as otherwise directed by Owner, Contractor shall submit an updated Progress Schedule at its own expense to Owner indicating actual progress. If, in the opinion of Owner, Contractor is not in conformance with the Progress Schedule for reasons other than acts of Force Majeure as identified in section 3.05, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, and if directed by Owner, Contractor shall submit a corrective action plan and revise the Progress Schedule to reconcile with the actual progress of the Work.

E. Contractor shall promptly notify Owner in writing of any actual or anticipated event which is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Progress Schedule, and the action being or to be taken to correct the problem. Provision of such notice does not relieve Contractor of its obligation to complete the Work within the Contract Time.

3.03 OWNER’S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE

A. Owner may, at its sole discretion, order Contractor, in writing, to suspend all or any part of the Work for up to 90 days, or for such longer period as mutually agreed.

B. Upon receipt of a written notice suspending the Work, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of cost of performance directly attributable to such suspension. Within a period up to 90 days after the notice is delivered to Contractor, or within any extension of that period to which the parties shall have agreed, Owner shall either:

1. Cancel the written notice suspending the Work; or

2. Terminate the Work covered by the notice as provided in the termination provisions of Part 9.

C. If a written notice suspending the Work is cancelled or the period of the notice or any extension thereof expires, Contractor shall resume Work.

D. Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in part 7.

3.04 OWNER’S RIGHT TO STOP THE WORK FOR CAUSE

A. If Contractor fails or refuses to perform its obligations in accordance with the Contract Documents, Owner may order Contractor, in writing, to stop Work, or any portion thereof, until satisfactory corrective action has been taken.

3.05 DELAY

A. Any delay in or failure of performance by Owner or Contractor, other than the payment of money, shall not constitute a default hereunder if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party ("Force Majeure"). Acts of Force Majeure include, but are not limited to:

1. Acts of God or the public enemy;
2. Acts of omissions of any government entity;
3. Fire or other casualty for which Contractor is not responsible;
4. Quarantine or epidemic;
5. Strike or defensive lockout;
6. Unusually severe weather conditions which could not have been reasonably anticipated; and
7. Unusual delay in receipt of supplies or products which were ordered and
expedited and for which no substitute reasonably acceptable to Owner was available.

B. Contractor shall be entitled to an equitable adjustment in the Contract Time for changes in the time of performance directly attributable to an act of Force Majeure, provided it makes a request for equitable adjustment according to section 7.03. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of Force Majeure.

C. Contractor shall be entitled to an equitable adjustment in Contract Time, and may be entitled to an equitable adjustment in Contract Sum, if the cost or time of Contractor’s performance is changed due to the fault or negligence of Owner, provided the Contractor makes a request according to sections 7.02 and 7.03.

D. Contractor shall not be entitled to an adjustment in Contract Time or in the Contract Sum for any delay or failure of performance to the extent such delay or failure was caused by Contractor or anyone for whose acts Contractor is responsible.

E. To the extent any delay or failure of performance was concurrently caused by the Owner and Contractor, Contractor shall be entitled to an adjustment in the Contract Time for that portion of the delay or failure of performance that was concurrently caused, provided it makes a request for equitable adjustment according to section 7.03, but shall not be entitled to an adjustment in Contract Sum.

F. Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of Force Majeure or otherwise.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

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

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

3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

A. Liquidated Damages

1. Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. Owner will incur serious and substantial damages if Substantial Completion of the Work does not occur within the Contract Time. However, it would be difficult if not impossible to determine the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.

2. The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Owner, and may be retained by the Owner and deducted from periodic payments to the Contractor.

B. Actual Damages

Last Revised: July 29, 2010
Actual damages will be assessed for failure to achieve Final Completion within the time provided. Actual damages will be calculated on the basis of direct architectural, administrative, and other related costs attributable to the Project from the date when Final Completion should have been achieved, based on the date Substantial Completion is actually achieved, to the date Final Completion is actually achieved. Owner may offset these costs against any payment due Contractor.

PART 4 SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

4.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW

A. The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings Specifications, and other provisions of the Contract Documents.

B. The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

C. Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Owner. If, during the performance of the Work, Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the Work affected thereby, report such conflict, error, inconsistency, or omission to A/E in writing.

D. Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or Shop Drawings where required, unless instructed to do so in writing by Owner. If Contractor performs any construction activity, and it knows or reasonably should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.

E. Contractor shall provide any work or materials the provision of which is clearly implied and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically.

F. Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

4.02 PROJECT RECORD

A. Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction, including depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order proposals. This separate set of Drawings and Specifications shall be the “Project Record”.

B. The Project Record shall be maintained on the project site throughout the construction and shall be clearly labeled “PROJECT RECORD”. The Project Record shall be updated at least weekly noting all changes and shall be available to Owner at all times.

C. Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

4.03 SHOP DRAWINGS

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

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

C. Approval, or other appropriate action with regard to Shop Drawings, by Owner or A/E shall not relieve Contractor of responsibility for any errors or omissions in such Shop Drawings, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Owner or A/E shall not constitute an approval of the safety precautions employed by Contractor during construction, or constitute an approval of Contractor’s means or methods of construction. If Contractor fails to obtain approval before installation, and the item or work is subsequently rejected, Contractor shall be responsible for all costs of correction.

D. If Shop Drawings show variations from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the Shop Drawings, at the time it submits the Shop Drawings containing such variations. If A/E approves any such variation, an appropriate Change Order will be issued. If the variation is minor and does not involve an adjustment in the Contract Sum or Contract Time; a Change Order need not be issued; however, the modification shall be recorded upon the Project Record.

E. Unless otherwise provided in Division I, Contractor shall submit to A/E for approval 5 copies of all Shop Drawings. Unless otherwise indicated, 3 sets of all Shop Drawings shall be retained by A/E and 2 sets shall be returned to Contractor.

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

4.05 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS
A. The Drawings, Specifications, and other documents prepared by A/E are instruments of A/E’s service through which the Work to be executed by Contractor is described. Neither Contractor nor any Subcontractor shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by A/E, and A/E shall be deemed the author of them and will, along with any rights of Owner, retain all common law, statutory, and other reserved rights, in addition to the copyright. All copies of these documents, except Contractor’s set, shall be returned or suitably accounted for to A/E, on request, upon completion of the Work.

B. The Drawings, Specifications, and other documents prepared by the A/E, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not
PART 5 PERFORMANCE

5.01 CONTRACTOR CONTROL AND SUPERVISION

A. Contractor shall supervise and direct the Work, using its best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters. Contractor shall disclose its means and methods of construction when requested by Owner.

B. Performance of the Work shall be directly supervised by a competent superintendent who is satisfactory to Owner and has authority to act for Contractor. The superintendent shall not be changed without the prior written consent of Owner.

C. Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.

D. Contractor shall enforce strict discipline and good order among Contractor’s employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Contractor’s employees shall at all times conduct business in a manner which assures fair, equal, and nondiscriminatory treatment of all persons. Owner may, by written notice, request Contractor to remove from the Work or Project site any employee Owner reasonably deems incompetent, careless, or otherwise objectionable.

E. Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Shop Drawings, and permits and permit drawings.

F. Contractor shall insure that its owner(s) and employees, and those of its Subcontractors, comply with the Ethics in Public Service Act RCW 42.52, which, among other things, prohibits state employees from having an economic interest in any public works contract that was made by, or supervised by, that employee. Contractor shall remove, at its sole cost and expense, any of its, or its Subcontractors’ employees, if they are in violation of this act.

G. Work During Off Hours: When work is to be performed during other than normal working hours or on University of Washington holidays, Contractor shall give Owner prior notice so that Owner’s Police Department may be properly notified. Any construction activity between the hours of 9:00 p.m. to 7:30 a.m. is subject to approval of Owner, except work within the
existing Medical Center which shall be between 8:00 a.m. to 8:00 p.m.

5.02 PERMITS, FEES, AND NOTICES

A. Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and inspections necessary for proper execution and completion of the Work. Prior to Final Acceptance, the approved, signed permits shall be delivered to Owner.

B. If allowances for permits or utility fees are called for in the Contract Documents and set forth in Contractor’s bid, and the actual costs of those permits or fees differ from the allowances in the Contract Documents, the difference shall be adjusted by Change Order.

C. Contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.

D. For Work within the City of Seattle, Owner shall pay the City of Seattle directly for the cost of the Master Use and Building Permit. Prior to Final Acceptance, the building permit and City-approved drawings, signed inspection card(s), and any appropriate occupancy permits shall be submitted to Owner.

5.03 PATENTS AND ROYALTIES

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

5.04 PREVAILING WAGES

A. Contractor shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries. The schedule of prevailing wage rates for the localities of the Work, is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor’s responsibility to verify the applicable prevailing wage rate.

B. Before commencing the Work, Contractor shall file a statement under oath with Owner and with the Director of Labor and Industries certifying the rate of hourly wage paid and to be paid each classification of laborers, workers, or mechanics employed upon the Work by Contractor and Subcontractors. Such rates of hourly wage shall not be less than the prevailing wage rate.

C. Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of the Department of Labor and Industries. The arbitration decision shall be final and conclusive and binding on all parties involved in the dispute as provided for by RCW 39.12.060.

D. Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the prefiled statement(s) of intent, as approved. Copies of the approved intent statement(s) shall be posted on the job site with the address and telephone number of the Industrial Statistician of the Department of Labor and Industries where a complaint or inquiry concerning prevailing wages may be made.

E. In compliance with chapter 296-127 WAC, Contractor shall pay to the Department of Labor and Industries the currently established fee(s) for each statement of intent and/or affidavit of wages paid submitted to the Department of Labor and Industries for certification.

5.05 HOURS OF LABOR

A. Contractor shall comply with all applicable provisions of RCW 49.28 and they are incorporated herein by reference. Pursuant to that statute, no laborer, worker, or mechanic employed by Contractor, any Subcontractor, or any other person performing or contracting to do the whole or any part of the Work, shall be permitted or required to work more than eight hours in any one calendar day, provided, that in
cases of extraordinary emergency, such as danger to life or property, the hours of work may be extended, but in such cases the rate of pay for time employed in excess of eight hours of each calendar day shall be not less than one and one-half times the rate allowed for this same amount of time during eight hours’ service.

B. Notwithstanding the preceding paragraph, RCW 49.28 permits a contractor or subcontractor in any public works contract subject to those provisions, to enter into an agreement with its employees in which the employees work up to ten hours in a calendar day. No such agreement may provide that the employees work ten-hour days for more than four calendar days a week. Any such agreement is subject to approval by the employees. The overtime provisions of RCW 49.28 shall not apply to the hours, up to forty hours per week, worked pursuant to any such agreement.

5.06 NONDISCRIMINATION

A. Discrimination in all phases of employment is prohibited by, among other laws and regulations, Title VII of the Civil Rights Act of 1964, the Vietnam Era Veterans Readjustment Act of 1974, sections 503 and 504 of the Vocational Rehabilitation Act of 1973, the Equal Employment Act of 1972, the Age Discrimination Act of 1967, the Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, Presidential Executive Order 11246, Executive Order 11375, the Washington State Law Against Discrimination, RCW 49.60, and Gubernatorial Executive Order 85-09. These laws and regulations establish minimum requirements for affirmative action and fair employment practices which Contractor must meet.

B. During performance of the Work:

1. Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in RCW 49.60.

2. Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that all qualified applicants will be considered for employment, without regard to race, creed, color, national origin, sex, age, marital status, or the presence of any physical, sensory, or mental disability.

3. Contractor shall send to each labor union, employment agency, or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union, employment agency, or workers’ representative of Contractor’s obligations according to the Contract Documents and RCW 49.60.

4. Contractor shall permit access to its books, records, and accounts, and to its premises by Owner, and by the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this section of the Contract Documents.

5. Contractor shall include the provisions of this section in every Subcontract.

5.07 SAFETY PRECAUTIONS

A. Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work.

B. In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether on site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of
adjacent property and utilities when prosecution of the Work may affect them.

C. Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.

D. Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.

1. Information. At a minimum, Contractor shall inform persons working on the Project site of:
   a. The requirements of chapter 296-62 WAC, General Occupational Health Standards;
   b. Any operations in their work area where hazardous chemicals are present; and
   c. The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets required by chapter 296-62 WAC.

2. Training. At a minimum, Contractor shall provide training for persons working on the Project site which includes:
   a. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
   b. The physical and health hazards of the chemicals in the work area;
   c. The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
   d. The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

E. Contractor’s responsibility for hazardous, toxic, or harmful substances shall include the following duties:

1. Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site, any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state or local law, regulation, statute or ordinance hereinafter collectively referred to as “hazardous substances”, in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 days on the Project site.

2. Contractor shall promptly notify Owner of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory agency and pay the cost
F. All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor’s responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.

G. In an emergency affecting the safety of life or the Work or of adjoining property. Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.

H. Nothing provided in this section shall be construed as imposing any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

A. Contractor shall confine all operations, including storage of materials, to Owner-approved areas.

B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Owner and without expense to Owner. The temporary buildings and utilities shall be removed by Contractor at its expense upon completion of the Work.

C. Contractor shall use only established roadways or temporary roadways authorized by Owner. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.

D. Ownership and control of all materials or facility components to be demolished or removed from the Project site by Contractor shall immediately vest in Contractor upon severance of the component from the facility or severance of the material from the Project site. Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal. Contractor shall provide Owner with a copy of all manifests and receipts evidencing proper disposal when required by Owner or applicable law.

E. Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Owner. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.

F. Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Owner any damage or loss that may occur, except damages or loss caused by the acts or omissions of Owner. Contractor shall also protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Owner any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.
of excavation to all owners of underground facilities or utilities, through locator services.

5.10 UNFORESEEN PHYSICAL CONDITIONS

A. If Contractor encounters conditions at the site which are subsurface or otherwise concealed physicals conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Owner promptly and in no event later than 7 days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.

B. If such conditions differ materially and cause a change in Contractor’s cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum, or both, provided it makes a request therefore as provided in part 7.

C. If Contractor encounters mold in the course of its work it shall notify Owner to evaluate what action might be necessary. Contractor shall ensure that all building materials used during the work are dry prior to incorporation into the Work. If Contractor encounters water intrusion from any source it shall take immediate steps to ensure that any effected material is dry according to generally accepted industry standards.

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

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

B. Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.

5.12 LAYOUT OF WORK

A. Contractor shall plan and lay out the Work in advance of operations so as to coordinate all work without delay or revision.

B. Contractor shall lay out the Work from Owner-established baselines and bench marks indicated on the Drawings, and shall be responsible for all field measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. Contractor shall be responsible for executing the Work to the lines and grades that may be established. Contractor shall be responsible for maintaining or restoring all stakes and other marks established.

5.13 MATERIAL AND EQUIPMENT

A. All equipment, material, and articles incorporated into the Work shall be new and the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of A/E, is equal to that named in the specifications, unless otherwise specifically provided in the Contract Documents. Contractor shall ensure that all equipment, materials and articles; incorporated into the Work shall be asbestos free.

B. Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonably implied by, the Contract Documents. Contractor shall not endanger any work by
cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other contractor unless approved in advance by Owner.

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

5.14 AVAILABILITY AND USE OF UTILITY SERVICES

A. Owner shall make all reasonable utilities available to Contractor from existing outlets and supplies, as specified in the Contract Documents. Unless otherwise provided in the Contract Documents, the utility service consumed shall be charged to or paid for by Owner, or, where the utility is produced by Owner, at reasonable rates determined by Owner. Contractor will carefully conserve any utilities furnished.

B. Contractor shall, at its expense and in a skillful manner satisfactory to Owner, install and maintain all necessary temporary connections and distribution lines, together with appropriate protective devices, and all meters required to measure the amount of each utility used for the purpose of determining charges. Prior to the date of Final Acceptance, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

5.15 TESTS AND INSPECTION

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

B. Owner may, at any reasonable time, conduct such inspections and tests as it deems necessary to ensure that the Work is in accordance with the Contract Documents. Owner shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract Documents. Unless the subject items are expressly accepted by Owner, such Owner inspection and tests are for the sole benefit of Owner and do not:

1. Constitute or imply acceptance;
2. Relieve Contractor of responsibility for providing adequate quality control measures;
3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment;
4. Relieve Contractor of its responsibility to comply with the requirements of the Contract Documents; or
5. Impair Owner’s right to reject defective or nonconforming items, or to avail itself of any other remedy to which it may be entitled.

C. Neither observations by an inspector retained by Owner, the presence or absence of such inspector on the site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term of condition of the Contract Documents.

D. Contractor shall promptly furnish, without additional charge, all facilities, labor, material and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by Owner. Owner may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes reinspection or retest necessary. Owner shall perform its inspections...
and tests in a manner that will cause no undue delay in the Work.

5.16 CORRECTION OF NONCONFORMING WORK

A. If a portion of the Work is covered contrary to the requirements in the Contract Documents, it must, if required in writing by Owner, be uncovered for Owner’s observation and be replaced at the Contractor’s expense and without change in the Contract Time.

B. If, at any time prior to Final Completion, Owner desires to examine the Work, or any portion of it, which has been covered, Owner may request to see such Work and it shall be uncovered by Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an adjustment in the Contract Sum for the costs of uncovering and replacement, and, if completion of the Work is thereby delayed, an adjustment in the Contract Time, provided it makes a request therefore as provided in part 7. If such Work is not in accordance with the Contract Documents, the Contractor shall pay the costs of examination and reconstruction.

C. Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.

D. If, within one year after the date of Substantial Completion of the Work or designated portion thereof, or within one year after the date for commencement of any system warranties established under section 5.21, or within the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of written notice from Owner to do so. Owner shall give such notice promptly after discovery of the condition. This period of one year shall be extended, with respect to portions of Work first performed after Substantial Completion, by the period of time between Substantial Completion and the actual performance of the Work. Contractor’s duty to correct with respect to Work repaired or replaced shall run for one year from the date of repair or replacement. Obligations under this paragraph shall survive Final Acceptance.

E. Contractor shall remove from the Project site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Owner.

F. If Contractor fails to correct nonconforming Work within a reasonable time after written notice to do so, Owner may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.

G. Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, caused by Contractor’s correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

H. Nothing contained in this section shall be construed to establish a period of limitation with respect to other obligations which Contractor might have according to the Contract Documents. Establishment of the time period of one year as described in paragraph 5.16 relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the Contractor’s obligation to comply with the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.

I. If Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, Owner may do so instead of requiring its removal and correction, in which case the Contract Sum may be reduced as appropriate and equitable.

5.17 CLEAN UP

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

5.18 ACCESS TO WORK

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

5.19 OTHER CONTRACTS

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

5.20 SUBCONTRACTORS AND SUPPLIERS

A. Before submitting the first Application for Payment, Contractor shall furnish in writing to Owner the names, addresses, and telephone numbers of all Subcontractors, as well as suppliers providing materials in excess of $2,500. Contractor shall utilize Subcontractors and suppliers which are experienced and qualified, and meet the requirements of the Contract Documents, if any. Contractor shall not utilize any Subcontractor or supplier to whom the Owner has a reasonable objection, and shall obtain Owner’s written consent before making any substitutions or additions.

B. All Subcontracts must be in writing. By appropriate written agreement, Contractor shall require each Subcontractor, so far as applicable to the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Owner in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Owner in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.

C. Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors. No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.

D. Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:

1. The assignment is effective only after termination by Owner for cause pursuant to section 9.01 and only for those Subcontracts which Owner accepts by notifying the Subcontractor in writing; and

2. After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.

3. The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

E. The Contractor shall include the language of this paragraph in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this paragraph apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable, have:
   a. Have Industrial Insurance (workers’ compensation) coverage for the subcontractor’s employees working in Washington, as required in Title 51 RCW;
   b. A Washington Employment Security Department number, as required in Title 50 RCW;
   c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
   d. An electrical contractor license, if required by Chapter 19.28 RCW;
   e. An elevator contractor license, if required by Chapter 70.87 RCW.
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

5.21 WarrantY OF CONSTRUCTION

A. In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor.

B. With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:
   1. Obtain all warranties that would be given in normal commercial practice;
   2. Require all warranties to be executed, in writing, for the benefit of Owner;
   3. Enforce all warranties for the benefit of Owner, if directed by Owner; and
   4. Be responsible to enforce any subcontractor’s, manufacturer’s, or supplier’s warranty should they extend the period specified in the Contract Documents.

C. The obligations under this section shall survive Final Acceptance.

5.22 INDEMNIFICATION

A. Contractor shall defend, indemnify, and hold Owner and A/E harmless from and against all claims, demands, losses, damages, or costs, including but not limited to damages arising out of bodily injury or death to persons and damage to property, caused by or resulting from:
   1. The sole negligence of Contractor or any of its Subcontractors;
   2. The concurrent negligence of Contractor, or any Subcontractor, but only to the extent of the negligence of Contractor or such Subcontractor; and
   3. The use of any design, process, or equipment which constitutes an infringement of any United States patent presently issued, or violates any other proprietary interest, including copyright, trademark, and trade secret.

B. In any action against Owner and any other entity indemnified in accordance with this section, by any employee of Contractor, its Subcontractors, Sub-subcontractors, agents, or anyone directly or indirectly employed by any of them, the indemnification obligation of this section shall not be limited by a limit on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under RCW Title 51, the Industrial Insurance Act, or any other employee benefit acts. In addition, Contractor waives immunity as to Owner and A/E only, in accordance with RCW Title 51.

5.23 PERFORMANCE EVALUATION

Owner shall evaluate Contractor for the performance categories as set forth in the “Contractor Performance Evaluation Report” in Appendix A. Section 00 73 20, Contractor Performance Evaluation Program, describes the evaluation process.

PART 6 PAYMENTS AND COMPLETION

6.01 CONTRACT SUM

Owner shall pay Contractor the Contract Sum for performance of the Work, in accordance with the
Contract Documents. The Contract Sum shall include all taxes imposed by law and properly chargeable to the Project, including sales tax.

6.02 SCHEDULE OF VALUES

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

6.03 APPLICATION FOR PAYMENT

A. At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an itemized Application for Payment for Work completed in accordance with the Contract Documents and the approved Schedule of Values. Each application shall be supported by such substantiating data as Owner may require.

B. By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.011 as their interests appeared in the last preceding certificate of payment. By submitting an Application for Payment, Contractor is recertifying that the representations set forth in section 1.03, are true and correct, to the best of Contractor’s knowledge, as of the date of the Application for Payment.

C. At the time it submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Owner, the actual progress of the Work with the Progress Schedule.

D. If authorized by Owner, the Application for Payment may include request for payment for material delivered to the Project site and suitably stored, or for completed preparatory work. Payment may similarly be requested for material stored off the Project site, provided Contractor complies with or furnishes satisfactory evidence of the following:

1. The material will be placed in a warehouse that is structurally sound, dry, lighted and suitable for the materials to be stored;

2. The warehouse is located within a 10-mile radius of the Project. Other locations may be utilized, if approved in writing, by Owner;

3. Only materials for the Project are stored within the warehouse (or a secure portion of a warehouse set aside for the Project);

4. Contractor furnishes Owner a certificate of insurance extending Contractor’s insurance coverage for damage, fire, and theft to cover the full value of all materials stored, or in transit;

5. The warehouse (or secure portion thereof) is continuously under lock and key, and only Contractor’s authorized personnel shall have access;

6. Owner shall at all times have the right of access in company of Contractor;

7. Contractor and its surety assume total responsibility for the stored materials; and

8. Contractor furnishes to Owner certified lists of materials stored, bills of lading, invoices, and other information as may be required, and shall also furnish notice to Owner when materials are moved from storage to the Project site.

9. For material stored off-site not in a warehouse, Contractor may request payment, provided that the remaining requirements of this paragraph and any additional requirements of Owner are met.

6.04 PROGRESS PAYMENTS
A. Owner shall make progress payments, in such amounts as Owner determines are properly due, within 30 days after receipt of a properly executed Application for Payment. Owner shall notify Contractor in accordance with RCW 39.76 if the Application for Payment does not comply with the requirements of the Contract Documents.

B. Owner shall retain 5% of the amount of each progress payment until 45 days after Final Acceptance and receipt of all documents required by law or the Contract Documents, including, at Owner’s request, consent of surety to release of the retainage. In accordance with RCW 60.28, Contractor may request that monies reserved be retained in a fund by Owner, deposited by Owner in a bank or savings and loan, or placed in escrow with a bank or trust company to be converted into bonds and securities to be held in escrow with interest to be paid to Contractor. Owner may permit Contractor to provide an appropriate bond in lieu of the retained funds.

C. Title to all Work and materials covered by a progress payment shall pass to Owner at the time of such payment free and clear of all liens, claims, security interests, and encumbrances. Passage of title shall not, however, relieve Contractor from any of its duties and responsibilities for the Work or materials. Or waive any rights of Owner to insist on full compliance by Contractor with Contract Documents.

D. Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in RCW 39.76.

6.05 PAYMENTS WITHHELD

A. Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary to protect Owner from loss or damage for reasons including but not limited to:

1. Work not in accordance with the Contract Documents;
2. Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;
3. Work by Owner to correct defective Work or complete the Work in accordance with section 5.16;
4. Failure to perform in accordance with the Contract Documents; or
5. Cost or liability that may occur to Owner as the result of Contractor’s fault or negligent acts or omissions.

B. In any case where part or all of a payment is going to be withheld for unsatisfactory performance, Owner shall notify Contractor in accordance with RCW 39.76.

6.06 RETAINAGE AND BOND CLAIM RIGHTS

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

6.07 SUBSTANTIAL COMPLETION

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

6.08 PRIOR OCCUPANCY

A. Owner may, upon written notice thereof to Contractor, take possession of or use any completed or partially completed portion of the Work (“prior Occupancy”) at any time prior to Substantial Completion. Unless otherwise agreed in writing, Prior Occupancy shall not be
deemed an acceptance of any portion of the Work; accelerated the time for any payment to Contractor; prejudice any rights of Owner provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the obligations established by the Contract Documents; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.

B. Notwithstanding anything in the preceding paragraph, Owner shall be responsible for loss of or damage to the Work resulting from Prior Occupancy. Contractor’s one year duty to repair any system warranties shall begin on building systems activated and used by Owner as agreed in writing by Owner and Contractor.

6.09 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT

A. Final Completion shall be achieved when the Work is fully and finally complete in accordance with the Contract Documents. The date Final Completion is achieved shall be established by Owner in writing.

B. Final Acceptance shall be achieved when the Contractor has completed the requirements of the Contract Documents. The date Final Acceptance is achieved shall be established by Owner in writing. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents, submit to Owner a written notice of any outstanding disputes or claims between Contractor and any of its Subcontractors, including the amounts and other details thereof. Neither Final Acceptance, nor final payment, shall release Contractor or its sureties from any obligations of these Contract Documents or the Public Works Bond, or constitute a waiver of any claims by Owner arising from Contractor’s failure to perform the Work in accordance with the Contract Documents. Final Acceptance of the Work shall be by action of the Board of Regents or its delegated representative.

C. Acceptance of final payment by Contractor, or any Subcontractor, shall constitute a waiver and release to Owner of all claims by Contractor, or any such Subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of Owner relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in part 8.

PART 7 CHANGES

7.01 CHANGE IN THE WORK

A. Owner may, at any time and without notice to Contractor’s surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Owner causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in section 7.02 or 7.03, respectively, and such adjustment(s) shall be incorporated into a Change Order.

B. If Owner desires to order a change in the Work, it may request a written Change Order proposal from Contractor. Contractor shall submit a Change Order proposal within 14 days of the request from Owner, or within such other period as mutually agreed. Contractor’s Change Order proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in the Work.

C. Upon receipt of the Change Order proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, or both, as provided in sections 7.02 and 7.03, Owner may accept or reject the proposal, request further documentation, or negotiate acceptable terms with Contractor. Pending agreement on the terms of the Change Order, Owner may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Owner’s approval. All Work done pursuant to any Owner-directed change in the Work shall be executed in accordance with the Contract Documents.
D. If Owner and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either recovered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.

E. If Owner and Contractor are unable to reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, Contract or may at any time in writing, request a final offer from Owner. Owner shall provide Contractor with its written response within 30 days of Contractor’s request. Owner may also provide Contractor with a final offer at any time. If Contractor rejects Owner’s final offer, or the parties are otherwise unable to reach agreement, Contractor’s only remedy shall be to file a Claim as provided in part 8.

F. If Owner and Contract enter into a GC/CM Contract that includes the Maximum Allowable Construction Cost (MACC) for only a portion of the Work due to early subcontract bidding of a portion of the Work, any adjustments to the MACC and work based on additional subcontract bidding or negotiations shall be formalized in an Amendment to the GC/CM Contract and not by a Change Order.

7.02 CHANGE IN THE CONTRACT SUM

A. General Application

1. The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order proposal.

2. If the cost of Contractor’s performance is changed due to the fault or negligence of Owner, or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Sum in accordance with the following procedure. No change in the Contract Sum shall be allowed to the extent: Contractor’s changed cost of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Owner; or the change is caused by an act of Force Majeure as defined in section 3.05.

(a) A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Owner within 7 days of the occurrence of the event giving rise to the request. For purposes of this part, “occurrence” means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event giving rise to the request. If Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such records and, if requested shall promptly furnish copies of such records to Owner.

(b) Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than 7 days before Contractor’s written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Sum; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Sum requested. Failure to properly give such written notice shall, to the extent Owner’s interests are prejudiced, constitute a waiver of Contractor’s right to an equitable adjustment.

(c) Within 30 days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph a. above with additional supporting data. Such additional data shall
include, at a minimum: the amount of compensation requested, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the damages claimed, but that the damages claimed were actually a result of the act, event, or condition complained of and that the Contract Documents provide entitlement to an equitable adjustment to Contractor for such act, event, or condition; and documentation sufficiently detailed to permit an informed analysis of the request by Owner. When the request for compensation relates to a delay, or other change in Contract Time, Contractor shall demonstrate the impact on the critical path, in accordance with section 7.03C. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner’s interests are prejudiced, constitute a waiver of Contractor’s right to an equitable adjustment.

(d) Pending final resolution of any request made in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.

(e) Any requests by Contractor for an equitable adjustment in the Contract Sum and in the Contract Time that arise out of the same event(s) shall be submitted together.

3. The value of any Work covered by a Change Order, or of any request for an equitable adjustment in the Contract Sum, shall be determined by one of the following methods:
   a. On the basis of a fixed price as determined in paragraph 7.02B.
   b. By application of unit prices to the quantities of the items involved as determined in paragraph 7.02C.
   c. On the basis of time and material as determined in paragraph 7.02D.

4. When Owner has requested Contractor to submit a Change Order proposal, Owner may direct Contractor as to which method in subparagraph 3. Above to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work, or of a request for an equitable adjustment, on the basis of the fixed price method.

B. Change Order Pricing – Fixed Price

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

1. Contractor’s Change Order proposal, or request for adjustment in the Contract Sum, shall be accompanied by a complete itemization of the costs, including labor, material, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below, and shall be submitted on breakdown sheets in a form approved by Owner.

2. All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.

3. If any of Contractor’s pricing assumptions are contingent upon anticipated actions of Owner, Contractor shall clearly state them in the proposal or request for an equitable adjustment.

4. The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive work or changes in the work. Where a change in the work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond and insurance markups will apply to the net difference.

5. If the total cost of the change in the Work or request for equitable adjustment does not exceed $1,000, Contractor shall not be required to
submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Owner to determine fair value.

6. If the total cost of the change in the Work or request for equitable adjustment is between $1,000 and $2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit the Owner to determine fair value:

a. lump sum labor;

b. lump sum material

c. lump sum equipment, usage;

d. overhead and profit as set forth below; and

e. insurance and bond costs as set forth below.

7. Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:

a. Craft labor costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. When estimating labor hours for electrical work, such hours shall be no greater than the Labor Units for specific items included in the “Normal” project conditions column of the NECA Manual of Labor Units, most recent edition. When estimating labor hours for mechanical work, such hours shall be no greater than 75% of the Labor Units for specific items included in the MCAA Web-Based Estimating Manual (WebLEM), subject to the assumptions and notes in the WebLEM, except that the Labor Units for “Hangers, Sleeves, & Inserts” shall be no greater than 50% of the WebLEM Labor Units. Special exceptions for electrical and mechanical work may be made for work having to be performed under extraordinary conditions. Such exceptions shall be identified and explained in any applicable pricing proposals and shall be subject to approval by the Owner’s representative. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:

1. Basic wages and benefits: Hourly rates and benefits as stated on the Department of Labor and Industries approved “statement of intent to pay prevailing wages.” Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed in a change order that contains direct labor costs for a working supervisor’s hours (including any category of foreman).

2. Worker’s insurance: Direct contributions to the state of Washington for industrial insurance;
medical aid; and supplemental pension, by the Department of Labor and Industries.

(3) Federal insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.

(4) Travel allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.

(5) Safety: Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed 2% of the sum of the amounts calculated in (1), (2), and (3) above.

b. Material costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs for change order work shall be documented in sufficient detail to allow for validation of prices by the Owner, and shall be based on either submitted supplier quotations, actual supplier invoices, or if these are not available, from standard industry pricing guides. If price estimates are calculated from “Trade Service,” current edition, the following conditions shall apply:

(1) Costs for electrical materials shall be no greater than the “Column C” (or “Column 3”) price less 10%.

(2) Costs for mechanical materials shall be no greater than the “List/Trade” price less 30%.

Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.

c. Equipment costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. The Contractor’s cost for utility vehicles and other items such as pickup trucks, vans, flatbed trucks, storage trailers, containers, etc. that are already in use or planned for use on the Project will not be compensated in change order work except for the time that, in the opinion of the Owner, such items: (1) are directly and necessarily used for the performance of the change work; and (2) the cost of using such items has not been included within the Contractor’s total project overhead costs. Equipment charges shall be computed on
the basis of actual invoice costs or if owned, from the current edition of one of the following sources:

(1) Associated General Contractors
    Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement; current edition.

(2) The State of Washington Utilities and Transportation Commission for trucks used on highways.

(3) The National Electrical Contractors Association for equipment used on electrical work. Equipment pricing shall be no greater than 75% of NECA monthly rates.

(4) The Mechanical Contractors Association of America for equipment used on mechanical work.

The EquipmentWatch Rental Rate Blue Book shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement, current edition.

d. Allowance for small tools, expendables & consumable supplies: Small tools consist of tools which cost $750 or less and are normally furnished by the performing contractor. The maximum rate for small tools shall not exceed the following:

(1) For Contractor, 3% of direct labor costs.

(2) For Subcontractors, 5% of direct labor costs.

Expendables and consumables supplies directly associated with the change in Work must be itemized.

e. Subcontractor costs: This is defined as payments Contractor makes to Subcontractor for changed Work performed by Subcontractors of any tier. The Subcontracts’ cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

f. Allowance for overhead: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Owner of any Change in the Contract Sum. This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the rates below:

(1) For Contractor, for any Work actually performed by Contractor’s own forces, 12% of the first $50,000 of the cost, and 4% of the remaining cost, if any.

(2) For each Subcontractor (including lower tier subcontracts), for any Work actually performed by its own forces, 12% of the first $50,000 of the cost, and 4% of the remaining cost, if any.
(3) For Contractor, for any work performed by its Subcontractor(s), 0%.

(4) For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first $50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.

(a) The cost to which overhead and profit is to be applied shall be determined in accordance with subparagraphs a.-e. above.

g. Allowance for profit:

(1) For Subcontractor of any tier for work performed by its own forces, 6% of the cost determined in accordance with 7.02.B.7 a-e above.

(2) For Subcontractor of any tier for work performed by a Subcontractor of a lower tier, 4% of the cost determined in accordance with 7.02.B.7 a-e above.

(3) For Contractor, for any work performed by its Subcontractor, the fee percentage proposed by the Contractor in the Form of Proposal times the value of the work.

h. Cost of change in insurance or bond premium: This is defined as:

(1) Contractor’s liability insurance: The cost of any changes in Contractor’s liability insurance arising directly from execution of the Change Order; and

(2) Public works bond: The cost of the additional premium for Contractor’s bond arising directly from the changed Work.

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

C. Change Order Pricing – Unit Prices

1. Whenever Owner authorizes Contractor to perform Work on a unit-price basis, Owner’s authorization shall clearly state:

   a. Scope of work to be performed;
   
   b. Type of reimbursement including pre-agreed rates for material quantities; and
   
   c. Cost limit of reimbursement.

2. Contractor shall submit costs in accordance with paragraph 7.02B and satisfy the following requirements:

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

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

1. Whenever Owner authorizes Contractor to perform Work on a time-and-material basis, Owner’s authorization shall clearly state:

   a. Scope of Work to be performed;
   
   b. Type of reimbursement including pre-agreed rates, if any, for material quantities or labor; and
   
   c. Cost limit of reimbursement.

2. Contractor shall:
a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, identify workers assigned to the Change Order Work and areas in which they are working;

b. Identify on daily time sheets all labor performed in accordance with this authorization. Submit copies of daily time sheets within 2 working days for Owner’s review;

c. Leave access as appropriate for quantity measurement;

d. Perform all Work in accordance with this section as efficiently as possible; and

e. Not exceed any cost limit(s) without Owner’s prior written approval.

3. Contractor shall submit costs in accordance with paragraph 7.02B and additional verification supported by:

a. Labor detailed on daily time sheets; and

b. Invoices for material.

7.03 CHANGE IN THE CONTRACT TIME

A. The Contract Time shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Time in its Change Order proposal.

B. If the time of Contractor’s performance is changed due to an act of Force Majeure, or due to the fault or negligence of Owner or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time in accordance with the following procedure. No adjustment in the Contract Time shall be allowed to the extent Contractor’s changed time of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible.

1. A request for an equitable adjustment in the Contract Time shall be based on written notice delivered within 7 days of the occurrence of the event giving rise to the request. If Contractor believes it is entitled to adjustment of Contract Time, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such record and if requested, shall promptly furnish copies of such record to Owner.

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

3. Within 30 days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph 7.03B.2 with additional supporting data. Such additional data shall include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract
Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Owner. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner’s interests are prejudiced, constitute a waiver of Contractor’s right to an equitable adjustment.

4. Pending final resolution of any request in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.

C. Any change in the Contract Time covered by a Change Order, or based on a request for an equitable adjustment in the Contract Time, shall be limited to the change in the critical path of Contractor’s schedule attributable to the change of Work event(s) giving rise to the request for equitable adjustment. Any Change Order proposal or request for an adjustment in the Contract Time shall demonstrate the impact on the critical path of the schedule. Contractor shall be responsible for showing clearly on the Progress Schedule that the change or event: had a specific impact on the critical path, and except in case of concurrent delay, was the sole cause of such impact; and could not have been avoided by resequencing of the Work or other reasonable alternatives.

D. Contractor may request compensation for the cost of a change in Contract Time in accordance with this paragraph, 7.03D, subject to the following conditions:

1. The change in Contract Time shall solely be caused by the fault or negligence of Owner or A/E;

2. Compensation under this paragraph is limited to funds in excess of any that may have been paid pursuant to a change in the Contract Sum that contributed to this change in Contract Time;

3. Contractor shall follow the procedure set forth in paragraph 7.03B;

4. Contractor shall establish the extent of the change in Contract Time in accordance with paragraph 7.03C; and

5. The daily cost of any change in Contract Time shall be limited to:

   a. cost of nonproductive field supervision or labor extended because of delay;

   b. cost of weekly meetings or similar indirect activities extended because of the delay;

   c. cost of temporary facilities or equipment rental extended because of the delay;

   d. cost of insurance extended because of the delay;

   e. general and administrative overhead in an amount to be agreed upon, but not to exceed 3% of the Contract Sum divided by the Contract Time for each day of the delay. This amount shall be the total paid for general and administrative overhead to the Contractor for the Contractor and all affected Subcontracts.

PART 8 – CLAIMS AND DISPUTE RESOLUTION

8.01 CLAIMS PROCEDURE

A. If the parties fail to reach agreement on the terms of any Change Order for Owner-directed Work as provided in section 7.01, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in section 7.02 or the Contract Time as provided in section 7.03, Contractor’s only remedy shall be to file a Claim with Owner as provided in this section.

B. Contractor shall file its Claim within 120 days from the date of Owner’s final offer made in
C. The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented. At a minimum, the Claim shall contain the following information:

1. A detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of Work affected by the Claim;

2. The date on which facts arose which gave rise to the Claim;

3. The name of each employee of Owner or A/E knowledgeable about the Claim;

4. The specific provisions of the Contract Documents which support the Claim;

5. The identification of any documents and the substance of any oral communications that support the Claim;

6. Copies of any identified documents, other than the Contract Documents, that support the Claim;

7. If an adjustment in the Contract Time is sought: the specific days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and Contractor’s analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time;

8. If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories set forth in, and the detail required by, section 7.02; and

9. A statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor’s knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes Owner is liable.

D. After Contractor has submitted a fully documented Claim that complies with all applicable provisions of parts 7 and 8, Owner shall respond, in writing, to Contractor as follows:

1. If the Claim amount is less than $50,000, with a decision within 60 days from the date the Claim is received; or

2. If the Claim amount is $50,000 or more, with a decision within 60 days from the date the Claim is received, or with notice to Contractor of the date by which it will render its decision. Owner will then respond with a written decision in such additional time.

E. To assist in the review of Contractor’s Claim, Owner may visit the Project site, or request additional information, in order to fully evaluate the issues raised by the Claim. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Owner’s written decision as set forth above shall be final and conclusive as to all matters set forth in the Claim, unless Contractor follows the procedure set forth in section 8.02.

F. Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time, shall be conclusively deemed to have been waived by the Contractor unless made in accordance with this section.

8.02 DISPUTE REVIEW BOARD

A. Scope: This specification describes the purpose, procedure, function, and features of the Dispute Review Board (DRB). A Three-Party Agreement among the Owner, Contractor, and three members using the form and content of Attachment A will formalize creation of the DRB and establish the scope of its service and the rights and responsibilities of the parties. In the event of a conflict between this specification
and the Three-Party Agreement, this specification governs.

B. **Purpose:** The DRB, as an independent third party, will assist in and facilitate the timely and equitable resolution of disputes between the Owner and the Contractor in an effort to avoid acrimony, construction delay, and more formal means of dispute resolution. Creation of the DRB is not intended to promote Owner or Contractor default on the responsibility of making a good-faith effort to settle amicably and fairly their differences by indiscriminate referral to the DRB.

C. **Continuance of Work:** Both parties shall proceed diligently with the work and comply with all applicable Contract provisions while the DRB considers a dispute.

D. **DRB Membership:**

1. **General.** The DRB will consist of one member nominated by the Owner and approved by the Contractor, one member nominated by the Contractor and approved by the Owner, and a third member nominated by the first two members and approved by both the Owner and the Contractor. No reason need be given for rejection of a nominee. The DRB shall be established within 30 days of the Owner’s issuance of the notice to proceed with construction Work. DRB members can be terminated for cause only by their original appointer. The third member can be terminated if the first two members agree to terminate the third, or one of the parties requests termination. The process used to replace any member shall be the same process used in the original selection of the member being replaced. In the event of an impasse in selection or replacement of any member, the appointment will be made by the Presiding Judge of the King County Superior Court.

2. **Experience and Neutrality.**

   a. It is desirable that all DRB members be experienced with the type of construction involved in the project, interpretation of contract documents and resolution of construction disputes.

   b. The goal in selecting the third member is to complement the experience of the first two and to provide leadership of the DRB’s activities. The third member will serve as Chairperson unless the parties otherwise agree.

   c. It is imperative that the DRB be neutral, act impartially, and be free of any conflict of interest.

   d. No DRB member shall have a financial interest in the Work, except for payments for services on the DRB. No employee of Owner, Contractor, any subcontractor, or Design Team shall be a member of the DRB.

E. **Compensation:** Compensation for the DRB members, and the expenses of operation of the DRB shall be shared by Owner and Contractor in accordance with the following:

1. Owner shall pay the fee and travel expenses for its selected member.

2. Contractor shall pay the fee and travel expenses for its selected member.

3. Owner and Contractor shall share equally in the third member’s fee and travel, and all other expenses of the DRB. These equally shared expenses shall be billed to and paid by Owner. Contractor’s share will be deducted from the monies due the Contractor from the Owner.

4. Owner shall, at its cost, provide administrative services, such as a meeting room and secretarial services, to the DRB.

F. **Three-Party Agreements:** All DRB members and the authorized representatives of the Owner
and the Contractor shall execute the Dispute Review Board Three-Party Agreement within 3 weeks after selection of the third member.

G. **Operation:** The DRB will formulate its own rules of operation, except to the extent any such rules are provided for herein. In order to keep abreast of the Work, the members shall regularly visit the Project, keep a current file, and regularly meet with other members of the DRB and with representatives of Owner and Contractor. The DRB shall meet monthly for the duration of the Project beginning in the second month of construction and at such other time as required to review disputes. The Owner shall provide a conformed set of plans and specifications to each DRB member.

H. **Review of Disputes: Informal Guidance Meetings:** The DRB will be available on relatively short notice to meet with the parties to provide informal non-binding guidance on the preliminary thoughts of the DRB regarding any issue. Either party may request such a meeting through telephonic or facsimile communication with the Chairperson. The Chairperson shall contact the other party to obtain approval for any informal procedures requested. This informal review is in addition to the formal process set herein. Use of the DRB informally shall not waive the formal requirements set forth herein. The Chairperson shall be responsible for contacting the other DRB members if a meeting is agreeable to the parties. These meetings will be very informal discussions with input and comments encouraged from all parties. Initial impressions and guidance will be provided by the DRB members orally. No written recommendations will be made. All communication and materials submitted during this informal process shall be privileged and confidential pursuant to RCW 5.60.070.

I. **Review of Disputes: Formal DRB Hearings:**

1. If Contractor disagrees with Owner’s decision regarding a Claim rendered in accordance with paragraph 8.01D, Contractor shall be required to provide Owner with a written appeal within 14 days after the date of Owner’s decision. Should Contractor timely appeal Owner’s decision, the matter shall be referred to the DRB. Failure to file a written appeal within the 14-day period shall result in Owner’s decision being final and binding upon Contractor.

2. Contractor’s appeal shall be heard by the DRB within 30 days of the date of receipt of the appeal by Owner, unless another time is mutually agreed to by Owner and Contractor. Pending final decision by the DRB of a dispute, Contractor shall diligently proceed with the Work as previously ordered.

3. Contractor and Owner shall be afforded an opportunity to be heard by the DRB and by offer of evidence. In order to provide Owner the opportunity to fully and fairly evaluate Contractor Claims, the full disclosure and presentation at the DRB hearing of all relevant facts and circumstances giving rise to the Claims required above shall be a condition precedent to Contractor’s right to further pursue its claims in any tribunal with authority to render binding decisions. The DRB’s recommendations shall be based on the Contract provisions and the actual cost incurred.

4. Within 30 days of receiving the DRB recommendations, both Owner and Contractor shall respond to the other in writing signifying that the dispute is either resolved or remains unresolved. If Owner and Contractor are able to resolve their dispute with the aid of the DRB’s recommendations, the terms of the resolution shall be incorporated in a Change Order. Should the dispute remain unresolved, Contractor shall serve and file a lawsuit in an appropriate court within 120 days of the DRB’s recommendation. This requirement cannot be waived except by an explicit waiver signed by Owner. The failure to file a lawsuit within said 120-day period shall result in Owner’s decision rendered in accordance with paragraph 8.01D being final and binding on Contractor and its Subcontractors of any tier. The DRB’s findings and recommendations shall be
admissible evidence in any further proceedings.

5. In the event further proceedings, either judicial or nonjudicial, are required to resolve the dispute, Contractor will be barred from offering in such further proceedings any evidence of facts or legal theories that Contractor did not offer or assert at the DRB hearing unless such evidence or theory was not and could not have been discovered, in the exercise of due diligence, prior to the DRB’s hearing. Contractor’s failure to consult with counsel or fully investigate its Claim prior to presenting such Claim to Owner will not excuse Contractor from its obligations to fully apprise Owner of the detailed basis of the Claims.

6. At any time, either before or after a lawsuit has been commenced by Contractor in accordance with this section, Owner may require Contractor to participate in further mediation or arbitration, or both, in any forum or format acceptable to Owner.

7. Claims between Owner and Contractor and its Subcontractors, shall, upon demand by Owner, be submitted in single forum, or Owner may consolidate such Claims or join any of the above-named parties in the same forum.

8. If the parties resolve the Claim prior to Final Acceptance, the terms of the resolution shall be incorporated in a Change Order. The Change Order, including any adjustment in the Contract Sum or Contract Time, shall be full compensation for any changes in the Work, including full payment of costs of all delays in connection with such changes and including full payment for any expense of inconvenience, disruption, of schedule, and loss of efficiency or productivity by Contractor.

8.03 CLAIMS AUDITS

A. All Claims filed against Owner shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim or to permit Owner access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.

B. In support of Owner audit of any Claim, Contractor shall, upon request, promptly make available to Owner the following documents:

1. Daily time sheets and supervisor’s daily reports;
2. Collective bargaining agreements;
3. Insurance, welfare, and benefits records;
4. Payroll registers;
5. Earnings records;
6. Payroll tax forms;
7. Material invoices, requisitions, and delivery confirmations;
8. Material cost distribution worksheet;
9. Equipment records (list of company equipment, rates, etc.);
11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts;
12. Subcontractors’ and agents’ payment certificates;
13. Cancelled checks (payroll and vendors);
14. Job cost report, including monthly totals;
15. Job payroll ledger;
16. Planned resource loading schedules and summaries;

17. General ledger;

18. Cash disbursements journal;

19. Financial statements for all years reflecting the operations on the Work. In addition, the Owner may require, if it deems it appropriate, additional financial statements for 3 years preceding execution of the Work;

20. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others;

21. If a source other than depreciation records is used to develop costs for Contractor’s internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;

22. All nonprivileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in Contract Sum or Contract Time sought by each Claim;

23. Work sheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and

24. Work sheets, software, and all other documents used by Contractor to prepare its bid.

C. The audit may be performed by employees of Owner or a representative of Owner. Contractor, and its Subcontractors, shall provide adequate facilities acceptable to Owner, for the audit during normal business hours. Contractor, and all Subcontractors, shall make a good faith effort to cooperate with Owner’s auditors.

PART 9 TERMINATION OF THE WORK

9.01 TERMINATION BY OWNER FOR CAUSE

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

1. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time;

2. Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency;

3. Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;

4. Contractor repeatedly fails to supply skilled workers or proper materials or equipment;

5. Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;

6. Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or

7. Contractor is otherwise in material breach of any provision of the Contract Documents.

B. Upon termination, Owner may at its option:

1. Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of, and to finish, the Work;
2. Accept assignment of subcontracts pursuant to section 5.20; and

3. Finish the Work by whatever other reasonable method it deems expedient.

C. Owner’s rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

D. When Owner terminates the Work in accordance with this section, Contractor shall take the actions set forth in paragraph 9.02B, and shall not be entitled to receive further payment until the Work is accepted.

E. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E’s services and expenses made necessary thereby and any other extra costs or damages incurred by Owner in completing the Work, or as a result of Contractor’s actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner. These obligations for payment shall survive termination.

F. Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.

G. If Owner terminates Contractor for cause and it is later determined that none of the circumstances set forth in paragraph 9.01A exist, then such termination shall be deemed a termination for convenience pursuant to section 9.02.

9.02 TERMINATION BY OWNER FOR CONVENIENCE

A. Owner may, upon written notice, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for the convenience of Owner.

B. Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:

1. Stop performing Work on the date and as specified in the notice of termination;

2. Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;

3. Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;

4. Assign to Owner all of the right, title, and interest of Contractor in all orders and subcontracts;

5. Take such action as may be necessary or as directed by Owner to preserve and protect the Work, Project site, and any other property related to this Project in the possession of Contractor in which Owner has an interest; and

6. Continue performance only to the extent not terminated.

C. If Owner terminates the Work or any portion thereof for convenience, Contractor shall be entitled to make a request for an equitable adjustment for its reasonable direct costs incurred prior to the effective date of the termination, plus reasonable allowance for overhead and profit on Work performed prior to termination, plus the reasonable administrative costs of the termination, but shall not be entitled to any other costs or damages, whatsoever, provided however, the total sum payable upon termination shall not exceed the Contract Sum reduced by prior payments. Contractor shall be required to make its request in accordance with the provisions of part 7.

D. If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

PART 10 – MISCELLANEOUS PROVISIONS

10.01 GOVERNING LAW

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

10.02 SUCCESSORS AND ASSIGNS

Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party shall assign the Work without written consent of the other, except that Contractor may assign the Work for security purposes, to a bank or lending institution authorized to do business in the state of Washington. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents.

10.03 MEANING OF WORDS

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

10.04 RIGHTS AND REMEDIES

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

10.05 CONTRACTOR REGISTRATION

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

10.06 TIME COMPUTATIONS

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

10.07 RECORDS RETENTION

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

10.08 THIRD-PARTY AGREEMENTS

The Contract Documents shall not be construed to create a contractual relationship of any kind between: A/E and Contractor; Owner and any Subcontractor; or any persons other than Owner and Contractor.

10.09 ANTITRUST ASSIGNMENT

Owner and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, Contractor hereby assigns to Owner any and all claims for such overcharges as to goods, materials, and equipment purchased in connection with the Work performed in accordance with the Contract Documents, except as to overcharges which result from antitrust violations commencing after the Contract Sum is established and which are not passed on to Owner under a Change Order. Contractor shall put a similar clause in its Subcontracts, and require a similar clause in its sub-Subcontracts, such that all claims for such overcharges on the Work are passed to Owner by Contractor.

10.10 MWBE REQUIREMENTS

A. General Requirements

Contractor shall comply with the following requirements: In accordance with Chapter 39.19 RCW, it is the policy of the State of Washington to provide the maximum practicable opportunity for increased
participation by minority and women-owned and controlled businesses (MWBE) in public works.

The Washington State Office of Minority and Women’s Business Enterprises (OMWBE) certifies firms that are owned and controlled by minorities or women, and can provide information regarding the certification process. Information about the certification status of a particular firm is available at the following OMWBE website address: http://www.omwbe.wa.gov/biznetwas/, or by contacting OMWBE at (360) 753-9693, 406 South Water, P.O. Box 41160, Olympia, Washington 98504-4611.

B. Affirmative Action Efforts

(1) Contractors shall:

(a) Advertise opportunities for subcontractors or suppliers in a manner reasonable designed to provide MWBE’s capable of performing the work with timely notice of such opportunities, and all advertisement shall include a provision encouraging participation by MWBE firms. Advertising may be done through general advertisements (e.g., newspapers, journals, etc.) or by soliciting bids/proposals directly from MWBEs.

(b) Provide MWBEs that express interest with adequate and timely information about plans, specifications, and requirements of the Contract.

(2) Contractors are further encouraged to:

(a) Break down total requirements into smaller tasks or quantities, where economically feasible, in order to permit maximum participation by MWBEs and other small businesses.

(b) Establish delivery schedules, where the requirements of this contract permit, that encourage participation by MWBEs and other small businesses.

(c) Reduce bonding requirements where practicable.

(d) Utilize the services of available minority community organizations, minority contractor groups, local minority assistance offices and organizations that provide assistance in recruitment and placement of MWBEs and other small business.

C. Reporting Requirements

(1) Prior to Application of First Progress Payment, Contractor shall submit a list of all MWBE subcontractors/suppliers it intends to use.

(2) Prior to Final Acceptance, Contractor shall submit a report of total dollar amounts paid to MWBEs.

D. Non-Discrimination

Contractors shall not create barriers to open and fair opportunities to all businesses including MWBEs to participate in University contracts and to obtain or compete for contracts and subcontracts as sources of suppliers, equipment, construction and services. In considering offers from and doing business with subcontractors and suppliers, the Contractor shall not discriminate on the basis of race, color, creed, religion, sex, age, nationality, marital status, or the presence of any mental or physical disability in an otherwise qualified disabled person.

E. Sanctions

Failure to comply with any of the mandatory requirements of this part of the contract may subject the Contractor to sanctions or damages as provided for by RCW 39.19.090, or by other applicable laws.

10.11 ASBESTOS

A. Asbestos Products
Contractor shall ensure that no Asbestos products in any form are incorporated into the Work.

B. Good Faith Inspection

1. Owner has performed a good faith inspection to determine whether the materials to be worked on or removed contain Asbestos, and will make this inspection report available to all bidders. Contractor shall not commence Work without receiving a copy of this report.

2. Contractor shall keep the asbestos inspection report on site.

3. The usual policy of the Owner is to identify and abate Asbestos before the Work begins, unless Asbestos abatement is included in the scope of Work of these Contract Documents. In limited cases where Owner is reasonably certain that Asbestos will not be disturbed, asbestos materials are to remain intact in the work area. These materials would be identified in the Asbestos inspection report and Contractor advised of protective measures.

4. In some cases, where certain construction or demolition tasks must be performed before the Asbestos can be accessed for removal, or where phasing of the construction does not permit complete removal prior to beginning the Work, portions of the Asbestos removal may be scheduled during the Contract Time. In such cases, Owner and Contractor must coordinate the scheduling of the work of the separate Asbestos contractor.

C. Notice

If in the course of performing the Work Contractor encounters an Asbestos Project which was not specifically referenced in the Contract Documents, or disturbs Asbestos, Contractor shall immediately stop work and notify Owner. Contractor shall not commence work until authorized by Owner.

D. Delays

Owner will use its best efforts to identify the scope of an Asbestos Project in the Contract Documents. Contractor acknowledges that the condition or scope of an Asbestos Project cannot be fully determined if it would result in disturbance or exposure of asbestos prior to undertaking the Work. If Contractor is significantly delayed during the course of performance because of the presence of Asbestos not identified in the Contract Documents, Contractor may request an equitable adjustment in the Contract Sum in accordance with the provisions of section 7.02.

E. Permits

At least twenty days before undertaking an Asbestos Project, Contractor shall submit to Owner information needed for Owner to file a Notice of Intent to Remove Asbestos with the Puget Sound Air Pollution Control Agency. Contractor shall file Notice of Intent to Remove Asbestos with the Department of Labor and Industries.

F. Safety Precautions

Contractor shall provide, at Contractor’s cost, appropriate clothing, caution signs, supply items, and safety equipment in order to perform the Asbestos Project in accordance with the Regulations and the performance standards of Owner.

During the course of performing an Asbestos Project, Contractor shall monitor the work place and adjacent areas in accordance with the Regulations and the performance standards of Owner to ensure that permissible levels of airborne concentrations of asbestos fibers are not exceeded. The results of all monitoring shall be immediately provided to Owner. If the prescribed exposure limits are exceeded, Contractor shall immediately execute a compliance program of engineering and work practices approved by Owner.

G. Certification

No Contractor or person shall undertake an Asbestos Project unless certified by the Department of Labor and Industries as a qualified asbestos contractor, supervisor, or worker in accordance with the requirements of WAC Chapter 296-65.

H. Records
Contractor shall maintain complete records of personal and environmental monitoring. A copy of these records shall be provided to Owner before Final Acceptance. Contractor is also required by regulation to arrange for medical examinations for those employees who work on an Asbestos Project and to maintain those records for at least twenty years.

I. Definitions

A. "Asbestos" includes different forms of chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

B. "Asbestos Project" means the construction, demolition, repair, maintenance or renovation of any building, mechanical piping equipment or system involving the demolition, removal, encapsulation, salvage, or disposal of material which may release asbestos fibers into the air.

C. "Regulations" for purpose of this section Regulations shall mean the National Emission Standards for Hazardous Air Pollutants (40 CFR 61), Occupational Safety and Health Requirements Pertaining to Asbestos (29 CFR 1910), the Regulations of the Washington State Department of Labor and Industries, WAC Chapters 296-62, 65, 155, and Puget Sound Air Pollution Control Agency (PSAPCA) regulating Asbestos Projects as adopted or hereafter amended.

10.12 APPRENTICE UTILIZATION REQUIREMENTS

A. The Contractor shall ensure that at least ten percent (10%) of the total labor hours utilized on the project are performed by apprentices registered with the Washington State Apprenticeship and Training Council.

B. The Contractor shall meet or exceed the apprentice utilization requirements of the Contract Documents on all labor hours on the Project.

C. The Contractor shall include the apprentice utilization requirements of Paragraph A, above, in all subcontracts executed for the Project.

D. If, during the term of the Contract, the Contractor determines that it will be unable to meet the percentage utilization requirement in Paragraph A, above, the Contractor may make a written request to the Owner to reduce the required percentage. The request shall include documentation of:

   1. The Contractor’s good faith efforts to use registered apprentices; and/or
   2. The lack of availability of registered apprentices; and or
   3. A disproportionately high ratio of material costs to labor hours, which makes infeasible the required minimum level of apprentice participation.

E. The Owner shall evaluate the request made under Paragraph D, above, and, if appropriate, a change order shall be prepared by the Owner reducing the utilization requirement.

F. With its monthly Application for Payment, the Contractor shall submit the Apprentice and Journey Level Worker Utilization Report on the form in Appendix A.
10.13 OFF-SITE PREFABRICATION REPORTING REQUIREMENTS

A. For contracts entered into between September 1, 2010 and December 31, 2013, information regarding all “off-site, prefabricated, non-standard, project specific items” shall be identified. The information shall be submitted by the Contractor and or subcontractor who directly contracted for the items as part of the affidavit of wages form filed with the Department of Labor and Industries. The Contractor shall include language in its subcontracts requiring subcontractors and lower-tier subcontractors to comply with this reporting requirement.

1. “Off-site, prefabricated, non-standard, project specific items” means products or items that are:

   a. Made primarily of architectural or structural precast concrete, fabricated steel, pipe and pipe systems, or sheet metal and sheet metal ductwork;
   
   b. Produced specifically for the public work and not considered to be regularly available shelf items;
   
   c. Produced or manufactured by labor expended to assemble or modify standard items; and
   
   d. Produced at an off-site location outside of Washington State.

2. The information to be provided to the Department of Labor and Industries includes:

   a. The estimated cost of the public works project;
   
   b. The name of the awarding agency and the project title;
   
   c. The contract value of the off-site, prefabricated, non-standard, project specific items produced outside of Washington State, including labor and materials; and
   
   d. The name, address, and federal employer identification number of the contractor that produced the off-site, prefabricated, non-standard, project specific items.
I. POLICY

The University of Washington through its Capital Project Office (Owner), is charged with the responsibility of ensuring that all public works improvement projects are awarded to the responsible bidder submitting the lowest responsive bid, and are performed in compliance with the Contract Documents and applicable federal, state, and local laws and regulations. The Owner is responsible to the citizens of the State to oversee the expenditure of public funds, and to secure the best possible results for that expenditure. To assist the Owner in evaluating a Contractor's responsibility, as well as its performance on contracts of the Owner, the Contractor Performance Evaluation Program has been developed. The implementation of a mandatory, standardized system of evaluating Contractors' performance is expected to yield consistency, objectivity, fairness, and accountability.

II. PURPOSE

The purpose of the Contractor Performance Evaluation Program is to better assure that Contractors considered for contract award on public works projects either possess, or will likely possess at the time contract performance is set to begin, all qualifications necessary to successfully complete the project on time. Among other things, the Program is intended to:

° Assist the Owner in exercising its discretion to determine a Contractor's qualifications and abilities to successfully perform a particular contract.

° Provide the Owner with a rational basis for determining that a Contractor is or is not responsible.

° Provide Contractors with a means of enhancing their qualifications and reputation by receiving recognition for high standards of performance.

° Encourage better working relationships between the Owner and Contractors.

° Provide official, verifiable references for Contractors who may be under consideration for award of, or approval on, contracts to be awarded by other public owners.

° Provide a history and an assessment of a Contractor's performance on prior contracts of the Owner for use in suspension or debarment proceedings.

The Contractor Performance Evaluation Program is not intended to determine whether a Contractor has breached a contract with the Owner, or to determine the acceptability of any particular noncompliance with Contract requirements.

III. PERFORMANCE CATEGORY EVALUATION GUIDE

The Performance Category Evaluation Guide establishes criteria to be used in evaluating the Contractor's performance in connection with each Performance Category, and describes five Performance Levels, which range in ascending order of merit from "Inadequate" to "Superior".
The “Standard” Performance Level is considered a baseline; it characterizes the level of acceptable performance normally associated with a reasonably prudent, diligent, and skilled Contractor working on projects of the same general type and size. Both the "Superior" and "Good" Levels characterize performance levels that exceed the baseline; they respectively connote consistent and substantial positive contributions to the overall project. Both the "Deficient" and "Inadequate" Levels characterize levels of performance that fall below the baseline, and respectively connote substantial and serious detriment to the overall project. The "No Evaluation" Level is to be used only where the Contractor had no direct or indirect responsibility for performance.

The five Performance Levels are more specifically described as follows, and the criteria set forth for each shall be applied in evaluating the Contractor's performance in connection with each of the Performance Categories listed in Section III of the Contractor Performance Evaluation Report:

A. **Superior** To merit an evaluation of "Superior" in any Performance Category, the Contractor must have consistently demonstrated:

1. Command or virtual mastery of the Contract Documents related to that Performance Category;

2. Performance of the work or activity being evaluated under that Performance Category that always exceeded or surpassed the material requirements of the Contract;

3. A highly cooperative attitude in dealing with Owner’s employees, consultants, and the public in connection with that Performance Category, which attitude made a substantial, positive contribution to the Project; and

4. Initiative in carrying out his or her duties in connection with that Performance Category in a responsive, thorough, and timely manner without prompting by the Owner’s Representative.

If the Contractor fails to satisfy any one of the Performance Level criteria set out above, then his or her performance will be re-evaluated under the "Good" Level by applying the criteria for that Level.

B. **Good** To merit an evaluation of "Good" in any Performance Category, the Contractor must have demonstrated:

1. Thorough knowledge of Contract Documents related to that Performance Category;

2. Performance of the work or activity being evaluated under that Performance Category that always met, and often exceeded, the material requirements of the Contract;

3. A cooperative attitude in dealing with Owner’s employees, consultants, and the public in connection with that Performance Category, which attitude made a positive contribution to the project; and
(4) Initiative in carrying out his or her duties in connection with that Performance Category in a responsive, thorough, and timely manner with only minimal prompting by the Owner’s Representative.

If the Contractor fails to satisfy any one of the Performance Level criteria set out above, then his or her performance will be re-evaluated under the "Standard" Level by applying the criteria for that Level.

C. Standard  To merit an evaluation of "Standard" in any Performance Category, the Contractor must have demonstrated:

(1) Acceptable knowledge of the Contract Documents related to that Performance Category;

(2) Performance of the work or activity being evaluated under that Performance Category that met all material Contract requirements;

(3) A generally cooperative attitude toward Owner’s employees, consultants, and the public in connection with that Performance Category; and

(4) Initiative in carrying out his or her duties in connection with that Performance Category in a responsive, thorough, and timely manner with only moderate prompting by the Owner’s Representative.

If the Contractor fails to satisfy any one of the Performance Level criteria set out above, then his or her performance will be re-evaluated under the "Deficient" and "Inadequate" Levels by applying the criteria for those Levels.

D. Deficient  To merit an evaluation of "Deficient" in any Performance Category, the Contractor must have demonstrated:

(1) Marginal knowledge of the Contract Documents related to that Performance Category;

(2) Performance of the work or activity being evaluated under that Performance Category that did not always meet the material Contract requirements, and such failures were not excusable as the sole fault and responsibility of one or more other parties;

(3) An occasionally uncooperative attitude toward Owner’s employees, consultants, or the public in connection with that Performance Category; or

(4) Performance of his or her duties in connection with that Performance Category in a moderately unresponsive, inattentive, or dilatory manner, or after frequent or repeated prompting by the Owner’s Representative.

E. Inadequate  To merit an evaluation of "Inadequate" in any Performance Category, the Contractor must have either: (a) failed to satisfy the criteria listed for the Performance Levels of "Superior", "Good", "Standard", and "Deficient" set out above and did not qualify for treatment under Section III.F below; or (b) must have demonstrated:
(1) Inadequate knowledge of the Contract Documents related to that Performance Category;

(2) Performance of the work or activity being evaluated under that Performance Category which seldom met the material Contract requirements, and such failures were not excusable as the sole fault and responsibility of one or more other parties;

(3) A seriously uncooperative attitude toward Owner’s employees, consultants, or the public in connection with that Performance Category; or

(4) Performance of his or her duties in connection with that Performance Category in a seriously unresponsive, inattentive, or dilatory manner, or only after frequent prompting by Owner’s Representative.

F. No Evaluation. This rating should only be used in those circumstances where the Contractor had no contractual responsibility, either directly or through its subcontractors, suppliers, or materialmen, for performance related to that Performance Category.

IV. OVERALL EVALUATION GUIDE

The Contractor's Overall Evaluation can be determined by placing the Overall Percentage Score calculated on the Contractor Performance Evaluation Report within the numerical ranges of the following narrative ratings in the Overall Evaluation Guide:

A. SUPERIOR (Overall Percentage Score of 90% or above)

The Contractor exceeded the Contract requirements and expectations in most or all of the areas evaluated. The Contractor was extremely or completely knowledgeable regarding Contract requirements and applicable laws and regulations. A consistently high level of cooperation, project management, and job site control appreciably contributed to an unusually good result. The Contractor is commended for excellent performance.

B. GOOD (Overall Percentage Score of 70% to 89%)

The Contractor met Contract requirements evaluated, and exceeded them in some areas. The Contractor was generally cooperative, and performed his/her work with a minimum of prompting. The results of the performance were very good.

C. STANDARD (Overall Percentage Score of 50% to 69%)

The Contractor generally satisfied the minimum requirements of the Contract as evaluated. The Contractor occasionally had to be prompted or reminded of Contract requirements, but overall management of the Project was good, producing a good result.

D. DEFICIENT (Overall Percentage Score of 30% to 49%)

Even though the Project may have been accepted, the Contractor's performance as evaluated was marginal overall. While the Contractor
performed some tasks satisfactorily, most elements evaluated reflected a less than satisfactory response to Contract requirements.

E. INADEQUATE (Overall Percentage Score of 29% or below)

The Contractor's performance as evaluated did not meet minimum Contract requirements, or so otherwise detracted from the Project as to seriously call it into jeopardy. While the Project may have been accepted by the Owner, the effort expended by the Owner's Representative in prompting the Contractor to perform was excessive. The Contractor's poor or uncooperative performance created serious unnecessary or avoidable difficulties in achieving contract completion.

A Contractor's Overall Evaluation, being based upon an averaged rate on a discrete number of Performance Categories, should not be read or interpreted as a measure of whether the Contractor did or did not breach the contract in question.

V. PERFORMANCE EVALUATION REPORTS

Each Contractor Performance Evaluation Report shall be prepared by, or at the direction of, the Owner's Representative who will include numerical ratings substantiated, when necessary, by one or more narratives which describe the Contractor's performance.

Every Contractor Performance Evaluation Report containing Performance Level evaluations of "Deficient" or "Inadequate", and all Overall Evaluations on projects the total cost of which is $500,000 or more, shall contain one or more narratives which provide details substantiating the evaluations. Narratives may be provided for other Performance Categories as the evaluator deems necessary.

Narratives provided with a Contractor Performance Evaluation Report shall be based upon documentation prepared during the life of the project, e.g., project diaries, inspectors' reports, and other pertinent documents. Such documentation shall constitute a major portion of the administrative record to be used for any review, appeal, or litigation that may arise from the evaluation process.

Every Contractor Performance Evaluation Report shall be signed by the Owner's Representative and the supervisor of the Owner's Representative before a copy of the Report shall be transmitted to the Contractor. The Report shall not be considered final until such time as the review/appeal periods described in Section VI herein have been completed.

Generally, only one Contractor Performance Evaluation Report shall be issued, following completion of the contract Work. However, in addition to a final Report, one or more interim Reports may be issued at the discretion of the Owner when:

° A contract is of long duration, particularly those in excess of one year.

° An individual charged with primary responsibility for administration of the Contract will cease his or her involvement with the Project prior to completion of the Work.

° Contractor's performance at 50% completion is deficient or inadequate.
Interim Contractor Performance Evaluation Reports shall be considered to be preliminary and shall be designated as such, and shall be processed administratively in the same manner as a Final Report. A Contractor may request review of an Interim Report by the applicable project Director in the Owner’s Capital Projects Office; and appeal to the Owner’s Associate Vice President for Capital Projects or his/her designee pursuant to the provisions of Section VI below. All Interim Reports shall be attached to, and considered when preparing, the Final Report.

If a Contractor Performance Evaluation Report is an Interim Report, the Report should indicate on its face that it is Interim, and shall contain the following language:

This Performance Evaluation Report is not the final report on this Contractor on this Project. The Contractor may dispute the Report or any part thereof, and need not seek review or appeal until completion and acceptance of the Project.

VI. NOTICE, REVIEW, AND APPEAL

A. Notice. Contractors shall be mailed a copy of their Contractor Performance Evaluation Report within a reasonable time after completion of the Report. A Contractor who is given an Overall Evaluation of "Deficient" or "Inadequate" in connection with a project shall be provided with a copy of the Contractor Performance Evaluation Report via certified mail (return receipt requested).

B. Review. A Contractor who disputes, or is otherwise dissatisfied with, his or her Contractor Performance Evaluation Report may request review of the Report by the applicable project Director in the Owner’s Capital Projects Office. The request must be submitted in writing within thirty (30) calendar days of receipt by the Contractor of the Final Contractor Performance Evaluation Report. The request must also state, with specificity, all bases for the requested review.

The applicable project Director shall, upon receipt of a proper and timely request, review the Contractor Performance Evaluation Report and any documentation submitted by the Contractor with his or her request. The applicable project Director shall, on the basis of his or her review, issue findings which may affirm, correct, or modify all or any part of the Report. A copy of the findings shall be mailed to the Contractor via certified mail, return receipt requested.

C. Appeal. Within ten (10) calendar days of receipt by the Contractor of the applicable project Director’s findings on review, the Contractor may appeal therefrom to the Owner’s Associate Vice President for Capital Projects or his/her designee. Any such appeal shall be in writing, and shall state with specificity the bases or grounds for the appeal.

The Associate Vice President for Capital Projects or his/her designee shall review and consider the objectivity, accuracy, completeness, and fairness of the Contractor Performance Evaluation Report, together with the applicable project Director’s findings, engineers’ diaries, job records and other documentation, including such documentation as the Contractor may provide with the appeal.

Upon hearing and review of the applicable project Director’s findings, the Associate Vice President for Capital Projects or his/her designee shall issue a determination and findings which may affirm or modify the Contractor’s Contractor Performance Evaluation Report. The
Associate Vice President for Capital Projects or his/her designee shall notify the Contractor of its determination and findings by certified mail (return receipt requested).

VII. NOT RESPONSIBLE DETERMINATION FOR WORK ON SPECIFIC PROJECT

The Owner’s Associate Vice President for Capital Projects may determine, from Contractor Performance Evaluation Reports and other public documents relating to the project in question, that a Contractor who has received one or more Overall Evaluations of "Deficient" or "Inadequate" is not a responsible bidder and not able to successfully perform a specific project of the Owner for which the Contractor submitted a bid, and is therefore ineligible for award of that contract.

When, on that basis, the Owner’s Associate Vice President for Capital Projects believes that the low bidder is not a responsible bidder and not able to successfully perform a project, the Owner shall notify the low bidder in writing of its determination that the bidder is not a responsible bidder. The bidder may appeal the determination within the time period specified in the Instructions to Bidders by presenting additional information to the Owner. The Owner shall consider the additional information before issuing its final determination. In evaluating the additional information, the Owner may or may not meet with the bidder to hear additional information. If the final determination affirms that the bidder is not responsible, the Owner will not execute a contract with any other bidder until two business days after the bidder determined to be not responsible has received the final determination.

VIII. DEBARMENT OF CONTRACTOR

The Owner’s Associate Vice President for Capital Projects or his/her designee, after conducting a hearing with the Contractor and evaluating the evidence, may debar a Contractor from contracting with the Owner for a period of up to two years if a Contractor has received overall evaluations of their performance of "Deficient" or "Inadequate" on three or more projects of the Owner physically completed during the preceding five (5) year period.

IX. RELEASE OF INFORMATION

Contractor Performance Evaluation Reports are public documents subject to disclosure to other governments and to the public. Because the Reports and the Overall Evaluations they contain may be used as a basis for contract award and may reflect upon the Contractor's reputation, care must be taken to assure that only accurate, complete, and current information is released.

A. Final Reports. Contractor Performance Evaluation Reports may be released when:

(1) The Report becomes final as set forth in Section V herein; or

(2) The Owner has relied upon the Report for the purpose of taking further action with respect to the Contractor; or

(3) A court has ordered release of the Report.

B. Interim Reports. Interim Contractor Performance Evaluation Reports may only be released when:

(1) The Contractor has consented in writing to the release; or
(2) The Contractor has requested and received final administrative review of an Interim Report; or

(3) The Owner has used or relied upon the Interim Report to take action with respect to the Contractor; or

(4) A court has ordered release of the Report.

C. Termination for Cause and Pending Litigation. In the event that the Contract is terminated by Owner for cause, this fact shall be noted on the Contractor's Contractor Performance Evaluation Report. In the event that a Contractor commences suit against the Owner, that Contractor's Performance Evaluation Report shall not be released without approval from the Washington State Attorney General's Office.

D. Intergovernmental Cooperation. All requests for Contractor references from agencies of foreign, federal, state, or local governments shall be referred to the Owner's applicable project Director or his/her designee. If such a request is honored, the requesting agency shall be provided with copies of all Contractor Performance Evaluation Reports on the Contractor, together with any written objections or refutations filed with the Owner by the Contractor in connection therewith.

X. INSTRUCTIONS FOR COMPLETING EVALUATION FORMS

The Owner's Representative shall complete Sections I (Contractor Data) and II (Project Data), and then evaluate the Contractor's performance in each of the Performance Categories listed in Section III (Performance Data) of the Contractor Performance Evaluation Report, and shall assign points for each category based on the Performance Level applicable for the Contractor's performance.

The descriptions provided on the Contractor Performance Evaluation Report form for each Performance Category will not necessarily match precisely with the Contractor's actual performance of the task(s) on a given portion of the project.

The Owner's Representative should consider the general character of the Contractor's performance for each Performance Category evaluated and select the Performance Level that most closely matches the actual performance.

If the Contractor was not responsible for any performance in connection with a given Performance Category, then the Contractor's evaluation in that Category should be "No Evaluation," and no points should be assigned.

When rating a Contractor, the Owner's Representative should consider all the work performed by the Contractor as well as work performed by all subcontractors, since the Contractor is contractually responsible to the Owner for all of the work under the Contract, whether or not the Contractor actually performs the work. Interim Reports, if issued, shall be attached to the Final Report.

Comments are always encouraged, and may be written on the Contractor Performance Evaluation Report or on an attachment to the Report.

However, for each Performance Category evaluated as "Deficient" or "Inadequate", the Owner's Representative must prepare a written narrative substantiating the facts and circumstances giving rise to the evaluation.
After evaluating the Contractor on Performance Categories listed in Section III of the Contractor Performance Evaluation Report, the Owner’s Representative shall total all of the points assigned and divide that into the total points possible (excluding those Performance Categories evaluated as "No Evaluation"). The evaluator will enter the resulting Overall Percentage Score on the Report, and will enter the appropriate Overall Evaluation on the basis of the following ranges:

- **Superior**: Overall percentage score of 90% or above
- **Good**: Overall percentage score of 70% to 89%
- **Standard**: Overall percentage score of 50% to 69%
- **Deficient**: Overall percentage score of 30% to 49%
- **Inadequate**: Overall percentage score of 29% or below

The Owner’s Representative shall sign the Report and forward it to his or her supervisor for concurrence signature and submission to the Owner’s Contracts Department. The Contracts Department staff shall then forward signed copies of the completed Report to the Contractor.

END OF SECTION 00 73 20
PART 1 - GENERAL

1.1 PROJECT DESCRIPTION

The Work of the Contract Documents can be summarized as follows:

This project will provide infrastructure necessary to accommodate the additional commuters arriving via the Sound Transit station. The scope of the Rainier Vista Pedestrian Landbridge project includes the lowering of the NE Pacific Place roadway between NE Pacific St. and Montlake Blvd. NE; the realignment of the NE Pacific Place and Burke Gilman Trail; the construction of a Pedestrian Landbridge connecting the Montlake Triangle to Lower Rainier Vista; the installation of a ramp to connect to the Montlake Pedestrian bridge, constructed by others; and associated site work at Lower Rainier Vista and the Montlake Triangle.

The Pedestrian Landbridge and roadway lowering will be constructed on a mixed University and City owned site at the southeast end of the campus, on the current NE Pacific Pl. alignment between NE Pacific St. and Montlake Blvd. NE, in addition to the area bounded by all three roads mentioned above and referenced as the Montlake Triangle, and including the lower portions of the Rainier Vista view corridor. Area: approximately 24,775 SF; bordered on the north by Stevens Way, going south along the Rainer Vista View Corridor and intersecting with the Burke Gilman Trail where it widens to include all of NE Pacific Pl. and the Montlake Triangle area bordered by Montlake Blvd. NE and NE Pacific St.

1.2 GENERAL INFORMATION

A. Title of Contract Documents:

1. University of Washington
   Project Name: Montlake Triangle Project
   Project Number: 203593

B. Owner and Engineer Defined:

1. Owner:
   University of Washington
   Capital Projects Office
   Seattle, Washington 98195

   Project Manager: Andy Casillas
   E-mail: casillas@uw.edu
   Phone: 206-685-9055
   Fax: 206-542-1277

   Owner’s Representative: The Owner shall designate, in writing, the Owner’s Representative for this Project.

2. Engineer: KPFF Consulting Engineers
   Address: 1601 5th Ave Suite 1600

   Representative: Martin Chase
   E-mail: marty.chase@kpff.com
   Phone: 206-622-5822
   Fax: 206-622-8130
3. The Owner, the Engineer, and various consultants hereinafter or otherwise listed shall be given access to the Work insofar as their interests are concerned.

C. Engineer's Sub-Consultants: The Sub-Consultants under contract with the Engineer in preparation of the Contract Documents are:

1. Affiliated Engineers | Pivotal Lighting  
   1601 Fifth Avenue, Suite 1400  
   Seattle, WA 98101

2. LTK Engineering Services  
   505 Fifth Avenue South, Suite 640  
   Seattle, WA 98104

3. Shannon & Wilson  
   400 N. 34th Street, Suite 100  
   Seattle, WA 98103

4. Wetherholt and Associates  
   13104 N5 85th Street  
   Kirkland, WA 98083

D. Owner's Consultants: The Consultants under contract with the Owner in preparation of the Contract Documents are:

1. Gustafson Guthrie Nichol  
   1101 Alaskan Way, Floor 3  
   Seattle, WA 98101

2. True North Land Surveying, Inc.  
   815 S. Weller Street, Suite 200  
   Seattle, WA 98104-3023

3. Heffron Transportation – Transportation  
   6544 NE 61st Street  
   Seattle, WA 98115

1.3 SPECIAL CONDITIONS

A. Description of special conditions of the Work:

1. Comply with Appendix D Metro Construction Requirements. The Metro trolley and associated overhead power lines must be kept active at all times. Contractor shall install all temporary and permanent trolley installations with Metro Transit personnel performing connect/disconnect and energizing/de-energizing to existing main trolley system.

2. One (eastbound) general purpose traffic lane must be kept open at all times along NE Pacific Place.

3. Sporadic nighttime and weekend closures may be coordinated upon approval by Metro and SDOT.
4. Contractor site offices are limited to an area within the project area. Other than limited staff parking at site offices, project personnel are to park in lot E1.

5. Due to high activity of campus construction, any use of Stevens Way as a haul road or supply entrance must have prior approval for use.

6. Special Work Access and Hours of Work Restrictions: University intends to continue to occupy adjacent buildings, including Triangle Garage, during the construction period. Maintain access to the Triangle Garage at all times, including pedestrian access to garage (four locations). Work requiring parking closures shall be sequenced to occur at only one floor and one wall at a time (four locations total). Concrete coring and demolition work within the Triangle Garage shall occur between 9pm and 5am. Provide floor-to-ceiling dust protection for work occurring in the Triangle Garage.

7. Pedestrian and Bicycle Access: Maintain existing pedestrian and bicycle access on all sidewalks and at all intersections unless appropriately detoured. Also maintain safe access and passage for all pedestrian and bicycle facilities and shall incorporate ADA accessibility in all cases. Pedestrian sidewalks and paths that are currently ADA accessible shall be maintained and continue to conform to ADA requirements. Occupational safety regulations that apply to the Project limits shall also be considered the minimum standard for personal safety to pedestrians. If work will be performed over any pedestrian and bicycle routes, temporary lighted covered walkways shall be provided to protect pedestrians and bicyclists from overhead hazards.

1.4 PROVISION OF CONTRACT DOCUMENTS

A. After award of the Contract, the Owner shall provide to the Contractor, without cost to the Contractor, ten (10) sets of the Contract Documents for the Project. All other sets of the Contract Documents required by the Contractor or their subcontractors for the Project shall be obtained by the Contractor at the Contractor’s sole cost.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION
PART 1 - GENERAL

1.1 DESCRIPTION

A. Hazardous Materials or materials needing special handling or disposal, that may be potentially impacted by the Project or that could be encountered during construction, are as follows:

1. Asbestos-containing materials (ACM)
2. Lead (or Heavy Metals) -containing materials (LCP)
3. Contaminated soils
4. Contaminated groundwater
5. Biological contaminants

B. All workers onsite who are involved in demolition, construction, installation or excavation activities must have current Asbestos Awareness Training, as required by WAC 296-62-07722(6).

C. Prior to bringing onsite any chemicals listed in 6 CFR part 27, Appendix A, the Contractor shall submit for itself and for all Subcontractors a completed “Contractor Declaration and Reporting Form for Department of Homeland Security – Chemicals of Interest.” See Appendix A of the Specifications for a copy of the form.

1.2 RELATED SECTIONS

A. This section and the following related regulated materials documents were prepared by the Owner’s Hazardous Materials Consultant, PBS Engineering + Environmental

1. Section 02 80 00 – Facilities Remediation
2. Section 02 83 00 – Lead (or Heavy Metals) Related Activities

B. All documents related to asbestos abatement were prepared by the following AHERA-certified Project Designer:

Project Designer: Willem Mager
Certification number: 110918
Expiration date: 3/9/2012

1.3 GENERAL REQUIREMENTS

A. SUPERVISORY AUTHORITY: The Contractor assumes all responsibilities and shall perform all required work under applicable regulations related to their supervisory authority over Subcontractors and personnel performing work related to hazardous materials.

B. ACCESS RESTRICTIONS: Work described in the Contract Documents includes restriction of access to work areas during hazardous materials activities. Access to various work areas by the general public, subcontractors, and other individuals will not be possible during certain hazardous materials work sequences, as specified in the Contract Documents. The Contractor shall coordinate the Work to facilitate access by Subcontractors while enforcing work area restrictions, and shall minimize disruption to building occupants and services.

C. WORKING HOURS: No hazardous materials work shall occur when building users have access to work areas. Schedule all hazardous materials work to occur in accordance with schedule

Conformed Set
requirements outlined elsewhere in the Contract Documents, and when work areas have been vacated by building users.

D. EMERGENCY CONTACTS: Designated qualified representatives of the Contractor and specific hazardous materials Subcontractors are to be available on a 24-hour emergency basis for the duration of the Work. Provide contact information to the Owner’s Representative for inclusion in the Project emergency contact list.

E. GENERAL HAZARDOUS MATERIALS SUBMITTALS: Contractor shall review the scope of work and submittal requirements outlined in the Contract Documents. The Contractor shall submit, and require all subcontractors performing the work of handling or disposing of any hazardous materials to submit, pertinent information required by the Contract Documents. Examples of work and impact may include abatement, demolition, saw cutting, roto-hammering, welding, sanding, drilling, scraping or other remodeling and metals-related impact, impact of asbestos-containing joint compound or other material with <1% asbestos, PCB ballast removal or light tube removal and disposal.

F. REGULATIONS, LAWS and ORDINANCES: The Contractor shall comply with all applicable regulations, laws and ordinances concerning the impact, removal, handling, storage, disposal, monitoring and protection against exposure or environmental pollution related to hazardous or regulated materials and conditions. Impacts to hazardous or regulated materials that may be required by the Work include, but are not limited to: manual demolition, mechanical demolition, cutting, sawing, drilling, sanding, scraping, welding, power-washing or torch-cutting. Confirm required impacts with other applicable specification sections and drawing sheets. Contractor shall furnish all labor, materials, equipment, services and insurance that is specified, shown, or reasonably implied for the removal and handling of hazardous materials as part of the Work.

G. SURVEY: The Owner has included in Appendix C a Regulated Materials “Good Faith” Survey report of the areas of the Project Site to be impacted by the Work. The Contractor shall ensure that a copy of this survey is provided to all bidders and subcontractors. A copy of this Survey must be retained and available for review on the Project Site at all times throughout the duration of the Project.

H. DISPOSAL: Disposal of all Hazardous or Dangerous wastes will be managed by the UW Environmental Programs Office (EPO). Contractor shall be responsible for packaging and staging the wastes onsite, and for scheduling pickup through the Owner’s Representative.

a. All other regulated wastes must be disposed at a UW audited and approved disposal facility. Approved facilities can be viewed online at http://www.ehs.washington.edu/epowaste/disposalfaclist.pdf.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements of Alternates.

B. Definition: An Alternate is an amount proposed by bidders and stated on the Bid Form for certain construction activities defined in the bidding requirements that may be added to or deducted from Base Bid amount and/or a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.

C. Coordination: The Contractor shall coordinate all related Work and modify or adjust adjacent Work as necessary to ensure that the Work affected by each accepted Alternate is complete and fully integrated into the Project.

1. Include as part of each Alternate bid, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

D. Notification: Immediately following receipt of a subcontract bid, Owner will notify Contractor of the status of each Alternate to indicate whether Alternates should be accepted, rejected or deferred for consideration at a later date. Contractor shall maintain a summary status log of all Alternates deferred for consideration at a later date, identifying the latest date for Owner to decide, and review at construction progress meetings.

E. Schedule: A “Schedule of Alternates” is included in this Section. Specification sections referenced in the schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.

1.2 SCHEDULE OF ALTERNATES

**Alternate 1**: In-Grade Lights. Base bid is no XS3 lights or electrical infrastructure required specifically for lights. Alternate is lights and infrastructure per drawings.

**Alternate 2**: Gabion Infill. Base bid is no All Type A Infill (Basalt Spalls). Alternate is replace Type A Infill with Type B (Granite Spalls) in gabion basket courses per drawings.

**Alternate 3**: Precast Wall Cap. Base bid is No Precast Wall Cap; Top of Concrete Wall on Montlake is raised to account for no cap; skate deterrents on concrete walls per drawings. Alternate is ss Drawn; delete skate deterrents.

**Alternate 4**: Graffiti Coating. Base bid is no graffiti coating. Alternate is graffiti coating per specifications.

**Alternate 5**: Storm Separation for Forestry Complex. Base bid is no storm separation for Forestry Complex. Alternate is storm separation per drawings.

**Alternate 6**: Storm Separation for Stevens Way. Base bid is no storm separation for Stevens Way. Alternate is storm separation per drawings.

PART 2 - PRODUCTS (Not used)
PART 3 - EXECUTION (Not used)

END OF SECTION
PART I - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements governing the Contractor’s selection for products for use in the Work, and administrative procedures for handling requests for substitutions made before and after receipt of bid.

B. Owner’s forms included by reference for this Section include (see Appendix A):

1. Substitution Request Form

1.2 DEFINITIONS

A. Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents.

1. “Products” are items purchased for incorporation in the Work, regardless of whether they were specifically purchased for the Project or taken from the Contractor’s previously purchased stock.

2. “Named Products” are products identified by use of the manufacturer’s name for a product, including such items as a make or model designation, as recorded in published product literature, of the latest issue as of the date of the Contract Documents.

3. “Materials” are products that must be cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

4. “Equipment” is a product with operational parts, whether motorized or manually operated, and in particular, a product that requires service connections such as wiring or piping.

5. References to equipment, material, articles or patented processes by trade name, make or catalog number are presumed to set a standard of quality so as to encourage competition. The term “equal” is presumed and need not be repeated in the Specifications.

a. The terms “or approved equal” or “or other acceptable” requires Contractor to follow the requirements for a Product Substitution.

1.3 QUALITY ASSURANCE

A. Source Limitations: Provide product of same kind, to fullest extent possible, from a single source.

B. Compatibility of Options: When Contractor is given the option of selecting between two or more products for use on the Project the product selected shall be compatible with products previously selected, even if previously selected products were also options.

C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturers or producer’s nameplates or trademarks on surfaces of products exposed to view in occupied spaces or on the building exterior.
1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.

1.4 PRODUCT SELECTION

A. General Product Requirements: Provide products that comply with Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.

1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

2. Standard Products: Where available, provide standard products of type and manufacturer used successfully in similar situations on other projects.

B. Product Selection Procedures: Product selection is governed by Contract Documents and governing regulations. Procedures governing product selection include the following:

1. Performance Specifications: Where Specifications set a standard of quality, provide product options complying with or exceeding the provisions of the Contract Documents and which are recommended by a manufacturer for the applications indicated. No Substitution Request is required. Owner may request and Contractor shall provide the documentation of the manufacturer’s recommendations for a particular product application. Performance specifications may be:

   a. A single named reference without the terms “or approved equal” or “or other acceptable”.

   b. No manufacturer is specified and requirements are specified by performance specifications may be: descriptive requirements, design requirements, performance requirements, reference standards and codes.

2. Closed Proprietary Specifications: Products by one or more manufacturers are specified and Specification Section does not allow for approval of other products by Substitution Request. No other product options will be accepted. Provide products and work as specified.

3. Open Proprietary Specifications: Products by one or more manufacturers are specified, and Specification Section allows for approval of other products by Substitution Request. Submit Substitution Request Form for other products to Owner under provisions of this Section.

4. Visual Matching: Where matching an established sample is required, the Owner’s decision will be final on whether a proposed product matches satisfactorily.

   a. Where there is no product available within the specified product category which matches satisfactorily and also complies with other specified requirements, comply with the provisions of the Contract Documents concerning substitutions for the selection of a matching product in another product category.
5. Visual Selection: Where specified product requirements include the phrase "...as selected from the manufacturer’s standard colors, patterns, textures..." or similar phrases, select a product and manufacturer that complies with other specified requirements. Owner will select the color, patterns and texture from the product line selected.

1.5 PRODUCT SUBSTITUTION

A. General: If a bidder or Contractor desires approval of some material or product other than that required by the Contract Documents it must submit a written request for approval of the proposed substitute item in accordance with the following requirements:

1. All such requests must be made on the Owner’s "Substitution Request Form".
2. No request for approval will be considered unless submitted in accordance with this Section.
3. Final decision as to whether an item is an equal or satisfactory substitution rests with the Owner.
4. Substitution request submittals shall be prepared, transmitted, and processed in accordance with Section 01 33 00, “Submittal Procedures”.

B. Substitution Requests: Every substitution request must state whether the item offered is equal or superior to the specified product. The substitute material or product must be accompanied by its reference in the Contract Documents and complete catalog, technical and other information. If applicable, include samples showing comparison of physical and other pertinent characteristics as required to establish equivalence of acceptability for the proposed application. Where specific test results are required by the Contract Documents, the comparison data for the proposed item shall be based upon the same test methods as those specified, or they shall be correlated to clearly demonstrate comparability. The same guarantee described for the specified product is required for the substitution.

C. During Bid Period:

1. Submit Substitution Request Form to Owner prior to the date identified in Section 00 21 00, "Instructions to Bidders."
2. Bidders will be notified by addendum of products accepted in addition to those specified. NO OTHER FORM OF APPROVAL, INCLUDING VERBAL OR IMPLIED, IS ACCEPTABLE AS INDICATOR OF ACCEPTED SUBSTITUTION REQUESTS.

D. After Receipt of Bid: Contractor shall indicate one or more reasons why a product substitution is required with a Substitution Request Form. Owner will notify Contractor in writing of decision to accept or reject the Substitution Request. Substitution Requests will not be considered except for the following reasons, which must be substantiated by the Contractor:

1. Unavailability: Specified item has been discontinued or is unavailable in time to meet Construction Schedule through no fault of the Contractor or Subcontractor.
2. Unsuitability: Subsequent information discloses the specified item as unsuitable, inappropriate, or unable to perform properly or fit the designated space.
3. Regulatory Requirements: A substitution is required to comply with Code interpretations by authorities having jurisdiction or insurance regulations.

4. Warranty: A manufacturer or fabricator declares the specified item to be unsuitable for the use intended or refuses to certify or warrant the performance of the specified item for the Project.

5. Owner’s benefit: In the judgment of Contractor, acceptance of the proposed substitution is clearly in Owner’s best interest because of cost, quality, or other consideration.

E. Coordination and Redesign: In making a Substitution Request the Contractor certifies that it will coordinate all Subcontractor’s Work required by the substitution, waives all claims for additional costs and/or time which subsequently become apparent as a consequence of the substitution, and at the Owner’s sole discretion will bear all Owner costs related to the substitution including costs of A/E’s services for investigation, evaluation and redesign, if necessary.

F. Owner’s Representative and A/E will not consider:

1. Substitutions if they are indicated or implied on Shop Drawings or other Project data submittals.

2. Substitution Requests which do not provide adequate or clearly defined information for complete and timely appraisal.

3. Substitutions which, if accepted, will require substantial revisions of Contract Documents.

4. Substitutions not submitted on a completed Owner’s Substitution Request Form or Owner approved facsimile.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the administrative and procedural requirements for executing a change in the Work as herein specified and further described in Part 7 of the General Conditions.

1.2 PRELIMINARY REQUIREMENTS:

A. Prior to submitting the first Change Order Request (COR), or responding to the first Change Order Proposal (COP), the Contractor shall submit a breakdown of wage rates using the COP Wage Rates form or format included in Appendix A. The breakdown will show:

1. Basic wage rate (based on L&I Intent to Pay Prevailing Wages or union agreement);
2. Fringe Package (based on L&I Intent to Pay Prevailing Wages or union agreement);
3. FUI (Federal Unemployment Insurance);
4. FICA (Federal Insurance Compensation Act);
5. Medicare;
6. SUI (State Unemployment Compensation Act);
7. WC (Workers Compensation).

B. Contractor shall submit verification of the above rates if requested by Owner's Representative.

C. Prior to submitting first Change Order Request (COR) or responding to first Change Order Proposal (COP) that involves equipment owned by the Contractor, the Contractor shall submit a list of all equipment anticipated to be used on the Project. Contractor shall provide the hourly rate based on the Equipment Watch Rental Rate Blue Book and as modified by the current AGC/WSDOT Agreement or other sources as referenced in the General Conditions. The Contractor shall use the COP Equipment Rates form in Appendix A to compute the equipment rate.

1.3 CHANGE ORDER PROCEDURES

A. Owner: Changes may be initiated by Owner through a Change Order Proposal (COP) submitted to Contractor (see Public Works Change Order Proposal form in Appendix A). Such a request is for information and pricing only, and is not an instruction to execute changes, nor to stop work in progress unless issued as a field order. Proposal will include:

1. Detailed description of changes, products, and location of modification in Project; (first part of COP, "Request")
2. Supplementary or revised drawings or specifications; and
3. Projected time span for making change. Statement as to whether overtime work is, or is not, authorized.
4. An updated Construction Progress Schedule may be requested if the COP impacts the existing Construction Progress Schedule.
B. Contractor Change Order Request (COR): Initiate changes by submitting a letter to Owner's Representative requesting a Change Order Proposal be issued. Include in the letter the following:

1. Description of proposed changes;
2. Reason for making changes;
3. A specific period of time during which requested price will be considered valid;
4. Effect on Contract Sum and Contract Time;
5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate;
6. Statement of why proposed change is not covered in Contract Documents; and
7. Include date the Work is to be completed.

C. Field Order: In situations where time is of the essence or an emergency condition exists, Owner's Representative may directly order a change to the Work by a written COP/FIELD ORDER signed by Owner's Representative. Field order will only be issued on an agreed "cost-not-to-exceed" basis either lump sum or time and material (2nd part of COP "FIELD ORDER").

D. Team Change Memorandum: All changes to the Work, except as defined by Section 00 50 00, 6.4.2 and those arising from unforeseen conditions, Owner requests, design errors, or regulatory changes shall be paid by the Contractor at no expense to the Owner. Nonetheless, the Contractor shall request the Owner's concurrence before executing these changes by submitting a Team Change Memorandum (see form in Appendix A) with the scope of the changed work clearly delineated. The Owner will note, by return endorsement, concurrence with the technical solution and whether or not funds for the change can be drawn from the Risk Contingency Account.

E. Change Order Pricing:

1. The cost of the change shall be marked up in accordance with General Conditions. No additional markups shall be allowed.

2. Contractor shall provide all backup pricing documentation for a change on the forms found in Appendix A. These forms or format shall also be the only acceptable documentation for all subcontractors. The forms consist of the following:
   a. COP GC/CM Breakdown Summary
   b. COP Subcontractor Breakdown Summary
   c. COP Cost Breakdown
   d. Owner's Representative may require Contractor to provide certified payroll
   e. Provide all other supporting documentation as required to substantiate the requested costs such as invoices for rental equipment, freight cost, etc. Total cost and time shall be brought forward to the COP form and signed and dated by Contractor.
F. Change Order Authorization:

1. Recommendation of Change Order Proposal is indicated by A/E's signature.

2. Upon signature and execution by Owner, the Change Order Proposal becomes a Change Order altering the Contract Time and Contract Sum, as indicated.

3. Contractor may only request payment for changes in the Work against an approved Change Order.

4. If either A/E or Owner disapproves the Change Order Proposal, the reason for disapproval will be stated. A request for a revised proposal or cancellation of the proposal will be shown.

G. Correlation with Contractor's Submittals:

1. Application of Payment forms shall record each Change Order as a separate item of work. Do not include a Change Order on the applications until the fully executed Change Order is received from the Owner with the adjusted Contract Sum.

2. Revise Construction Progress Schedule to reflect changes in Contract Time.

3. Upon completion of Change Order Work, enter pertinent modifications in Project Record As-built Documents.

H. Distribution

1. Upon authorization of a Change Order, Owner will transmit one signed copy each to Contractor and A/E. (See Public Works Change Order transmittal and Public Works Change Order Proposal forms in Appendix A.)

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the administrative and procedural requirements for Contractor payments as herein specified and further described in Part 6 of the General Conditions for GC/CM Projects at the University of Washington.

B. Owner’s forms included by reference for this Section include (See Appendix A):
   1. Application and Certificate for Payment on Contract
   2. Construction Invoice Voucher
   3. Retainage Invoice Voucher
   4. Monthly Subcontractors List and Certifications
   5. Certificate of Payment of Labor and Materials

1.2 PREREQUISITES FOR FIRST APPLICATION FOR PAYMENT

A. Prevailing Wage Forms: Submit Statement of Intent to Pay Prevailing Wages form, approved by the Department of Labor and Industries, prior to commencing the Work (see Part 5.04B of the General Conditions). The Owner will not make payment on an Application for Payment until the Contractor has filed with the Owner an approved copy of the form for the Contractor and every Subcontractor of every tier that performed work during the payment period and are included in an Application for Payment. The form shall list every classification of laborer, worker, or mechanic employed by the Contractor and Subcontractors. No exceptions. (Sample “Statement of Intent to Pay Prevailing Wage” form is in Appendix A). “Washington State Prevailing Wage Rates for Public Works Contracts” for the Project’s county of Work are included in Appendix B.

B. Schedule of Values: Submit and receive approval of the Schedule of Values allocating the Total Contract Cost, in a form acceptable to the Owner, before submitting the first Application for Payment. The approved Schedule of Values shall be used by the Owner as the basis for progress payments. Payment for Work shall be made only for and in accordance with those items included in the Schedule of Values.

1. Format: On 8-1/2” x 11” paper.
2. Make sum of total scheduled costs equal to the Total Contract Cost. Do not include State sales tax.

   a. Indicate individual Items of Work including, but not limited to:

      (1) Percent Fee;

      (2) Specified General Conditions;

         (a) Section 01 77 00 “Closeout Procedures” shall not be less than 10% of the Specified General Conditions.

         (b) Preparation and submittal to Owner of Construction Baseline Schedule and Submittal Schedule shall not be less than 3% of the Specified General Conditions.
(c) Preparation and submittal to Owner of monthly Progress Schedule updates shall not be less than 3% of the Specified General Conditions, with the value of each update apportioned equally.

(3) Maximum Allowable Construction Cost (MACC);

(a) Subcontract costs. As subcontracts are executed the Contractor shall revise the Schedule of Values to reflect the subcontract Work.

(b) Risk Contingency Account. As Team Change Memoranda are approved, revise the Risk Contingency Account to reflect the change.

(d) Negotiated Support Services.

b. For items on which progress payments will be requested for materials or equipment purchased/fabricated/delivered but not yet installed, show "initial value" for payment request and "value added" for subsequent stage(s) of completion on that unit of Work.

c. For each line item of installed value exceeding 10% of the MACC, show breakdown by major products or operations under each item.

d. Breakdown major work efforts by floor or phases or systems as appropriate for ease of review and confirmation of Work completed.

e. Breakdown mechanical and electrical systems or phases with material and labor as separate items.

f. Show each allowance as a discrete line item.

3. Round figures to nearest dollar amount;

4. Coordinate items of the Schedule of Values so that there is a corresponding item in the Progress Schedule.

5. Change orders and Team Change Memoranda are to be added as separate items to the Schedule of Values as they are approved by the Owner.

6. Revise as requested by Owner.

C. Subcontractors List: Submit a list of all contracted Subcontractors and major material suppliers consistent with Part 5.20A of the General Conditions.

1. Update list monthly with additional information from current awards.

D. Retainage: Submit instructions to Owner for the disposition of retainage funds.

1. In accordance with Part 6.04B of the General Conditions and chapter 60.28 RCW, Owner shall reserve a Contract retainage not to exceed five percent of the moneys earned by Contractor as trust fund for the protection and payment of:

a. The claims of any person arising under the Contract Documents;
b. The State with respect to taxes imposed pursuant to Titles 50, 51, and 82 RCW which may be due from such Contractor, and;

c. Owner for claims it may have against the Contractor.

2. Contractor’s written instructions should be addressed to the University of Washington, Capital Projects Office, Capital Projects Accounting, Box 352205, Seattle, Washington 98195.

3. At the option of Contractor, the monies reserved by Owner shall be:

a. Retained in a fund by Owner; or

b. Bonded by the Contractor (if approved by Owner) for all of the Contract retainage in a form acceptable to Owner; or

c. Deposited by Owner in an Owner’s interest bearing account in a bank, mutual savings bank, or savings and loan association; or

d. Placed in escrow with a bank or trust company by Owner.

(1) Escrow Agent: If the retained funds are to be placed in escrow, Contractor will select the escrow agent, subject to approval by Owner. The selected agent must be a bank or trust company in the State of Washington.

(2) Escrow Agreement: Pursuant to electing the escrow option, an escrow agreement shall be executed by Contractor, Owner, and bank. A completed and signed escrow agreement in a form acceptable to Owner must be on file with Owner for payment before Contractor’s first application is processed.

(3) Escrow Payments: As each progress estimate is presented for payment, Contractor shall make a vouchered request for the retained funds that are to be placed in escrow. Such requests should be prepared on Owner’s Retainage Invoice Voucher form and submitted in four copies with the related application for payments. Upon receiving a retainage invoice, Owner will issue a check payable to Contractor and the bank jointly. Such checks will be mailed to the bank and Contractor will receive copies of check transmittal letters.

(4) Escrow Investments: The bank shall invest the retained funds in bonds and other securities selected by Contractor from the following list approved by Owner:

(a) Bills, certificates, notes or bonds of the United States;
(b) Other obligations of the United States or its agencies;
(c) Obligations of any corporation wholly owned by the government of the United States;
(d) Indebtedness of the Federal National Mortgage Association;
(e) Time deposits in commercial banks, mutual savings banks, and savings and loan associations in the State of Washington;
(f) Deposits in savings accounts in commercial banks, mutual savings banks, and savings and loan associations in the State of Washington.

(5) The investments selected must mature on or prior to the date set for Substantial Completion, including extensions thereof or no later than forty five (45) days following the Final Acceptance of the Work. Interest on such investments shall be paid to Contractor by the escrow agent as it accrues.

(6) Escrow Costs and Fees: All escrow costs and fees shall be paid by Contractor, in accordance with the Escrow Agreement.

1.3 DRAFT APPLICATION FOR PAYMENT

A. Submit a draft Application for Payment for Owner’s review and comment. The cutoff date shall be 5 days prior to actual application or as otherwise agreed. Include projected costs to the end of the month in the pay request. Provide the following documents: (Draft Documents may be marked by hand.)

   a. Mechanical and Electrical Subcontractor’s draft monthly payment requests shall be submitted for review and comment prior to A/E’s and Owner’s review and comment of Contractor’s draft Application for Payment.
   b. List Change Orders approved prior to submission date individually, last on the form. Use Owner’s Change Order designation and description, similar to an original component item of work. Do not bill for Change Order Proposals until an APPROVED Change Order has been received incorporating the proposal.


3. Stored Materials: Requests for payment on materials stored shall be for materials properly stored on the Project Site. In addition to the requirements of the General Conditions payment for materials stored off-site shall be at the sole option of the Owner and comply with conditions stipulated by Owner. These conditions may include, but are not limited to:
   a. Invoice from Supplier;
   b. Insurance or Bond to cover total loss of material and time impact to Project;
   c. Contractor and its bonding company accepts total responsibility for the stored materials.

4. Monthly Progress Schedule updates with Contemporaneous Period Analysis.


6. Project Record As-built Drawings and Specifications, and for completeness and accuracy (after A/E’s review).

1.4 APPLICATION FOR PAYMENT

A. The Contractor shall submit the Application for Payment after including a response to the Owner’s comments of the draft application.

B. Contractor is cautioned to carefully check all extensions, totals, and required information for accuracy before formal submittal.

C. Submit three (3) copies of Application for Payment to the Owner’s Representative, or as directed.

D. Applications are to be signed by a responsible officer of Contractor. Do not sign in black ink. No photocopies of signature permitted.

E. Application for Payment shall include the following forms and documents:
   1. Application and Certificate for Payment on Contract;
   2. Construction Invoice Voucher (for the total amount due);
   3. Retainage Invoice Voucher (for the retainage amount);
   4. Monthly Subcontractors List and Certifications;
   5. Invoices for materials stored off-site, and;

F. Do not include certified payrolls unless requested by Owner’s Representative or required elsewhere.

G. When A/E finds Application for Payment properly completed and correct, they will sign and transmit all copies of Application for Payment to Owner for processing.

H. If A/E or Owner’s Representative find Application for Payment improperly or incorrectly executed, an annotated copy will be returned for a NEW SUBMITTAL.

I. Only minor corrections are allowed on original, with approval of Owner.

1.5 PRIOR TO FINAL APPLICATION FOR PAYMENT

A. The FINAL Application for Payment request will be accepted for processing only after satisfactory completion of the following:
   1. Application and Certificate for Payment on Contract;
   2. Construction Invoice Voucher (for the total amount due);
   3. Retainage Invoice Voucher (for the retainage amount);
4. Monthly Subcontractors List and Certifications;

5. Invoices for materials stored off-site;

6. Final Completion procedures are complete per Section 01 77 00, "Closeout Procedures";

7. Final Schedule of Values "Total Contract Cost" is submitted;

8. Apprentice and Journey Level Worker Utilization Report, and;

9. Building Componentization Report is submitted: The final Total Contract Cost shall be subtotaled for SP2 and SP3 work, and allocated to each of the following categories:

   a. Site Preparation;
   b. Exterior construction;
   c. Foundations and building structure;
   d. Exterior walls;
   e. Roofing;
   f. Interior construction;
   g. Floor covering;
   h. Fixed equipment;
   i. Elevators;
   j. HVAC;
   k. Plumbing and piping;
   l. Fire protection, and;
   m. Lighting and electrical.

1.6 RELEASE OF RETAINAGE

A. Pursuant to the completion of Work performed in accordance with the GC/CM Contract and Final Acceptance by the Owner, the following requirements must be satisfied prior to the release of retained Contract funds.

1. "Notice of Completion of Public Works Contract (REV 31 0020)": This Department of Revenue form will be completed by Owner on the date of Final Acceptance. Three copies of the notice will be mailed to the Department of Revenue and a copy will be transmitted to Contractor.

2. "Certificate of Payment of State Excise Taxes by Public Works Contractor (REV 31 0028)": Following receipt of Owner’s Notice of Completion and after determining that all taxes, interest and penalties due from Contractor have been paid, the Department of Revenue will issue this certificate to Owner, thereby notifying the Owner that it has no objection to the release of retainage to the Contractor.

3. "Certificate of Payment of Contributions, Penalties and Interest on Public Work Contract (EMS 8449 760)": Upon receiving a copy of Owner’s Notice of Completion from the Department of Revenue and determining that the Contractor is in compliance with the provisions of the Employment Security Act, the Employment Security Department will issue this certificate to Owner, thereby notifying the Owner that it has no objection to the release of retainage to the Contractor.
4. Upon receiving a copy of the Owner’s Request for Contract Release form after the Final Acceptance date, and determining that the Contractor is in compliance with the provisions of chapter 51 RCW for payment of industrial insurance premiums, the Department of Labor and Industries will issue a certificate for the Owner, thereby notifying the Owner that it has no objection to the release of retainage to the Contractor.

5. “Affidavit of Wages Paid on Public Works Contract” (F700-007-000): An Affidavit of Wages Paid, for the Contractor, each Subcontractor, and each sub-tier Subcontractor approved by the Industrial Statistician of the Department of Labor and Industries, must be submitted by the Contractor to the Owner. Contractors and Subcontractors may file the Affidavit of Wages Paid and Addendum B to the Affidavit either online at the following address:


or by completing the manual forms that may be obtained at the following website address:

http://www.Ini.wa.gov/FormPub/results.asp?Keyword=prevailing%20wage

6. Certificate of Payment of Labor and Materials: This Owner’s form shall be completed by the Contractor and returned to Owner. If the only exception to full payment to all Subcontractors is retainage owed to Subcontractors, the appropriate box on the form should be checked.

7. Invoice Voucher: If the retained funds are on deposit in Owner accounts, the Contractor shall prepare a Retainage Invoice Voucher for the total amount retained and submit to the Owner for payment. If these funds have been placed in escrow at the direction of Contractor, no further invoice is required.

B. Retainage will be paid by the Owner to the Contractor sixty (60) days following Final Acceptance, contingent upon Contractor’s compliance with provisions of public works statues and as stated above. If there are either unpaid taxes or unsatisfied claims of lien against the retained percentage, disbursement of retainage funds will be made in accordance with State law.

C. Address all transmittal of retainage documents to the Owner’s Contracts Office at University of Washington, Capital Projects Office, Box 352205, Seattle, Washington, 98195.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 GENERAL COMMUNICATION

A. The Owner shall designate, in writing, the Owner’s Representative for this Project.

B. Telephone communication and correspondence shall be between Contractor and Owner’s Representative.

C. Subcontractors: Do not contact members of the A/E or A/E’s consultants directly. Transmit problems or questions in writing using the Request for Information (RFI) form (see RFI form in Appendix A) through Contractor to Owner’s Representative.

D. In case of an EMERGENCY contact the Owner’s Representative.

E. The Owner intends to utilize an electronic document control system. (PROLOG) for construction communication with the Contractor and the A/E on this Project, (see Section 01 35 00, “Electronic Communications”).

1.2 CORRESPONDENCE

A. Address all correspondence to Owner’s Representative.

B. All correspondence to and from Contractor will be routed through Owner’s Representative.

C. Format: Number correspondence sequentially beginning with Serial Letter #1. Include University Project Name and Project number.

1.3 REQUEST FOR INFORMATION (RFI)

A. When field conditions or Contract Documents require clarification or verification by the A/E or A/E’s consultants, a written RFI is to be submitted per the following:

1. Identify the nature and location of each clarification/verification using the RFI form (see form in Appendix A). Provide as a minimum the following information;

   a. Project name and number;
   b. Date;
   c. Date response required by;
   d. RFI number;
   e. Subject;
   f. Initiator of the question;
   g. Indication of costs, if known;
   h. Location on site;
   i. Contract Drawing reference;
   j. Contract Specification section and paragraph reference;
   k. Descriptive text;
   l. Space for reply on same page as questions; and
   m. Single subject matter, 1 item each - architectural, civil, structural, mechanical, electrical

2. Number each RFI sequentially beginning with #001. Only one question per RFI. Also, they may be identified as GEN, MECH, ELEC, by sequential numbers.
B. Route: RFIs consistent with Section 01 35 00, Electronic Communications.

C. Clarifications: May only be discussed on-site or by telephone with A/E or A/E’s consultants, with concurrence of Owner. Incorporate the essence of a discussion on to an RFI Form. RFI responses which modify or change the Work will be authorized only by Change Order.

1.4 NON-CONFORMANCE REPORT (NCR)


B. Non-conforming Work: Work found defective or not complying with the Contract Documents, or accepted by a Substitution Request, are defined hereunto and in the General Conditions as Non-conforming Work.

C. Procedure: If, after an oral discussion or written notifications, the Contractor fails to correct Work that does not conform to the Contract Documents a Non-conformance Report will be issued. Upon receipt of NCR, Contractor shall take immediate action to resolve the Work to the Owner's satisfaction and approval or remove and replace with conforming Work, at Contractor's expense and with no increase in Contract Time. Corrective actions for non-conforming work shall be discussed at construction progress meetings.

1.5 COORDINATION

A. General Coordination:

1. Coordinate with Work of other sections to ensure that all fixtures, devices, switches, outlets, ducts, pipes, and similar items can be installed as shown without modifications to framing. Provide all blockouts, raceways and similar framing as required.

2. Coordinate the Work; do not delegate responsibility for coordination to any Subcontractor.

3. Anticipate interrelationship of all Subcontractors and their relationship with the total Work.

4. Resolve differences or disputes between Subcontractors and materials suppliers concerning coordination, interference, or extent of Work. Contractor’s decisions, if consistent with Contract Document requirements, shall be final.

5. The Contractor shall be in charge of this Contract and the Project, as well as directing and scheduling of all Work. Final responsibility for performance, interface, and completion of Work and Project shall be the Contractor’s.

6. Cooperation with other contractors during the term of this Project may be required within the building or other adjacent locations to the construction limits of this Project. The Contractor is to cooperate with the Owner in coordination of all work to prevent impact to this or other Owner sponsored construction projects.

B. Special Coordination:
1. The Contractor is responsible for receiving, unloading, storage and handling of Owner Furnished Contractor Installed (OFCI) items from the time of receipt through Substantial Completion.
   
a. The Contractor is responsible for protecting Owner-Furnished Contractor Installed (OFCI) and Owner Existing Contractor Installed (OECI) items from damage, including damage from exposure to the elements from the time of receiving and/or relocation. The costs to repair or replace items damaged while in the Contractor's possession shall be borne by the Contractor.

b. The Contractor shall coordinate all work with the area projects including the Sound Transit University Link, Husky stadium renovation and the UWMC inpatient tower work and shall not impact their construction operations.

c. The Contractor shall coordinate all project utility relocation work done by others, especially the Puget Sound Energy (PSE) gas line relocation.

d. The Contractor is not allowed to impact the Metro sewer trunk line or UW utility tunnel running underneath NW Pacific Place, or the UW pedestrian tunnel running underneath NW Pacific Street.

e. The Contractor is not allowed to impact the Triangle parking garage. Garage must remain operational around the clock. Short duration closures off hours may be granted upon sufficient notification.

f. Due to ongoing projects on campus, use of Stevens Way as a delivery route will need to be submitted for approval.

g. Only a portion of parking lot C12 is contemplated for use on this project. Partial use of C12 for staff at adjacent buildings must be kept open at all times.

C. Layout Drawings:

1. Prepare detailed layout drawings to a larger scale than the Contract Drawings in areas where the Work is of sufficient complexity to warrant additional detailing. This shall apply to the following areas:

   a. All work near Tunnels.
   b. All work in Triangle Garage near stairs and elevators.
   c. Gabions walls, concrete work, geofoam fill, and other materials that have layout drawings listed as a required submittal.

2. Submit layout drawings for review before commencing shop fabrication or field erection.

   a. Coordinate the Work to provide adequate clearances for installation and maintenance of equipment.
   b. Arrange pipes, ducts, raceways and equipment to permit ready access to valves, cocks, traps, starters, motors, control components.
   c. Arrange raceways, wiring and equipment to permit ready access to switches, motors and control components. Doors and access panels shall be kept clear.

D. Mechanical and Electrical Coordination:

1. Resolve all “tight” or restricted conditions involving Work of various sections in advance of installation.

2. If necessary, and before Work proceeds in these areas, prepare supplementary drawings for review showing all Work in “tight” areas.
a. Provide supplementary drawings at no increase in Contract Sum.

E. Job Site Field Measurements and Templates:

1. Obtain field measurements required for accurate fabrication and installation of Work included in the Contract Documents. Exact measurements are the Contractor’s responsibility.

2. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Verify in field.

E. Work Plans:

1. Provide work plans for protection of the following:

   a. All work above or within 20-feet of Triangle garage.
   b. All work above or within 10-feet of Tunnels.
   c. Drilled shafts near the Metro sewer.
   d. Retrofit of Metro sewer manhole.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for meetings during construction in addition to the requirements specified elsewhere in the Contract Documents.

B. Contractor and Subcontractor representatives attending meetings must be qualified and authorized to act on behalf of their firms.

C. The Owner will utilize an electronic document control system with the Contractor and A/E on this Project (see Section 01 35 00, “Electronic Controls”).
   1. Meeting minutes shall be distributed electronically by e-mail with construction activity data attachments.

1.2 PRECONSTRUCTION MEETING

A. Owner will schedule a preconstruction meeting to be held prior to the Contractor mobilizing and beginning any Work. This meeting is to review Contract administration requirements and mobilization procedures.

B. Meeting location: To be determined.

D. Participants shall include:
   1. Contractor's Project Manager, Superintendent, CQC Representative, Safety and Health Officer, and Traffic Engineer;
   2. Owner's Representative, Project Manager, Safety Director.
   3. A/E, and the A/E’s sub-consultants as appropriate;
   4. Owner’s Consultants, as appropriate;
   5. Others, including the Contractor’s major Subcontractors, as appropriate.

D. Owner's Representative will:
   1. Administer the meeting.

E. Contractor will:
   1. Record and distribute copies of minutes within seven days of the meeting to all meeting participants.

F. Agenda: Discussion will pertain to detailed information, such as:
   1. The Work – including, but not limited to;
      a. Schedule and phasing requirements.
      b. Contractor’s use of premises.
      c. Special conditions and coordination.
   2. Communications – including, but not limited to:
a. Chain and persons authorized to direct changes.
b. Requests for Information (RFI), field decisions, and clarifications.
c. Non-Conformance Reports.
d. Hazard communication.
e. Project meetings.

3. Contractor’s Site Specific Safety Plan;
4. Administrative and procedural requirements including, but not limited to;
   b. Progress payment.
   c. Submittals - including Contractor’s Construction Progress Schedule.
   d. Electronic Communications, Prolog®.
   e. Apprentice and Journey Level Worker Utilization Report.

5. Project Green Roads requirements and documentation, if any;
6. Owner testing and inspection;
7. Contractor Quality Control;
8. Temporary Facilities and Controls including, but not limited to;
   a. Deliveries and storage.
   b. Temporary utilities and enclosures.
   c. Security procedures.
   d. Noise and vibration control.
   e. Cutting, patching, and field engineering.
   f. Utility shutdowns.
   g. Contractor parking.
   h. Housekeeping and waste management.
   i. Infection control - for medical facilities projects.

9. Closeout Procedures – including Project Record documents;
10. Other information, as appropriate.

G. Contractor shall conduct a like meeting, covering the same body of information, with each Subcontractor’s project manager and foreman supervising the Work prior to the performance of any work on-site by that Subcontractor.

   1. Provide Owner copies of meeting minutes prepared by the Contractor with each Subcontractor, when requested by Owner.

1.3 CONSTRUCTION PROGRESS MEETINGS

A. Construction progress meetings shall occur weekly until Substantial Completion has been achieved.

B. Meeting location: Contractor's field office, or as mutually agreed.

C. Participants shall include:
   1. Contractor's Project Manager, Superintendent, CQC Representative, and Safety and
Health Officer as appropriate;
2. Owner’s Representative and Project Manager;
3. A/E, and the A/E's sub-consultants as appropriate;
4. Owner’s Consultants, as appropriate;
5. Others, as appropriate.

D. Contractor will:
1. Administer the meeting.
2. Provide schedules, logs and other construction activity data in support of the issues discussed and recorded in meeting minutes.
3. Record and distribute copies of minutes prior to the next progress meeting to all meeting participants and provide copies at each meeting.

E. Agenda: Discussion will pertain to items, such as:
1. Review and approve minutes of previous meeting noting exceptions, if any.
2. Review Work progress since previous meeting.
3. Review plans for progress during subsequent Short Interval Schedule work period.
   a. Identify pending meetings.
   b. Discuss safety activities and Job Hazards Analysis.
4. Discuss field observations, problems, and conflicts.
   a. Identify problems impeding the Construction Progress Schedule.
5. Review Quality Control.
   a. Non-Conformance Reports - discuss corrective Work actions.
   b. Infection control - for medical center projects.
6. Review Submittal Schedule and RFIs - present methods to expedite as required.
7. Review off-site fabrication and delivery schedules.
8. Review proposed changes in the Work and substitution requests for;
   a. Timely processing.
   b. Effect on Construction Progress Schedule and on completion date.
   c. Effect on any other contracts of the Project.

1.4 PRE-INSTALLATION MEETINGS

A. Pre-installation meetings shall be held prior to the Contractor or Subcontractors beginning work on each definable feature of the Work identified in the Contract Documents and as required by the Owner’s Representative. Notify Owner's Representative at least ten (10) working days in advance of each pre-installation meeting. Meeting examples include, but not by way of limitation:
1. Site clearing and excavation;
2. Demolition and remediation;
3. Site utilities;
4. Bridge abutments
5. Bridge decking
6. Curb and gutter work
7. Paving
8. Landscaping and restoration;
9. Concrete;
10. Masonry;
11. Structural steel;
12. Water and damp proofing;
13. Finishes, as appropriate;
14. Mechanical and Electrical systems as appropriate;
15. Specialty items;

B. Meeting location: Contractor’s field office, or as mutually agreed.

C. Participants shall include:

1. Contractor's Superintendent, CQC Representative, and Safety and Health Officer, as appropriate;
2. Subcontractor’s project manager or foreman supervising the Work, as appropriate;
3. Owner's Representative;
4. A/E, and A/E sub-consultants as appropriate;
5. Owner’s Consultants, as appropriate;
6. Others, as appropriate.

D. Agenda:

1. Review Pre-installation CQC Work Plan (see Section 01 45 00, “Contractor Quality Control”);
2. Review Contract requirements;
3. Materials - available and ready for use;
4. Submittals;
5. Persons responsible for the Work;
6. Tests - required tests, criteria for performance, who samples and how often?
7. Safety procedures and requirements;
8. Substrate - criteria for substrate;
9. Other items, as appropriate.

E. Contractor will:

1. Administer the meeting.
2. Record and distribute copies of minutes within seven days of each meeting to all meeting participants.

1.5 CHANGE ORDER MEETINGS

A. Change order meetings shall be held to review and resolve any change order proposals, change order requests, or other change order issues pertaining to Contract Modification.
Meetings shall be held monthly until all Change Order Proposals are resolved.

B. Meeting location: To be determined.

C. Participants shall include:
   1. Contractor's Project Manager, or cost engineer as appropriate;
   2. Owner's Representative;
   3. A/E, and A/E's sub-consultants as appropriate;
   4. Owner’s Consultants, as appropriate;
   5. Others, as appropriate.

D. Owner's Representative will:
   1. Administer the meeting.

E. Agenda:
   1. Discussion will pertain to review of Change Order Proposals, scope, and estimated costs.

1.6 DRAFT APPLICATION FOR PAYMENT REVIEW MEETINGS

A. Draft Application for Payment review meetings shall occur monthly.

B. Meeting location: To be determined.

C. Participants shall include:
   1. Contractor's Project Manager;
   2. Owner's Representative;
   3. A/E, and A/E’s sub-consultants as appropriate;
   4. Owner’s Consultants, as appropriate;
   5. Others, as appropriate.

D. Owner's Representative will:
   1. Administer the meeting.

E. Contractor will:
   1. Present the draft monthly Application for Payment together with required back up information for review and comment by the Owner and A/E.
   2. Revise and submit the monthly Application for Payment in accordance with the findings and agreements of the meeting.
F. A/E will:

1. Review the Contractor's draft Application for Payment in accordance with the progress of the Work and requirements of Section 01 29 76, "Progress Payment Procedures".

G. Agenda: Discussion will pertain to items such as:

1. Percent of work complete.
2. Off-site storage.
4. Percentage of subcontract payment allocations.
5. Apprentice Utilization and Journey Level Report.
6. Other items as identified by Owner and Contract Documents.

1.7 MONTHLY SCHEDULE UPDATE MEETINGS

A. See Section 01 32 16, "Construction Progress Schedule"

1.8 A/E FIELD REPORT MEETINGS

A. A/E Field report meetings shall occur monthly until Substantial Completion.

B. Meeting location: To be determined.

C. Participants shall include:

1. Contractor's Project Manager and Superintendent;
2. Subcontractor(s) representative(s), as appropriate;
3. Owner's Representative;
4. A/E, and A/E’s sub-consultants as appropriate;
5. Owner’s Consultants, as appropriate;
6. Others, as appropriate.

D. Contractor will:

1. Administer the meeting.
2. Maintain a field report action/resolution summary of all A/E field observations.
3. Ensure corrective measures are taken with respect to field report elements noted as non-conforming in accordance with the Contract Documents.

E. A/E will:

1. Call attention to the Contractor and Owner discrepancies in the Work, documented in the Contract Documents and field reports.

F. Agenda:

1. Discussion will pertain to unresolved field report issues including, but not limited to, the quality of the Work, missing or incomplete work elements, and corrective actions.
1.9 SPECIAL MEETINGS

A. Special meetings may be called at the discretion of the Owner or Contractor for the purpose of coordinating specific information or resolving special issues related to the Project.

B. Contractor shall record and distribute copies of minutes within three days of the meeting to all meeting participants.

PART TWO - PRODUCTS (Not Used)

PART THREE - EXECUTION (Not Used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements, in addition to those defined in the General Conditions for GC/CM Projects at the University of Washington, for schedule software, Baseline Progress Schedule preparation, monthly Progress Schedule updates, contemporaneous period schedule analysis, submittal schedules, and short interval schedules.

B. Related Sections:

1. 01 26 00, “Contract Modification Procedures”
2. 01 29 76, “Progress Payment Procedures”
3. 01 50 00, “Temporary Facilities and Controls”
4. 01 77 00, “Closeout Procedures”

C. Owner's forms included by reference for this Section include (see Appendix A):

1. Short Interval Schedule
2. Contemporaneous Period Schedule Analysis

D. As used in this Section, “Progress Schedule” refers collectively to “Baseline Progress Schedule” and “monthly Progress Schedule updates”.

1.2 SCHEDULE SOFTWARE

A. The Contractor shall provide Owner an authorized copy, including all original manuals, of the latest version of Primavera Project Management® for Windows or an alternate Owner approved computer scheduling software with equivalent functionality. The selected software must be capable of performing baseline-to-current schedule comparisons, cost and resource loading functions, and have the option of executing scheduling calculations in either "retained logic" or "progress override" mode. Activities must be able to process lead and lag time relationships, start-to-start or finish-to-finish relationships, and be capable of being "hammocked" as required. The software must be registered to the Owner and be provided in Windows format and on CD format compatible with the Owner's computer.

B. If Primavera Project Management® is not used by the Contractor, the Contractor shall provide training and continuing service at the Contractor's cost to Owner's personnel in the use of the selected software.

C. Total Float is defined as the amount of time between the earliest start date and the latest start date, or between the earliest finish date and the latest finish date of an activity on the Progress Schedule. Float is not for the exclusive use of either the Contractor or the Owner unless otherwise identified in the Contract Documents.

1. Extensions of time for Contract performance will be granted only to the extent that equitable time adjustments to the affected activity or activities exceed the total float time along the affected paths of the current Progress Schedule at the time a Field Order, or Change Order, was issued for the change.
D. All Progress Schedule submittals, including monthly Progress Schedule updates, will be reviewed jointly by the Owner's Representative and the Contractor. Such review of the Contractor's schedules shall not constitute an approval or acceptance of the Contractor's construction means, methods, or sequencing or its ability to complete the Work in a timely manner.

1.3 PROGRESS SCHEDULE

A. Within sixty (60) calendar days after GC/CM Contract execution, the Contractor shall prepare and submit to the Owner, for review and comment, a preliminary Progress Schedule utilizing a Critical Path Method (CPM) logic, based on the Contract Documents. The Owner will review the preliminary schedule for conformance with the Contract Documents and provide comments within fourteen (14) calendar days of receipt from the Contractor. The Contractor shall respond to all comments and provide the Owner a Baseline Progress Schedule within fourteen (14) calendar days of receipt of the Owner’s comments.

B. Once the Baseline Progress Schedule is submitted to the Owner, the Progress Schedule shall be formally established as the baseline file within the Contractor’s scheduling software. This baseline file shall not be modified without the Owner’s written approval.

1. The amount specified in Section 01 29 76 shall be withheld from the Contractor’s monthly Application for Payment if the Baseline Progress Schedule is past due.

C. The Baseline Progress Schedule shall be the basis that the Contractor shall used: plan, organize, and execute the Work; record and report actual performance and progress through updates, and; show how the Contractor plans to complete all remaining Work. The Baseline Progress Schedule and monthly Progress Schedule updates shall be the basis for consideration and analysis of requests for time extensions as specified below. The schedule shall be in the form of an activity oriented precedence network diagram.

D. The Baseline Progress Schedule and monthly Progress Schedule updates shall be constructed to show the order in which the Contractor proposes to carry out the Work and to indicate the restrictions of access to and availability of work area, and availability and use of manpower, materials, equipment, and include all activities of trade contractors, equipment vendors, suppliers, and Negotiated Support Services expenses. The Progress Schedule shall incorporate contractually specified limitations and restrictions, and contractually specified milestones. Construction activities shall match or be correlated with the pay items in the approved Schedule of Values. The Progress Schedule shall be prepared in sufficient detail with the assignment and coding of all activities by the Contractor and Subcontractors in consideration of, but not limited to, the following Work activities:

1. Access and availability to the Project Site, including road closures;
2. Interfaces and dependencies with preceding, concurrent, and succeeding contractors, if applicable;
3. The type of work to be performed and labor trades involved;
4. All procurement, manufacturing, fabrication (both on-site and off-site), and delivery activities for all major materials and equipment;
5. Shutdowns of existing Owner’s equipment and utility services;
6. Required delivery dates of OFCI equipment and materials;
7. Testing, including submission and approval of test results;
8. Approvals required by regulatory agencies or other third parties, including obtaining an
Occupancy Permit;
9. Coordination for Owner’s occupancy including Owner’s cleaning, OFOI equipment and furnishings installations;
10. Planning for phased occupancy by the Owner, with intermediate completion dates;
11. Contractor’s preliminary cleaning and final cleaning operations;
12. Contractor’s Final Punch List Report, Owner’s Final Inspection (Punch List), Contractor’s corrections, and Owner’s re-inspection;
13. Substantial Completion and Final Completion activities and milestones, and Final Acceptance.

E. The activities defined in the Progress Schedule shall represent the planned durations in anticipation of normal man-power and equipment utilization in durations of whole working days. No activity durations shall exceed twenty two (22) working days. If approved by the Owner, longer durations may be allowed for non-construction activities such as procurement, delivery, or submittal activities. All durations shall be determined based upon resource planning under contractually defined on-site work conditions. In calculating activity durations, normal inclement weather shall be considered. The Contractor shall schedule the Work to minimize the effect of adverse weather. The Contractor shall also protect the work site from the effects of adverse weather or take other necessary measures such that the Work can be completed within the time established in the Contract Documents and include these provisions in the schedule as appropriate.

F. Schedule activity identification codes shall not be alphanumeric unless approved by Owner.

1. Activity Description: Provide adequate information to readily identify each activity up to 48 characters in the general descriptive format: action, item, location (such as Install Steel Studs 3rd Floor).

2. Activity Codes: The Contractor shall develop and provide a complete, efficient and understandable Work Breakdown Structure (WBS) code to submit to the Owner for review and approval. In addition to the WBS, activity codes may be created and assigned a conventional WBS scheme, activity codes shall be used in lieu of the WBS. Suggested character fields for the code structure are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAS</td>
<td>1</td>
<td>Phase or stage</td>
</tr>
<tr>
<td>TYPE</td>
<td>4</td>
<td>Type of activity</td>
</tr>
<tr>
<td>FLOR</td>
<td>1</td>
<td>Floor</td>
</tr>
<tr>
<td>AREA</td>
<td>4</td>
<td>Area and/or room</td>
</tr>
<tr>
<td>RESP</td>
<td>7</td>
<td>Responsible party</td>
</tr>
<tr>
<td>SPEC</td>
<td>5</td>
<td>CSI section number</td>
</tr>
<tr>
<td>OF/C1</td>
<td>4</td>
<td>Owner Furnished/Contractor Installed Equipment</td>
</tr>
</tbody>
</table>

3. The Critical Path shall be clearly indicated on all diagrams submitted. An activity is critical when it is part of the longest duration pathway(s) through the CPM network or when its total float is less than or equal to zero.

4. At the Owner’s request, furnish a written narrative of the Contractor’s determination of durations for particular activities. Such explanation may include the number of crews, crew composition, number of shifts per day, number of hours in a shift, and number of work days per week, construction equipment, material quantities, productivity qualifiers.
(such as weather), etc.

5. At the Owner's request, a written explanation shall be provided for leads and/or lags on relationships and for constrained dates. These scheduling constraints shall be disallowed unless a compelling reason exists for their use.

6. Clearly identify activities which are planned to use of overtime, double shifts, work on weekends or holidays.

7. Schedule Statistics Report: Each submittal involving graphical and/or tabular reports using CPM shall be accompanied by a Schedule Statistics Report. Include a listing of activities with open ends and out-of-sequence progress, constraints, the schedule calculation modes (retained; contiguous or interruptible) and other statistics that are normally a part of this report.

G. Activities shall be cost-loaded. The estimated costs to perform each Work activity shall be assigned to each activity included in the network as specified by the scheduling software. The sum of the costs assigned to all activities shall equal the Total Contract Cost in the approved Schedule of Values. No activity costs shall be assigned to manufacturing or delivery activities unless approved by the Owner. Using the cost assigned to each activity, develop a cash flow projection demonstrating the estimated cash draw down by month over the period of the Project. The cash flow projection shall be illustrated by a graphic display as generated by the computer scheduling software.

1. Contractor shall provide Owner with a formula to convert cost loaded activities to manpower requirements. This formula shall be based upon a percentage allocation of the cost loading for labor costs and an average hourly labor cost for the Project.

2. The total cost of each Subcontractor's construction activities in the Final Schedule of Values "Total Contract Cost" shall be equal to the total Subcontractor's Contract Sum amount, (see Section 01 29 76 "Progress Payment Procedures").

3. Contractor may request and Owner may approve, at its sole discretion, an alternative resource-loading plan if it is evaluated equally beneficial.

H. Tabular reports required by this Section shall be prepared by the scheduling software. Reports shall contain a listing of the activities as required for the type of report being prepared. Each activity shall include the following information:

1. Activity ID;
2. Activity Description;
3. Original and remaining durations in work days;
4. Early start and finish dates;
5. Actual start and finish dates (as applicable for monthly update reports);
6. Late start and finish dates;
7. Total float in work days;
8. Percentage of activity completed;
9. The budgeted cost, if cost-loaded;
10. Assigned activity codes;
11. Predecessor and successor activity numbers;
12. Leads/Lags on activity relationships;
13. Activities with constraints, and;
14. Reportable milestone activities, as agreed with Owner.

I. The Contractor shall prepare computer generated tabular reports as part of the initial schedule submission and for each monthly update thereafter as follows:

1. A list of the “nearly critical” (Total Float is equal to or less than 5 days) activities, sorted by activity number with predecessor and successor relationships;
2. The Short Interval Schedule.
3. Other reports that the Owner and Contractor may negotiate as the Project evolves.

J. The Contractor shall submit the Progress Schedule consisting of the reports and diagrams as specified by this Section monthly, in the following quantities.

1. One copy of a Primavera Project Management® (or approved equal) generated detailed network diagram displaying all activities in a time scaled format with their logical relationships. The network need not be confined to a single sheet but shall be printed on either C or D drawing size.
2. One copy of the Primavera Project Management® (or approved equal) updated project file in its native format on a CD compatible with the Owner's computer.

K. Qualifications: The Contractor shall submit the resume(s) of the designated person(s) responsible for schedules and reports (the "Contractor's Scheduler"), who is not the Project Manager or Superintendent. The "Contractor's Scheduler" shall have demonstrable capability to plan, coordinate, execute, and monitor a CPM schedule as required for this Project. Submit the qualifications of the "Contractor's Scheduler" no later than five (5) days after the GC/CM Contract execution. The Owner's Representative will approve or reasonably disapprove the proposed "Contractor's Scheduler". In the event of disapproval; a new scheduler shall be proposed within one (1) week and be subject to the same consideration criteria as noted above.

L. Certification: When requested by the Owner, submit certification that each Subcontractor and major equipment supplier has participated in, reviewed, and concurs with the Progress Schedule and the associated cost data as it relates to their Work.

1.4 MONTHLY PROGRESS SCHEDULE UPDATES

A. The Contractor is required to prepare and submit monthly Progress Schedule updates and to participate in monthly schedule update meetings with the Owner as described below.

1. Timely submission of updates is of significant and crucial importance to the management of the Project. Lack of, or late receipt of, updates diminishes their value to the Owner. If a monthly Progress Schedule update is not submitted to and reviewed with the Owner prior to the Contractor submitting its monthly Application for Payment; the monthly Schedule of Values amount for Progress Schedule updates may, at the Owner's sole judgment and discretion, be reduced from the Specified General Conditions by a unilateral Change Order (see Section 01 29 76, "Progress Payment Procedures").
B. The Contractor shall prepare monthly Progress Schedule updates to reflect work progress achieved since the previous update. Historical performance data and/or records shall not be changed without approval of the Owner.

C. The Contractor shall, in a second and subsequent report, incorporate any logic and duration changes that represent its revised planning, provided all such changes are identified and submitted to the Owner for comment in the narrative report required herein this Section.

D. The Contractor shall use and maintain a fixed end date when generating the required reports and diagrams for the Owner as specified by this Section. The fixed end date shall be the Substantial Completion date. The fixed end date will be adjusted in subsequent updates only to reflect approved time extensions incorporated by Change Order.

E. The Project shall be rescheduled each reporting period with:
   1. An updated data date.
   2. Actual start/finish dates.
   3. Percent complete.
   4. Remaining durations (for each activity in the “status” or “current file”).

F. Show changes occurring since the previous schedule submission, such as:
   1. Any major changes in scope.
   2. Activities modified since previous submission including, but not limited to, logic changes.
   3. Revised projections for progress and completion, as applicable.
   4. Any other identifiable changes.

G. The Contractor shall account for all rain days, for major events, and similar excusable non-compensable delays, during which little or no work is progressed and that are acknowledged by the Owner, in the period within which the events occur. The Contractor may account for such delays within the Contemporaneous Period Schedule Analysis and the Progress Schedule update by treating the events as it would a typical holiday at the calendar function of the software. By whatever method the Contractor chooses to account for such delays and events, a narrative description of the accounting shall be included with the narrative report required herein this Section.

H. The Construction Progress Meeting shall be held prior to the Owner’s review and comment of the Contractor’s monthly draft Application for Payment, unless otherwise approved by Owner.

   1. The Contractor shall provide copies of two tabular reports:
a. A total float report clearly indicating the current critical path through Substantial Completion.

b. A report of activities sorted by early start dates commencing with the previous monthly progress update and including all updated activities during the previous month. Actual progress of the previous month will be recorded and incorporated into the update.

2. The Contractor shall provide copies of a narrative report to include:

a. A description of the Work that has progressed.

b. An explanation of the Work that had been scheduled to be performed in the previous period but as not performed, and why is was not performed.

c. Anticipated delay and impact on schedule.

d. Corrective action recommended and its effect.

e. A discussion of the Work scheduled for the upcoming period noting any issues or events that could impact this work.

f. If the Contractor intends to make logic or original activity duration change(s), the report will include such changes. To facilitate Owner's review the Contractor will provide a "Claimdigger" report which indicates all proposed changes to the schedule.

3. The Contractor and Owner shall review these reports and discuss any differences or issues raised.

1.5 CONTEMPORANEOUS PERIOD SCHEDULE ANALYSIS

A. It is the Owner's desire and intent to resolve all issues affecting the Substantial Completion date in a timely, efficient, and effective manner. To achieve this goal, the Owner and Contractor shall participate in contemporaneous analyses of all delays and advances of the schedule by application of the Contemporaneous Period Schedule Analysis method. The Contemporaneous Period Schedule Analysis shall coincide with the monthly schedule update meetings.

1. Format for the Contemporaneous Period Schedule Analysis should be similar to the Owner’s form.

B. Assessment of impacts due to changes or other events, in accordance with the Contemporaneous Period Schedule Analysis method described herein, must be performed on the most recent update of the Progress Schedule. Further, impacts due to changes or other events shall be assessed utilizing the Progress Schedule update that represents the data date closest to, and just prior to, the date of the impacting event. An alternative method can be to progress the schedule to a data date that represents the date of the impacting event. Subsequent to the assessment of schedule sequences representing the impacting
events, the schedule may be updated to the next data date with appropriate logic or duration changes resulting from the impacting events. All data shall be provided to the Owner.

C. The logic and planning elements of the Progress Schedule are the Contractor’s responsibility.
   1. No Contract Time shall be modified unless directed by an approved Change Order.

D. Submission of a valid monthly Progress Schedule update and the completion of the Contemporaneous Period Schedule Analysis are conditions precedent to the review and approval of any request for an extension in the Contract Time. Failure to complete monthly Progress Schedule updates and to participate in Contemporaneous Period Schedule Analysis will defer consideration of any time extensions by the Owner until the Work is completed and all as-built progress can be analyzed by the Owner. Further, the Owner will assess liquidated damages, if any, regardless of the status of any requests for time extensions pending, until any such requests are resolved.

E. The Contractor shall obtain training by a qualified consultant in the application of the Contemporaneous Period Schedule Analysis method. The training shall be provided to appropriate Contractor field personnel, appropriate major Subcontractor personnel, and appropriate Owner personnel. The training should not exceed one day. The requirement for training may be waived by the Owner provided the Contractor can demonstrate sufficient working knowledge of the Contemporaneous Period Schedule Analysis method. The Contractor shall bear all costs for training specified herein.

1.6 SUBMITTAL SCHEDULE

A. General: Within ten (10) calendar days following the Owner’s receipt of the Baseline Progress Schedule, the Contractor shall prepare and submit to the Owner a complete schedule of work related submittals based on the Progress Schedule, as required by the Contract Documents (“Submittal Schedule”). Correlate Submittal Schedule with the listing of principal Subcontractors.

   1. The amount specified in Section 01 29 76 shall be withheld from the Contractor’s monthly Application for Payment if the Submittal Schedule, referenced in 1.6 of this Section, is past due.

B. Form: Prepare Submittal Schedule in chronological sequence of submittals. Show category of submittal, name of Subcontractor, generic description of work covered, related Specification Section numbers, activity or event code on the Progress Schedule baseline file, scheduled date for first submission, and blank columns for actual date of submittal, re-submittal, and final release or acceptance by the A/E. The Submittal Schedule shall be prepared in sufficient detail and in consideration of, but not limited to, the following:

   1. Preparation and submission of shop drawings, layout drawings, product data, material samples, and mock-ups.

C. Update the Submittal Schedule monthly and submit to Owner.
1.7 SHORT INTERVAL SCHEDULE

A. Short Interval Schedule: Prepare and update weekly a four (4) week Short Interval Schedule. Show previous week of actual progress (planned vs. actual performance). Forecast three (3) weeks of start and completion dates for each activity, task or event in comparison to the Progress Schedule.

1. Activities in the Short Interval Schedule shall relate directly to activities in the Progress Schedule.

B. Format for the Short Interval Schedule should be similar to the Owner’s form. This format is reproducible from the available Primavera Project Management® report formats; however, the Contractor may submit an alternative format that must first be approved by the Owner. The format shall include comment annotation as necessary.

C. Copies of the Short Interval Schedule shall be provided at the Construction Progress Meetings and will be used as a basis for discussion of progress and planned work at the meetings.

PART 2 - PRODUCTS (Not Used)

PARK 3 - EXECUTION (Not Used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section generally includes administrative and procedural requirements for submittals required for performance of the Work, including:

1. Shop Drawings
2. Product Data
3. Samples and Mock-ups

1.2 SUBMITTAL PROCEDURES

A. Coordination: Coordinate transmittal of submittals for related elements of work to ensure there be no delay in processing due to the need to review submittals concurrently for coordination.

1. A/E reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

2. For product substitution see Section 01 25 00, "Substitution Procedures".

3. Allow (14) fourteen calendar days turnaround for each submittal, from time of receipt by the Owner's Representative. Complex submittals or several submittals within a short time frame will require a longer turnaround time. Provide a "Priority List" when submitting several submittals to the A/E. Submittal sequencing should coincide with Section 01 32 16, "Construction Progress Schedule." Allow additional time to permit coordination with subsequent submittals. If there is a delay in the submittal process due to coordination, the Owner's Representative will advise Contractor.

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Name the entity that prepared each submittal on the label or title block.

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

   a. Project name and date, including Owner's project number
   b. Name and address of A/E
   c. Name and address of Contractor and Subcontractor
   d. Name and address of supplier and name of manufacturer
   e. Number and title of appropriate specification section
   f. Drawing number and detail references, as appropriate.

2. Provide a space approximately 4" x 5" for action stamp to record the A/E's review.

C. Submittal Transmittal: Package each submittal appropriately in manageable quantities and transmit from Contractor to Owner's Representative. Submittals received from sources other than Contractor will be returned without action.
1. Address no more than one topic or related topics on a single transmittal (i.e. mechanical items will not be submitted under same transmittal with electrical items or group miscellaneous specialties; shoring not with foundation).

2. Record relevant information, deviations, and requests for data, including minor variations and limitations from the Contract Documents.

3. Shop drawings, product data, samples, and mock-up as required for submission by the specifications are to be submitted to the Owner’s Representative for A/E’s review/approval. The number of submittals required is noted in the parenthesis.
   a. Shop Drawings: (1) reproducible (7) prints
   b. Product data: (8) copies
   c. Samples: (5) samples
   d. Mock-ups: As required by any technical specification section
   e. Demonstrations: As required to facilitate installation and inspection
   f. Reference applicable mechanical and electrical specifications for additional submittal requirements.

4. Material and Color Submittal: Submit samples of actual colors or materials.

5. Number submittals as follows: Numerical Order, Spec Section, Revision Number.

6. In the event of the need to "revise and resubmit" a submittal, resubmit same in acceptable form/content, clearly identifying deviations from previous submittal content.

7. Although the Contractor is responsible for ensuring that all provisions of this heading are achieved, the cost of the submittals may be included in subcontract bid packages.

1.3 SHOP DRAWINGS

A. General: Submit drawings drawn to accurate scale. Do not reproduce Contract Documents or copy standard information for use as Shop Drawings. Standard information prepared without specific references to the Project is not a Shop Drawing.

B. Drawings Include: fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
   1. Dimensions;
   2. Identification of products and materials included;
   3. Compliance with specified standards;
   4. Notation of coordination requirements;
   5. Notation of dimensions established by field measurements; and
   6. Any deviation from contract drawings or specifications
   7. Date when review has to be finalized to meet schedule.

C. Sheet Size: Except for templates, patterns and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2" x 11", but no larger than 36" x 48".

D. Coordinated Shop Drawings
1. Contractor shall coordinate the work of the Subcontractors to prepare and submit Composite Coordinated Shop Drawings. Prepare shop drawings at a scale not less than 1/4” = 1’0”. Clearly show how the work is to be installed or constructed in relation to the work of other Subcontractors. Demonstrate all Subcontractors have coordinated their work to provide maintenance access to equipment as required by the Contract Documents. Required drawings shall include but not be limited to as follows:

   a. Contractor, working with the Mechanical Subcontractor shall coordinate major elements, components, and systems of mechanical equipment and materials in relationship with other subcontractor systems, installations, and building components. Show space requirements for installation and maintenance access. Determine if the scheduling sequence and coordination of installations and movement and positioning of large equipment into the building are important to efficient flow of the Work. Include the following:

      1) Planned piping layout, including valve and specialty locations and valve-stem movement.
      2) Clearances for installing and maintaining insulation.
      3) Clearances for servicing and maintaining equipment, accessories, dampers, access doors, and specialties, including space for disassembly required for periodic maintenance.
      4) Equipment and accessory service connections and support details.
      5) Fire-rated wall and floor penetrations.
      6) Sizes and location of required concrete pads and bases.
      7) Indicate penetrations in floors, walls, and ceilings and their relationship to other penetrations and installations.
      8) Identify all equipment requiring maintenance access from ladders six feet or more in height, or from scaffolding. Prepare a list of these equipment locations and submit to Owner

   b. Contractor, working with the Plumbing Subcontractor shall prepare drawings indicating location and elevation of piping, valves, cleanouts, access doors, and fixtures. Avoid plumbing within electrical rooms, and data/communications rooms.

   c. Contractor, working with the Electrical Subcontractor and Fire Alarm Subcontractor shall prepare drawings indicating the layout of fixtures, large conduit runs, pull boxes, junction boxes, sound system speakers, cable tray, electrical equipment, and panels.

   d. Electrical panels have been purposely located and have priority for indicated locations. Contractor, working with the Mechanical and Plumbing Subcontractors shall be responsible for providing all required offsets to ensure that electrical panels are installed in the indicated locations.

2. Contractor will call meetings with its Subcontractors to resolve any apparent conflicts on the Coordinated Shop Drawings.

3. When the Coordinated Shop Drawings have been completed to the satisfaction of Contractor, Contractor will sign and date a certification indicating that: all related conditions have been checked with all trades; no apparent conflicts exist; the requirements of the
Contract Documents have been complied with; and all elements of a complete installation are included.

4. Maintain and submit a hard copy of Project Record CAD Drawings for each Subcontractor’s work of the Coordinated Shop Drawings (see Section 01 77 00 for Project Record documents submittal requirements). Submit CDROM Disk with CAD files of each participant subcontractor for review at the conclusion of coordinating the first major component of work. Limit the Record Document hard copy information to the systems components, sizes, and routings.

   a. CAD backgrounds shall be provided by the Owner; as reasonably required by Contractor.

5. Although the Contractor is responsible for ensuring that all provisions of this paragraph are achieved, the preparation cost of these drawings may be included in subcontract bid packages.

1.4 PRODUCT DATA

A. General: Product data includes: Manufacturer's printed installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves.

1. Where product data must be specially prepared because standard printed data is not suitable, submit as Shop Drawings.

B. Requirements: Mark each copy to show applicable choices and options, and indicate the applicable information on selected products. Include the following information:

1. Manufacturer's printed recommendations;
2. Compliance with recognized trade association standards;
3. Compliance with recognized testing agency standards;
4. Application of testing agency labels and seals;
5. Notation of dimensions verified by field measurement;
6. Notation of coordination requirements;
7. Any deviation from Contract Documents;
8. Date when review has to be finalized to meet schedule.

1.5 SAMPLES AND MOCK-UPS

A. General: Submit samples and mock-ups that are in accordance with the requirements of Contract Documents. Samples may include partial sections of components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

1. Package samples to facilitate review. Prepare samples to match the A/E's sample. Include the following:
   a. Generic description of the sample;
   b. Sample source;
   c. Product name or name of manufacturer;
   d. Compliance with recognized standards;
   e. Availability and delivery time; and
f. Specification section.

B. Requirements: Submit samples and mock-ups for A/E review before installation of the Work. Review by A/E does not relieve the Contractor of any requirement of the Contract Documents.

1. Where variation in color, pattern, texture or other characteristics are inherent in the material, submit not less than four (4) units to show approximate limits of the variations.

C. Submittals: Where samples are for selection of appearance characteristics from a range of standard choices, submit a full set of choices for the material or products.

D. Maintain sets of approved samples and mock-ups at the Project Site, for quality comparisons throughout the course of construction.

E. Demolish and remove all samples and mock-ups prior to Final Completion or when or when directed by Owner's Representative.

1. Although the Contractor is responsible for ensuring that all provisions of this paragraph are achieved, the cost may be included in subcontract bid packages.

1.6 A/E’S ACTION

A. Review: Except for submittals for record, information or similar purposes, A/E will review each submittal, mark to indicate action taken, and return promptly.

B. Compliance with specified characteristics is Contractor's responsibility: approval of submittals does not release Contractor from a proper installation, compliance with applicable codes, or coordination of the Work.

C. Action Stamp: The A/E will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be marked to indicate the action taken. Typically stamps indicate submittals will be; accepted without exception or subject to noted corrections, or returned for resubmittal after correction, or rejected as noncompliant with the Contract Documents.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This section specifies administrative and procedural requirements for electronic communications and information distribution for the Owner, A/E and Contractor to utilize in support the Work of the Contract Documents. The intent of the Owner is to accelerate information transfer among all parties and to improve coordination of transferred materials to the mutual benefit of all parties. The Owner will use the Meridian Systems Prolog® Manager as an Internet-based construction management system for document controls. Not all Project documents noted below are currently installed in Prolog®. For most non-Prolog documents, the Owner provides electronic forms created with other industry standard software. Documents which will be created or distributed electronically include, but are not limited to, the following (see forms in Appendix A):

1. Drawings and Specifications
2. Construction Progress Schedule (see Section 01 32 16 for software requirements)
3. Correspondence
4. Meeting Minutes (Owner-provided form or approved substitute)
5. Requests for Information (Prolog® Website form)
6. Submittals (Prolog® Website form)
7. Schedule of Values (Owner-provided form)
8. Applications for Payment (Owner-provided form)
9. Change Order Requests (Owner-provided pricing forms)
10. Change Order Proposals (Owner-provided pricing forms)
11. Change Orders
12. Risk Contingency Account – Team Change Memo (Owner-provided form).
13. Daily Reports (Owner-provided form or approved substitute)
14. Field Reports
15. Test and Inspection Reports
16. Nonconformance Reports (Owner-provided form)
17. Utility Shutdown Requests (Owner-provided form)
18. Safety Reports
19. Substitution Request Form (Owner-provided form)
20. Final Inspection "Punch List" Reports

1.2 ADMINISTRATIVE REQUIREMENTS

A. System Access

The Owner will provide the required licenses and access codes necessary for the Contractor’s access to the University of Washington Prolog® Website. The Owner will host the software and administer authority levels and classifications to users to control security access. Access levels will be provided to match only the level necessary to maintain and process electronic documents specified in this section.

B. System Users

The Contractor will be required to provide a list of all parties from the Contractor’s and subcontractors’ staffs and others that will be given access to the system. The Owner will provide the Contractor with licensed access for a maximum of four users. The Contractor may, at its sole discretion, elect to enter all required data into the system including input from Subcontractors or may require the Subcontractors to enter their own data, but in either case the Contractor will be
responsible for the accuracy of the data entered. A single “license” will allow multiple users to access the University of Washington Prolog® Website. The Owner will purchase and maintain the license.

C. System Cost

The Owner, at no cost, will provide use of the UW Prolog® Website to the Contractor commensurate with requirements for document controls specified in this section. Additionally, the Owner will provide a training seminar for up to eight representatives from the Contractor’s organization at no cost to the Contractor. A training location and dates for the training will be provided after the award of the contract. Training is anticipated to begin within two weeks of Contract execution. Any additional training required by the Contractor will be at the Contractor’s own expense. Owner will not be responsible for temporary or intermittent outages.

D. Owner-Provided Forms

The Owner will provide electronic versions of all Owner-provided forms stipulated in Appendix A.

E. Documents Requiring Signatures

All documents requiring signatures for approval prior to implementing action, as stipulated in other sections of these contract documents, shall also be required by this section. Electronic data transfer will serve to expedite preliminary concurrence of information, only. Receipt of “hard copy” signature on forms is required prior to implementing action or work as the conditions may require.

F. Equipment and Software Requirements

A computer with broadband Internet access will be required in the Contractor’s home office and in its field office. Each computer must utilize Internet Explorer 5.5 or above and must be equipped to handle current versions of Microsoft Excel and Word documents, as well as pdf and tif files. Following is a list of the minimum hardware and software necessary for the optimal performance of the Prolog® System.

1. Pentium III or better (or compatible processor)
2. GHz
3. 256 MB of RAM
4. 20 GB Hard Drive
5. 24x CD Drive
6. 17” Monitor
7. Scanner
8. 10/100 Mbps Network Card
9. Microsoft Windows XP
10. Microsoft Office 2000

G. Information Input

The responsibility of the Owner, Engineer, and Contractor to enter information and data into the Prolog® electronic controls system shall correlate with the responsibilities of the same parties as specified in all other sections within these Contract Documents. The Owner will input Project and cost information from the Guaranteed Contract Cost, will maintain all contact lists, and will enter all change documents. The Engineer will enter all Design Clarifications, will upload attached
drawings and details, and will enter the Submittal Register if so required by the Owner’s Representative. The Contractor will enter all Requests for Information and will upload attached drawings and details. The Contractor will also enter Submittals if so required by the Owner’s Representative.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies minimum requirements for safety on the construction site including, but not limited to, Contractor responsibility for creating and maintaining a safe jobsite, Contractor safety program submittals, Contractor safety requirements, Contractor safety reporting, fire safety requirements, and hazard communication.

B. The Contractor is responsible for compliance with all applicable laws and regulations regarding safety whether noted in this section or not. Furthermore, the Contractor is responsible for creating and maintaining a safe working environment on the Project Site whether the requirements of this Section address a particular situation or not.

C. Refer to General Conditions for GC/CM Projects at the University of Washington for additional provisions related to safety precautions.

1.2 CONTRACTOR RESPONSIBILITY

A. The Contractor shall be solely and completely responsible for conditions of the construction site, including safety of all persons and property, during performance of the Work. The Contractor shall maintain the Project Site and perform the Work in a manner which meets or exceeds statutory and regulatory requirements for the provision of a safe place to work and which minimizes safety risks to personnel of the Contractor, Subcontractors, Owner, general public or other parties. This obligation shall apply continuously and not be limited to normal working hours.

1. The Contractor shall ensure that all Contractor and Subcontractor personnel are provided sufficient training, and shall take such actions as are necessary to maintain a safe environment on the construction site. Such training and actions shall include but not be limited to ensuring that such employees are familiar with governing construction safety requirements and the requirements for compliance with applicable regulations. The Contractor shall monitor the jobsite to ensure that employees do not create unsafe conditions for others, and shall notify employees of the requirement to alert the Contractor to any potential health or safety hazard affecting themselves or others, and to comply with the provisions of the Site Specific Safety Plan.

2. The Contractor shall establish and communicate clear expectations to its employees and its Subcontractors (and their employees) of their obligation to notify any party concerning an observed unsafe or unhealthy act, or any pending hazard.

3. The Contractor shall conduct weekly on-site safety meetings, or greater frequency as appropriate, that shall be mandatory for all employees.

B. The Contractor shall designate an on-site competent individual to be the Safety and Health Officer who is qualified and authorized to supervise and enforce compliance with the Contractor's Site Specific Safety Plan during the performance of the Work. If the designated on site Safety and Health Officer is not a full-time safety professional, the Contractor shall provide periodic project oversight from a corporate safety officer. The Contractor is responsible to ensure that all necessary monitoring equipment, protective clothing, and other supplies and equipment are available to implement the Plan.
1. The Contractor shall require each Subcontractor to provide a fulltime on-site safety manager (competent individual) for the duration of work at the Project Site. If the man-load is below fifty (50) field workers, the Subcontractor may designate its Superintendent as the safety manager. If the man-load is fifty (50) or above field workers on site, the Subcontractor shall provide and designate a dedicated competent individual for safety manager whose sole responsibility is Project safety including, but not limited to: Review of pre-task plans, critical lift plans, rigging and installation means and methods, fall protection, trenching excavations, electrical safety, OSHA and WISHA compliance, second tier Subcontractor safety monitoring and compliance.

C. Safety Violations: In the event of WISHA violations, by the Contractor or any of its suppliers or Subcontractors of any tier, or unsafe practices involving imminent danger to personnel of the Owner, Contractor, Subcontractors, or others, the Contractor shall immediately correct the hazardous situation causing the violation prior to any Work continuing in the affected area. If such violations exist and corrective actions have not been taken by the Contractor, Owner may order Contractor to stop work, to be followed up in writing the same day, until satisfactory corrective action has been taken per Article 3.04 of the General Conditions.

1.3 CONTRACTOR SAFETY PROGRAM AND PLAN SUBMITTALS

A. Company Safety Program: The Contractor shall submit a copy of its Company Safety Program to the Owner. The Company Safety Program shall contain, at a minimum, the following elements:

1. Organizational Structure: Include names of individuals who will perform safety duties, titles, work assignments, authority and reporting relationships.

2. Training Program: Who, how and when training is provided; method of employee training concerning safety rules and procedures; training in use of protective equipment.

3. Protective Equipment: List of personal protective equipment to be provided to employees.

4. Accident Prevention and Loss Control Plan: Work site inspection and hazard correction procedures; disciplinary procedures for safety infractions; accident response, investigation and reporting procedures.

B. Site Specific Safety Plan: The Contractor and each of their Subcontractors shall review the Contract Documents, and the Contractor shall develop and submit a copy of a Site Specific Safety Plan to the Owner. The Site Specific Safety Plan shall be tailored to the unique issues of the Project and the specific types of hazards likely to be encountered, be in compliance with WISHA and all other regulatory requirements, and contain, at a minimum, the following elements.

1. Application of Company Safety Program: The Site Specific Safety Plan shall address how the following elements from the Company Safety Program will be specifically applied and modified in addressing unique issues related to the Project: organizational structure, training program, protective equipment, accident prevention and loss control plan.

2. Specific Hazards: The Site Specific Safety Plan shall address, as applicable, the following, and other specific hazards for the Project:
a. Odor notification;
b. Excavation and rescue plans;
c. Pedestrian safety on Game or special event Days/all other times;
d. Overhead hazards/flying objects;
e. Open flame/Hot Work;
f. Hazardous materials and chemical exposure (asbestos, lead, PCB, mercury, mold, etc.);
g. Methane abatement;
h. Safety issues related to Owner’s “prior Occupancy”;
i. Working over water;
j. Rigging/Aerial lifts and forklifts;
k. Electrical safety;
l. Scaffolding and personnel lifts;
m. Noise and dust;

1.4 CONTRACTOR SAFETY REQUIREMENTS

A. Safety Training: Contractor shall provide construction site orientation for all employees (including Subcontractor employees) to become familiar with the Site Specific Safety Plan prior to commencing work. Contractor shall, on a weekly basis, perform safety training on hazards specific to the phase of work for all employees. These meetings shall be mandatory for all construction employees.

1. Subjects should include site specific safety issues and procedures and discussion of corrections resulting from any violation in safety procedures. A log of subjects covered and a copy of the attendance records of each meeting shall be submitted to the Owner’s Representative on the day the meeting occurs.

B. Respiratory Equipment: Any personnel performing work requiring the use of respiratory protective equipment shall be fully trained in the use of such equipment. Contractor must have a respiratory protection program and ensure that all workers wearing respirators have medical clearance and fit testing, as appropriate, for the type of respirators used.

C. Personal Protective Equipment: Contractor shall ensure all construction personnel to be equipped with and utilize Personal Protective Equipment in accordance with Labor and Industries standards. As a minimum requirement, all personnel working on the construction site shall be required to use approved hardhats, safety glasses, and appropriate work footwear.

D. First Aid: The Contractor shall maintain at the Project Site field office, or other well known place at the Project Site, all materials necessary for giving first aid to the injured (e.g., a first aid kit), and shall establish, publish, and make known to all employees procedures for ensuring immediate removal to a hospital or a doctor's care, persons, including personnel, who may have been injured on the construction site. Construction personnel shall not work on the construction site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care. If the Contractor and/or any
Subcontractors work crew consist of five or more employees, the Contractor shall ensure that at least one of such employees has a valid and effective first aid card.

E. Safety Walk-through: In addition to WISHA requirements, Contractor shall conduct a safety walk-through of the Project with the Owner's Representative a minimum of once a month during the course of construction. If a safety manager is required for any Subcontractor, the safety manager shall also attend the safety walk-through. Contractor shall: a) maintain a written record of the hazards and unsafe practices noted during the walk-through and provide copies to the Owner as requested; b) ensure that corrective action is taken to eliminate the items recorded, and; c) maintain copies of all inspections performed by other competent individuals on the construction site during the course of construction.

F. Job Hazards Analysis: The Contractor shall plan daily work considering procedures with the potential for personnel injury and implement appropriate practices to avoid injuries with focus on engineering controls, personal protective equipment needs, and mitigation for exposure to cuts and lacerations. At each construction progress meeting, the Contractor shall present its plan for addressing hazards likely to be encountered in the next week. The Contractor will develop and implement a program requiring task planning at the foreman level.

1.5 CONTRACTOR SAFETY REPORTING

A. Reporting Injuries and Incidents: Contractor shall immediately notify the Owner's Representative of any injury or incident to personnel on the construction site. Contractor shall conduct an immediate investigation with an emphasis on preventative actions and lessons learned. The Contractor shall document the investigation and submit a copy to the Owner within 24 hours of the incident. Contractor shall report on a monthly basis the total number of hours worked on-site by Contractor and its employees and Subcontractors, and the total number of recordable incidents and lost time accidents.

B. Reporting Potentially Serious Hazards: Contractor shall immediately notify the Owner's Representative of any potentially serious hazard to personnel on the construction site. Contractor shall conduct an immediate investigation and submit a report to the Owner's Representative within 24 hours of becoming aware of the potentially serious hazard. The report shall describe the potentially serious hazard, the results of the Contractor's investigation, and any steps the Contractor has taken to prevent an injury or incident from occurring based on the potentially serious hazard.

C. Emergency Procedures:
   1. Emergencies requiring ambulance, fire department, or police assistance shall call emergency services (fire and police at 911).

   2. Should the Contractor find it necessary to call for non-emergency police assistance or protection in the exercise of its responsibilities on the Seattle Campus, call the University Police Department at 206-543-9331.

1.6 CONSTRUCTION “FIRE SAFETY” REQUIREMENTS

A. Fire Safety During Construction and Demolition: Contractor shall conform to Chapter 14 “Fire Safety During Construction and Demolition” of the International Fire Code, as locally amended, and any additional provisions as outlined herein for precautions against fire, flammable and combustible liquids, flammable gases, explosive materials, fire protection, fire
reporting, fire fighting access, means of egress, standpipes, fire sprinklers, and roofing operations.

B. “Hot Works” Procedures:

1. Contractor shall establish a system for documentation and control of "hot work" activities which include the use of portable gas, grinding, or arc welding equipment and conduct operations in a manner that is fire-safe for the work area and adjacent areas. Hot Work Permits are to be posted at the job site in an accessible and conspicuous location. Maintain the premise clear of rubbish, debris, or other materials constituting a potential fire hazard. The local fire code is incorporated herein by reference; adhere to all applicable provisions as determined by the local fire department. Contractor and Subcontractors shall obtain from the local Fire Department engineering inspection section a permit for all "hot work" prior to performing this Work.

a. Whenever practical perform cutting and welding operations off-site.

2. Maintain copies of all "hot work" related permits for Owner’s review upon request, including, but not limited to:

a. Cutting & Welding;
   b. Roofing/Hot Tar Kettle; and
   c. Storage of flammable materials (propane, butane, etc.) and/or compressed gases.

3. Prior to conducting "hot work" activities the Contractor shall ensure all of the following fire safety precautions have been taken.

a. Cutting and/or welding equipment must be thoroughly inspected and found to be in good repair, free of damage or defects.

b. A multi-purpose dry chemical, portable fire extinguisher must be located such that it is immediately available to the Work and is fully charged and ready for use.

c. At least one fire alarm pull station or means of contacting the fire department (i.e. site telephone) must be immediately available and accessible to person(s) conducting the cutting/welding operation.

d. Floor areas under and at least 35 feet around the cutting/welding operation must be swept clean of combustible and flammable materials.

e. All construction equipment fueling activities and fuel storage must be located at least 35 feet away from cutting/welding operations.

f. Fire resistant shields (fire retardant plywood, flameproof tarpaulin, metal, etc.), must cover combustible floors.

g. Provide combustible and finished surfaces, equipment, electrical cables, and personnel with protection to prevent damage or injury from molten metal, falling sparks, and welding arcs.

h. Spark/slag catchers (fire retardant plywood, flameproof tarpaulin, metal, etc.), must be suspended below any elevated cutting/welding operation.
i. All floor and wall openings must be covered to prevent sparks/slag from traveling to other unprotected area.

j. Containers in or on which cutting/welding will take place must be purged of flammable vapors.

C. Fire Systems Shutdowns, Impairments, and Fire Watch:

1. Where it is necessary to shut down existing fire alarm systems or suppression systems for switch-over purposes, or any other reason that leaves the building unprotected, the Contractor shall provide a continuous Owner approved “fire watch” during the shutdown in accordance with the following and as required by applicable regulations and AHJ unless: a) the Contractor provides an Owner approved temporary equivalent system, or; b) specifically excepted by the Owner.

   a. Person(s) assigned to a “fire watch” must be trained in the use of the portable fire extinguisher.

   b. Fire watch personnel must have an immediate means of providing notification to the fire department (e.g. cellular phone, land-line phone, two-way radio to a continuously staffed position) and the University Police.

   c. Continuous rounds to cover all areas of the building where the fire protection system is out of service are required every 15 minutes.

      1) Exception: During the hours a “B” occupancy building is occupied, building occupants performing their duties, including construction personnel, may act as a fire watch in lieu of a designated “fire watch”, when approved in writing by the Owner.

         a) A “fire watch” is required at all times in unoccupied areas.

         b) Other building code occupancy types may be allowed this exception when approved in writing by the Owner.

   d. A plan which includes a method to notify all occupants is required in occupied buildings.

   e. Maintain a log of the rounds to include the name of person performing the “fire watch”, the hours worked including start and stop times, and comprehensive notes.

   f. Provide fourteen (14) calendar days written notification to the Owner’s Representative requesting approval for fire protection system shutdown or functional impairment; receipt of written approval from the Owner’s Representative is required before any system shutdown or functional impairment.

      1) Notify the local fire department. In Seattle the number to report out of service systems and equipment is 206-233-7219.

2. The Contractor shall work in cooperation with the Owner to identify fire alarm initiating devices in and adjacent to the Project Site that may activate from construction activities.
(work that creates dust, smoke, steam, heat, etc.) and develop a plan to temporarily cover, remove, or disable through programming these devices to eliminate the potential for false alarms.

a. The Owner may authorize in writing some devices to be disabled for the duration of the Work or for a particular activity without requiring a continuous “fire watch” for one shift or several days depending on circumstance.

b. ONLY OWNER PERSONEL SHALL DEACTIVATE OR DISABLE EXISTING FIRE DETECTION AND SUPPRESSION SYSTEMS, unless the Contractor is specifically authorized by the Owner to do so in writing.

D. Fire Alarm/Suppression Systems False Activation or Discharge: Most existing Owner buildings have active fire detection and suppression systems. If proper procedures as outlined in the Contract Documents and 1.6C above are not followed to ensure the unnecessary activation or deactivation of these systems, the Owner may at its sole discretion impose an emergency response charge of $350 per occurrence to the Contractor and require a “fire watch” at the Contractor's cost. The Maximum Allowable Construction Cost (MACC) will be amended for such amount by Change Order.

E. Fire Extinguishers Required for Construction: Provide multipurpose dry chemical portable fire extinguishers for the Work in accordance with the International Fire Code Chapter 14, as locally amended, and as required by WISHA and other applicable regulations. Existing building fire extinguishers or extinguishers provided by the Contract Documents for the Project do not alleviate Contractor’s responsibility to provide temporary fire extinguishers for the Work.

1. Contractor shall inspect and re-certify all Owner fire extinguishers provided for the Project and used for construction at Substantial Completion.

F. Standpipes Required for Construction: In new multi story construction four or more stories in height a Class I standpipe for use during construction shall be provided in accordance with Chapter 14 of the International Fire Code, as locally amended. Fire Department connections at bottom of the standpipe shall be clearly marked and accessible at all times for fire department personal and equipment. This requirement shall be reviewed and approved by the Owner's Representative. The actual cost required by Divisions 02 through 49 shall be included in a subcontract bid package.

G. Existing Fire Separations: Existing fire separations, including floor-to-floor separations, shall not be impaired by construction activities.

H. Occupant Egress in Existing Buildings: The Contractor shall not block active exits, exit hallways, exit corridors, and the exit access to a public way, and they are to remain free of construction materials, equipment, and rubbish at all times, unless approved by Owner.

I. Emergency Access: Outdoor storage and staging operations and construction fencing shall not impede, restrict or narrow fire fighting access, including roads or lanes, or present a fire exposure to existing buildings. Provide adequate separation between buildings and construction trailers and sheds.

1. Access to emergency services including, but not limited to, fire hydrants, fire department connections, fire command centers, fire alarm panels, valves and similar equipment and systems for emergency vehicles and emergency response personnel.
must be kept free and unobstructed at all times, unless specifically approved by the Owner.

2. Temporary obstruction of emergency access may be allowed for special cases (ex. Crane hoist, etc.) on a short-term basis. A written plan must be submitted to the Owner for approval at least two weeks prior to the scheduled date of obstruction.

1.7 HAZARD COMMUNICATION

A. General: The Owner and the Contractor are responsible under the Washington Administrative Code 296-800-170 through 296-800-18020 (the Hazard Communication Standard) to provide a safe and healthy environment for their employees.

B. Responsibilities:

1. The Owner maintains a centralized collection of all MSDS’s (Material Safety Data Sheets) for Owner materials. These are available to the Contractor if there is concern that an unknown chemical is in the work area and during construction a worker is concerned for exposure. This may be requested through the Owner’s Representative.

2. The Contractor shall provide chemical hazard information (MSDS), for all chemical products that they bring onto a jobsite including but not limited to all paints, glues, mastics, epoxies and cleaning products for Owner’s review. Maintain on the Project Site a 3-ring binder of all MSDS’s utilized on the Project and indicate where utilized.

3. Contractors are responsible for providing Hazard Communication training to their own employees. This training, in addition to that training which is regulated by the Hazard Communication Standard, should include those MSDS’s that are available for any Owner's chemical product present at a work site.

4. The Contractor and Subcontractors shall prominently post an MSDS list, and shall notify Owner's Representative of its location on the Project Site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)
PART 1 - GENERAL

1.1 DEFINITIONS

A. General: The section further describes basic Contract definitions and meaning of word clarifications defined in the General Conditions of the Contract.

B. Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. Locations are not limited.

C. Directed: Terms such as directed, requested, authorized, selected, approved, required, and permitted mean directed by the Architect, requested by the Architect, and similar phrases.

D. Accepted: The term accepted, when used in conjunction with the Architect’s duties and responsibilities as stated in the conditions of the Contract.

E. Regulations: The term regulations includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction (AHJ), as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

F. Installer: An installer is the contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

1. Trades: Using terms such as carpentry does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as carpenter. It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.

G. Project Site: is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built. Certain construction activity may extend beyond the project site.

H. Furnish: Supply and deliver to Project Site, ready for unloading, unpacking, assembly, installation, and similar subsequent requirements.

I. Install: Operations at Project Site to place in position for service or use including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protection, cleaning, and similar requirements.

J. Provide: Furnish and install, complete and ready for intended use.

K. Concealed: Spaces out of sight. For example, above ceilings; below floor; between double walls; furred-in areas; pipe and duct shafts; and similar spaces.

L. Exposed: Open to view. For example, pipe installed in a walkway tunnel or pipe installed in a room and not covered by other construction.
1.2 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specification Institute’s (CSI) format.

1. Title: The Specifications are divided into division and section for the convenience of writing and using. The titles of these are not intended to imply a particular meaning or to fully describe the work of each division, subdivision, or section and are not an integral part of the text which specifies the requirements.

2. 3-Part Section: Each section of Specifications has been subdivided into 3 ‘parts’ for uniformity and convenience (Part 1 - General, Part 2 - Products, and Part 3 - Execution). These do not imply a particular meaning and are not an integral part of the text which specifies requirements. Where text for one of the parts is lacking due to project requirements, the part title is included followed by the words, ‘Not Used’.

<table>
<thead>
<tr>
<th>Level of Indexing</th>
<th>Nomenclature</th>
<th>Letters &amp; Punctuation</th>
<th>Identified</th>
<th>Example</th>
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</thead>
<tbody>
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<td>Part</td>
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<td>Numerical</td>
<td>PART 1- GENERAL</td>
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<td>Heading</td>
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<td>Paragraph</td>
<td>Upper/Lower Case</td>
<td>Letter</td>
<td>A. General</td>
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<tr>
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<td>Subparagraph</td>
<td>Upper/Lower Case</td>
<td>Numerical</td>
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<td>Subparagraph</td>
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B. Specification Content: This Specification uses certain conventions regarding the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. The conventions are explained as follows:

1. Abbreviated language: Abbreviated words and meanings used in the Contract Documents shall be interpreted as appropriate. Words implied, but not stated, shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicate.

2. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarify to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.

   a. The words ‘shall be’ are implied wherever a colon (:) is used within a sentence or phrase.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the contract documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.

C. Conflicting Requirements: Where compliance with 2 or more standards are specified and where the standards may establish, different or conflicting requirements for minimum quantities or quality levels, the Contractor shall promptly report to the Architect, in writing, requesting a decision before proceeding with the Work.

1. Minimum quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements.

D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound within the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations, as referenced in Contract Documents are defined to mean the recognized name of the trade association. Names and addresses are subject to change and are believed, but not assured, to be accurate and up-to-date as of the bid date of the Contract Documents. The following list may not be complete, refer to the "Encyclopedia of Associations" published by Thomson Gale available in most libraries.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Trade Association Name</th>
<th>Address</th>
<th>City, State, Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADC</td>
<td>Air Diffusion Council</td>
<td>111 East Wacker Drive</td>
<td>Chicago, IL 60601-4298</td>
</tr>
<tr>
<td>AGA</td>
<td>American Gas Association</td>
<td>1515 Wilson Blvd.</td>
<td>Arlington, WA 22209</td>
</tr>
<tr>
<td>AIA</td>
<td>The American Institute of Architects</td>
<td>1735 New York Ave. NW</td>
<td>Washington, DC 20006</td>
</tr>
<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
<td>3100 One East Wacker Drive, #3100</td>
<td>Chicago, IL 60601-2001</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
<td>11 West 42nd St., 13th Floor</td>
<td>New York, NY 10036</td>
</tr>
<tr>
<td>APWA</td>
<td>American Public Works Association</td>
<td>2345 Grand Blvd, Suite 700</td>
<td>Kansas City, MO 64108-2625</td>
</tr>
<tr>
<td>ASHRAE</td>
<td>American Society of Heating and Air Conditioning Engineers</td>
<td>1791 Tullie Circle NE</td>
<td>Atlanta, GA 30329</td>
</tr>
<tr>
<td>ASME</td>
<td>American Society of Mechanical Engineers</td>
<td>345 East 47th Street</td>
<td>New York, NY 10017</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Test Materials</td>
<td>1916 Race Street</td>
<td></td>
</tr>
<tr>
<td>ASSE</td>
<td>American Society of Sanitary Engineering</td>
<td>PO Box 40362</td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES

AWPA
American Wood Preservers' Association
PO Box 286
Woodstock, MD 21163-0286

AWS
American Welding Society
550 LeJeune Road NW
PO Box 351040
Miami, FL 33135

AWWA
American Water Works Association
6666 W. Quincy Ave.
Denver CO 80235

BHMA
Builders' Hardware Manufacturers Assn.
355 Lexington Ave., 17th Floor
New York, NY 10017

CRSI
Concrete Reinforcing Steel Institute
933 Plum Grove Road
Schaumburg, IL 60173

CTI
Ceramic Tile Institute of America
28720 Roadside Drive, Suite 300
Agora Hills, CA 91301-3321

FGMA
Flat Glass Marketing Association
White Lakes Professional Building
3310 SW Harrison Street
Topeka, KS 66611-2279

FM
Factory Mutual Research Organization
1151 Boston-Providence Turnpike
PO Box 9102
Norwood, MA 02062

GA
Gypsum Association
810 First Street NE, Suite 510
Washington, DC 20002

NCMA
National Concrete Masonry Association
2302 Horse Pen Road
Herndon, VA 22071-3406

IEEE
Institute of Electrical and Electronic Engineers
345 E 47th Street
New York, NY 10017

NEC
National Electrical Code (from NFPA)

NECA
National Electrical Contractors Assn.
7315 Wisconsin Avenue
Bethesda, MD 20814

MCA
Mechanical Contractors Association of America
1385 Piccard Drive
Rockville, MD 20850-4340

NEMA
National Electrical Manufacturers Assn.
2101 L Street NW, Suite 300
Washington, DC 20037

NFPA
National Fire Protection Association
One Batterymarch Park
PO Box 9101
Quincy, MA 02269-9101

NRCA
National Roofing Contractors Association
10255 W. Higgins Road, Suite 600
Rosemont, IL 60018-5607

NSF
National Sanitation Foundation
3475 Plymouth Road
PO Box 130140
Ann Arbor, MI 48113-0140

SSPC
Steel Structures Painting Council
4400 Fifth Avenue

SMACNA
Sheet Metal and Air Conditioning Contractors National Association

Conformed Set
F. Federal Government Agencies: Names and titles of federal government standard - or Specification -producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard - or Specification-producing agencies of the federal government. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the bid date of the Contract Documents.


EPA Environmental Protection Agency 401 M Street SW Washington, DC 20460


1.4 GOVERNING REGULATIONS AND AUTHORITIES

A. All construction shall be in accordance with the applicable building codes and as referenced within the Contract Documents.

1.5 PERMITS REQUIRED

A. Owner will obtain and pay for Building/MUP Permits.

B. Contractor will obtain and pay for street use permits, utility fees, occupancy permits, and elevator permits. The actual cost of these permits is a Negotiated Support Services cost.

C. The electrical and other trade permits, including those for Design-Build Work, shall be included with each subcontractor bid.
1.6 SUBMITTALS

A. Permits, Licenses, and Certificates: for the Owner’s records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. General Requirements: Comply with the quality control provisions in the Contract Documents, including but not limited to, this Section and the General Conditions for GC/CM Projects at the University of Washington and specified in the Contract Documents. Perform quality control tests and inspection and quality surveillance of all Work required by the Contract Documents unless specifically designated to be performed by Owner.

B. Contractor Quality Control (CQC) shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, fabrication, construction, and operations that comply with the requirements of the Contract Documents. CQC shall cover construction operations keyed to the Progress Schedule including, but not limited to, fabrication on-site and off-site, and field and factory tested construction mock-ups.

C. Owner's special inspection and testing agency services are specified in Section 01 45 23, “Testing and Inspecting Services” and may be required to ensure the Work is in accordance with the Contract Documents, except where those tests are specifically indicated to be performed by the Contractor in the Contract Documents. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.

1.2 CQC PROCEDURES MEETINGS

A. General Work Plan meeting: Contractor shall meet with Owner's Representative, Owner's Project Manager and A/E, to discuss Contractor's Quality Control Procedures. Items for discussion shall include:

1. Identification of the CQC Representative
2. Interrelationship of Contractor, AE and Owner's Representative.
3. CQC administrative procedures and Preinstallation Work Plans
4. Submittals and persons responsible for shop drawing review
5. Forms for recording the CQC program
6. Testing, inspections and approvals records
7. Fabrication and installation procedures, on-site and off-site
8. Field constructed mock-ups

B. Pre-installation CQC Work Plan meetings: Develop a CQC Work Plan for each definable feature of the Work. Complete the Work Plan and submit to Owner with each notification requesting a pre-installation meeting. The Work Plan shall serve as the basis for discussion and review of the Contract Document requirements. The Work Plan shall assure: a) that materials and equipment delivered and assembled for construction conform to Contract requirements, and; b) that control testing and CQC procedures are documented.

1. Contractor shall revise and provide the Owner a final CQC Work Plan resulting from comments or clarifications received from the A/E’s review of the CQC Work Plan.
1.3 CONTRACTOR QUALITY CONTROL REQUIREMENTS

A. Quality Control Organization: Identify a CQC Representative who shall be on the Project Site at all times during progress of the Work, and as appropriate for all construction activities subsequent to the start of Owner’s Final Inspection, with complete authority to take action necessary to ensure compliance with the Contract Documents. Staff the CQC organization, as required, to perform the activities outlined in this section and elsewhere in the Contract Documents. If the CQC Representative is not a full time dedicated position, the CQC Representative cannot also be the Safety Representative if this position is not filled by a full time designated Representative.

B. Qualifications of CQC Representative: The Contractor shall propose and Owner shall approve, in writing, the Project CQC Representative. The CQC Representative must have construction management experience and prior experience with projects of similar construction, size and complexity. During progress of the Work, the Owner will monitor and evaluate the performance of the CQC Representative based on: a) the conformance of the Work with the Contract Documents, and; b) an assessment of the accuracy, timeliness and completeness of the daily QC Report. If the CQC Representative fails to perform to the satisfaction of the Owner’s Representative, he/she shall be replaced by the Contractor.

C. Submittals: Identify persons responsible for review and approval of shop drawings, layout drawings, product data, samples and mock-ups, and other submittals required by the Contract Documents. A/E’s action will indicate only that the general method of construction and detailing is satisfactory (see Section 01 33 00, “Submittal Procedures”) and does not relieve the Contractor of his responsibility for proper installation, coordination of the Work, and compliance with applicable codes and the Contract Documents.

D. Daily Quality Control Reports: CQC Representative shall maintain daily Quality Control (QC) Reports. QC Reports shall be factual records containing numerical data of the Work and quality control activities and observations, including examination of work areas upon which new work is to be placed to verify the substrate for the new Work. Submit QC Reports, on approved forms, by the next workday following the day of the report.

1. CQC Representative shall verify and sign all reports. Verification shall contain the statement that all supplies and materials incorporated in the Work are in compliance with the Contract Documents.

E. Control of On-Site and Off-Site Construction: Contractor’s Quality Control system shall include the following phases of control and management for each definable feature of Work:

1. Preinstallation Meeting and Inspection Phase: A Preinstallation meeting will be held prior to beginning work on each definable feature of the Work (see Section 01 31 19, “Project Meetings”).

2. In-Progress Inspection Phase: In-progress inspections shall be performed continuously to verify that quality standards are maintained throughout the Project. Adjustment to control procedures and CQC Work Plans may be required based upon the results of these inspections and control testing. Report the results of the inspection in the daily QC Report. Discuss quality control procedures at construction progress meetings and revise CQC Work Plans for Owner’s records, if changes are required.
3. **Above-Ceiling Final Inspections:** The Contractor shall identify and provide reasonable time: a) for the Owner’s consultants to conduct above-ceiling final inspections; b) for the Contractor to perform corrective work, and; c) for the Owner’s consultants to validate the work complete prior to covering from sight. Provide Owner a two (2) week notice for final inspections.

4. **Final Punch List Report:** The CQC Representative shall thoroughly inspect all aspects of the construction, including the Subcontractor’s work, and produce a Final Punch List Report of incomplete work and/or work requiring correction that shall be issued to all Subcontractors to complete prior to requesting, in writing, Owner’s Final Inspections. The Contractor’s written request for Owner’s Final Inspection shall certify that all features of the work are installed and have been reviewed by the Contractor to determine compliance with the Contract Documents and shall include the Final Punch List Report listing any incidental incomplete work. The Final Punch List Report shall be prepared utilizing the Owner’s Meridian Prolog® software, in a format acceptable to the Owner, with a comprehensive Project room number list and additional entry listings for site work, building enclosure, roofs, etc. to document the entire Project. Owner’s Final Inspections items will be added to the Final Punch List Report by the A/E. Owner will manage the consolidated listing of all Final Inspection comments daily until all comments are signed-off by the Owner.

**PART 2 - PRODUCTS (Not used)**

**PART 3 - EXECUTION (Not used)**

**END OF SECTION**
PART 1 - GENERAL

1.1 SUMMARY

A. General Requirements: Comply with the testing and inspection, and correction of Non-conforming Work provisions specified in this Section and elsewhere in the Contract Documents.

B. Owner's Responsibilities:

1. The Owner will select and employ an independent Testing Agency to conduct the tests and inspections in accordance with applicable standard methods of the American Society for Testing and Materials (ASTM) or other standards as a requirement of the building permit.

2. The Owner may provide other special inspection services to inspect and verify the Work installed is in accordance with the Contract Documents and construction industry standards.

C. Contractor's Responsibilities:

1. All other tests and inspections which are required to obtain regulatory approval by State or other Authorities Having Jurisdiction (AHJ) shall be provided by and paid for by the Contractor.

2. The Contractor shall provide other testing services where specified in the Contract Documents.

1.2 DESCRIPTION

A. Definition: For the purpose of this Section, all references made to Testing Agency, or waterproofing and roofing inspections, or geotechnical consulting firm shall be referred to as those tests or inspections which will be conducted by an Inspector provided by the Owner.

1.3 REFERENCES

A. General: The following publications listed below, are referred to hereinafter by basic designations, and form a part of this specification to the same extent as if bound herein.


2. A615 Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcing.

3. C31 Practice for Making and Curing Concrete Test Specimens in the Field.


5. C42 Methods of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

6. C94 Ready-Mixed Concrete.

8. C172 Practice for Sampling Freshly Mixed Concrete.
9. C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
12. E329 Recommended Practice for Inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as Used in Construction.


1.4 QUALITY ASSURANCE

A. Qualifications: The Inspector for all Work of this Section, except for geotechnical and waterproofing and roofing special inspectors, shall be a registered inspector employed by an approved inspection and/or Testing Agency as listed by the Washington Association of Building Officials (WABO) Special Inspection Registration Program. All inspection personnel used on this Project are subject to being disapproved from the Project at the discretion of the Owner’s Representative. Minimum levels of qualifications as stated in the WABO Special Inspection Registration Program for various portions of the required Testing Agency inspections and testing must be complied with.

1. The special Inspector for waterproofing and roofing must have the required technical knowledge and experience for the product being installed.
2. The Owner may select a Testing Agency, other than the agency employed by the Contractor, to perform tests required by the building permit.
3. Geotechnical inspection will be performed by a licensed geotechnical consulting firm.
1.5 DUTIES OF OWNER’S TESTING AGENCY

A. General: The Owner’s Testing Agency shall conduct testing and inspection services, interpret them, evaluate the results for compliance with the building permit and the Contract Documents, and report the findings to the Owner’s Representative, A/E, Contractor, and Authorities Having Jurisdiction. Testing and inspection services shall be in accordance with applicable standard methods of ASTM or other standards specified by Authorities Having Jurisdiction, the Contract Documents, and construction industry standards. The Testing Agency shall reasonably support overtime, second shift, and out-of-area activity if requested by the Contractor and approved at the Owner’s sole discretion.

B. Testing and Inspection: Materials to be tested are specified by the building permit and may be others as required by the Contract Documents, as directed by Owner, or required by Authorities Having Jurisdiction. Quantities and extent of tests and inspections shall be as specified and/or required by the Owner’s Inspector or AHJ.

C. Non-conforming Work: The Owner’s Inspector shall document and immediately notify the Contractor and Owner’s Representative of any Work found defective or not in accordance with the requirements of the Contract Documents. Non-conforming Work shall be corrected or otherwise satisfactorily accepted by the Owner. See: “Non-conformance Report” (NCR) in Section 01 31 00, “Project Management and Coordination”, and the General Conditions.

D. The Owner’s Inspectors are not authorized to:

1. Release, revoke, alter, or enlarge on the requirements of Contract Documents.

2. Approve or accept any portion of the Work, except as allowed by the special inspection duties delegated by governing Authorities Having Jurisdiction for building permit inspections and testing.

3. Perform any duties of the Contractor.

4. Stop the Work.

1.6 COSTS

A. The Owner’s Testing Agency and special Inspector costs for initial testing and inspection as specified in the Contract Documents will be paid for by the Owner. Initial tests and inspections are defined as those required to complete the first tests and inspections specified.

B. Additional tests and inspections not specified but requested by the Owner or A/E shall be paid for by the Owner.

1. However, if the results of such tests and inspections are found to be not in accordance with the Contract Documents, the Contractor will be back-charged for all costs of this testing and inspection as well as re-testing, re-inspection and Owner’s Consultants services.
C. Costs for additional tests or inspections required because of a change in the A/E reviewed and accepted submittal products or materials provided, or source, or supply shall be borne by the Contractor.

D. Costs of any testing which is required solely for the convenience of the Contractor in its scheduling and performance of the Work shall be borne by the Contractor.

E. Costs for verification testing and inspection of Work done without timely notice, with improper supervision, or contrary to construction practice shall be borne by the Contractor.

F. Costs for testing of materials for which fabrication and mill reports are required but not furnished shall be borne by the Contractor.

G. Costs of any testing which is the responsibility of the Contractor as specified in the Contract Documents shall be borne by the Contractor.

1.7 TESTS AND INSPECTION REPORTS

A. Copies of Test and Inspection Reports: Copies of Owner and Contractor test and inspection reports shall be distributed at weekly intervals. All reports will be signed by a registered engineer. Such reports shall include all tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations that are required shall also be reported. Test and inspection reports shall be distributed as follows:

1. Owner’s Structural Engineer: Two (2) copies
2. Owner’s Testing Agency: One (1) copy
3. Owner: One (1) copy
4. Contractor: One (1) copy
5. Authorities Having Jurisdiction (AHJ): Two (2) copies

1.8 CONTRACTOR’S RESPONSIBILITIES:

A. Coordination: It is the Contractor’s responsibility to initiate, coordinate, and conform to the required tests and inspections of governing State and AHJ. Inspection of the Work by the Owner’s special Inspectors and/or Testing Agency shall not relieve the Contractor from responsibility for compliance with the Contract Documents requirements. Owner’s special Inspectors and/or Testing Agency and Owner’s Representative shall have authority to reject Work whenever the provisions of the Contract Documents are not being complied with, and the Contractor shall instruct his employees accordingly.

B. Access for the Purpose of Inspection: The Contractor shall ensure the Owner’s special Inspectors and/or Testing Agency have free access to all parts of the Work and to the shops where the Work is in preparation; are provided proper facilities and safe access for such inspection, and; are reasonably furnished access, equipment, tools, samples, certifications, test reports, design mixes, storage, and assistance as requested by the Owner’s Inspector.

C. Storage Facilities: Furnish adequate storage facilities for the sole use of the Owner’s Testing Agency to provide safe storage and curing of such specimens that must remain on-site prior to transport to the laboratory.
D. Data: Furnish records, Contract Drawings and shop drawings, certificates, approved Change Orders, and similar data as may be required by Owner’s Inspectors to perform their work to assure compliance with the Contract Documents.

E. Notice: Furnish notice to Owner’s Representative and coordinate with Owner’s Inspectors a minimum of five (5) working days in advance of all required tests and a minimum of forty eight (48) hours in advance of all required inspections, unless otherwise specified.

F. Non-conforming Work: Remove and replace Non-conforming Work at no additional cost to the Owner prior to Final Completion. Where Non-conforming Work requires re-design by the A/E, such re-design costs shall be borne by the Contractor.

G. Cancellations: Contractor shall give sufficient advance notice to Owner’s Representative and Inspectors to allow rescheduling of their work load in the event of cancellation or time extension of any scheduled test or inspection.

1. Any charges from an Inspector due to insufficient advance notice of cancellations or time extensions shall be borne by the Contractor, at the Owner’s sole discretion.

1.9 TEST FAILURES

A. General: The Owner’s Representative may require re-test of a sampled material when a sample or procedure has failed to pass the required tests. In such cases, two samples shall be tested and the material shall be rejected if either sample fails.

1. In the event any test or inspection indicates failure of a material or procedure to meet the requirements of Contract Documents, all costs for re-testing or re-inspection shall be borne by the Contractor.

1.10 REPORTING TEST FAILURES

A. General: Immediately upon determination of a test failure, the Owner’s Inspector shall telephone the test results to the Owner’s Representative and Contractor. By the end of the following day the Owner’s Inspector shall send written test results to those named on the distribution list.

B. Contractor shall similarly report test failures to Owner’s Representative resulting from work of testing agencies provided by the Contractor.

1.11 SCHEDULE OF TESTS AND INSPECTIONS

A. Perform tests and inspections for type of work required by SBC Chapter 17, WSDOT Construction Manual M 41-01.12, and as specified in individual Specification Sections.

1. See drawing SN012 for special inspections of work outside of the right-of-way.

2. See drawing SN022 for special inspections of work in the right-of-way.

3. Comply with Appendix F DPD Statement of Structural Special Inspection.

4. Comply with Appendix F DPD Geotechnical Inspections Schedule.

B. Special Grading, Excavation and Filling: Comply with SBC Chapter 18.
C. Earthwork Compaction

   1. In-Place Density Test: Conform to ASTM D 1557.
      
      i. Compacted fills, subgrades, subbases, and base courses under concrete and asphalt pavements. Not less than one test per 1,000 square feet for each lift.
      
      ii. Backfill of Utility Trenches: Minimum one test per 100 lineal feet of trench for each lift.
      
      iii. Fills under foundation for walls and backfill of foundation walls. Not less than one test per 100 lineal feet of wall for each lift.

D. Asphalt: Perform nuclear density gauge tests in accordance with WSDOT Test Method 715 on the day the mix is placed (after completion of the finish rolling). Minimum one test per 1,000 square feet.

E. Concrete and Reinforcing Steel: See Division 03 Section “Cast-in-Place Concrete”.

F. Shotcrete: See Division 03 Section “Shotcrete”.

G. Post-Tensioned Concrete: See Division 03 Section “Post-Tensioned Concrete”.

H. Structural Steel, Welding, and Bolting: See Division 05 Section “Structural Steel Framing”. Use AISC certified fabricator/shop. If GC/CM chooses not to use an AISC certified fabricator/shop, then GC/CM shall pay for special inspection as per IBC 1704.2 and not be reimbursed by Owner.

I. Structural Masonry: See Division 04 Section “Concrete Unit Masonry”.

J. Soil Nailing: See Division 31 Section “Soil Nailing”.

K. Gabion Walls: See Division 31 Section “Gabion Boxes”.

L. Excavation Shoring: See Division 31 Section “Excavation Shoring”.

M. Drilled Foundations: See Division 31 Sections “Drilled Piers” and “Drilled Micropiles”.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

A. Minimum temporary facilities and controls requirements are specified in this section. These requirements have been included for special purposes as indicated. Nothing in this section is intended to limit types and amounts of necessary temporary work, and no omission from this section will be recognized as an indication that such temporary work is not required for successful completion of the Project and compliance with requirements of the General Conditions and Contract Documents and all applicable codes.

B. Included in this Section are the following items:

1.2 Product Delivery, Storage and Handling
1.3 Work Area
1.4 Protection of existing utilities
1.5 Shutdowns of existing equipment and utilities
1.6 Tree and plant protection
1.7 Landscape restoration
1.8 Temporary facilities
1.9 Temporary enclosures
1.10 Noise control
1.11 Parking
1.12 Triangle Garage roof protection

C. Related Sections:

1. Division 01 56 39 Temporary Tree and Plant Protection
2. Division 32 90 00 Planting
3. Division 32 91 00 Soil Preparation
4. Division 32 92 00 Lawns

D. Behavior

1. The Owner will not tolerate inappropriate behavior by any worker on a job site toward a student, staff, patient, visitor, neighbor or employee.

2. The Contractor shall not allow obscene, offensive or otherwise inappropriate material to be displayed in job offices, trailers or on the project site or building under construction. If such material is displayed it shall be immediately removed by the Contractor and/or when requested by the Owner's Representative.

3. Gratuities to Owner's employees by a Contractor are not allowed by the State Employees Ethics Codes.

1.2 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver, store, and handle products in accordance with the manufacturer’s recommendations, using means and methods that will prevent damage, deterioration, loss or theft.

B. Furnish products in the manufacturer’s original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
C. Inspect products upon delivery to ensure compliance with Contract Documents, and to ensure that products are undamaged and properly protected.

D. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

E. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.

F. Protect building materials subject to damage, under cover in a clean and weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer’s instructions.

G. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
   1. Ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

1.3 WORK AREA

A. Confine operations and storage to the designated work area. Maintain the work area and building in a clean and in an orderly manner.

B. Security:
   1. General:
      a. Protect Work and stored products from theft and vandalism; and protect premises from entry by unauthorized persons. At the end of work day, close temporary enclosures and lock exterior doors and/or gate. Secure all openings at any time site is left unoccupied.
      b. Owner’s Representative will issue keys, as required, for the Contractor to perform the Work. Prior to Final Completion, return all issued keys. Costs associated with re-keying of a system due to lost keys will be the responsibility of the Contractor. Contractor’s responsibility shall include, but not necessarily be limited to, the following:
         (1) Arrange for the issuance of access keys on a daily basis (or as mutually agreed with Owner). If a tunnel key is lost the entire tunnel system shall be rekeyed.
         (2) Lock all access doors when not attended and at the end of each shift.
         (3) Provide security barriers acceptable to Owner at all utility openings which are created by the removal of gratings or the opening of utility tunnels or shafts.
         (4) Coordinate Work to minimize need for access to restricted areas.
      c. Many buildings and spaces on campus are high security such as building mechanical/electrical and equipment rooms, certain lab spaces, and computer facilities. Contractor shall use due care to maintain an equivalent level of security of Owner’s property, where appropriate and as it normally exists (i.e., secure areas when not actively working, etc.). Normally docked doors shall not be propped open.
d. Contractor is advised to lock its gang boxes and secure them to the construction. Owner will not reimburse Contractor for any lost or stolen tools, material or equipment.

2. Tunnel System: Owner maintains rigid controls for persons entering the University tunnel systems. All tunnel doors and certain utility access gratings are equipped with special security locks. The remainder of the utility access gratings are secured by tack welding.

C. Waste Management:

Dispose of all refuse and waste material, including excess earth from excavation, off Owner's property. Do not stockpile waste material on Owner's property. Immediately clean up any spilled material. Clean all trash and debris from work area daily. Keep work area, site, and adjacent properties free from accumulations of waste materials, rubbish and windblown debris resulting from construction operations. Provide on-site containers for collection of waste materials, debris and rubbish. Periodically remove waste from the site, at a frequency acceptable to Owner. Do not use Owner's waste containers for construction waste. Dispose of all flammable, hazardous, and toxic waste materials daily. Storage of these materials will not be permitted on the interior of building. Coordinate dumpster location with Owner's Representative.

1. Although the Contractor is responsible for general Project clean up and waste disposal during construction, the cost for cleanup and disposal may be included with each subcontract bid.

2. Provide one (1) on-site container for the GC/CM's use until Substantial Completion.

D. Odor Control:

1. General: The use of solvents and materials producing noxious fumes or any product or equipment that adversely impacts air quality, shall be subject to the approval of Owner. Contractor shall submit a written procedure for the control of emissions prior to any use. Isolate odor causing work away from building air intakes, private properties and pedestrian traffic areas. Vent to outside areas where solvents are used within enclosed structures.

2. Emissions Control Plan: the plan shall consist of at a minimum the following items:
   
   a. Products to be used (MSDS sheets)
   b. Location of Work
   c. Application
   d. Ventilation plan
   e. Hours of operation
   f. Material handling/storage

3. Considerations shall include, but be limited to;
   
   a. Concrete curing
   b. Roofing and waterproofing
   c. Welding
   d. Exterior painting
   e. Asbestos abatement
   f. Soil remediation
4. Equipment and trucks producing fumes shall not be parked or located by building air intakes, entrances and operable windows, unless approved by the Owner.
   
   a. Trucks that are idling for more than a few minutes should shut off their engines. If trucks are queued and idling, they must have at least 20 feet between each truck.
   
   b. Contractor shall take all necessary actions at its sole expense to ensure that fumes from equipment and trucks do not enter a building air intake, entrance, or windows.

E. Smoking: The Contractor shall not permit its employees or the employees of its subcontractors of any tier to smoke on the job site, except in the areas indicated below:

   1. The Owner has designated specified areas where smoking is permitted. These areas are identified on maps that may be found at the following website addresses:
      
      a. For the Seattle Campus:
         http://www.ehs.washington.edu/psosmoking/smokingareas_seattle.jpg
      
      b. For the Tacoma Campus:
         http://www.ehs.washington.edu/psosmoking/tacoma_map.pdf
      
      c. For the Bothell Campus:
         http://www.ehs.washington.edu/psosmoking/smokingareas_bothell.jpg

   2. If the site of the Work includes a construction fenced area, the Contractor shall establish an outside area within the fenced area where its employees and the employees of its subcontractors of any tier may smoke, provided that the area is in compliance with the requirements of chapter 70.160 RCW. The Contractor shall communicate the location of the permitted smoking area to its employees and subcontractors, and shall require subcontractors of any tier to communicate the location of the smoking area to its employees.

1.4 PROTECTION OF EXISTING UTILITIES

   A. The existing concealed utilities shown on the drawings are not necessarily exact with respect to location or completeness; therefore, Contractor shall take the following steps:

   1. Notify Owner in writing, with a minimum of two weeks notice of each occasion, of the intent to work near existing known underground utility services or structures or when a new excavation operation is about to begin. Submit procedure for approval to assure safe and continuous operation of the services.

   2. Proceed with sufficient caution to preclude damaging any known utilities i.e. hand digging or probing. In the event unidentified utilities are encountered, notify Owner’s Representative immediately.

   3. In the event utilities are damaged during construction, temporary services and/or repairs must be made immediately to maintain continuity of services.
      
      a. Damaged utilities, installed by the Contractor, shall be repaired at the Contractor's sole expense.
B. Prior to construction, Contractor shall submit a plan for preconstruction survey of existing trunk sewer at NE Pacific Place. Survey shall include video documentation of the existing trunk sewer prior to and post construction.

1.5 SHUTDOWNS OF EXISTING EQUIPMENT AND UTILITY SERVICES

A. It is generally critical that all building systems remain operational within occupied buildings, except for brief shutdowns that might be required to integrate or connect new work. Similarly, continuity of equipment and utility services to adjacent buildings shall also be reasonably maintained at all times.

B. Equipment or utility shutdowns required to facilitate the Work shall be accomplished in accordance with the following requirements:

1. Submit a schedule of equipment and utility shutdowns (see Section 01 32 16 "Construction Progress Schedule").

2. Confirm all requests for equipment and utility shutdowns in writing to the Owner not less than (14) fourteen days prior to the proposed date. Use the Test/Utility Shutdown Request form for shutdowns (see forms in Appendix A). Include, as a minimum, the following information:
   a. Equipment or utility services affected;
   b. Reason shutdown is required;
   c. Work to be accomplished during the shutdown;
   d. Proposed date and time;
   e. Duration of the shutdown, and;
   f. Proposed method of providing back-up service during shut down.

3. The actual time and date of all shutdowns will be subject to approval of Owner. Shutdowns normally will be scheduled for nights, weekends, school vacations or other low intensity use periods.

4. The duration of all shutdowns shall be held to a reasonable minimum as determined by Owner.

5. Materials and equipment required for the Work to be accomplished during shutdown shall be complete and available on the job for review by Owner three days prior to the shutdown, if requested. If Contractor is not adequately prepared, the shutdown will be canceled and rescheduled.

6. Only Owner's personnel will shut down and restart equipment and utilities. Owner will inspect the installation prior to restarting and will not restart if an unsafe condition exists. In the event Contractor’s work is not completed during the time scheduled for the shutdown, Owner may elect to restart the equipment or utility service. In that event, additional shutdown requirements shall be rescheduled in accordance with the preceding requirements. Restarting shall not be construed as acceptance of the Work as complete.

7. Include in the bid all costs associated with equipment and utility shutdowns. Owner will make no extra payment for overtime work, schedule changes or failure to complete utility connections within authorized shutdown periods.
a. Although the Contractor is responsible for overall Project shutdowns, the costs may be included in subcontract bid packages.

1.6 TREE AND PLANT PROTECTION

A. See Division 01 56 39 “Temporary Tree and Plant Protection”.

B. Preserve and protect existing trees and plants and other vegetation which are designated to remain within the construction site. Water as necessary during construction and fertilize as required and approved.

C. Photograph the site prior to the start of construction to document original site conditions. Provide a copy of the photographs to Owner. The photographs will be used for determination of the extent of restoration required.

D. Replace or repair any plant material that is damaged (which was to remain) at no cost to Owner. The determination of damage shall be at the sole discretion of Owner.

E. Although Contractor is responsible for ensuring that all provisions of this heading are achieved, the cost may be part of subcontract bids.

F. Heritage trees are to be protected as shown on C104 and C105. In addition to the replacement requirements of Division 01 Section “Temporary Tree and Plant Protection”, the Contractor shall pay the Owner $50,000 for each heritage tree that is determined by the Owner to be damaged.

1.7 LANDSCAPE RESTORATION

A. Refer to the following sections:

1. Division 32 90 00 Planting
2. Division 32 91 00 Soil Preparation
3. Division 32 92 00 Lawns

B. If landscape area is indicated to be construction staging/parking area protect existing site adequately to avoid major damage or restore to existing condition using the following requirements:

1. Remove all construction equipment, temporary construction facilities, building material, debris, and remnants of destroyed sod or plantings before commencing landscape restoration.
2. Rough grade the site according to the existing conditions or specified grading plan.
3. Till or hand pick (except under trees) soil to a depth of 8 inches. Remove any rocks over 1 inch in diameter, torn roots and debris.
4. Amend soil, if topsoil does not exist or was removed, with organic material to a depth of 12 inches.
5. Fine grade the area according to existing conditions or to exact grading specifications.

C. Turf Restoration:
1. Seeding of new turf areas is acceptable between March 15th and October 15th. Sod will be required if the area must be restored between October 16th and March 14th or if the area was previously sod. Seed and/or sod requirements are:

   b. Seed: Sun and shade lawn mix, 75% Perennial Ryegrass or Triplex blend of Perennial Ryegrass all rated in the current Washington State University field trials and 25% Hard Fescue.

   c. Sod: Perennial Ryegrass Blend, no netting.

   d. Seedbed and sodbed preparation shall consist of incorporation of 4 lbs. of 5-25-25 Starter Fertilizer and 50 lbs. of Dolomite Lime per 1000 square feet into the top 4” of soil. Fine grade and roll the surface.

   e. Seeding shall be accomplished by broadcasting in opposite directions across the seedbed at a rate of 7 lbs. per 1000 square feet. The seed should be incorporated into the top 1/2” of soil and rolled smooth. A top dressing of mulch should be applied over the seed to ensure moisture retention.

   f. Apply irrigation to the seed as required to allow for germination. Any necessary irrigation repairs shall be performed by a qualified irrigation contractor and inspected by Owner.

   g. Sod shall be laid in a staggered pattern so joints do not match. After the sod is laid it must be rolled smooth to ensure good soil contact and eliminate any uneven surfaces.

   h. Provide adequate barriers and signs to prevent pedestrians from traversing the newly seeded or sodded areas.

D. Tree and Shrub Planting Restoration:

1. Locate and space trees, shrubs and groundcover according to existing conditions as determined in the field with the Landscape Architect and Owner. Do not plant material without an approval or in-field locating with Owner’s Representative.

2. Standard planting procedure shall consist of:

   a. Preparing a hole for the plant of 1-1/2 times the diameter of the rootball to be planted.

   b. Do not dig the hole any deeper than the rootball to assure proper surface grade.

   c. The plant must be planted at the proper depth.

   d. The hole must be backfilled with existing loose soil taken from the excavation of the hole and watered in until the proper grade is achieved.

3. Stake or guy only the trees or plants that may fall over.

E. Final Landscape Inspection:
1. Final inspection shall take place at the completion of the Work to verify conformance of the landscape restoration.

F. Although Contractor is responsible for ensuring that all provisions of this heading are achieved, the cost may be included in subcontract bid packages.

1.8 TEMPORARY FACILITIES

A. The types of temporary support facilities required include, but not by way of limitation, field offices, storage sheds, sanitary facilities, drinking water, first aid facilities, bulletin board, telephones, clocks, thermometer, Project identification signs, clean up facilities, waste disposal service, and similar miscellaneous general services; all as may be reasonably required for proficient performance of the Work and accommodation of personnel at the site including Owner’s and A/E’s personnel. Locate temporary support facilities for convenience of users, and for minimum interference with construction activities. All placement shall be subject to review and approval by the Owner’s Representative.

B. Remove all temporary facilities, such as water lines, gas lines, electric conduit and transformers, shoring, crane base and hoist foundation construction, etc. unless indicated otherwise in the Contract Documents. Restore site to original, or new, conditions patching and filling as required to match adjacent surfaces.

1. Although the Contractor is responsible for ensuring all provisions of this paragraph are achieved, the cost may be included in subcontract bid packages.

C. All utility connections to Owner utilities must carried out as described in Paragraph 1.5 "Shutdowns of Existing Equipment and Utility Services" within this section.

1. Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of the permanent service.

2. Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

3. Do not block Owner's access to adjoining buildings through the use of temporary facilities.

D. Electrical Power and Service: Owner shall provide the source and final connection of electrical power. Contractor shall pay for, provide and install all necessary equipment for installation and removal of temporary power as required by the Project and Owner. Contractor shall also pay for, provide and install a meter approved by the Owner on the electrical power source for all site construction work and pay all charges for metered electrical power. Install and maintain temporary equipment in accordance with applicable safety regulations and the Owner.

E. Lighting: Provide and maintain security lighting as appropriate to provide general illumination of work area during nighttime hours. Provide general illumination of work area for all trades.
1. Although the Contractor is responsible for ensuring all provisions of this paragraph are achieved, the cost may be included in subcontract bid packages.

F. Heat: Provide temporary heat as required to protect materials and equipment from dampness and cold. Method of heating is subject to approval of Owner's Representative. Owner's central steam system may be used if reasonably available, subject to the Owner's approval. "Salamander type" heaters are not permitted.

1. Although the Contractor is responsible for ensuring all provisions of this paragraph are achieved, the cost may be included in subcontract bid packages.

G. Water:

1. Water: For construction purposes coordinate the need and pay for all temporary construction water with local public utility. Pay all cost of temporary piping, including pressure reducing station, back flow preventer, removal of piping and restoration as required by the public utility.

2. Provide drinking water from a proven safe source for all those connected with the Work. Transport water in such a manner as to keep it clean and fresh. As required, provide service in single service containers or sanitary drinking fountains.

   a. Contractor may use Owner's “potable” water drinking facilities, if available and approved by Owner.

3. Although the Contractor is responsible for ensuring all provisions of this subparagraph are achieved, the cost may be included in subcontract bid packages.

H. Toilet Facilities: As required, provide self-contained single-occupant toilet units of the chemical, aerated circulation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.

1. Owner’s toilet facility may be used if available and provided they are maintained in a clean condition, as approved by Owner.

I. Telephone: The Superintendent shall carry a cellular phone. If the Superintendent does not carry a cellular phone or if cellular reception is not available at the Project site, Contractor shall provide at the Project site a non-coin box telephone connected to nearest city exchange during the progress of the work. Contractor to pay all telephone charges.

J. FAX Machine: Maintain a FAX machine on-site during the progress of the Work, pay all charges.

K. Conservation: In compliance with Owner’s policy on energy/materials conservation, install and operate temporary facilities and perform construction activities in manner which reasonably will be conservative and avoid waste of energy and materials including water.

L. Contractor’s Field Office: Contractor is to provide and pay all costs for a field office and its removal at end of construction.

M. Crane(s) & Hoisting: Provide crane(s) and hoisting including all tower cranes, mobile cranes, forklifts and specialized lifting apparatus and temporary base construction, as required for the Work.
N. Elevator Operations and Personnel Hoists: Provide elevator operation and personnel hoists including all temporary and permanent elevator operations.

1.9 TEMPORARY ENCLOSURES

A. Barriers, Safety Guards and Warnings: provide for public protection as required by law and ordinance. Temporary barriers that obstruct exit paths from occupied areas shall not be installed unless approved by Owner. Keep streets and walks clean and free from obstructions.

1. Provide temporary construction to protect Work. Furnish, install, and maintain for the duration of construction all required tarpaulins, barricades, barriers, canopies, warning signs, steps, bridges, platforms and other temporary construction necessary for proper completion of the Work. Maintain in compliance with all pertinent safety and other regulations.

a. Egress Signage: Provide and install temporary exit signs, as needed, to insure a clear direction or emergency exit travel in occupied areas adjacent to the construction project. Review the temporary exiting routes and signage design and location with Owner’s Representative.

b. Other Signage: Provide informational signs and any other sign required by authorities having jurisdiction (AHJ) to identify Project.

2. The Contractor shall provide one-hour fire rated barriers of sheet rock and metal studs with taped joints where shown on the drawings or when removing and/or compromising existing fire safety partitions indicated on the drawings, such as corridor wall and/or occupancy separations, to isolate the construction area from other occupied building areas. Remove and repair finishes to match existing at completion of Work.

a. Fire Safety during construction, alteration, or demolition must be provided as indicated by the current edition of the International Fire Code. Combustible materials are not permitted to be used as barriers.

3. Barriers within occupied buildings must enclose entire work area and completely isolate it from surrounding areas unless otherwise approved by Owner. They are to be one layer of sheet rock on metal studs with taped joints sealed with caulk at all connection points. Barriers must be constructed smoke tight and may be constructed of non-combustible or limited-combustible materials, when approved by the Owner. Barriers must be provided above the suspended ceiling to the structure above, unless ceilings are not disturbed, in which case, the seal may occur at the ceiling tile. Ceiling tiles damaged by Contractor shall be replaced with equivalent undamaged tiles prior to removal of the barrier. Repair finishes to match existing at completion of work. Under certain conditions, and when approved by the Owner, barriers within the occupied building areas may be constructed out of the following materials:

a. For work sites to be completed within one shift or with little anticipated noise and no "hot work" or above ceiling barriers or ceiling work outside of contained workspace: 6-mil fire-retardant (Rexam StarTex or approved equal) visqueen with zipper openings. Use appropriate mini-enclosure for all ceiling work outside of contained workspace. All ceiling panels moved by Contractor must be placed back
into position before mini-enclosure is removed. All joints and other connection points are to be sealed with smooth surface vinyl tape.

b. For all others, except fire rated barriers: barriers below suspended ceilings shall be minimum ¼” thick, plastic coated, low VOC, fire treated melamine panels. All joints and other connection points are to be sealed with smooth surface vinyl tape.

c. Barrier doors are to be self closing and fitted with gasketing or other material to restrict closing noise and airflow.

d. All elevator openings in occupied buildings, except dedicated construction elevators, must be sealed air tight to the work area.

e. All interior work site entrances must have tacky mats present at all times. Mats must be clean, intact and maintained on a constant basis.

4. Site Fences and Barricades: Provide temporary six (6) foot high chain link fence panels with top rail fastened to tubular metal posts set in heavy concrete bases to prevent ready relocation unless otherwise indicated. Panels are to be anchored together to prevent entry between panels. Provide fence around construction laydown area and as indicated on Drawings. No barbwire is permitted.

1.10 NOISE CONTROL

A. Construction shall not exceed the maximum permissible sound levels defined by the local authorities having jurisdiction (AHJ) and meet all local conditions.

B. On campus, maintain the sound pressure level of construction noise from exceeding a 60 DB(A) with windows closed between the hours of 8:00 a.m. and 5:00 p.m. weekdays.

1. Contractor shall meet this criterion by erecting barriers between equipment or job and such interior areas.
2. Equipment shall be as quiet as feasible for the work being performed.
3. When possible combine noisy operations into one time period.

C. Limited Hours of Use Within Buildings: Within occupied facilities, noise producing equipment used is subject to approval of Owner and will be, in general, allowed only before 7 a.m. and after 6 p.m. unless otherwise noted elsewhere.

1. Specific scheduling is required within the Medical Center, with two (2) weeks advance notice required and approval by Owner.

D. Machinery & Equipment: Electric-driven or hydraulically drawn is preferred in place of gas, diesel, or pneumatic powered machinery. If noise levels on any gear cannot reasonably be brought down to criteria, either that gear will not be allowed on the job or use times will have to be scheduled subject to approval of the Owner. Conformance to this specification shall be included in the Contract price and no compensation will be allowed for special equipment, overtime, etc. that may be required. Construction personnel shall limit the extent of unnecessary equipment idling.

E. Outdoor Vehicle and Internal Combustion Engine Noise: The sound pressure level of each piece of equipment shall not be greater than 85 DB(A) as measured from the real property of another person and at a distance of 50 feet as measured under noisiest operating conditions.
Rubber-tired equipment is to be used whenever possible instead of equipment with metal tracks. Mufflers for stationary engines shall be hospital-area quality of silencing.

1. Contractor is to verify equipment mufflers and noise shrouds are intact and operational.

F. Air Compressors: Equip air compressors with silencing packages. Electric-driven preferred.

G. Arc Welders: No arc welders are to be connected to Owner's utilities, unless approved by the Owner. Provide separate gas generators for arc welders.

H. Contractor is to provide a noise control education program for operators of excavation equipment and soil haul trucks. Discourage use of wide open throttle or compression release brakes.

I. Jack Hammers and Roto Hammers: May be used where no other alternative is available if permitted by the Owner. The use of core-drilling or saw cutting equipment or electric driven drills preferred. Time of use subject to approval by Owner.

1.11 PARKING:

A. Parking on or near the University is congested. To minimize disruptions to University operations and the impact on the adjacent neighborhoods, Contractor shall limit the number of vehicle trips to the Project Site. In addition, the Contractor shall advise construction workers not to park in neighboring residential areas. This information shall be posted along with bus pass/ticket information.

B. The Contractor shall limit construction parking to area(s) shown on drawings or indicated in the Contract Documents. Parking permits are required for all vehicles parking on campus.

C. For this Project, daily parking permits are available for purchase from campus gatehouses to park in lot E1. The Contractor is responsible for advising all parties on the Project of their designated parking assignment and ensuring that all workers park there. If parking needs change for any reason, Contractor shall advise the Owner’s Representative so necessary accommodations can be made, to the extent possible.

D. Parking Lot E5 offers low cost daily parking for workers without project parking permits. Other parking may be available as noted in the Parking Rates Website.

E. Other short term special permits for parking in some campus lots or other designated areas (minimum of 3 days) maybe available for purchase by workers or by the Contractor for distribution to workers. For details, contact Owner's Representative.

F. University parking and traffic regulations are available upon request. Parking citations, impounding of vehicles and loss of parking privileges on campus may result from failure to comply with these regulations.

G. Parking Rates: Current parking rates can be found online by visiting http://www.washington.edu/admin/parking/

1.12 TRIANGLE GARAGE ROOF PROTECTION:
A. Contractor shall provide a work plan describing how to protect garage roof structure, roof membrane, and drainage layer during construction activities on roof. Work plan shall be submitted at least 10 working days prior to start of construction and is subject to approval by the University.

PART 2 PRODUCTS (Not used)

PART 3 EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 DESCRIPTION

A. General: The University has established rules and regulations which will be observed by everyone performing construction work on University property affecting streets and sidewalks, in order to provide safe and effective work areas and to warn, control, protect and expedite vehicular, bicycle, and pedestrian traffic.

B. City Right of Way: Comply with all City of Seattle regulations and requirements.

1.2 RESPONSIBILITY

A. General: Conduct work within or infringing upon street right-of-way in accordance with acceptable standards of safety and efficiency and, except where specified in the contract, comply with the following:
   1. Obtain written permission to perform on the street right-of-way from Owner's Representative.
   2. Supply, install, and maintain traffic control devices and equipment.
   3. Provide flaggers and proper equipment.
   4. Schedule and expedite the work to minimize inconvenience to the public.
   5. Provide adequate safeguards for the worksite and the general public.

1.3 PROCEDURE FOR OBTAINING PERMISSION TO WORK IN UNIVERSITY STREETS

A. General: Obtain written approval to restrict any University street, sidewalk, or alley from Owner's Representative. Restrictions include partial or full lane closures, parking restrictions, sidewalk closures, detours, complete street closures, shoulder work, and pedestrian rerouting, as well as the placing of building materials or equipment on University streets, sidewalks or alleys.

   1. Obtain Owner's written approval for any work which will be allowed in the street right-of-way as indicated below:

      a. 5 days notice for:
         1. Partial closure of an arterial street.
         2. Complete closure of any local access street, alley or sidewalk.

      b. 3 days notice for:
         1. Restriction of any parking.

      c. 2 week notice for:
         1. Complete closure of any arterial street.

   2. The actual time and date of all shutdowns will be subject to approval of Owner. Shutdowns normally will be scheduled for nights, weekends, school vacations or other low intensity use periods. Normally, no work will be scheduled in the street between the hours of 7 a.m. to 9 a.m. and 3 p.m. to 6 p.m.

   3. The duration of all shutdowns shall be held to a reasonable minimum as determined by Owner.

   4. Include in the bid all costs associated with equipment and utility shutdowns. Owner will
make no extra payment for overtime work, schedule changes or failure to complete utility connections within authorized shutdown periods.

1.4 GENERAL REQUIREMENTS

A. General: Design and usage of traffic control devices shall conform in to the specifications contained in the Manual on Uniform Traffic Control Devices (MUTCD) from the U.S. Department of Transportation, Federal Highway Administration.

B. Planning: Visit the job site and affected vicinity before starting the job in order to evaluate:
   1. Traffic conditions (vehicular, bicycle and pedestrian);
   2. Existing traffic controls;
   3. Traffic lane requirements;
   4. Physical features;
   5. Visibility restrictions;
   6. Problems of access to abutting property;
   7. Business access and activities; and
   8. Type, number and location of signs, and channeling devices, including any specially worded signs or other special devices which may be necessary.

C. Discontinue work if conflict exists with special events such as sporting events, and large public meetings or with seasonal conditions. Information concerning such events can be obtained from Owner's Representative.

D. Work Area: Unless a section of street is to be completely closed to vehicular traffic, work should be accomplished with minimum disruption to the flow of traffic. Schedule and layout work areas to maintain:
   1. The maximum number of traffic lanes normally available to be opened in the direction of the heaviest flow of traffic during peak hours.
   2. 2-way traffic at all times except on one-way streets or as approved by the Maintenance of Traffic (MOT) plan. Additional width for facilitating traffic flow may be obtained by prohibiting on-street parking adjacent to the work zone.
   3. Locate traffic on paved surfaces whenever possible. In the event that graveled or dirt surface must be used as a detour, maintain a smooth surface and control dust.
   4. Clean pedestrian and driving surfaces daily or more often as required to keep the paths clean. Clean spillage from trucks immediately. Keep adjacent areas clean.
   5. Safe and protected pedestrian ways.
   6. Clear and unobstructed sight line for vehicular, bicycle, or pedestrian traffic. Locate construction equipment so as not to interfere with the above sight lines.
   7. Traffic control devices in a proper condition on a 24 hour basis whether or not work is actively underway. Store tools and equipment properly.
      a. Following the placement of all necessary traffic control devices, those responsible should drive through the entire work area in the same manner as the public. Particular attention should be given to visibility of all signs including advance warning signs, smoothness of transitions, and placement of any devices which may cause confusion or indecision on the part of the unfamiliar driver.

E. Placing Signs and Equipment: Place signs, channeling devices, and construction equipment to insure safe, smooth traffic operation around the construction area. Adhere to the following procedures:
   1. Traffic control signs placed prior to the scheduled work shall be covered until work
begins. Parking prohibition signs may be installed ahead of time.

2. Remove traffic control equipment not required during the Project.

3. Install traffic control devices so that they are readily visible to approaching traffic. Place traffic control devices to allow a driver to see from one device to the next and place them so that they are in the same position on successive days unless changes in construction work dictate otherwise.

F. Intermittent Work: Work requiring vehicles to stop for a few minutes within the roadway area to perform routine service, such as relamping and manhole inspection shall comply with the following:

1. Schedule work on streets during off-peak periods.
2. Equip vehicles with approved flashing yellow warning lights.
3. Mount appropriate warning devices on the vehicle as high as necessary to be seen by approaching motorists.
4. Use supplemental traffic cones (or other suitable channeling device) to channel traffic around the vehicle. Leave devices in place until all work has been completed and the vehicle is ready to be moved.
5. Provide flagger control if it is necessary to interrupt traffic flow or if the vehicle obstructs a lane on an arterial street.

G. Existing Traffic Control Devices: Do not revise existing traffic control devices such as street name signs, traffic signs, signals and other traffic control devices erected by the University, unless directed otherwise by Owner’s Representative.

H. Maintenance of Traffic Control Devices: Maintain signs and channeling devices in proper position, clean, and legible at all times. Remove weeds, shrubbery, parked contractor vehicles, construction materials or equipment, soil and snow that obscure any sign, light or channeling device. Remove all traffic control devices on the site that will not be serving a function during construction and re-install as needed and as directed by Owner’s represented.

1.5 MATERIALS AND PERSONNEL FOR TRAFFIC CONTROL

A. Channeling Devices: Use channeling devices to warn and alert drivers, bicyclists and pedestrians of work sites on or near the traveled way, and to guide and direct them safely past. Channeling devices are used to:

1. Protect the work site.
2. Provide for pedestrian movements around the work site.
3. Channel and divert traffic in advance of the work site.
4. Define the travelway through the work site.
5. Define a change in the position of the existing lane around the work site.
6. Define curves and the edges of the roadway on detours.
7. Separate opposing lanes of traffic.

B. Channeling devices shall conform to the following requirements:

1. Be of a material that will withstand impact without appreciable damage to the device, the striking vehicle or passing traffic;
2. Be reflective if used at night unless otherwise specified herein; and
3. Be predominantly orange colored.

C. Pavement Markings: Temporary pavement markings shall not be placed to conflict with existing pavement markings. To the extent that a conflict or hazard may be produced consideration
should be given to removing existing markings. Upon completion of the project, original pavement markings will be restored.

D. Flaggers: Provide qualified personnel as flaggers as called for in the Maintenance of Traffic (MOT) plan unless otherwise approved in writing by the City of Seattle. Flaggers to wear a predominantly red or fluorescent orange jacket or vest and a yellow or orange safety helmet at all times. Wear jackets or vests buttoned or zipped for maximum effectiveness. Equip the flagger with a standard stop-slow hand paddle or pole-type paddle. At the Owner’s discretion, the cost of this work may be part of the subcontract bids. Flaggers should be used:
1. Where workers or equipment are intermittently blocking a traffic lane.
2. Where equipment is backing.
3. Where only one lane is available for two directions of travel. Where the one-lane section is visible from one end to the other end, traffic shall be controlled by means of a flagger at each end of the section. When more than one flagger is utilized, one should be designated as the chief flagger for purposes of coordinating movement. They should be able to communicate with each other verbally or by means of signals. These signals should not be such as to be mistaken for flagging signals. Where the end of a one lane section is not visible from the other end, the flagger may maintain contact by means of radio or field telephones or additional flaggers may be stationed at intermediate points. If the one-lane section is short, one flagger only may be used to handle both directions of traffic.
4. Where traffic control equipment is being placed or removed in the roadway.
5. In emergency situations until proper traffic control equipment can be obtained and properly installed.
6. Other general rules pertaining to flaggers include:
   a. At no time shall a flagging station be left without a flagger.
   b. Stopped motorists should be advised as briefly as possible of the reason for the delay and its approximate duration.
   c. Flagger should avoid conversations or arguments with pedestrians, bicyclists and motorists.
7. Flagger Stations: Conform to the following criteria:
   a. Locate stations far enough in advance of the work area to properly slow or stop traffic before it enters the work area.
   b. Locate flaggers on the shoulder of the roadway, but should at all times remain clearly visible to the approaching traffic. Do not locate flaggers in the traffic directly in the path of an approaching vehicle.
   c. Position a flagger on the shoulder of the road opposite the work area at a "spot" obstruction where a single flagger controls traffic from both directions.
   d. Flaggers should stand apart from the other crew members and shall not mingle with others while on duty. Flaggers should be aware of their position relative to construction equipment such that they do not blend in with background equipment.

1.6 TYPES AND METHODS OF TRAFFIC CONTROL SIGNING

A. General Requirements: Signs shall meet the following standards:
1. Conform in size, shape, color, material, and message with those included in MUTCD.
2. Do not use stripes (other than the standard border) or other geometric patterns or contrasting colors on or around the sign in an attempt to make it more conspicuous; however, standard fluorescent red-orange flags or yellow flashing lights may be used for added emphasis so long as they do not interfere with the sign message.
3. Signs used during the hours of darkness shall be properly reflective except for parking and pedestrian prohibition signs. Reflectivity of the sign face shall be accomplished using approved weatherproof, reflective sheeting; paint impregnated with glass beads shall not be used. Where reflectivity is rendered ineffective due to extraneous light sources, the sign shall be illuminated either externally or internally. Where external illumination is used, the source shall be properly shielded to reduce glare. Street or highway lighting shall not be considered adequate for illuminating signs. All reflective or illuminated signs should be checked by the contractor during hours of darkness to insure they are functioning properly.

4. Construct signs from material which will not deteriorate under normal weather conditions. Sign blanks should be weatherproof plywood or noncorrosive metal. Roll-up signs fabricated from vinyl-coated nylon or vinyl-coated nylon mesh may also be used. If such signs are not reflective, they shall not be used at night.

B. Sign Placement: Place signs in a position so that they will convey their message most effectively without restricting lateral clearances or sight distance.

1. Mount signs on the right hand side of the roadway; however, dual installations (one sign on the left side as well as on the right) should be used where increased emphasis is necessary and on one-way streets. Place signs in a closed lane if such placement is more advantageous and does not present a hazard.

2. Locate permanent curb or shoulder mounted construction signs a minimum horizontal distance of 2 feet from the curb or pavement edge and a standard minimum vertical height of 7 feet above the ground. Mount signs higher where equipment, pedestrians, vehicles, or other obstructions obscure the signs or when they are used on main arterials or streets.

3. Signs may be pedestal or post hole mounted or may be mounted on portable sign supports, high level warning devices, drums, or utility poles (with authorization of Owner's Representative. Securely fasten/weight signs and mounting apparatus so they are not moved, or blown over by wind or passing traffic.

C. Regulatory Signs: No regulatory sign shall be changed without permission of the Owner's Representative.

D. Warning Signs: Provide warning signs in a diamond shape with black symbols or letters on an orange background. Use warning signs to alert motorists of abnormal conditions on the roadway resulting from the construction or maintenance work.

E. Guide Signs: Provide guide signs to indicate to the motorist the path they must follow through a detour in order to by-pass the construction and continue towards their original destination. The most common are the detour and detour arrow signs.

1.7 PEDESTRIAN CONTROL AND PROTECTION

A. When the Work area encroaches upon a sidewalk, walkway, or crosswalk, special considerations must be given to pedestrian safety. Separate pedestrians from the Work area.

1. Provide protective barricades, fencing and bridges, together with warning and guidance devices and signs for a safe and well defined passageway for pedestrians. Provide handrails for walkways that cross excavations. Provide footbridges that are safe, strong, free of bounce, sway, cracks, holes, and irregularities that could cause tripping. Provide ramps to the entrance and exit of all raised foot bridges. Provide adequate illumination.
and reflectiveness during hours of darkness. Maintain walkways at least 4 feet wide except in areas of unusually heavy pedestrian traffic where the minimum width shall be 8 feet. Detours of the Burke Gilman Trail shall be the same width as the existing detoured portion.

2. Provide an alternate walkway where walks are closed by construction, preferably within the planting strip. Provide barricading or channeling devices where it is necessary to divert pedestrians into the roadway. Separate the pedestrian walkway from the adjacent traffic lane.

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

1.8 DETOURS AND STREET CLOSURES

A. General: Several elements are involved whenever it is deemed necessary before or during the course of a project to close an existing street and create a detour.

B. Permission and Notification: Obtain permission from Owner’s Representative or SDOT on city streets. City street detours shall comply with any Maintenance of Traffic (MOT) plans submitted and approved by the city. Submit detour schedules and diagrams showing the steps required to maintain the detour during each phase of construction and showing the type, number and placement of all traffic control equipment. Include a tentative schedule indicating when specific signs, barricades and pavement markings will be activated and deactivated.

C. Detour Requirements: All detours shall meet the following:
   1. The detour shall be as simple and direct as possible.
   2. No turns shall be used on the detour other than those required to leave or enter the closed street or the parallel detour route.
   3. Streets less than 36 feet in width shall be used for detouring only one direction of traffic unless parking on one or more sides is restricted.
   4. Provide temporary traffic control signs. Adjust signs as work progresses.
   5. When installing a detour on a multi-lane street with the detour route is less than four lanes in width, parking shall be prohibited on the detour route.
   6. Clearly mark detour where it intersects other cross street so that motorists will not turn prematurely in the construction area of the closed portion of the street.
   7. Post signs and barricades advising of the street closing at the nearest intersections away from the closed portion of the street and on all cross-streets in order to minimize unnecessary backing, turning around and maneuvering. Normally, such street closings should not exceed 2 blocks in length at any one time.
   8. Provide and maintain access for local residents as much as conditions permit.
   9. Maintain access for all emergency vehicles, fire hydrants and alarm boxes along the closed route at all times.

D. Requirements Within Streets Closed to Through Traffic: Adhere to the following guidelines; however, each situation should be evaluated on the basis of traffic volume and speed, familiarity of motorists with the roadway, and sight distance.
   1. Mark open excavations, ditches, soil banks, etc., with barricades. Identify obstructions such as poles, curbing, etc. which, due to construction, are in a position where they could be struck by a vehicle, by barricades, drum, etc.
   2. Identify the path for vehicles through the construction area by channeling devices in particular where the route has been altered or existing paint striping or channeling has
been obscured or removed due to the construction activities.

3. Generally, traffic cones or barricades outlining the immediate work area are sufficient to guide motorists around obstructions where equipment is working in the travelway during the daytime.

4. Provide a flagger where one lane must be used for two directions of travel. Situations as stated above, which require flagger control, shall be allowed during daytime only. At night such areas shall be clearly marked to allow two lanes of traffic.

5. Provide flaggers where equipment is intermittently backing into the travel way, when the traffic volume is heavy, speeds are high, and adequate sight distances are not available to allow a vehicle to stop safely if necessary.

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes The following guidelines are to be used for all existing trees that are to remain within the project site including trees inside and outside of the property line, and trees adjoining the project limits in tree protection zones.

B. Related Sections:
1. Division 31 20 00 Earthwork
2. Division 32 80 00 Landscape Irrigation
3. Division 32 90 00 Planting

C. Definitions:
1. Landscape Requiring Protection and Maintenance: All existing trees, plants, and lawn located on the Project Site and not identified for Contractor’s lay down or parking use, including tree canopies and root zones extending to or within the Project Site.
2. Critical Root Zone (CRZ): The area equal to one (1) foot radius from the trunk of the tree for every inch diameter of the tree trunk measured at four feet, six inches (4’-6”) above grade or extent of tree canopy, whichever is greater.
3. Tree Protection Zone (TPZ): Areas identified within the Drawings to receive tree protection fencing.
5. Dripline: The dripline of a tree is described as the area on the ground beneath the tree’s canopy.

1.2 PRE-INSTALLATION MEETING

A. Prior to the start of any on-site Work the Contractor shall arrange an on-site pre-installation meeting with the Owner’s Representative to identify and stake out all areas of trees, plants and lawn that are to be protected or removed. The Contractor shall be responsible for all damage to landscape features that results from the failure to schedule and attend the pre-installation meeting.

1.3 QUALITY ASSURANCE

A. A Certified Consulting Arborist is to review all aspects pertaining to the preservation of existing trees. The Certified Consulting Arborist to be contracted must be mutually agreed on by the Contractor and by the Owner. In addition to a Certified Consulting Arborist, an SDOT Forester is required to review all aspects pertaining to the preservation of existing trees for work within the Right of Way.

B. The contracted Certified Arborist shall be bonded and licensed with the State of Washington and subscribe to ISA standards and ANSI Z133.1.1979 unless otherwise stated.

1.4 SUBMITTALS

A. Soil and Organic Amendment Tests:
1. Provide the following analyses of existing soils for review from an accredited soils testing laboratory:
   a. A fertility analysis and recommendations for fertilizer types and application rates.
   b. pH levels of existing soil.
   c. Submit laboratory results of all amendment analysis to Architect prior to beginning any soil amendment placement.
   d. Costs of testing will be paid for by Contractor.

1.5 CONTRACTOR RESPONSIBILITY

A. The Contractor shall be responsible for all damage and/or disturbance within the CRZ of landscape indicated to remain as shown in the Contract Documents including, but not limited to, cutting, breaking or skinning of roots, skinning or bruising of bark, compaction of root zones and breaking of branches. The determination of damage shall be at the sole discretion of the Owner. The Contractor shall assume all trees, plants, and lawn within the Project Site shall be protected unless designated to be removed in the Contract Documents.

1. Damage and/or disturbance which, in the Owner’s sole discretion, can be remedied by corrective maintenance shall be immediately repaired by the Contractor upon written notice by Owner.
   a. The Contractor shall employ a Certified Arborist to repair damage to trees.

2. Trees or shrubs which are injured or irreparably damaged shall, at the Owner’s sole discretion, be replaced by the Contractor with new trees or shrubs of the same size and type. Owner is not bound to replace trees or shrubs in the same location.
   a. Trees which fail to fully foliate in the spring following completion of construction operations may be presumed to have been injured or irreparably damaged due to construction operations.

3. If, in the Owner’s sole opinion, replacement of damaged trees is determined not feasible or impractical the full replacement costs shall be borne by the Contractor at values based upon the square inches or cross sectional area of trunk measured at four feet, six inches (4'-6") above grade, in accordance with the following criteria:
   a. $75.00/square inch for trees less than or equal to six (6) inch diameter.
   b. $50.00/square inch for trees greater than six (6) inch and less than (18) inch diameter.
   c. $40.00/square inch for trees greater than or equal to eighteen (18) inch diameter.

B. Trees or shrubs which require removal and/or replacement due to damage by construction operations shall be removed to a depth of two (2) feet below grade and include the refilling and repair of the ground surface, with such costs to be borne by the Contractor.

C. Protection and maintenance shall include, but not be limited to, replacement of damaged protection fencing, aeration of compacted soils, control of temporary irrigation water runoff, pruning, and treatment of damaged roots, and replacement of wood chips within the tree protection areas.

D. Site damage and/or disturbance caused by the Contractor outside the Project Site shall be repaired or replaced and all costs shall be borne by the Contractor.
1. Repairs shall include, but are not limited to pruning or removing damaged vegetation, replacement of damaged vegetation, soil remediation to alleviate over-compaction, restoration of lawn and temporary irrigation to establish new plantings.

PART 2 - PRODUCTS

2.1 PROTECTION FENCING FOR TREES WITHIN PROPERTY BOUNDARIES

A. Protection Fencing shall be six (6) feet high, galvanized, 11 gauge, 2 inch mesh chain link fencing with nominal 2 ½” diameter galvanized steel posts, or approved equal.
   1. The Contractor shall post weather-resistant 8 ½”x11” fluorescent green or yellow signage on protection fencing at twenty (20) foot intervals warning construction personnel to keep out of tree protection zones.
   2. Tree Protection shall be reviewed and approved by the project Arborist.

2.2 PROTECTION FENCING FOR TREES WITHIN THE RIGHTS OF WAY

A. Protection Fencing and other tree protection requirements shall be per current SDOT requirements.
   1. Tree Protection shall be reviewed and approved by SDOT Forester.

2.3 WOOD CHIPS

A. Wood chips shall be of coarse wood fiber; bark mulch is not acceptable.

B. Wood chips shall be arborist wood chips as approved by Arborist.

2.4 FERTILIZER

A. Fertilizer shall be Osmocote Plus, 15-9-12 or approved equal.

PART 3 - EXECUTION

3.1 TREE PROTECTION GUIDELINES

A. General:
   1. Preserve and protect existing trees and plants and other vegetation which are designated to remain within the construction site. Water as necessary during construction and fertilize as required and approved.
   2. Photograph the site prior to the start of construction to document original site conditions. Provide a copy of the photographs to Owner. Photograph and label by number given in survey each tree to be transplanted and retained. The photographs will be used for determination of the extent of restoration required.
   3. Although Contractor is responsible for ensuring that all provisions of this heading are achieved, the cost may be part of subcontract bids.

B. Tree Protection:
   1. The Contractor will confirm acceptance of the existing tree inventory and assessment provided by Tree Solutions Inc. Consulting Arborists on January 25, 2010 and revised February 2, 2010.
   2. Educate all workers on site about tree protection techniques and requirements during preconstruction meetings and by sharing and posting this Tree Protection Specification.
3. Tree Protection Zones are as shown in the Drawings. Trees growing in tree pits within the R.O.W. will be protected by chain link fencing as shown in Drawings or as approved by the SDOT Forester. Chain link fencing at least 6’ tall is to be erected around each tree or groups of trees in all other situations. Single-strand wires, rope or plastic flagging or plastic fencing is not considered an acceptable barrier. Only the Arborist with Owner approval may approve an alternate barrier material. Chain link fencing should have some type of screening material for aesthetics and debris retention purposes. One entry point into the TPZ to gain access to the tree shall be provided for all trees. TPZ’s will vary depending on the size and location of the tree. Leaving the fence open on one side, moving the fence limits, or temporarily removing the fence and working around the tree is unacceptable. Fencing installation must occur prior to clearing and grubbing. Damaged fencing/barriers shall be re-established or replaced.

4. The Arborist is to perform or supervise all construction related root pruning. Prevention of tree root damage by construction equipment is a priority. To prevent roots being ripped by equipment excavating and/or grading, the roots are to be pruned 6” -12” closer to the tree than the construction limit. Whenever possible, roots over 2” in diameter should be preserved and protected during excavations. This may require tunneling/boring underneath critical roots.

5. Construction materials, including but not limited to storage of tools, equipment, building materials or stockpiling fill or soil are not to be stored over root zone areas at any time. Parking of vehicles or construction equipment is not permitted over root zone areas at any time.

6. Work required for removal of unwanted vegetation within the CRZ areas will be hand work only. No heavy equipment shall be used or allowed within the TPZ.
   a. Where access for machinery or any vehicle is required within the CRZ or TPZ of any preserved tree, the soil should be protected from compaction. Acceptable methods include an 18” deep layer of arborist wood chips or hog fuel, 1” thick plywood or steel sheets to be placed over the soil surface.

7. Do not attach anything to trees using nails, screws, and/or spikes.

8. Provisions must be made to water preserved trees during periods of drought. Periods of drought are defined as a time when there is less than one inch of rainfall during any 30 day period. Use drip or soaker hoses to maintain a 45% moisture level at the soil within the root zone area. Application should be made so that the water slowly soaks into the ground and does not run off.

9. Fertilize trees as necessary with phosphorus, potassium, calcium, magnesium, and other macro-and micro-nutrients as indicated by a soil nutrient analysis test, but wait at least 1 year to apply any nitrogen. Nitrogen shall only be applied according to ANSI A300 (part 2) Standard Practices for Fertilization or the ISA’s Best Management Practice for Fertilization.

10. When removing trees outside of the TPZ determined to be unacceptable for retention, use methods such as directional felling to avoid damage to trees and other vegetation that is to be protected and retained. Small trees and other native vegetation in these areas should be carefully preserved.

11. Tree stumps that are within a TPZ or immediately adjacent to the CRZ of a preserved tree or other vegetation shall be removed by grinding.

12. Mulch open soil surface with wood chips at 4”-6” depth to prevent soil compaction and root loss over root area. The mulch shall be kept 12” away from the base of any tree. This
material must be removed from the site before landscape restoration begins. Heavy equipment may not be used to apply wood chips within root zone areas.

13. Replace or repair any plant material that is damaged (which was to remain) at no cost to Owner. The determination of damage shall be at the sole discretion of Owner.

C. Installation of Tree Protection Fencing for Trees:

1. Install posts a minimum of two (2) feet below grade and spaced ten (10) feet on center maximum. Provide diagonal bracing to posts at corners of enclosures and whenever needed to ensure rigidity of the fencing.

2. Install chain link fencing tight to grade at the bottom edge and stretched uniformly between posts.

3. Provide one gate into each fenced area.

4. Take care not to damage roots or to compact soil inside the fence line during placement of posts. Do not use heavy equipment within the protection area for this operation.

D. Pruning:

1. All work shall be done in a professional manner under the direction of a qualified Certified Arborist. The work shall conform to all state and federal laws and regulations.

2. No pruning should occur from April through September unless specifically allowed by contracted Certified Arborist.

3. The contracted Certified Arborist shall furnish all labor, materials and equipment needed.

4. The Arborist is to over-see any pre-construction pruning. Trees with large dead branches should be pruned to make the construction site safe for all personnel. Some trees may require lower branch pruning to allow for the operation of construction equipment. Prohibiting the use of equipment and/or vehicles will be necessary in protected root zones. Pruning is to be performed by trained personnel under the supervision of the Arborist.

5. All contractors and sub-contractors, including all personnel, will be made aware that the trees are valuable and need to be protected. The general contractor is ultimately responsible for the protection and welfare of the trees.

6. No spurs or irons are to be used climbing unless the tree is to be removed.

7. All cuts shall be made clean with pruner or saw at nodes or crotches beyond the branch collar while exercising caution not to bruise or tear bark.

8. Tools and equipment shall be maintained and operated in a safe professional manner. Tools used on diseased trees will be disinfected to prevent translocation of disease.

9. While maintaining the shape of the tree within the aesthetic balance of the landscape, dead and competing branches shall be removed. Diseased wood is to be removed as appropriate.

10. All debris resulting from pruning shall be removed from the site. The area beneath each tree shall be swept clean before moving to the next tree.

11. The Certified Arborist shall be responsible for any damage incurred to property by the pruning operation.

12. Warning devices, barricades, cones, ground personnel and other necessary precautions shall be provided by the contractor to provide for the protection and safety of persons and vehicles in the work area.
13. Authorization, supervision and inspection of all work within the Right-of-Way will be provided through the SDOT Forester, Bill Ames, 684-5693. The contracted Certified Arborist shall conform to the standards, techniques and judgment of SDOT. The contracted Certified Arborist reserves the right to refuse circumstances considered unsafe.

E. Root Pruning:

1. Root pruning is the intentional cutting of tree roots to minimize root damage and promote healing. Any operations which tear roots are unacceptable.
   - b. All root pruning shall be performed by a Certified Arborist.
   - c. Root prune using a sharpened spade for all roots smaller than one (1) inch diameter.
   - d. Root prune using an ax or chainsaw for all roots greater than one (1) inch diameter.
   - e. Do not use a backhoe bucket or any other excavating machine to root prune.

2. When construction is in close proximity to existing trees to remain and roots are encountered, the roots shall be pruned by the Certified Arborist.
   - a. Root pruning shall be performed as early as possible before trenching or tunneling operations.
   - b. Hand-dig trenches within the Tree Protection Zone and in areas with extensive roots.
   - c. Tunnel under and leave intact and undamaged roots larger than two (2) inches in diameter. Do not pull roots. During the time of exposure, keep roots moist with wet mulch and burlap equivalent.

3. Backfill trenches that require root pruning with existing soil mixed with peat moss to a mixture of approximately 75% loam and 25% humus by volume. Tamp soil in 6" lifts. Each lift shall be compacted to a point at which a foot print makes only a 1/16 inch impression.

4. Apply mulch to a depth of four (4) inches at a minimum ten (10) to fifteen (15) foot radius around tree to reduce compaction and increase moisture retention.

F. Excavation:

1. Do not trench or excavate the soil within CRZ’s. Tunnel or bore at least eighteen (18) inches beneath CRZ’s to install irrigation or utility lines.

2. Install shoring or other protective support systems to minimize sloping or benching of excavations.

3. Do not excavate within the tree protection zone, unless otherwise indicated. Certified Arborist to be on site during excavations.

4. Excavation equipment shall have flat front buckets to be used when lowering the grade in areas that may contact the roots of a preserved tree.

5. Where excavation for new construction is required within the tree protection zone, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots and an air spade to clear soil around exposed roots.
   - d. Relocate roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and relocate them without breaking. If encountered immediately adjacent to location of new
construction and relocation is not practical, cut roots approximately 3 inches back from new construction.

e. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

F. Guidelines Specific to Tree Number 5780:

1. Erect a protective barrier around the tree along the line of the curb and asphalt that will remain during the duration of the project.

2. Erect a barrier to protect any additional soil and turf areas that are likely to contain tree roots that will not be disturbed by adjacent construction.

3. Ideally the CRZ should be surrounded with a protective barrier.

4. Place signage that discusses these are tree protection areas with a contact number to an appropriate party should there be any questions about these zones.

5. Retain all asphalt and curbs in place until the landscape phase of construction is implemented.

6. Obtain a soil nutrient analysis test to determine if the soils around the tree are deficient in any macro or micro nutrients. Obtain the fertilizer necessary for appropriately amending the soil.

7. Broadcast the fertilizer over the soil surface in the protected areas.

8. Cover the soil within the protected zones with 4 inches of coarse woodchip mulch, keeping the mulch 12 inches away from the base of the tree. If turf exists in these zones first cover the turf with a sheet of cardboard followed by the coarse woodchip mulch.

9. Prune the tree in the winter in anticipation for any clearance that will be needed for pedestrians or machinery.

10. Apply a drench of the plant growth regulator Paclobutrazol to stimulate the production of fibrous roots. Application should occur after pruning.

11. Maintain fence and mulch throughout the course of the project.

12. Fill material over the parking area shall be removed prior to removing the asphalt.

13. The curbs and asphalt should be removed on a cool dry overcast day to limit fine root desiccation that can occur during hot sunny days. Otherwise, moist compost can be placed over the soil surface once the soil is exposed. The compost can later be worked into the top layers of the existing soil.

14. Concrete and asphalt shall be removed by hand as much as feasible. Otherwise, a small rubber track backhoe can be used.

15. Soil below the asphalt shall not be disturbed and no equipment shall track across the newly exposed soil.
16. A soil nutrient analysis test should be performed for the newly exposed soil to determine if they are deficient in any macro or micro nutrients. Obtain the fertilizer necessary for appropriately amending the soil.

17. If the soil below the asphalt is found to be root limiting it should be fractured within the CRZ using an air excavation tool. Amendments including compost and fertilizer can be incorporated into the soil at this time.

18. Any soils needed to adjust grades within the CRZ shall have a high sand component to be free draining.

19. No plantings should occur within ten feet of the base of the tree.

3.2 CLEAN UP AND PROTECTION

A. During pruning and trimming, keep adjacent paving and construction clean and work area in an orderly condition. Promptly debris created by exterior work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Protect exterior plants and soil from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged exterior planting.

C. Store excess soils in stockpiles protected from erosion and contamination by other contractors with tarps.

3.3 DISPOSAL

A. Disposal: Remove surplus waste material, including trash and debris, and legally dispose of them off Owner's property.

3.4 WASTE MANAGEMENT

A. Conform to waste management plan as specified in Section 01 74 00, Construction Waste Management.

END OF SECTION 01 56 39
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

B. References and standards listed herein are to be the latest edition available, unless specifically stated otherwise.

1.2 SUMMARY

A. Section Includes:
   1. Measures to insure that sediment laden or pollution carrying waters does not leave the construction site.
   2. Measures to stabilize disturbed soils and prevent erosion of soils both on site and off site.
   3. Measures to prevent soils and debris from being tracked off site.
   4. Measures to control the release of runoff during construction.

B. All work to be performed and materials to be used shall be in accordance with the 2011 Standard Specifications and Standard Plans for Road, Bridge and Municipal Construction, as published by the City of Seattle (COS), unless otherwise indicated herein.

C. The Contractor shall have one copy of the Standard Specifications and Standard Plans at the job site.

D. The Standard Specifications apply only to performance and materials and how they are to be incorporated into the work. The legal/contractual relationship sections and the measurement and payment sections do not apply to this document.

E. Related Sections
   1. Division 01 Section "Submittals Procedures"
   2. 01 56 39 Temporary Tree and Plant Protection
   3. 02 41 13 Selective Site Demolition
   4. 31 00 00 Earthwork
   5. 31 11 00 Clearing and Grubbing

1.3 SUBMITTALS

A. General: Make submittals in accordance with Division 1 Section “Submittal Procedures.”

B. Provide monthly bound copies of turbidity monitoring results, required for discharge to City of Seattle and King County combined sewers, to the Owner’s Representative for information only.

1.4 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:
1. 2011 Standard Specifications and Standard Plans for Road, Bridge and Municipal Construction

2. National Pollutant Discharge Elimination System (NPDES) permit and Stormwater Pollution Prevention Plan (SWPPP)

B. All treated discharge of water from the construction site and staging area shall be to the combined sewer. No discharge shall be allowed to the 84-inch King County overflow storm drain.

C. Discharge shall be treated to meet the turbidity requirements of the City of Seattle and King County Industrial Waste for discharge to a combined sewer. Contractor is responsible to obtain approval and permits from the City and County for site discharge and to submit required documentation.

D. Erosion control facilities shall be installed and maintained in conformance with the City of Seattle dewatering permit.

E. No sediment shall be tracked into the street or onto paved surfaces. If sediment is tracked onto paved surfaces, the Contractor shall immediately perform street sweeping that is capable of removing sediment from the pavement.

PART 2 - PRODUCTS

2.1 GENERAL

A. As specified on the Plans and attached Stormwater Pollution Prevention Plan (SWPPP).

2.2 FILTER FABRIC

A. Filter fabric for silt fence shall conform with City of Seattle Standard Specification 9-37.2 Table 6.

2.3 BAKER TANKS

A. Baker Tanks with sand filters as required to meet discharge turbidity requirements.

2.4 STORM DRAIN INLET PROTECTION

A. Storm drain inlet protection shall be silt sack as manufactured by ACF Environmental, or approved equivalent.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

A. Install perimeter protection and construction entrances prior to on-site demolition.

B. Install Baker tanks in temporary locations to provide sediment control as mass excavation progresses. Pump discharge turbid and sediment laden water to the tanks.

C. Protect storm drain inlets so turbid water does not enter the storm drainage or combined sewer systems.
D. Make provisions to prevent the transport of sediment onto adjacent paved roads. Provide street sweeping and sediment removal.

E. Operate and maintain erosion control facilities throughout the duration of construction. Provide flow and turbidity monitoring results as required by permit agencies.

F. Discharge from the mass excavation, trench dewatering, and all turbid site runoff shall pass through the Baker tanks prior to discharge to the combined sewer.

G. Baker tanks shall be supplemented with sand filters as required to meet discharge turbidity requirements.

H. Protect soil stockpiles with plastic sheeting secured to prevent the transport of sediment.

I. Maintain erosion control facilities operational to treat discharge from the mass excavation and construction area until site is stabilized.

END OF SECTION 01 57 13
PART 1 - GENERAL

1.1 SUMMARY

A. Furnish, install and maintain temporary on-site Project identification sign, to identify Project.

B. Allow no other signs to be displayed including:

1. Separate Contractor's, Subcontractor's, or supplier's signs or advertisements;
2. Signs which flash, blink, rotate or otherwise draw unusual attention, except where required by safety regulations;
3. Company logos; and
4. Any sign or graphic on equipment that is objectionable to Owner.

1.2 SUBMITTALS

A. Design Data: Submit sign construction details. Where text may not be detailed, show layout of required information. Indicate margins, borders, spacing, and the like.

PART 2 - PRODUCTS

2.1 PROJECT IDENTIFICATION SIGN

A. One painted sign of the size, design, lettering, and construction as directed. Size to be 8'0" x 4'0".

B. Graphic design, style of lettering, and colors: As indicated or directed. Colors to include background and two lettering colors.

C. Sign shall identify Project, Owner, A/E, and Contractor and primary Subcontractors.

2.2 SIGN MATERIALS

A. Sign Surfaces: Exterior softwood plywood, 3/4" thickness, with medium density overlay.

B. Rough Hardware: Galvanized.

C. Paint: Exterior quality. Use "Bulletin" colors for graphics. Colors for structure, framing, sign surfaces, and graphics, as indicated or directed.

2.3 FABRICATION

A. Paint all exposed surfaces of supports, framing, and surface materials. Apply one coat primer and one coat exterior paint.

B. Paint graphics in styles, sizes, and colors, as indicated or directed.

PART 3 - EXECUTION

3.1 INSTALLATION
A. Before request for first Application for Payment, sign on the site at location of high public visibility as directed and as approved by Owner. Locate in lighted location, if possible.

3.2 MAINTENANCE

A. Maintain signs and supports in neat, clean condition. Repair damages.

B. Relocate information signs as required by work progress.

3.3 REMOVAL

A. Remove temporary signs, framing, and supports as a requirement of Final Completion.

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies the administrative and procedural requirements for field engineering, in addition to requirements specified elsewhere in the Contract Documents, requiring the Contractor to employ a registered Structural Engineer and/or Land Surveyor.

B. Related Sections:

1. Section 01 73 30, “Alternate Project Procedures”

1.2 QUALITY ASSURANCE

A. Contractor shall employ a registered Structural Engineer (Contractor’s Structural Engineer) experienced in construction techniques and sequences, and temporary structural support systems, who is licensed in the State of Washington.

B. The Contractor shall employ a registered Land Surveyor (Contractor’s Surveyor) who is registered in the State of Washington, and acceptable to Owner, to perform survey work of this Section.

C. Submit the name, address, and telephone numbers of the Contractor’s Structural Engineer and Land Surveyor for Owner’s records, prior to their performance of Work.

1.3 CONTRACTOR’S STRUCTURAL ENGINEER

A. The Contractor’s Structural Engineer shall advise the Contractor as to the safety and adequacy of all temporary structural provisions necessary for cranes and hoisting, erection and/or alteration of the building structure and shall assume the responsibilities and duties as it relates to means and methods (i.e. erection sequence, temporary bracing, cutting, etc.).

1. Temporary bracing shall be coordinated with other trades to permit continuous operation of construction.

2. Should it be necessary to modify the structural design to accommodate construction means and methods, the Structural Engineer shall advise the Contractor who shall immediately notify the University Engineering Consultant (A/E) and await his direction.

3. Proposed changes or modifications to the structural design shall be submitted to the A/E for approval prior to the Contractor incorporating changes or modifications into the Work.

1.4 OWNER’S PROPERTY SURVEY

A. Owner’s property survey for the Project is included in the Contract Documents.

B. The Owner will provide the services of a Public Land Surveyor to locate the property corners noted on the Contract Documents and establish benchmarks for use by the Contractor.
1.5 PROJECT SURVEY REQUIREMENTS

A. Before proceeding with layout of actual Work, the Contractor, working through the Contractor’s Surveyor, shall verify the layout information shown on Contract Documents and the Owner’s property survey.

B. As Work proceeds, the Contractor shall check every major element for line, level and plumb, and shall require the Contractor’s Surveyor to maintain a complete and accurate record book log of control of such checks and upon request shall make this log of control available for the Owner’s and A/E’s reference.

1. Record deviations from required lines and levels and promptly advise the Owner’s Representative upon detection of any discrepancies including, but not limited to, conflicts, errors, inconsistencies, or deviations that exceed the Contract specified or indicated or industry recognized tolerances.

2. If discrepancies are found, no work shall be done until the Owner’s Representative has been so notified and has provided the Contractor with written direction and/or drawings which correct and clarify the discrepancy.

3. All Work which is determined to be incorrectly located will be rejected by the Owner. Any additional corrective work caused by discrepancies that should reasonably have been known to the Contractor and were not called to the attention of the Owner’s Representative, shall be borne at the Contractor’s expense.

C. Protect Owner’s benchmarks and survey control points prior to starting site work and preserve during construction. Do not change or relocate benchmarks or control points without Owner’s written approval. Promptly report lost or destroyed benchmarks or control points.

1.6 PROJECT RECORD SURVEY

A. Contractor working through the Contractor’s Surveyor shall perform the following:

1. Upon completion of new foundation walls, prepare and submit a certified survey showing that dimensions, elevations, angles, and location of the building are in accordance with the Contract Documents.

2. Upon completion of the below grade Site Work, certify that the record Site Survey represents the actual dimensions, elevations, lines, grades, and levels, including invert elevations, constructed in the field for all below grade installations and existing services located during the Work referenced to Owner’s benchmarks. This shall include the locations of all below grade Site improvements including, but not be limited to, civil, electrical and mechanical services, utility tunnels, duct banks and vaults, and irrigation system.

3. The above documentation shall be submitted to the Owner under provisions of Section 01 77 00 for CAD as-built Shop Drawings.

1.7 PROJECT LAYOUT REQUIREMENTS
A. The Contractor shall be responsible for laying out the Work utilizing recognized engineering survey practices. Establish elevations, grades, lines and levels for:

1. Site improvements, including pavements, walks and retaining walls, stakes for grading, fill and topsoil placement, utility locations including slopes and invert elevations, and irrigation system.

2. Stations and offsets.

3. Foundations, wall locations, ground floor elevations, elevations and levelness for floors and roofs.

4. Other elevations, grades, lines and levels, as needed to properly locate each element of the Project.

B. Calculate and measure required dimensions as shown within recognized tolerances. Do not scale drawings to determine dimensions.

C. Advise entities performing Work of marked elevations, grades, lines and levels, provided for their use.

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the administrative and procedural requirements for the general alterations of the Project. Including but not limited to products, transition and adjustments, cutting, patching, and repair and cleaning.

B. Related Sections

1. 01 33 00, "Submittal Procedures"
2. 01 50 00, "Temporary Facilities and Controls"

1.2 SUBMITTALS

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

1. Structural integrity of any element of the Project.
2. Integrity of weather-exposed or moisture-resistant element
3. Efficiency, maintenance, or safety of any operational element.
5. Work of Owner or separate contractor.

B. Include in request:

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

PART 2 - PRODUCTS

2.1 PRODUCTS FOR PATCHING AND EXTENDING WORK

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

B. Type and Quality of Existing Products: Determine by inspection and testing products where necessary, referring to existing work as a standards.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspect existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
B. After uncovering existing work, inspect conditions affecting performance of work. Verify that materials to be worked on or removed have been evaluated in the Owner’s Hazardous Materials Survey.

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

D. Verify that demolition is complete, and areas are ready for installation of new work.

3.2 PREPARATION

A. Cut, move, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.

B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Provide new materials as specified for finished work.

C. Remove debris and abandoned items from area and from concealed spaces.

D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.

E. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

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

3.3 PERFORMANCE

A. Coordinate work of alterations and renovations to expedite completion.

B. Project: Complete in all respects including operational mechanical and electrical work.

C. Remove, cut, and patch Work in a manner to minimize damage. Provide a means of restoring products and finishes to original or specified condition and which will provide appropriate surfaces to receive new and repair finish.

D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.

E. In addition to specified replacement of equipment and fixtures restore existing plumbing, heating, ventilation, air conditioning, and electrical systems to full original operational condition.

F. Install products as specified in individual sections.

G. Remove samples of installed work for testing when requested.

H. Provide openings in the Work for penetration of mechanical and electrical work.

I. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
1. Concrete walls: Saw-cut walls with diamond saw. Cut in accurately located straight lines, unless directed otherwise. Saw both sides of wall and break out remainder, minimize overcuts.

2. Masonry Walls: Saw-cut along mortar joints, cutting block uniformly in straight lines at accurate locations, unless otherwise directed. Remove all mortar adhering to edges. Overcuts not allowed.

3. Wood framed walls: Breakout plaster or gypsum wallboard in accurate locations, removing wall framing as required. Cut wall finish materials in straight uniform lines.


J. Restore work with new products in accordance with requirements of Contract Documents.

K. Fit work to pipes, sleeves, ducts, conduit, and other penetrations through surface.

L. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with firestopping material to full thickness of the penetrated element. Replace existing firestopping when disturbed by new construction.

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

A. Section includes: Administrative and procedural requirements for construction waste management activities.

B. Related Sections:
   1. 01 50 00, “Temporary Facilities and Controls”.

1.2 GOALS AND PROCEDURES

A. The Owner has established waste management goals for this Project with the minimum requirement of diverting 50% of construction demolition and land clearing debris (CDL) from land fill disposal.

B. To achieve its goal, the Contractor shall develop for review and Owner's approval, a Waste Management Plan for this Project.

C. Waste that is hazardous or unacceptable waste must be disposed of in accordance with all applicable local, State and Federal regulations.

D. Although the Contractor is responsible for ensuring all provisions of this Section are achieved, the cost may be included in subcontract bid packages.

1.3 DEFINITIONS

A. Construction, Demolition, and Land Clearing (CDL) Waste: Includes all non-hazardous solid wastes resulting from construction, remodeling, alterations, repair, demolition and land clearing and material that is recycled, reused, salvaged or disposed as garbage.

B. Salvage: Recovery of materials for reuse.

C. Reuse: Making use of a material without altering its form. Materials can be reused on-site or reused on other projects off-site. Examples include, but are not limited to the following: Grinding of concrete for use as subbase material. Chipping of land clearing debris for use as mulch.

D. Recycling: The process of sorting, cleaning, treating, and reconstituting materials for the purpose of using the material in the manufacture of a new product.

E. Source-Separated CDL Recycling: The process of separating recyclable materials in separate containers as they are generated on the job-site. The separated materials are hauled directly to a recycling facility or transfer station.

F. Co-mingled CDL Recycling: The process of collecting mixed recyclable materials in one container on-site. The container is taken to a material recovery facility where materials are separated for recycling.

G. Approved Recycling Facility: Any of the following:
1. A facility that can legally accept CDL waste materials for the purpose of processing the materials into an altered form for the manufacture of a new product.
2. Material Recovery Facility: A general term used to describe a waste-sorting facility. Mechanical, hand-separation, or a combination of both procedures, is used to recover recyclable materials.

1.4 PERFORMANCE REQUIREMENTS

A. General: Divert CDL waste, by weight, from the landfill by one, or a combination of the following activities:

1. Salvage
2. Reuse
3. Source-Separated CDL Recycling
4. Co-mingled CDL Recycling

B. CDL Waste materials that can be salvaged, reused or recycled include, but are not limited to, the following:

1. Acoustical ceiling tiles
2. Asphalt
3. Asphalt shingles
4. Brick
5. Cardboard packaging
6. Carpet and carpet pad
7. Concrete
8. Drywall
9. Equipment
10. Fluorescent lights and ballasts
11. Land clearing debris (vegetation, stumpage, dirt)
12. Metals
13. Paint (through hazardous waste outlets)
14. Wood
15. Plastic film (sheeting, shrink wrap, packaging)
16. Window glass
17. Wood
18. Field office waste, including office paper, aluminum cans, glass, plastic, and office cardboard.

1.5 SUBMITTALS

A. Waste Management Plan: Submit three copies of Plan prior to performing Demolition Work.


1.6 WASTE MANAGEMENT PLAN

A. General: The Contractor shall develop a plan consisting of waste types, quantity by weight, methods of disposal, handling and transportation procedures. Include separate sections in plan for construction demolition and land clearing debris.

B. The Contractor shall organize the waste management plan to include the following information:
1. Types and estimated quantities, by weight, of CDL waste expected to be generated during demolition and construction.

2. Proposed methods for CDL waste salvage, reuse, recycling and disposal during demolition including, but not limited to, one or more of the following:
   a. Contracting with a deconstruction specialist to salvage materials generated,
   b. Selective salvage as part of demolition contractor’s work,
   c. Reuse of materials on-site or sale or donation to a third party.

3. Proposed methods for salvage, reuse, recycling and disposal during construction including, but not limited to, one or more of the following:
   a. Requiring Subcontractors to take their CDL waste to a recycling facility,
   b. Contracting with a recycling hauler to haul recyclable CDL waste to an approved recycling or material recovery facility.
   c. Processing and reusing materials on-site.
   d. Self-hauling to a recycling or material recovery facility.

4. Name of recycling or material recovery facility receiving the CDL wastes.

5. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project Site where materials separation will be located.

1.7 WASTE MANAGEMENT REPORT

A. Waste Management Report: The Contractor shall submit a cumulative waste management report on a form, approved by the Owner, with the following attachments:

1. A record of the type and quantity, by weight, of each material salvaged, reused, recycled or disposed.

2. Total quantity of waste recycled as a percentage of total waste.

3. Disposal Receipts: Copy of receipts issued by a disposal facility for CDL waste that is disposed in a landfill or, if approved by Owner, estimated quantity for actual disposed content which is less than one ton.

4. Recycling Receipts: Copy of receipts issued by approved recycling facility or, if approved by Owner, estimated quantity for actual recycled content which is less than one ton.

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

1.8 CONSTRUCTION WASTE MANAGEMENT MEETING

A. The Contractor shall schedule a construction waste management meeting and administer, record and distribute copies of meeting minutes to all attendees.

1. Attendees:
a. Owner’s Representative.
b. A/E.
c. Contractor’s superintendent and waste management coordinator.
d. Major Subcontractors, as appropriate.
e. Business and Industry Resource Venture representation, as appropriate.
f. UW Recycling Coordinator, as appropriate.

2. Agenda Items: Review methods and procedures related to waste management including, but not limited to the following:

a. Review and discuss waste management plan including identification and responsibilities of Contractor’s Waste Management Coordinator.
b. Review requirements for documenting quantities of each type of waste and its disposition.
c. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
d. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
e. Review waste management requirements for each trade.

PART 2 – PRODUCTS (Not Used)
PART 3 – EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT, GENERAL

A. Contractor shall designate on-site representative(s) who will be responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.

B. Provide containers for CDL waste that is to be recycled clearly labeled as such with a list of acceptable and unacceptable materials. The list of acceptable materials must be the same as the materials recycled at the receiving material recovery facility or recycling processor.

C. The collection containers for recyclable CDL waste must contain no more than 10% non-recyclable materials, by volume.

D. Provide containers for CDL waste that is disposed in a landfill clearly labeled as such.

E. Use detailed material estimates to reduce risk of unplanned and potentially wasteful cuts.

F. To the greatest extent possible, include in material purchasing agreements a waste reduction provision requesting that materials and equipment be delivered in packaging made of recyclable material, that they reduce the amount of packaging, that packaging be taken back for reuse or recycling, and to take back all unused product. Insure that subcontractors require the same provisions in their purchase agreements.

G. Conduct regular visual inspections of dumpsters and recycling bins to remove contaminants.

3.2 SOURCE SEPARATION
A. General: Separate recyclable materials from CDL waste to the maximum extent possible. Separate recyclable materials by type.

1. Provide containers, clearly labeled, by type of separated materials or provide other storage method for managing recyclable materials until they are removed from Project Site.

2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

3. Stockpile materials away from demolition area. Do not store within drip line of remaining trees.

4. Store components off the ground and protect from weather.

3.3 CO-MINGLED RECYCLING

A. General: Do not put CDL waste that will be disposed in a landfill into a co-mingled CDL waste recycling container.

3.4 REMOVAL OF CONSTRUCTION WASTE MATERIALS

A. Remove CDL waste materials from project site on a regular basis. Do not allow CDL waste to accumulate on-site.

B. Transport CDL waste materials off Owner’s property and legally dispose of them.

C. Burning of CDL waste is not permitted.

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for Contract closeout as herein specified and further described in the Contract Documents for GC/CM Projects at the University of Washington, including but not limited to:

1. Project Record;
2. Operation and Maintenance Manuals;
3. Warranties and Bonds Manual;
4. Operating instructions and training;
5. Cleaning;
6. Owner’s Final Inspection;
7. Substantial Completion;
8. Final Completion, and;

B. Closeout requirements for specific construction activities are included in the appropriate Sections of the Specifications.

C. Related Sections:

1. 01 29 76, “Progress Payment Procedures”
2. 01 33 00, “Submittal Procedures”
3. 01 45 00, “Contractor Quality Control”

1.2 PROJECT RECORD

A. General: Project Record documents include the Contractor's As-Built Drawings, As-Built Specifications, and CAD Shop Drawings. Protect the Project Record documents from deterioration and store in a secure fire-resistant location.

B. As-Built Contract Drawings: Maintain a clean, undamaged set of black line prints of Drawings and approved Shop Drawings. Mark the set to show new information that was not shown on the Drawings or approved Shop Drawings, and the actual installation where the installation varies substantively from the Work as originally shown. Mark whichever drawing can show conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with reproducible red pencil; and distinguish between variations in separate categories of the Work. Text size is to be 1/8” minimum. Good basic drafting practice must be applied.

2. Show addenda items, Change Orders, and Request for Information (RFI) responses by their number and date the revisions with at “cloud” around the revision. Note: taping RFI response to plans is not a substitute for marking the changes by hand on the plans.

3. Keep accurate measurements of underground services and utilities, referenced to Owner's benchmarks, or if approved by Owner, the building or other permanent
construction. Show changes of directions and locations, by dimensions and elevations, as utilities are actually installed.

4. Show mechanical dampers, valves, reheat boxes, cleanouts, and other items that require maintenance.

5. Show location of construction-concealed internal utilities and appurtenances referenced to visible and accessible features of the structure.

6. Record accurate locations of piping, valves, traps, dampers, duct work, equipment, and the like.

7. Indicate field changes of dimension and detail.

8. “X-out” conditions not constructed and appropriately annotate “not constructed” to convey the actual “as constructed” condition.

9. Organize record drawing sheets in manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

C. As-Built Specifications: Maintain one complete copy of the Specifications to include all addenda, substitutions, Change Orders, and RFIs. Mark these documents to show variations in actual work performed in comparison with the text of the Specifications. Give particular attention to the selection of options, changes in product data, and information on elements engineered by the Contractor, or concealed, or otherwise not readily discerned later by direct observation. Note related As-built Drawing information. Clear, legible documentation must be applied.

D. CAD (Computer Aided Drafting) Drawings: The Contractor shall comply with the following drawing standards when preparing CAD Drawings required by the Contract Documents.

1. All drawings shall be full size documents on standard sheet sizes (22x34, 30x42 or 36x48), or as otherwise indicated in the Contract Documents.

2. Cover sheet shall contain a complete index of all sheets.

3. Symbols shown must be symbols used in the Contract Documents.

4. Standard drafting practice shall be:

   a. Title block

      1) All sheets shall have a title block.
      2) Title block information is to be on the right side of the sheet.
      3) Title blocks shall include the following information:

         a) Date
         b) University Project Name
         c) University Project Number
         d) University Facility Number (FACNUM)
         e) Sheet name
         f) Sheet number
         g) Contractor company name
Section 01 77 00
CLOSEOUT PROCEDURES
Page 3 of 10

h) Architect or Engineer’s Seal
i) A Key Plan

b. Layering Format:
   1) Use AIA format following the NCS V3.0 standard.

c. Scale and Units:
   1) All objects are to be drawn at full scale for the assigned unit of measure.
   2) All drawings are to have a unit of measure assigned and not set to “unitless”.

d. External references and image file usage in CAD Documents:
   1) External references are not allowed.
   2) All external references are to be bound using the Bind option (instead of the insert option).

e. Area of Work:
   1) CAD drawings shall include a boundary to define the Area of Work encompassing all areas, and only those areas where work is performed.

5. Submittal: Provide a CDROM Disk for all CAD Drawing submittals required by the Contract Documents in AutoCAD .DWG format and a hard copy as black line on 4 mil double matt mylar (also known as digital mylar) with all printing on the front (read right).
   a. No menus, custom user interface (cui) files or arx applications are allowed.
   b. Each CAD drawing shall represent a single printed sheet where the file name conspicuously identifies the sheet number (e.g. sheet A2.1 CAD file name might be A2-1.dwg). All CAD for all disciplines in a submittal are to be in a single folder. All supporting files (font file, line types, plot configurations, plot style tables, etc.) are to be in a sub folder. If files are attached they must be included in the same folder as the CAD files.

1.3 OPERATIONS AND MAINTENANCE MANUALS (O&M)

A. Provide preliminary review and final Operations and Maintenance Manuals. Separate manuals shall be provided by the Mechanical and Electrical Subcontractors titled MECHANICAL or ELECTRICAL and an additional manual shall be provided by the General Contractor titled GENERAL for all other information. Deliver the preliminary manuals to Owner's Representative as a prerequisite for Owner's Final Inspection, or deliver prior to start-up of major equipment, or deliver with the commissioning plan (for Work requiring commissioning), whichever is sooner. The preliminary manuals shall be labeled “Preliminary” and comply with all requirements.

B. The O&M manuals shall contain all the information needed to operate, maintain and repair all systems, equipment, and material provided in the Project. They shall be presented and arranged logically for efficient use by Owner's operation personnel. As a minimum the information provided shall include, but not be limited to, the following. (See Architectural, Conformed Set
Mechanical and Electrical Divisions and the Commissioning specifications for more specific information):

1. General maintenance and cleaning and repairing of material, finishes and equipment.
2. Material Safety Data Sheets (MSDS).
3. Equipment or product manufacturer, make, model number, size, color, etc.
4. Supplier's name, address, phone, and reference order numbers.
5. Dimensional and performance data for specific unit provided. Extraneous catalog data must be eliminated.
6. Manufacturers' recommended operating instructions as appropriate.

C. Manuals shall be bound in slant-D, 3 ring, view binders with insertable clear vinyl overlay on the front cover and spine. The binders shall have heavy duty nylon reinforced hinges.

1. Provide a cover slip sheet and a spine sheet typed with "GENERAL", "MECHANICAL", and (or) "ELECTRICAL" OPERATIONS AND MAINTENANCE MANUAL", University Project name, University Project number, University Facility number, A/E name, Contractor name, and for the final Operations and Maintenance Manuals, the date of Substantial Completion. Label manuals consecutively. (ex. Mechanical 1 of 3, 2 of 3, etc.)

2. Each manual shall have a typed index and tabbed dividers between equipment categories or specification sections.
3. Contents of the manual shall be printed on white 8-1/2" x 11" acid free, recycled copy paper (except Drawings included in the manual shall not exceed 11" x 17"), and shall not exceed 75% capacity of the binder.

D. GENERAL, MECHANICAL, and ELECTRICAL manuals may be combined into one manual, with approval of Owner.

1.4 WARRANTIES AND BONDS MANUAL

A. Assemble executed warranties and bonds, and any licenses, certificates, or service and maintenance contracts from the respective manufacturers, suppliers, and Subcontractors. Index all submitted information by specification section. Provide preliminary review manuals labeled "Preliminary", and final manuals.

1. One of the final manuals shall be original.

B. Provide Table of Contents neatly typed, in complete and orderly sequence. Include complete information for each of the following:

1. Product or work item;
2. Firm, name of responsible principal, address, and telephone number;
3. Scope;
4. Date of beginning of warranty or service and maintenance contract;
5. Duration of warranty or service maintenance contract;
6. Proper procedure in case of failure, and;
7. Instances which might affect validity of warranty or bond.
8. Reference Section 01 78 36 “Warranties” for related documents.

C. Manuals shall be bound in slant-D, 3 ring, view binders with insertable clear vinyl overlay on the front cover and spine. The binders shall have heavy duty nylon reinforced hinges.

1. Provide a cover slip sheet and a spine sheet typed with "WARRANTIES AND BONDS", University Project name, University Project number, University Facility number, A/E name, Contractor name, and for the final Warranties and Bond Manual, the date of Substantial Completion. Label volumes consecutively.

2. Each manual shall have a typewritten index and tabbed dividers between equipment categories or specification sections.

3. The contents of the manual shall be printed on white 8-1/2” x 11” acid free, recycled copy paper and shall not exceed 75% capacity of the binder.

D. Warranties and bonds may be tabbed in the front of the GENERAL O&M, with approval of the Owner.

1.5 OPERATING INSTRUCTIONS AND TRAINING

A. The Contractor shall provide on-site instruction and training for Owner's personnel in all aspects of the philosophy, operation and maintenance of equipment and systems. Instruction and training shall be provided by a qualified trainer from the Contractor or Subcontractor who supplied and installed the equipment and systems and/or a manufacturer's training representative who is familiar with all aspects of the design, operation, maintenance, and trouble shooting of the specified equipment and systems. Training shall be conducted in a classroom setting with appropriate schematics, handouts, and audio/visual aids. All training shall also be digitally recorded in video, cataloged, and provided to Owner in a DVD disc/container labeled with session identification and date. Attendance shall be recorded.

a. Prepare and submit a training plan for Owner’s information and coordination. The training plan shall include for each training session the following:

1. Dates, start and finish times, and locations.
2. Outline of the information to be presented.
3. Names and qualifications of the presenters.
4. List of texts and other materials required to support training.

1.6 CLEANING

A. General cleaning during construction is required by the General Conditions; cleaning required for specific trades of work is specified in Sections pertaining to that trade of work.

1. If Contractor fails to clean as specified in the Contract Documents, and after reasonable notice from Owner, Owner may do so and the cost thereof shall be charged to Contractor.
B. Preliminary Cleaning: Perform the following preliminary cleaning operations as a prerequisite for Owner’s Final Inspection. The following are examples, but not by way of limitation, of cleaning levels required:

1. Remove labels that are not permanent labels.
2. Remove protective coatings from all accessories.
3. Remove and clean glazing compound, and other substances that are noticeable vision-obscuring materials, from transparent and reflective materials including mirrors and glass in doors and windows inside and out.
4. Clean all exposed interior and exterior surfaces, including cabinet interiors, to be free of foreign substances including, but not limited to, stains and films.
5. Leave floors broom-clean. Vacuum carpeted surfaces and clean consistent with manufacturer’s recommendations for installation.
6. Clean plumbing fixtures to a sanitary condition.
7. Clean light fixtures and lamps.
8. Remove and clean all construction debris and refuse from: a) roofs, mechanical and electrical rooms, tunnels and equipment vaults; b) limited access spaces including above ceiling areas and shafts, and; c) physically inaccessible components of the Work including gutters, downspouts, floor drains and other drainage systems.
9. Wipe surfaces of mechanical and electrical equipment including elevator equipment and similar equipment. Remove excess lubrication and other substances.
10. Clean the Project Site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean, remove stains, spills, and other foreign deposits.

C. Final Cleaning: Prior to Substantial Completion, employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal commercial building cleaning and maintenance program. Comply with manufacturer’s instructions. Although the Contractor is responsible for this Work the actual costs shall be included in the Division 02 through 49 subcontract bid packages.

1. Leave entire Project clean and ready for occupancy. All interior and exterior building and fixture surfaces shall be turned over to the Owner in a new condition, free of all damage, dust, dirt, spots, stains, encrustations, and other blemishes.
2. Clean transparent materials, including mirrors and glass in doors and windows inside and out.
3. Owner will wax and apply sealers to finished vinyl composition tile and sheet vinyl floors.

D. Compliance: The Contractor shall: a) use non-toxic Green Seal Certified cleaning products, or products with low-volatile organic compounds (VOC), and cleaning paper with a post-consumer recycled content; b) employ equipment with high efficiency particulate filtration and
sweep compound to keep dust down, and; c) comply with current regulations and standards of authorities having jurisdiction and the safety standards for cleaning specified in manufacturer’s instructions.

1.7 OWNER’S FINAL INSPECTION

A. Prior to Final Inspection: The Contractor shall satisfactorily complete the following actions prior to the Owner’s Final Inspection of the Project.

1. Submittal of written notice that the Project is ready for Final Inspection. Include a copy of the Contractor’s Final Punch List Report (see Section 01 45 00 "Contractor Quality Control") and list all incomplete Work items that have been reviewed with the Owner, and which the Owner has agreed are not necessary prior to Substantial Completion.

2. Complete preliminary cleaning operations.

3. Submittal of a written plan/schedule outlining all actions necessary to successfully achieve Substantial Completion.

4. Submittal of a written list of all equipment and systems requiring instruction and training for Owner’s review and approval, and a schedule with mutually agreed times and locations for the instruction.

5. Submittal of two (2) copies of the "Preliminary" Operations and Maintenance Manuals for Owner’s review and comment.

6. Replace all ventilation systems air filters specified for construction with final filters.

7. Complete: a) start-up and functional performance testing of all systems required by the Contract Documents and AHJs; b) electrical testing; c) environmental controls point-to-point testing, and; d) air balancing.

8. Submittal of communications cabling test results.

9. Submittal of three (3) copies of the preliminary air balancing and commissioning reports, listing deficiencies, for review and comment.

10. Submittal of a copy of the final mechanical pressure test and flushing forms, signed-off by Owner’s Representative.

B. Owner’s Final Inspection: Upon satisfactory completion of the actions in 1.7A above, Owner will evaluate if the Project is complete and ready for Final Inspection and, at Owner’s sole discretion: 1) commence Final Inspection, or; 2) provide a written deficiency list of items to the Contractor of Work that must be complete to the satisfaction of the Owner prior to Owner’s Final Inspection. Final Inspection is performed by the A/E and Owner’s representatives.

1. After Owner’s Final Inspections list of corrective work items has been issued, the Contractor shall make the required corrections and/or identify items that it feels are not required by the Contract Documents, and resolve these items with the Owner.

C. Re-inspection: Contractor shall request, in writing, re-inspection after completing the Owner’s Final Inspections items and providing the Owner the Final Inspection Report.
notating completion of each and all of the corrected items. Those items whose completion is delayed due to circumstances acceptable to the Owner will be exceptions. The Owner’s Representative will back check the items or have the A/E perform a re-inspection.

1. If the A/E is required to perform more than one re-inspection, the costs for additional inspections may be borne by the Contractor, at the Owner’s sole discretion.

1.8 SUBSTANTIAL COMPLETION

A. Prior to Substantial Completion: Substantial Completion (for either the entire Work or portions thereof) shall be achieved when all Work, other than incidental corrective or Punch List Work is complete including, but not limited to, the following actions:

1. Final cleaning operations are complete.

2. Submittal of two (2) copies of the "Preliminary" Warranties and Bonds Manual for Owner’s review and comment.

3. Obtain and submit to Owner all sign-offs, releases, and permits from AHJs including, but not limited to, temporary Certificate of Occupancy permit, operating permits and/or licenses for the use of building equipment and similar necessary certificates and releases. Provide list of any outstanding work required by AHJs.

4. Submittal of two (2) copies of the current Project Record.

5. All construction tools and Section 01 50 00 temporary facilities not required for closeout Work are removed from the Project Site including, but not limited to, storage sheds, mock-ups, Project Identification signage, site fences, crane and hoist base foundation construction, temporary enclosures, and construction electrical power and service.

6. Systems and equipment instruction and training for Owner’s operating/maintenance personnel is complete.

7. Deliver specified maintenance equipment and tools to Owner with itemized list.

8. Final change-over of locks is complete and new keys are transmitted to Owner and Owner’s loaned construction keys are returned.

9. All air balancing and commissioning Work, allowing the Owner to fully occupy the Work for the use for which it is intended, is complete. Incidental Work, that is not life or occupational safety commissioning Work, whose completion is delayed due to circumstances acceptable to the Owner, will be exceptions. Provide records of corrections for deficiencies listed in the preliminary air balancing and commissioning reports.

10. Landscape restoration and all necessary Site repairs are complete.

B. Substantial Completion: Upon a satisfactory completion of the actions in 1.8A above and the General Conditions requirements for Substantial Completion the Owner will prepare a letter of Substantial Completion and forward to Contractor. The letter will identify the date of Substantial Completion and list all remaining incomplete work. Contract warranties will begin as of the date of Substantial Completion, as specified in Section 01 78 36, “Warranties”, or as otherwise indicated in the Contract Documents.
1. Substantial Completion and the start of Warranties for incomplete items will be established in writing by the Owner when the item is determined complete.

1.9 FINAL COMPLETION

A. Prior to Final Completion: Final Completion shall be achieved when the Work is fully and finally complete, to the Owner’s satisfaction, in accordance with the Contract Documents including, but not limited to, the following:

1. All Work including incidental corrective or Punch List Work and air balancing and commissioning Work is complete and correct to the satisfaction of the Owner.

2. All Section 01 50 00 temporary facilities are removed from the Project Site and the Site is restored to original conditions or Contract Documents requirements.

3. Submittal of all final permits, including Certificate of Occupancy permit.

4. Submittal of the final Project Record documents specified in the Contract Documents and this Section.

5. Submittal of four (4) complete Operations and Maintenance Manuals and four (4) complete Warranties and Bonds Manuals.

6. All Change Orders are approved and signed by both parties

7. Draft Final Application for Payment is submitted to Owner for review and approval.

8. Submittal of the Final Schedule of Values and the Building Componentization Report required by Section 01 29 76, “Progress Payment Procedures”.

9. Submittal of four (4) copies of the final air balancing and commissioning reports.

10. Deliver specified operations equipment, spare parts, extra stock of materials, and extra materials of value to the Owner with itemized list.

11. Submittal of final environmental controls system point-to-point testing report and revised diagrams.

12. For Projects at the UW Warren G Magnuson Health Sciences Center, UW Medical Center, and Harborview Medical Center; return all personnel Identification Badges.

13. Submittal of the final Waste Management Report per Section 01 74 00, “Construction Waste Management”.

B. Final Completion: Upon satisfactorily completion of the requirements in 1.9A above to achieve Final Completion the Owner will approve and process the Final Application for Payment and establish the date of Final Completion thereon.

1.10 FINAL ACCEPTANCE

A. Final Application for Payment has been approved by Owner and payment made to the Contractor.
B. The Owner will establish the date of Final Acceptance and issue the Letter of Final Acceptance after the Contractor has completed the requirements of the Contract Documents.

1. The Contractor shall follow the requirements outlined in the General Conditions and Section 01 29 76 “Progress Payment Procedures” for release of retainage.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF SECTION
PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies general administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer’s standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the Contractor's Warranty of Construction.
   a. Section 5.16 "Correction of Nonconforming Work"
   b. Section 5.21 “Warranty of Construction.”
   c. If there is any discrepancy in the Contract Documents regarding the warranty period or its date of commencement, the passage granting the Owner the longest warranty period ending on the latest date shall govern.

2. General closeout requirements are included in Section 01 77 00, "Closeout Procedures”.

3. Specific requirements for warranties for the Work and products and installation that are specified to be warranted are included in the individual sections of the Specifications.

4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and Subcontractors that are required to countersign special warranties with the Contractor.

1.2 DEFINITIONS

A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.3 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected or replaced, and retested and recommissioned, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
C. Costs: Upon determination that Work covered by a warranty has failed, correct or replace the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of correcting or replacing, and retesting and recommissioning, defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, right and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

A. Submit written warranties to the Owner's Representative. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties dated as requested by the Architect. Submit any additional written warranties upon request.

B. When a special warranty is required to be executed by the Contractor, or the Contractor and a Subcontractor, supplier, or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner's Representative for approval prior to final execution.

1. Refer to individual sections of the Specifications for specific content requirements, and particular requirements for submittal of special warranties.

C. Bind warranties and bonds in the Warranties and Bonds Manuals. Provide copies of each required warranty, as necessary, for inclusion in each required manual.

D. Review and acceptance by the A/E or Owner's Representative of submitted warranties; does not relieve the Contractor of the warranty requirements of the Contract Documents.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION
Prevailing Wage Rates Information

Washington State Department of Labor and Industries

The applicable effective prevailing wage rates for this Project are determined by (a) the **bid submittal date**, and (b) the **county** where the Project is located.

The applicable effective date for prevailing wage rates for this Project is: __________.

The County where this Project is located is: King.

Current prevailing wage rate information, including the applicable Benefit Code Key, may be obtained through the following sources:

**Online** from the Washington State Department of Labor and Industries at:


**Hard Copies** may be obtained upon request from the University of Washington Capital Projects Office at:

University of Washington  
Capital Projects Office  
Attention: Cindy Magruder  
University Facilities Building  
Seattle, WA 98195-2205  
Box 352205  
Email: magruder@u.washington.edu  
Phone: (206) 221-4396  
Fax (206) 221-6226

**In Person:** In addition, current prevailing wage information is available for viewing at the location noted above.
Hazardous Materials Survey

A. Enclosed Reports:

1. Title: Additional Asbestos Sampling  
   Author: PBS Engineering + Environmental  
   Date: September 28, 2011

2. Title: PID Screen Test of Soils during Potholing  
   Author: PBS Engineering + Environmental  
   Date: September 25, 2011
ASBESTOS SAMPLING TRANSMITTAL

Mr. Andy Casillas
UW Project Manager
UW Capital Projects Office, Box 352205
Seattle, Washington 98195

September 28, 2011

RE: Additional Asbestos Sampling
UW Montlake Triangle Potholing - UW Project Number 203593/PBS 40035.517

The following materials were sampled during potholing on August 26, 2011, and that will affect/impact planned development of the Montlake Triangle at the University of Washington:

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Material Sampled</th>
<th>Location of Sample</th>
<th>Asbestos Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>517-01</td>
<td>Felt – vapor barrier at base/pit of pothole</td>
<td>At Pothole No. 19, landscaped area above the Triangle Garage north entrance. Bottom of pothole</td>
<td>No Asbestos Detected - Black asphaltic fibrous materials</td>
</tr>
<tr>
<td>517-02</td>
<td>Felt – vapor barrier at base/pit of pothole</td>
<td>At Pothole No. 21, landscaped area above the Triangle Garage south edge. Bottom of pothole</td>
<td>No Asbestos Detected - Black asphaltic fibrous materials</td>
</tr>
</tbody>
</table>

The above sampling represents a supplemental survey data to the hazardous materials report for the Sound Transit Light Rail Rainier Vista Pedestrian Land Bridge (dated March 17, 2010, prepared by PBS). The objective of the potholing was to determine and confirm below grade utilities, ductbank, and piping such as and not limited to gas, electrical, sewer and waste line, and data/communication conduits. Suspect vapor barrier was present at the base of the two pothole locations and laboratory analysis identified them as not to contain asbestos.

**Sampling Limitations**

Suspect asbestos materials may exist in inaccessible areas at the project site, such as below grade, buried components, in wall cavities and in interstitial spaces. PBS endeavors to determine the presence and estimate the condition of suspect materials in all accessible areas included in the scope of work. If suspect materials are uncovered during construction and not previously sampled, contractor shall contact immediately the UW and PBS for associated asbestos or other hazardous materials confirmation testing.

**Report prepared by:**
PBS Engineering and Environmental

Chuck Greeb
Project Surveyor, AHERA Building Inspector
Cert. #109953, exp. 12/22/2011

Willem Mager
Project Mgr., AHERA Building Inspector
Cert. #110918, exp. 3/9/2012

Attachment – Photo Log And PLM Asbestos Lab Analysis (Lab Report)
Additional Asbestos Sampling UW Montlake Triangle Potholing
UW Project Number 203593/PBS 40035.517

Photo of APS crew potholing at pothole 21.

Photo of base of pit/pothole with suspect vapor barrier that tested non-detect for asbestos.
Photo of APS crew potholing at pothole 19.

Photo of base of pit/pothole with suspect vapor barrier that tested non-detect for asbestos.
**CHAIN OF CUSTODY:**

**Project:** MTP - Pot-holing

**Analysis requested:** PLM - bulk

**Relinq'd by/Signature:**

**Received by/Signature:** E. Dotson

**Email results to:**
- Brian Stanford
- Ernest Edwards
- Gregg Middough
- Mark Hiley
- Prudy Stoudt-McRae
- Chuck Grech
- Janet Murphy
- Willem Mager
- Harry Goren
- Tim Ogden
- Mike Smith
- Other

**TURN AROUND TIME:**
- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3-5 Days
- Other

---

**BULK SAMPLE DATA FORM**

<table>
<thead>
<tr>
<th>Lab #</th>
<th>Sample #</th>
<th>Material</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>517-01</td>
<td>&quot;Felt - Vapor Barrier (black) - Pot hole #19&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>517-02</td>
<td>&quot;&quot; &quot;&quot; (black) - &quot;&quot; &quot;&quot; (above 7. parking garage)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

S:\Masters\Office\Tech Forms & Templates\Lab Chain-of-Custody.doc

PBS ENGINEERING AND ENVIRONMENTAL, 130 NICKERSON ST, #107, SEATTLE, WASHINGTON 98109, (206) -733-4025, FAX (206) -762-4788
ANALYTICAL LABORATORY REPORT
PLM by Method EPA/600/R-93/116

Attn.: Mr. Willem Mager
Client: PBS Engineering and Environmental, Seattle
Address: 2517 Eastlake Ave. E., Suite 100
Seattle, WA 98102

Project: MTP - Pot - Holing

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample ID</th>
<th>Layer</th>
<th>Description</th>
<th>% Asbestos Fibers</th>
<th>Non-Fibrous Components</th>
<th>% Non-asbestos Fibers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>517 - 01</td>
<td>1</td>
<td>Black asphaltic material with fibrous material</td>
<td>None detected</td>
<td>Filler, Asphalt, Binder, Sands, Fine particles</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>517 - 02</td>
<td>1</td>
<td>Black asphaltic material with fibrous material</td>
<td>None detected</td>
<td>Filler, Asphalt, Binder, Sands, Fine particles</td>
<td>19</td>
</tr>
</tbody>
</table>

Client Job #: 40035.517
Laboratory Batch #: 201113287
Date Received: 8/29/2011
Samples Received: 2
Date Analyzed: 8/30/2011
Samples Analyzed: 2

Analyzed by: Liz Dutton
Report reviewed by: Steve (Fanyao) Zhang, President
On August 25 and 26, PBS completed soils screening of potholing activities within the boundaries of the UW Montlake Triangle. The construction potholing was completed by APS using a high pressure nozzle to remove soils. The objective of the potholing was to determine and confirm below grade utilities, ductbank and piping such as and not limited to gas, electrical, sewer and waste line, fiber optic, and data/communication conduits. Uncovered soils at the potholing excavation were screened for suspect volatile organic compounds using a portable photoionization detector (PID) instrument. Native soils uncovered consisted generally of sand with gravels mixed with pea gravel. PBS employed a MiniRAE handheld volatile organic compound (VOC) monitor which can detect VOC range from 0 to 5,000 parts per million (ppm) makes it an ideal instrument for applications of environmental to construction soils screening.

Soils were screened and no VOCs were detected as well PBS noted no suspect odor nor discolored soils during site excavation activities. Below is the summary inventory of PID test completed as part of this project.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Location Potholing by APS on 8-25-2011</th>
<th>Approx. Depth below Ground Surface</th>
<th>PID Data Test Result in PPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pid-1</td>
<td>Hole 21, south outer boundary of Triangle garage</td>
<td>28&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-2</td>
<td>Hole 16, BG trail</td>
<td>41&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-3</td>
<td>Hole 22A, east outer boundary of Triangle garage</td>
<td>54&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-4</td>
<td>Hole 8, BG trail near bridge</td>
<td>38&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-5</td>
<td>Hole 17, BG sidewalk</td>
<td>48&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-6</td>
<td>Hole 18, BG sidewalk</td>
<td>60&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-7</td>
<td>Hole 12/13, BG</td>
<td>42&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-8</td>
<td>Hole 19, grassy area</td>
<td>42&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-9</td>
<td>Hole 2/4 BG sidewalk</td>
<td>34&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-10</td>
<td>Hole 6, BG sidewalk</td>
<td>21&quot;</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-11</td>
<td>Hole 3, BG sidewalk</td>
<td>32&quot;</td>
<td>0.00 ppm</td>
</tr>
</tbody>
</table>

BG – Burke Gilman trail area
Potholing locations and identification matrix is per Kpff “Potholing Exhibit” plan which is enclosed.
<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Location Potholing by APS on 8-26-2011</th>
<th>Approx. Depth below Ground Surface</th>
<th>PID Data Test Result in PPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pid-12</td>
<td>Hole 5, by BG trail</td>
<td>39”</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-13</td>
<td>Hole 3, by BG trail</td>
<td>41”</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-14</td>
<td>Hole 1, west boundary by Rainier Vista</td>
<td>37”</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-15</td>
<td>Hole 9, north boundary by Rainier Vista</td>
<td>63”</td>
<td>0.00 ppm</td>
</tr>
<tr>
<td>Pid-16</td>
<td>Hole 15/16, BG sidewalk – east boundary</td>
<td>45”</td>
<td>0.00 ppm</td>
</tr>
</tbody>
</table>

**PID Test Limitations**

PBS has prepared this report for use by The University of Washington and is not intended for use by others without the written consent of PBS. This study was limited to the screen tests, locations and depths as indicated to determine the absence or presence of certain contaminants via PID screen. The site as a whole may have other contamination that was not characterized by this study. The findings and conclusions of this report are not scientific certainties, but rather probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. PBS is not able to represent that the site or adjoining land contain no hazardous waste, oil or other latent conditions beyond that detected or observed by PBS.

Should you have questions regarding this transmittal, please call our office.

Sincerely,

[Signature]

Willem A. Mager
Project Manager

Attachment – Kpf “Potholing Exhibit” Location Plan
**Construction Notification Guidelines (Minimum Requirements)**

**15-business days:**
For work resulting in Metro removing any of its transit facility structures (e.g. shelters, boards/kiosks and bus stop signs).

**10-business days:**
For work resulting in line deactivation or track right-of-way (ROW) access to the Seattle Streetcar. *(Personnel or equipment working within 10 feet of the Overhead Contact System (OCS) requires a line deactivation which is subject to billing & limited to non-operational hours. Track ROW access is subject to City of Seattle approval & requires 30 days notice to them. See pg. 2 for more info & possible longer notification requirements to Metro).*

**10-business days:**
For work resulting in line deactivation to any part of the Trolley Overhead (TOH) system and motorization of affected Trolley Coaches. *(Personnel or equipment working within 10 feet of the TOH requires a line deactivation which is subject to billing & must be limited to weekends only-see pg. 2 for more info).*

**5-business days:**
For work resulting in a full or partial road closure on which the Seattle Streetcar operates without requesting line deactivation to its Overhead Contact System (OCS), access to its right-of-way or a shutdown to its track operation. *(See pg. 2).*

**5-business days:**
For work resulting in a road closure on which buses operate that will force them to be rerouted.

**3-business days:**
For work resulting in a 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. *(Relocated stop is to remain ADA accessible if the affected stop is designated as such).*

**Guidelines for Maintaining Safe Coach Operation through Construction Areas**

**11’ wide lanes** need to be maintained while ensuring all turning requirements are met for 40-foot & 60-foot coaches within the work zone during all times of activity and non-activity.

Adequate curbside ingress/egress for coaches *(unless in-lane stopping is specified)* with safe passage for customers including those requiring ADA accessibility is to be maintained at bus stops mutually agreed by Metro and the contractor to remain open within the work zone during all times of activity and non-activity.

**NOTE:** Normal procedures for obtaining a City of Seattle DPD Street Use Permit apply and must be completed & approved before a project can proceed. Any exceptions made to Metro’s construction notification guidelines must be the result of extreme emergency repair work and the dispatched response to it officially classified as such. If such work occurs outside normal business hours, call 206-684-1111 otherwise notify the Construction Coordinator.
Notification Guidelines for Trolley Coach Overhead Impacts

Metro Transit requires 10-business days notice for work resulting in the deactivation of the Trolley Overhead (TOH). Please complete a Trolley Overhead Deactivation Request Form, which is subject to approval. Any work involving equipment and personnel coming to within 10 feet of the TOH requires deactivation and motorization of the affected trolley coaches. This must be limited to weekends only (meaning no earlier than 3:00 a.m. Saturday morning and continuing through Sunday until the end of service, which can be up until 3:00 a.m. Monday morning if necessary).

Metro, at its discretion, may waive the above notification requirement and expedite a request if the work conflicts with other scheduled jobs or special events and is in both parties’ interest to have it completed sooner, or alternately may defer it to a following weekend. Line deactivations are subject to being charged and billed out by KC Metro Power & Facilities. Requests for motorizing trolley coaches only without TOH deactivation must be made to our office by no later than 10:00 am Tuesday prior to the upcoming weekend of work and this service is not billed. Please ask for and complete a Motorization of Trolley Coach Request Form and return by the deadline.

We require that all TOH line deactivation or motorization requests be either faxed or sent to us by e-mail at: construction.coord@kingcounty.gov.

Notification Guidelines for Seattle Streetcar Overhead & Track Impacts

Metro Transit requires 10-business days notice for work resulting in the deactivation of the Streetcar's Overhead Contact System (OCS) &/or access to the track Right-of-Way (ROW). Please complete a Streetcar OCS Deactivation Request Form &/or Streetcar Track Access Work Intent Form. OCS deactivation requests are subject to approval & required for any work involving equipment and personnel coming to within 10 feet of the OCS. All periods of OCS deactivation must be conducted during the streetcar's non-operational hours. Track access is subject to approval for work that is to be done within the ROW (area within 10 feet from either direction of the center of track). This work may occur during some hours of operation so long as specific safety guidelines are met and the work remains 10 feet or greater from the OCS and does not continuously protrude into the streetcar's Envelope of Operation (area within 5 feet from either direction of the center of track). Track ROW access is subject to City of Seattle approval prior to notifying Metro of the intent to work within the ROW.

Metro, at its discretion, may expedite an OCS deactivation request however, a reasonable amount of time (determined by Metro) will be necessary for its review and approval. OCS deactivations are subject to being charged and billed out by KC Metro Power & Facilities. Again, any work within the ROW is subject to City of Seattle approval prior to notifying Metro.

At least 5-business days notice must be given for any work resulting in a closure of a road on which the Streetcar operates that does not require deactivating the OCS, accessing its ROW or otherwise shutting its operation down. During the road closure, at least one Uniformed Police Officer must always be present at affected Streetcar crossing locations to ensure the Streetcar is allowed through when it's scheduled to without delay.

**Special Conditions:** Work that is to occur (1) continuously within the envelope of operation, (2) anytime within 10 feet of the OCS or (3) extensively underneath any portion of track slab will require a shutdown of operations if it cannot be limited to non-operational hours or deemed safe to maintain daily operations. Trenching beneath the track slab will be limited to a 4-foot wide area supported by a standard trench box, anything greater will require engineered shoring and all work is subject to being reviewed and approved by SDOT & KCM officials and engineers. Attendance at a pre-construction meeting prior to starting a project may be required and if so, could increase the notification minimum of the intent to work to no less than 15-business days prior to the anticipated starting date of the project. All work is subject to City of Seattle approval prior to notifying Metro of the intent to work. Please complete a Streetcar Shutdown Request Form for major projects requiring a cessation of operation.

We require that all Streetcar related forms be either faxed or sent to us by e-mail at: construction.coord@kingcounty.gov.
Construction Notification Guidelines - County Service Area Only*

* This document does not include construction notification guidelines for impacting Transit services within the City of Seattle limits. Please refer to our two-page Construction Notification Guidelines document outlining the necessary requirements if the intended construction work has any impact to Electric Trolley Bus or Seattle Streetcar service.

Minimum Requirements

15-business days:
For work resulting in Metro removing any of its transit facility structures (e.g. shelters, boards/kiosks and bus stop signs).

5-business days:
For work resulting in a road closure on which buses operate that will force them to be rerouted.

3-business days:
For work resulting in a 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. (Relocated stop is to remain ADA accessible if the affected stop is designated as such).

Guidelines for Maintaining Safe Coach Operation through Construction Areas

11’ wide lanes need to be maintained while ensuring all turning requirements are met for 40-foot & 60-foot coaches within the work zone during all times of activity and non-activity.

Adequate curbside ingress/egress for coaches (unless in-lane stopping is specified) with safe passage for customers including those requiring ADA accessibility is to be maintained at bus stops mutually agreed by Metro and the contractor to remain open within the work zone during all times of activity and non-activity.

Richard Garcia
Construction Information Coordinator
Metro Transit Division
Office: 206.684.2732
Fax: 206.684.2686
E-mail: construction.coord@kingcounty.gov

Eric Brumbach
Construction Information Coordinator
Metro Transit Division
Office: 206.684.2785

NOTE: Normal procedures apply for obtaining an authorized Street Use Permit from the appropriate jurisdiction and must be completed & approved before a project can proceed. Any exceptions made to Metro’s construction notification guidelines must be the result of extreme emergency repair work and the dispatched response to it officially classified as such. If such work occurs outside normal business hours, call 206-684-1111 otherwise notify the Construction Coordinator.
PREVIOUS BORING LOGS
This figure is based on files BASE.dwg, 0989UW.dwg, and LMN-BASE.dwg, contained in BASE_GGN.zip, received 12-13-10.

NOTES

1. Only borings in the immediate RVPB vicinity are presented in Appendix A.
Shannon & Wilson, Inc. (S&W), uses a soil classification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following page. Soil descriptions are based on visual-manual procedures (ASTM D 2488-93) unless otherwise noted.

**S&W CLASSIFICATION OF SOIL CONSTITUENTS**

- Major constituents compose more than 50 percent, by weight, of the soil. Major constituents are capitalized (i.e., SAND).
- Minor constituents compose 12 to 50 percent of the soil and precede the major constituents (i.e., slightly SAND). Minor constituents preceded by "slightly" compose 5 to 12 percent of the soil (i.e., slightly silty SAND).
- Trace constituents compose 0 to 5 percent of the soil (i.e., slightly silty SAND, trace of gravel).

**MOISTURE CONTENT DEFINITIONS**

- Dry: Absence of moisture, dusty, dry to the touch
- Moist: Damp but no visible water
- Wet: Visible free water, from below water table

**GRAIN SIZE DEFINITION**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SIEVE NUMBER AND/OR SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINES</td>
<td>&lt; #200 (0.08 mm)</td>
</tr>
<tr>
<td>SAND*</td>
<td></td>
</tr>
<tr>
<td>- Fine</td>
<td>#200 to #40 (0.08 to 0.4 mm)</td>
</tr>
<tr>
<td>- Medium</td>
<td>#40 to #10 (0.4 to 2 mm)</td>
</tr>
<tr>
<td>- Coarse</td>
<td>#10 to #4 (2 to 5 mm)</td>
</tr>
<tr>
<td>GRAVEL*</td>
<td></td>
</tr>
<tr>
<td>- Fine</td>
<td>#4 to 3/4 inch (5 to 19 mm)</td>
</tr>
<tr>
<td>- Coarse</td>
<td>3/4 to 3 inches (19 to 76 mm)</td>
</tr>
<tr>
<td>COBBLES</td>
<td>3 to 12 inches (76 to 305 mm)</td>
</tr>
<tr>
<td>BOULDERS</td>
<td>&gt; 12 inches (305 mm)</td>
</tr>
</tbody>
</table>

* Unless otherwise noted, sand and gravel, when present, range from fine to coarse in grain size.

**RELATIVE DENSITY / CONSISTENCY**

<table>
<thead>
<tr>
<th>COARSE-GRAINED SOILS</th>
<th>FINE-GRAINED SOILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N, SPT, BLOWS/FT.</td>
<td>RELATIVE DENSITY</td>
</tr>
<tr>
<td>0 - 4</td>
<td>Very loose</td>
</tr>
<tr>
<td>4 - 10</td>
<td>Loose</td>
</tr>
<tr>
<td>10 - 30</td>
<td>Medium dense</td>
</tr>
<tr>
<td>30 - 50</td>
<td>Dense</td>
</tr>
<tr>
<td>Over 50</td>
<td>Very dense</td>
</tr>
<tr>
<td></td>
<td>N, SPT, BLOWS/FT.</td>
</tr>
<tr>
<td></td>
<td>RELATIVE DENSITY</td>
</tr>
<tr>
<td></td>
<td>Under 2</td>
</tr>
<tr>
<td></td>
<td>2 - 4</td>
</tr>
<tr>
<td></td>
<td>4 - 8</td>
</tr>
<tr>
<td></td>
<td>8 - 15</td>
</tr>
<tr>
<td></td>
<td>15 - 30</td>
</tr>
<tr>
<td></td>
<td>Over 30</td>
</tr>
<tr>
<td></td>
<td>Very soft</td>
</tr>
<tr>
<td></td>
<td>Soft</td>
</tr>
<tr>
<td></td>
<td>Medium stiff</td>
</tr>
<tr>
<td></td>
<td>Stiff</td>
</tr>
<tr>
<td></td>
<td>Very stiff</td>
</tr>
<tr>
<td></td>
<td>Hard</td>
</tr>
</tbody>
</table>

**ABBREVIATIONS**

- ATD: At Time of Drilling
- Elev.: Elevation
- ft: feet
- FeO: Iron Oxide
- MgO: Magnesium Oxide
- HSA: Hollow Stem Auger
- ID: Inside Diameter
- in: inches
- lbs: pounds
- Mon.: Monument cover
- N: Blows for last two 6-inch increments
- NA: Not applicable or not available
- NP: Non plastic
- OD: Outside diameter
- OVA: Organic vapor analyzer
- PID: Photo-ionization detector
- ppm: parts per million
- PVC: Polyvinyl Chloride
- SS: Split spoon sampler
- SPT: Standard penetration test
- USC: Unified soil classification
- WOH: Weight of hammer
- WOR: Weight of drill rods
- WLI: Water level indicator

**WELL AND OTHER SYMBOLS**

- Bent. Cement Grout
- Surface Cement Seal
- Bentonite Grout
- Asphalt or Cap
- Bentonite Chips
- Slough
- Silica Sand
- Bedrock
- PVC Screen
- Vibrating Wire

---

*Rainier Vista Pedestrian Bridge
University of Washington
Seattle, Washington*

**SOIL CLASSIFICATION AND LOG KEY**

October 2011 21-1-21613-001

**SHANNON & WILSON, INC.**
Geotechnical and Environmental Consultants

Sheet 1 of 2
## Unified Soil Classification System (USCS)
(From USACE Tech Memo 3-357)

<table>
<thead>
<tr>
<th>Major Divisions</th>
<th>Group/Graphic Symbol</th>
<th>Typical Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coarse-grained Soils</strong> (more than 50% retained on No. 200 sieve)</td>
<td>GW</td>
<td>Well-graded gravels, gravels, gravel/sand mixtures, little or no fines.</td>
</tr>
<tr>
<td></td>
<td>GP</td>
<td>Poorly graded gravels, gravel-sand mixtures, little or no fines.</td>
</tr>
<tr>
<td></td>
<td>GM</td>
<td>Silty gravels, gravel-sand-silt mixtures.</td>
</tr>
<tr>
<td></td>
<td>GC</td>
<td>Clayey gravels, gravel-sand-clay mixtures.</td>
</tr>
<tr>
<td><strong>Sands</strong> (50% or more of coarse fraction passes the No. 4 sieve)</td>
<td>SW</td>
<td>Well-graded sands, gravelly sands, little or no fines.</td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td>Poorly graded sand, gravelly sands, little or no fines.</td>
</tr>
<tr>
<td></td>
<td>SM</td>
<td>Silty sands, sand-silt mixtures.</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>Clayey sands, sand-clay mixtures.</td>
</tr>
<tr>
<td><strong>Fine-grained Soils</strong> (50% or more passes the No. 200 sieve)</td>
<td>ML</td>
<td>Inorganic silts of low to medium plasticity, rock flour, sandy silts, gravelly silts, or clayey silts with slight plasticity.</td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.</td>
</tr>
<tr>
<td></td>
<td>OL</td>
<td>Organic silts and organic silty clays of low plasticity.</td>
</tr>
<tr>
<td><strong>Silts and Clays (liquid limit less than 50)</strong></td>
<td>MH</td>
<td>Inorganic silts, micaceous or diatomaceous fine sands or silty soils, elastic silt.</td>
</tr>
<tr>
<td></td>
<td>CH</td>
<td>Inorganic clays of medium to high plasticity, sandy fat clay, or gravelly fat clay.</td>
</tr>
<tr>
<td></td>
<td>OH</td>
<td>Organic clays of medium to high plasticity, organic silts.</td>
</tr>
<tr>
<td><strong>Highly-organic Soils</strong></td>
<td>PT</td>
<td>Primarily organic matter, dark in color, and organic odor. Peat, humus, swamp soils with high organic content (see ASTM D 4427).</td>
</tr>
</tbody>
</table>

**NOTE:** No. 4 size = 5 mm; No. 200 size = 0.075 mm

### Notes

1. Dual symbols (symbols separated by a hyphen, i.e., SP-SM, slightly silty fine SAND) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart.

2. Borderline symbols (symbols separated by a slash, i.e., CL/ML, silty CLAY/clayey SILT; GW/SW, sandy GRAVEL/gravelly SAND) indicate that the soil may fall into one of two possible basic groups.
### SOIL DESCRIPTION

**Surface Elevation:** 86± feet

<table>
<thead>
<tr>
<th>DEPTH, ft</th>
<th>SAMPLES</th>
<th>GROUND WATER</th>
<th>Standard Penetration Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>0</td>
<td>Blows per foot</td>
</tr>
</tbody>
</table>

#### Depth: 0-7 feet
- **Description:** Medium to very dense, brown-gray, gravelly, silty, fine to medium SAND, moist (Fill)
- **Ground Water:**
  - 50/6"

#### Depth: 7-10 feet
- **Description:** Dense, brown, silty, gravelly, fine to medium SAND, moist (Weathered Till)
- **Ground Water:**
  - 50/4"

#### Depth: 10-25.5 feet
- **Description:** Very dense, brown-gray, silty, gravelly, fine to medium SAND, gravelly, silty, fine to medium SAND, moist
- **Ground Water:**
  - 50/3"

#### Depth: 25.5-35.5 feet
- **Description:** Very dense, brown-gray, gravelly, fine to medium SAND and sandy, fine to coarse GRAVEL, moist
- **Ground Water:**
  - 50/5"

#### Depth: 35.5-43.4 feet
- **Description:** Very dense, brown-gray, gravelly, silty, fine to medium SAND, moist
- **Ground Water:**
  - 50/4"

#### Depth: 43.4-45 feet
- **Description:**
- **Ground Water:**
  - 50/5"

---

**BOTTOM OF BORING**
**COMPLETED 9-18-84**

---

**LEGEND**

- **I** 2" O.D. split spoon sample
- **II** 3" O.D. thin-wall sample
- **Δ** Impervious seal
- **↑** Water level
- **P** Sample pushed

*Sample not recovered

**Atterberg Limits:**

- **Liquid limit**
- **Natural water content**
- **Plastic limit**

**NOTE:** The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

---

**MONTLAKE TRIANGLE GARAGE**
**SEATTLE, WASHINGTON**

**LOG OF BORING B-1**

**SEPTEMBER 1984**

**SHANNON & WILSON, INC.**
**Geotechnical Consultants**

---

**Exhibit A-2**
## Soil Description

**Surface Elevation:** 62± feet

<table>
<thead>
<tr>
<th>Depth, ft</th>
<th>Samples Ground Water</th>
<th>Standard Penetration Resistance (140 lb. weight, 30'' drop)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>▲ Blows per foot</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>50/5''</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>50/4''</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>50/3''</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>50/3''</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>50/5''</td>
</tr>
<tr>
<td>25</td>
<td>6</td>
<td>50/5''</td>
</tr>
<tr>
<td>30</td>
<td>7</td>
<td>50/5''</td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- 2'' O.D., split spoon sample
- 3'' O.D. thin-wall sample
- **Impervious seal**
- **Water level**
- **Piezometer tip**
- **Liquid limit**
- **Natural water content**
- **Plastic limit**
- **Sample not recovered**
- **Sample pushed**

**Bottom of Boring**

Completed 9-14-84

---

**MONTLAKE TRIANGLE GARAGE**

**SEATTLE, WASHINGTON**

**LOG OF BORING B-2**

**SEPTEMBER 1984**

**SHANNON & WILSON, INC.**

**Geotechnical Consultants**

---

**Note:** The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
## SOIL DESCRIPTION

Surface Elevation: 602 feet

<table>
<thead>
<tr>
<th>Depth, ft</th>
<th>Samples</th>
<th>Ground Water</th>
<th>Depth, ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
| 2" Asphalt pavement
Very dense, brown-gray, silty, gravelly, fine to medium SAND, scattered cobbles, moist |
| 20.5     |         |              | 20.5     |
| 38.5     |         |              | 38.5     |

**BOTTOM OF BORING COMPLETED 9-14-94**

**LEGEND**
- I 2" O.D. split spoon sample
- II 3" O.D. thin-wall sample
- *Sample not recovered
- Atterberg Limits:
  - Liquid limit
  - Natural water content
  - Plastic limit
- P Sample pushed

**Standard Penetration Resistance**
(140 lb, weight, 30" drop)
- Blows per foot

**MONTLAKE TRIANGLE GARAGE
SEATTLE, WASHINGTON**

**LOG OF BORING B-3**

SEPTEMBER 1984

W-4301-01

SHANNON & WILSON, INC.
Geotechnical Consultants

**NOTE:** The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
SOIL DESCRIPTION
Surface Elevation: 68.3 feet
Medium, tan, gravelly, silty SAND

Very dense, gray, silty, gravelly SAND w/
clean sand layers at depths 18, 22, 40 & 43 feet
dry to moist

Bottom of Boring
Completed 1/28/72

LEGEND
I 2" O.D. split spoon sample
II 3" O.D. thin-wall sample
* Sample not recovered
Atterberg limits:
Liquid limit
Natural water content
Plastic limit
Impervious seal
Water level
Piezometer tip
P Sample pushed
USC Unified Soil Classification

NOTE: The stratification lines represent the approximate boundaries
between soil types and the transition may be gradual.
### SOIL DESCRIPTION

<table>
<thead>
<tr>
<th>Depth, Ft.</th>
<th>Symbol</th>
<th>PIP, ppm</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PENETRATION RESISTANCE

- Blows per Foot (SPT)
- Blows per Foot (non-standard)

### NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of "Symbols" and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.

---

**LOG OF BORING NB-394**

June 2002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Exhibit A-6

(SHEET 1 OF 2)
SOIL DESCRIPTION
Coordinates: N: 240,840 E: 1,277,482
Elevation 78.3 Ft.

<table>
<thead>
<tr>
<th>Depth, Ft.</th>
<th>Symbol</th>
<th>PIP, ppm</th>
<th>Samples</th>
<th>Ground Water, Depth, Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LOAD OF BORING NB-394
June 2002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of "Symbols" and definitions.
5. USCS designation is based on visual-manual classification and selected laboratory index testing.

EXHIBIT A-6
DPD Geotechnical Inspections Schedule

Project Number 6295474
Project Address 1918 NE Pacific Pl

Date Dec 16, 2011
DPD Plan Examiner Ardel Jala

Architect Phone

Engineer Phone (206) 622-5822
Site Reviewer Dean Griswold

Prior to issuance of a building permit, the owner, architect, or engineer acting on behalf of the owner shall appoint an inspection agency and shall sign and submit this form to the building official.

Property Owner, Architect, or Engineer Signature
I hereby certify that the geotechnical engineer named below has been engaged to perform the special inspections outlined below as required by the Seattle Building Code. It is the responsibility of the owner or the owner's designee to notify the inspection agency or observer in a timely manner when the inspections listed below are required.

Signature
Title Proj. Manager
Date 2 Jan 17
Phone Number 206-665-9055

Required Special Inspections

Geotechnical Engineering Firm Name SHANNON & WILSON

Geotechnical Engineering Firm Phone (206) 632-8020

Description

Inspection Type
1. SUB/SURFACE DRAINAGE INSTLLATN
2. DRILLED CIP PIER PILE INSTALL
3. EROSION CONTROL - PERMANENT
4. EROSION CONTROL - TEMPORARY
5. OBSERVE AND MONITOR EXCAVATION
6. VERIFY FILL & COMPACTION
7. MICROPILE INSTALLATION & TEST
8. OTHER GEOTECHNICAL
9. OTHER GEOTECHNICAL
10. OTHER GEOTECHNICAL
11. MONITOR GRADING SEASON RESTRIC
12. SHORING INSTL/PRFRM MONITORING
13. SOIL BEARING VERIFICATION
14. SOIL NAILING INSTALL & TESTING

GeoFoam installation, See Sheet SL411
gabion basket retaining wall installation
preconstruction meeting
See Grading Season Conditions on Sheet C100; no formal grading season extension required.

Call (206) 684-8860 to schedule a pre-construction conference before the start of construction

Project# 6295474, Correction Notice# 1
DPD Statement of Structural Special Inspection

Project Number 6295474
Project Address 1918 NE Pacific Pl

Date Dec 16, 2011

Architect Ardel Jala
Engineer Craig Olson

Prior to issuance of a building permit, the owner, architect, or engineer acting on behalf of the owner shall appoint an inspection agency and, if required, an engineering firm to provide structural observation, and shall sign and submit this form to the building official.

Property Owner, Architect, or Engineer Signature
I hereby certify that the engineering firm and inspection agency named below have been engaged to perform any required structural observation and special inspections outlined below as required by the Seattle Building Code. It is the responsibility of the owner or the owner's designee to notify the inspection agency or observer in a timely manner when the inspections listed below are required.

Signature (Signature)
Title (Project Manager)
Date 12-16-12
Phone Number 206-685-7055

Required Special Inspections

Inspection Agency Name
OTTO ROSENAU AND ASSOCIATES

Inspection Agency Phone
(206) 725-4600

Inspection Type
1. REINFORCED CONCRETE - CIP
2. EPOXY GROUTED ANCHOR BOLT INST
3. MECHANICAL ANCHOR BOLT INSTALL
4. PT PRESTRESSED CONCRETE
5. SHOTCRETE
6. STRUCTURAL STEEL FABRICATION

Call (206) 684-8860 to schedule a pre-construction conference before the start of construction

Project# 6295474, Correction Notice# 1