



Clarifications, Publication No. 4
March 11, 2009
University Link Light Rail Project U220
TBM Tunnel (UWS to CHS)
IFB No. RTA/LR 001-09

These questions are for clarification only. Changes to the Procurement Document will only be made by formally issued addenda.

RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
1.		General	Could you please tell me if the subject project will have construction inspection services (QC) provided by the contractor, or will a separate contract be awarded for same? Will any quality assurance inspection (QA) be independently performed? Also, which firm is performing the project design?	The Contractor shall provide QC construction inspection services per 01 45 00 and all relevant technical specifications. Sound Transit will provide all QA construction inspection services. The U220 design was performed by a joint venture, Northlink Transit Partners.
2.		Contract Time	We couldnt locate the required time to conclude the contract, or Is the Contractors to submit their own Schedule?	See specification 01 12 16.
3.		Liquidated Damages	Volume 1 of 8 Section 00200 clause 10.02 and also Section 00300 clause SC-10.02 do not specify the amount of the Liquidated Damages, please clarify.	See specification 01 12 16.
4.		General	For the TBM tunnel, will Sound Transit be using conventional tunneling or is this micro-tunneling associated with the project.	There is no anticipated micro-tunneling on U220. Tunneling methods are specified in Specification 31 71 19 and 31 71 23
5.		Specifications	Please verify if there are any new elevators or vertical transportation systems in the project.	No, unless the Contractor elects to install any elevators or other vertical transportation systems for their use during construction.
6.		Specifications	Does this project require construction inspection as a subconsultant?	Comply with Specification 01 45 00 and all technical specifications.



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7.		Addendum 1: DBE and Small Business goals	The way this reads there is a 7.4% DBE goal and a 6% Small business goal of which 3% must include DBE. These goals are condition of award. Effectively the DBE goal is 10.4%, correct?	<p>No. The overall 7.4 % DBE goal is for the entire U-Link projects not just Contract U220. The U220 SBE/DBE Contract goals are: 6% Small Business Enterprise (SBE) of which ½ (i.e. 3%) should be Disadvantaged Business Enterprises (DBEs).</p> <p>The U220 3% DBE goal is a subset of (i.e. is included in) the U220 6% SBE goal. Achievement of these goals is not a pre-condition of contract award. A Bidder's best-effort to achieve these goals is a requirement and pre-condition of award.</p> <p>Bidders are encouraged to forward questions of this issue via the Ebidsystem.</p>
8.		Contract Specification: 31.09.00	Note 1 on the instrumentation drawings indicates that the number of structure settlement points shown are approximate only and that actual locations and quantities shall be determined in the field. Will the Contractor or Sound Transit determine the number of points in the field? And are the points shown on the plan the maximum number of points anticipated?	The number of structure settlement points shown on the plans are the maximum number of points anticipated.
9.		Contract Specification: 31.09.00	Spec 31 09 00, Section 1.07, B.2- indicates ST will obtain a Project Construction Permit, will this cover work that requires blocking off parking spaces on city streets, or will separate street-use permits be required?	This permit will cover all work in City streets; no other permits will be required.



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10.		Contract Specification: 31.09.00	Spec 31 09 00 Section Part 1 General, 1.05, B. states " Perform all surveying activities under the direct supervision of a licensed Professional Land Surveyor registered in the State of Washington" Can you please define what is meant by "surveying activities" and if this includes monitoring of the surface, structure, and utility settlement points?	If surface, utility, and structure settlement points are to be monitored via optical or laser survey methods, then, the surveying activities need to be completed under the direct supervision of a licensed Professional Land Surveyor.
11.		Contract Specification: 31.09.00	Spec 31 09 00, Part 1, 1.04, I indicates that two readout devices are to be provided to ST, while specification Part 2 Products, 2.09, indicates "furnish one portable readout unit". How many readout units does ST require?	One readout unit for each type of instrument is sufficient (e.g., one readout unit for all VWP instruments; and one readout unit for inclinometers).
12.		Contract Specification: 31.09.00	Spec 31 09 00, 3.04, B. 2. requires inclinometer casing to be installed within 1 degree of vertical, this is typically not practical and we request revising to 3 degrees of vertical which can be met with conventional drilling equipment as demonstrated on past Sound Transit projects.	Vertical inclinometers may be installed within 3 degrees of vertical.
13.		Contract Specification: 31.09.00	31.09.00, 2.11 G. specified that the Argus System provided by SINCO, or approved equal should be used for instrumentation data management. Previously on the Ulink 215 contract bid documents the GeoComp "iSite" system was specifically identified as being acceptable. Is the iSite still an acceptable system? Also is SolData's GeoScope Web an approved equal?	Yes, to both.



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14.		Contract Specification: 31.09.00	Spec 3 09 00 Part 2, 2.10, G, Requires relaying instrumentation reading to the Contractor's and Sound Transit's trailers. The specified instrument data management system "Argus" is a web based system. Will instrumentation readings still have to be sent to the Contractor's and Sound Transit's trailers? This was not required on the U-215 contract.	Data will be made available to contractor, ST, and interested thrid parties via the web-based IDMS.
15.		Contract Specification: 31.09.00	Part 2, 2.11, G, identifies SINCO's "ARGUS" system or approved equal, as the Instrumentation Data Management System. Previously on the U215 contract GeoComp's "iSite" system was specifically identified as being acceptable. Obviously ST has previously reviewed the "iSite" system. Is GeoComp's "iSite" system acceptable for the IDMS on this contract?	Yes.
16.		Contract Specification: 31.09.00	Section 31 09 00 Part 2, 2.11, G, identifies SINCO's "ARGUS" system or approved equal, as the Instrumentation Data Management System. Previously on the U215 contract other web-based systems were specifically identified. Is "GeoScope Web" provided by SolData acceptable for the IDMS on this contract?	Yes.
17.		Contract Specification: 31.09.00	Spec 31 09 00, Part 2, 2.10, G - requires electronically relaying hourly logged readings to the Contractor's and ST's office. According to Sheet L10-KM900 there are no instruments requiring hourly readings. What hourly readings are being referred to?	Monitoring will be accomplished in accordance with the tables on Sheet L10-KM900.



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18.		Contract Specification: 31.09.00	Spec 31 09 00, Part 2, 2.10, G - requires electronically relaying hourly logged readings to the Contractor's and ST's office. We understand SINCO's ARGUS system is a Web-based system so will it still be necessary to relay readings to ST and the Contractor's offices?	It is expected that ST and the Contractor and interested third parties would be granted access to the web-based IDMS to view data.
19.		Contract Specification: 31.09.00	What is the monitoring schedule of the structure settlement points on temporary shoring elements?	Refer to Specification Section 31 09 00 3.06. E. for the monitoring schedule for temporary shoring elements.
20.		OCIP Manual	The combined CGL and Excess Liability provides \$102 million during construction. Since this is a multi year contract will these limits be re-instated annually or are the limits the total limits for the duration of the project?	Reinstated annually.
21.		Special Conditions 8.01C	OCIP: The contractor is responsible for payment of the first \$250,000 of each policy's deductible. Do these policies have a "per claim" or "per occurrence" deductible?	All policies have a "per occurrence" deductible.
22.		General Requirements section 012100 addresses fuel escalation	We respectfully request that in addition to fuel escalation, a provision be added to the contract to address steel escalation. Given the large quantities of temporary and permanent steel required for this project, and the recent and continued extreme volatility in steel pricing, the absence of an equitable steel escalation clause will force the bidders, suppliers, and subcontractors to include large contingencies in their pricing	This was considered by Sound Transit and it was decided, given the current economic situation, not to pursue material escalation clauses.



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23.		IT Services	What portion of the budget is for Information Technology OMWBE certified firms?	Some of the "information technology" opportunities in this contract included instrument monitoring and logging, TBM navigation equipment, controls systems for pumps, and contractor's office needs. The use of an OMWBE certified business is determined by the Contractor and is further discussed above in the response to RFI No. 7.
24.		Section 00100 Article 1.07 B,7	<p>This section imposes upon the Bidder that the Bidder agrees to comply with all requirements imposed by easements or permits.</p> <ol style="list-style-type: none"> 1. Has the Engineer included all the known easements and permits in the contract documents? It is possible that even if the Engineer has included all the known easement and permit requirements, that additional requirements may arise during the course of the project from additional easements and permits that are not known at the time of the bid. 2. Will the Contractor be compensated for the costs of complying with the terms of easements and permits that are not known at the time of the bid? 3. In the same section, Item 4 refers to, "Environmental factors and Mitigation requirement", and Item 5 refers to "All other data matters and conditions requisite to the fulfillment of the Work". Are all of these requirements detailed in the Contract Documents? 	<p>1. Yes</p> <p>2. Yes</p> <p>3. Yes</p>



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25.		Section 00200 - General Conditions - Article 1.07 A	<p>This sections imposes upon the bidder that the Bidder agrees that it has "taken steps reasonably necessary" to evaluate conditions affecting the work, including geotechnical and permit conditions.</p> <ol style="list-style-type: none"> 1. Has the Engineer included all the known local requirements, easements, geotechnical, and permit conditions in the contract documents? It is possible that even if the Engineer has included the entire known local, easement and permit requirements, that additional requirements may arise during the course of the project from additional local requirements, easements and permits that are not known at the time of the bid. 2. Will the Contractor be compensated for the costs of complying with the terms of easements and permits that are not known at the time of the bid? 	See No. 24.
26.		Section 00200 - General Conditions - Article 4.02	<ol style="list-style-type: none"> 1. How long does Sound Transit require to respond to a request for change? 	See General Conditions



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27.		Section 00200 - General Conditions - Article 13.10.A	<p>This section establishes the requirement that certain materials are required to be manufactured in the United States. It also establishes the requirement that the Bidder certify, at the time of the proposal that the Bidder shall comply with the Buy American provisions. (Reference to: Requirements with Submittal #2, Bid Form Eight - Buy American Certification.)</p> <p>Our investigations have established that some of the steel sections used for the UW Station shoring (plan sheets 386 & 387) are not manufactured in the United States. Specifically, these are steel sections W36 X 652 and W36 X 800. Our investigations have indicated that the largest section that is being produced in the United States is W 36 X 441. We are unable to identify a domestic or foreign steel mill that will produce the W36 X 800 section.</p> <p><i>Questions:</i></p> <ol style="list-style-type: none"> Has Sound Transit obtained a waiver of the Buy American provisions for these steel sections and any other materials that are not manufactured in the United States that are required by the plans and specifications? 	<p>No. Buy America does not apply to temporary struts and wales.</p>



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		RFI #27 Continued	<p>2. If Sound transit has not obtained a waiver for these materials, will the Engineer provide alternative designs for the shoring that do not require these steel sections?</p> <p>3. Regardless of the Buy American provisions, will Sound Transit provide alternative designs to replace the W36 X 800 section?</p> <p>4. In article 13.10 B it is stated that the Bidders proposal shall be declared non-responsive if the Bidders does not agree to the Buy American provisions. However, the form provided in the proposal documents (Reference to: Requirements with Submittal #2, Bid Form Eight – Buy American Certification.) has a section that Bidder can sign that states that the Bidder cannot comply with the requirements. This seems inconsistent with the provisions of this article.</p> <p><i>Question:</i> If the bidder signs the second part of the form, stating that the Bidder cannot comply, will the Bidders proposal be declared nonresponsive?</p>	<p>See No. 1 above</p> <p>See No. 1 above</p> <p>See No. 1 above</p> <p>This question will be answered in Clarification Publication No. 4.</p>



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29.		Section 01 11 00 1.03 G	This section states that Contract U260 (track work) has a scheduled start date of the third quarter of 2011. Is it the intention of the specifications that this work shall begin regardless of the achievement of substantial completion for this project?	No. ST shall manage the NTP for U260 to avoid conflicts with U220.
30.		Section 01 12 16	<p>Milestone 1 requires the following to be complete within 6 months of the final N-T-P Now anticipated to be between 01/04/10 and 07/10/11:</p> <ol style="list-style-type: none"> 1. Installation of temporary power from UW; 2. Construction of the new access roads (along the south, west, and east sides of the project; 3. Modifications to the intersection at Montlake Boulevard and NE Pacific Place (including excavation, compaction, paving, sidewalks, curbs, traffic signal, etc.) 4. Relocation of the UW gate to a point on the southeastern corner of the site; <p style="text-align: center;"><i>Continued next page</i></p>	Sound Transit does not intend to revise Milestone durations.



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30 -	Continued		<p>5. Construction of a portion of the temporary wall along the south side of the site (and north of the temporary access road);</p> <p>6. Installation of the electrical duct bank (along the northwest limits of the site); and</p> <p>7. Restoration of the site south of the southern access road; while</p> <p>8. Maintaining local access across/around the site for both vehicle and pedestrian traffic.</p> <p>Milestone 2 requires the following to be complete within 15 months of the final N-T-P and 9 months after the completion of Milestone 1 - Now anticipated to be between 07/01/10 and 04/01/11:</p> <p>1. Construction of the remaining temporary construction wall (along the west, north, and east sides of the site);</p> <p>2. Complete site grading (to elevation 52);</p> <p>3. Installation of the complete slurry wall (including the intermediate section);</p> <p style="text-align: center;"><i>Continued next page</i></p>	



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30 -	Continued		<p>4. Installation of the contractor designed support wall and excavation to elevation 38;</p> <p>5. Excavation and support of the UW Station Crossover Box;</p> <p>6. Installation of the Crossover Box concrete invert slab (complete w/ all embedded conduits, etc.);</p> <p>7. Initial setup of the tunneling operation; and</p> <p>8. Turnover of the northern section of the site to the U250 contractor (north of the F-I fence boundary); while</p> <p>9. Maintaining access across/around the site for both vehicle and pedestrian traffic.</p> <p>In addition, several constraints are to be imposed for the above work:</p> <p>1. Phase 1 work (prior to Milestone 1) at the site only includes the 4 acre area south of boundary A-I;</p> <p>2. Completion of the duct bank has to occur between 12/14/09 and 01/04/10 (which may be outside the above...</p> <p style="text-align: center;"><i>Continued next page</i></p>	



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30 -	Continued		<p>requirements before the contractor is allowed to begin work at the site on the project);</p> <ol style="list-style-type: none"> 3. Work on the site access in areas D and E (northeast boundaries of the site) may only occur after the roadways on the south end of the site are complete; 4. Throughout construction of the access roads (the first 6 months of the project), vehicle and pedestrian traffic must be maintained on Montlake Boulevard. Montlake Boulevard is an extremely busy thoroughfare during the week. 5. No work may occur which disrupts the flow of traffic (pedestrian and vehicular) from the intersection of Montlake Boulevard and NE Pacific Place to the E10 and E12 parking lots until the new access roads have been completed; and 6. No work may take place during: UW home football games, Commencement, Convocation, the Windermere Cup, two unspecified UW events, and with time limits set on UW home basketball games. <p style="text-align: center;"><i>Continued next page</i></p>	



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30 -	Continued		<p>As noted above, the site work for Milestone 1 will occur in the late winter through late spring.</p> <p>The requirements for: preliminary excavation at the site; building the intersection, roadways, curbs, sidewalks and gate house; and installing a portion of the temporary construction wall, will require, as a minimum, 9 months and possibly more due to the constraints placed on the contractor.</p> <p>Site work for Milestone 2 will occur from the beginning of summer through late winter. The completion of the temporary construction wall and excavation of the site to elevation 52 may require some 20 haul trucks per hour to enter and leave the site through the allowable daily muck removal hours. These trucks shall be In addition to those trucks delivering normal materials and equipment.</p> <p>The slurry wall will require at least one complement of equipment, and possibly as many as three. Each set of such equipment will require a large lay down area, and will require the daily delivery of large quantities of ready-mixed concrete. Separation and trucking of the spoil materials, required by</p> <p style="text-align: center;"><i>Continued next page</i></p>	



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30 -	Continued		<p>specification, will also be a major consideration.</p> <p>Any excavation and support within the contractor's temporary supported area (to elevation 38) as well as excavation and support for the Crossover Box will necessarily be sharing the congested site with the slurry wall operations.</p> <p>This will cause the site to be extremely congested with the slurry wall equipment, the contractor-designed wall shoring and excavation equipment, the Crossover Box excavation equipment and the on-time arrival of the EPB tunneling equipment.</p> <p>The concrete work for the Crossover Box support and the invert slab is also complicated by the installation of embedded materials and must be completed after all of the above work is in place. The 9 months allowed for this work, after the completion of Milestone 1, and not including any setup of the tunneling equipment, is much less than required to adequately and competently perform the required work.</p> <p>Please reconsider the time allowed in Milestones 1 and 2 and increase the time allowed for the completion of this work by 6 to 9 months. END OF QUESTION #30.</p>	



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31.		Section 01 50 00 -	<p>Temporary Facilities and Controls - 1.18</p> <ol style="list-style-type: none"> 1. Will the temporary tunnel standpipe system require design calculations by a registered professional engineer? 2. What is the maximum distance that the end of the stand pipe can be from the tunnel heading? 3. May advancement of the tunnel heading take place while the stand pipe is tested? 	<ol style="list-style-type: none"> 1. Yes. 2. Maximum distance is 200 ft, which is also the maximum length of pipe that can be added between pressure tests per 01 50 00, 1.18 H. <p>NFPA 130, 6.5.3.1.1 states "A standpipe system shall be installed in tunnels under construction before the tunnel has exceeded a length of 61 m (200 ft) beyond any access shaft or portal and shall be extended as tunnel work progresses." NFPA 130 is referenced by 01 50 00, 1.18 A. 1.</p> <ol style="list-style-type: none"> 3. Yes, provided workers are protected from high pressure test. Maximum distance is 200 ft which is the maximum length of pipe that can be added between pressure tests per Section 01 50 00, 1.18 H and NFPA 130.
32.		Section 31 09 00 3.07	<p>Well Decommissioning and Instrumentation Wells Decommissioning Schedule and Additional Wells to be Decommissioned Table, on Drawing LAO-KM700 (sheet 96).</p> <ol style="list-style-type: none"> 1. We are of the understanding that it is not necessary to monitor the wells shown on the referenced schedule and table before they are decommissioned. Is this correct? 	<ol style="list-style-type: none"> 1. Correct. The only wells requiring monitoring are indicated on the "Instrumentation Monitoring Schedule".



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33.		Section 37 71 23 -	<p>Tunnel Excavation by Sequential Excavation Method</p> <p>Drawings L10-SC401 (Sheet 11 6) and L10-SC403 (Sheet 118) show two categories of ground support for Cross Passages.</p> <ol style="list-style-type: none"> 1. If excavation support, other than shown on these drawings, is required how shall the alternative support be measured for payment? 2. If a combination of Category I and Category II support is required within one cross passage how shall the support be measured for payment? 3. What is the standard for selecting the type of support and which section of the specifications contains this standard of selecting types of support". 	<ol style="list-style-type: none"> 1. It is not anticipated that measures not already listed will not be required, but if so they will be measured by counting the additional measures provided. 2. The support category to be used for each cross passage is listed in the GBR. It is not anticipated a combination will be required, as category I already has category II elements included as additional SEM measures. If a combination approach is used that includes more elements than are shown then they will be measured by counting the additional measures provided. 3. The SEM design is prescriptive and the support categories at each cross passage are baselined for pricing purposes in the GBR. The Contractor's SEM Work Plan shall address standards of support different from the design support standards.



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34.		Section 31 73 23, Article 3.02 F	<p>Ground Water Control Measures - In Tunnel Water Control, numbered paragraph 7 makes reference to vacuum dewatering.</p> <ol style="list-style-type: none"> 1. In which section of the specifications is the standard, or method, of determining when the use of vacuum dewatering is required? 2. Which section, or sections, of the contract documents and geotechnical reports provide the hydrological data for the determination of capacity requirements for vacuum dewatering systems for the cross passages? 3. How will the use of vacuum dewatering be measured for payment? 	<ol style="list-style-type: none"> 1. It is included as an Additional Support Measure that it may be necessary as part of the construction for a Category II Cross Passage as noted on Drawing L10-SC403. The Contractor's SEM Work Plan shall address the standards or method for determining when the vacuum dewatering will be used. 2. The GBR and GDR should be referred to in determining the capacity requirements for the vacuum dewatering system. 3. Along with all the other standard and additional support measures listed, it should be included in the Category II Cross Passage unit price.



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35.		Drawings L10-SC403 (Sheet 118) and L10-SC504 (Sheet 132)	<p>These drawings show pocket excavation for Category II support.</p> <ol style="list-style-type: none"> 1. How are the sizes and volumes of the pockets to be determined? 2. Do the specifications assume that the entire excavation for Category II support requires the use of pocket excavation? 3. Note 3, on L10-504 (Sheet 132) states that the location and size of the pockets shall be adjusted according to "prevalent site conditions". Please define "prevalent site conditions" in engineering terms. 4. How is pocket excavation measured for payment? 5. Even with the best possible techniques, some additional volume of over break excavation will occur with the sequential excavation method. Will the Contractor be compensated for over break excavation? How will this compensation be measured for payment? 	<ol style="list-style-type: none"> 1. The location and size of the pocket shall be indicated in the Contractor SEM Work Plan as noted on L10-SC504 according to prevalent site conditions, and adjusted by the SEM tunnel Project Engineer during excavation as needed. 2. The assumption is that a pocket excavation approach will be used for each round of the Category II support based on the Standard SEM Support Measures listed and it is assumed that the unit price given for the Category II will include an allowance for it to support the excavation. It is up to the Contractor's interpretation of the GBR and the Category II Cross Passage design to determine the specific pocket size details. 3. Prevalent in this context refers to the existing or prevailing ground conditions exhibited specifically at each of the cross passage excavation sites. 4. It is part of the Standard SEM Support Measures so will be included in the Category II unit price. For Category I support only one round of pocket excavation is listed as an additional measure. Where more than one round is used payment will be per round beyond one. 5. Payment for overbreak and additional materials used to remediate will be negotiated with the RE on a per cross passage basis.
36.		Section 31 73 23, Article 2.01 D - Grouted Pipe Spiling	<p>Grouted Pipe Spiling</p> <ol style="list-style-type: none"> 1. Will grouted pipe spiling be measured for separate payment and what are the units of measure? 	<ol style="list-style-type: none"> 1. No. Pipe spiling is required to be included in the unit price for Category I as an additional measure (prescribed length and number) and for Category II as Standard SEM measures refer L10-SC502. Prescriptive lengths are shown.



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37.		Drawings L-10-SC403to L10-SC40 (sheets 116 to 121), LIO-SC421 (sheet 123) and L10-SC422 (sheet 124), and Section 31 71 23 - 3.02 E.	<ol style="list-style-type: none"> 1. On the drawings, three (3) probe holes are shown for each cross passage. Is this the total number of probe holes required for each cross passage? 2. If more than three (3) probe holes are required, by direction of the Engineer or for other reasons, how are the additional holes to be measured for payment? 	<ol style="list-style-type: none"> 1. Three probe holes are shown as the number for pricing. 2. Additional probes can be drilled based on the Contractor work plan or conditions encountered, however, payment for any additional probes will be by agreement of the RE and per Changes clause of GCs.
38.		Section 31 71 23 3.02 E and Section 31 09 13.50 - 1.02 G	<ol style="list-style-type: none"> 1. Are pore pressure piezometers required in all probe holes in the cross passages?. 2. How many pore pressure piezometers does the Engineer anticipate shall be required? 3. Will pore pressure piezometers be measured for separate payment? 	<ol style="list-style-type: none"> 1. No, pore pressure piezometers are to be installed in additional probe holes drilled below probe holes encountering groundwater inflows. 2. There are currently no pore pressure piezometers required for inclusion in the unit price estimates for either of the category I or II cross passage support types. 3. Yes, where pre-pressure piezometers are agreed for use by the RE separate payments per item will be made.
39.		Drawing N21 - SE013 (sheet 354)	<ol style="list-style-type: none"> 1. We believe that for the slurry wall north of the intermediate slurry wall, the drawings require imbedded plates only at LVL 4 bracing and that other levels of bracing do not require imbedded plates. Is this correct? 	<ol style="list-style-type: none"> 1. There are two types of embedded plates required at the north slurry wall: plates for attaching bracing, and plates for connecting adjacent slurry panels to each other. The plates for attaching bracing are required at Levels B4 and B5 as shown on N21-SE012. The plates for attaching adjacent slurry panels to each other are required from top of wall to top of invert slab as shown on N21-SE013.



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40.		Drawings N21-SS009 (sheet 403), N21-SS024 (sheet 409), and N21-SS025 (sheet 410).	1. Guardrail details on the above referenced drawings show different heights. What is the correct height, 2'-8" or 2'-3"?	1. 2'-8" is the correct height.



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41.		Request for Postponement of Bid Date	<p>As stated above, we believe that the Milestone dates are unrealistic and do not properly consider the existing conditions at the sites and the number of restrictions placed on the Contractor's work. The number of truck loads required to deliver material, equipment and remove excavated material is quite large. The traffic conditions at this site will make it extremely difficult to accommodate this large amount of traffic.</p> <p>The installation of the slurry wall requires a large amount of space for the excavation equipment, the slurry separation plant, and lay-down area to assemble the reinforcing cages. There may not be enough space to accommodate more than one set of equipment and this will hamper the progress on the slurry wall installation.</p> <p>We believe that Sound Transit should take the time to evaluate the Milestones in view of our concerns.</p> <p>This project is extremely complex and requires careful consideration. Many major tunnel projects are currently in the bidding stage. The estimating resources of the members of this Joint Venture are severely stretched by the number of projects that are out for bid.</p> <p>Therefore, to give Sound Transit the time to review the milestones and for the Contractors to have the time to thoughtfully consider this complicated proposal, we respectfully request that the bid opening be delayed for six (6) weeks.</p>	<p>Sound Transit does not intend to extend the Bid date at this time.</p>



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42.		OCIP - Policy Limits and Aggregates	<ol style="list-style-type: none"> 1. Are all of the OCIP policies specifically dedicated to U220, or shared with any other Sound Transit projects? 2. Under the Commercial General Liability, and Excess Liability policies, are the General Aggregates and Products/Completed Operations Aggregates applicable to the entire project term, or are they reinstated annually? 	<p>The OCIP policies are dedicated to all the projects under the University Link Light Rail Program</p> <p>During the construction phase, the limits on the Commercial General Liability and Excess Liability coverages</p> <p>reinstated annually. There is only one limit for the completed operations term</p>
43.		Deductibles	<ol style="list-style-type: none"> 1. Are the deductibles on the various insurance policies based on per occurrence or per claim? 	Policy Deductibles are per occurrence.
44.		Section 03 30 00 - 3.01 C 2	<p>This section states "Locate construction joints as indicated on the Contract Drawings. The drawings do not show the location of construction joints in the tunnel walkway.</p> <ol style="list-style-type: none"> 1. Are the construction joints in the tunnel walkway to be located by the Contractor? If not, please provide the locations of the construction joints in the tunnel walkway. 	1. Yes
45.		Section 05 50 00 - 2.02 C	<p>This section requires all embedded metal fabrications to be hot-dip galvanized.</p> <ol style="list-style-type: none"> 1. Does this requirement apply to any of the plates embedded in the slurry wall? 	1. Yes, all embedded metal fabrications require hot-dip galvanizing per 05 50 00 2.02.C, including metal plates embedded in slurry walls.



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46.		Drawing N21 - SE013 (sheet 354) and N21 - SD006 (sheet 373)	<p>On Section B on drawing N21-SE013 (354), on the line representing the slurry wall panel joint, there is a note that references Detail I on drawing N21-SD006 (373). This detail show "PL 314 x 24 x 2'-6 NOT @ SIM".</p> <p>1. We believe that this plate is installed after excavation which is not included in this contract. Are we correct?</p>	1. That is correct for the north slurry wall only. At the north wall, the PL ¾ x 24 x 2'-6" will be installed in a later contract.
47.		Drawing N21-SS007 (sheet 401) and N21-SS009 (sheet 403)	<p>Detail I on N21-SS007 (401) makes reference to Detail 3 on N21-SS009 (403) and the note line says "SIM AT PILES NI TO NIO. Detail 3 on drawing N21-SS009 (403) has a note that says "CONSTRUCTION WALL (NOT AT SIM)".</p> <p>1. Does this mean that the construction wall is not required at the north temporary shoring?</p>	1. A temporary construction wall is not affixed to the north end piles as noted in the Temporary Construction Wall drawings (SS021 to SS025). The Temporary Construction Wall in the north area of the site is shown on Drawing N21-SS022 as a moveable chain link fence.
48.		Drawing N21-SZ008 (sheet 321)	<p>A note on this drawing requires the Contractor to maintain 4 feet of clearance between the contractor designed shoring and the future vent shaft.</p> <p>1. Please provide dimensional information for this future vent structure.</p>	1. The outside dimensions of the future vent structure are shown at the south end of the horizontal control plan on N21-SZ006.
49.		Spec Section 31 71 19	<p>Subsection 1.04 D 5.g States that hyperbaric interventions in excess of 75 psi (5.1 bar) will require "alternate means to reduce pressure..." Since the potential maximum pressure required for a hyperbaric intervention is nearly 6.0 bar, please advise what additional measures will be required if such an interventions is required, and how these additional measures will be paid.</p>	It is up to the Contractor as to how they will conduct the interventions and under what conditions including any alternative means to conduct the interventions under compressed air. The cost of the additional measures work to reduce the pressure is to be included in the overall lump sum bid item and will not be paid as a separate measure item.



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50.		Specification Section 31 09 00 2.10	Datalogger, E requires dataloggers to be installed prior to the leading TBM advancing to within 500 feet of instrument position and to remain until trailing TBM is at least 2500 feet past the instrument location. Plan L10-km900 for most of the Reading schedules A through G requires instrument readings to begin when the TBM is within 200 feet and not to stop until tunnel excavations are complete or until measurements remain stable over three consecutive months. These appear to be two different requirements for monitoring of the instruments. What is the reading schedule that will be required?	There are different distance criteria given for different activities. The installation and baselining (3 sets of readings) of the extensometer using the datalogger is a different activity than the actual instrument readings for excavation monitoring. The first activity must be completed within the 500 ft distance of the TBM advance whereas the second activity starts within the 200 ft TBM advance distance. After the TBM is 2500ft past the extensometer the datalogger can be removed and manual readings taken to accommodate the activity two instrument reading schedule requirements if necessary.
51.		Drawing #N21-EP220	Can you please supply this drawing in CADD format? It will assist in the design for temp site lighting.	Yes, all CADD drawings are provided by request. CADD Release Form must be signed and forwarded to Sound Transit Contracts Administrator prior to release of CADD Files. CADD release form is posted as a .pdf file on eBid. Please complete form and fax to the attention of Brian Knight, Lead Contracts Administrator at 206-398-5271 or e-mail to brian.knight@soundtransit.org
52.			Would a loadout system to move the TBM muck by conveyors to a long narrow barge be acceptable? The conveyor system would be covered and not allow any muck to escape into the Ship Canal. Currently a system I sold to JCT for the West portion of the Brightwater project is working well and very clean, carbon friendly, and does not impact the local road system. I would encourage you to stop by the project and observe the conveyor system working.	No, not under the current 3 rd Party agreements and permits.



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53.		Specification Section 10 57 15	Noise Level Limits. Spec Section 10 57 15, 3.01 C states that Sound Transit will obtain an appropriate noise variance from the City of Seattle for nighttime work, and that these criteria will be given to the contractor. Please provide the noise criteria limits we should consider in our bid for nighttime work.	Sound Transit has applied for a Technical Noise Variance (TNV) with the City of Seattle, DPD and is currently pending. Therefore, the nighttime noise level limits, as established by the City, and other noise mitigation measures have not been determined. Not until the TNV is issued will Sound Transit know what the approved nighttime noise criteria will be. When known, the noise criteria will be submitted to the CM and RE for each contract unit for distribution to the appropriate contractor(s).
54.		Specification Section 31 71 23	Probe Drilling. Spec Section 31 71 23, 3.02 E requires the Contractor to perform core drilling, including recovering and logging of the core at each crosspassage. Spec requires that if the hole "indicates water inflow", additional cored probe holes will be required. Please advise how the contractor will be compensated for performing these additional core holes.	Cored holes and any additional probe holes over those shown on the drawings are considered extra to the contract and will be compensated by agreement with the RE.
55.		Specification Section 01 71 30	Pre Construction Building Surveys. Spec Section 01 71 30, 1.07 A requires the contractor to use an independent third party firm to perform both pre construction and post construction surveys on 29 listed "buildings," including a water tower, a museum and Husky Stadium The survey is to include documentation on all "visible cracks, defects, or unusual conditions." Will the Contractor be allowed to commence with this survey immediately after LNTP?	Yes.



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56.		Specification Section 31 71 19	Specification section 31.71.19, Subsection 1.04 D 5.g states that hyperbaric interventions in excess of 75 psi (5.1bar) will require alternate means to reduce pressure..." Since the potential maximum pressure required for a hyperbaric intervention is nearly 6.0 bar, please advise what additional measures will be required if such an intervention is required, and how these additional measures will be paid.	This is a repeat. Please refer to response to question 50 above.



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57.		Specification Section 31 71 19	Hyperbaric Interventions. Spec Section 31 71 19, "Tunnel Excavation by TBM", subsection 5, "Compressed Air Work Plan", requires the contractor to obtain a variance from WAC to allow interventions up to 75 psi (5.1bar). Hyperbaric interventions at 75 psi will require the workers to breath mixed gases (Tri Mix), and to use gas masks with umbilical cords while in the chamber. At this pressure, the allowable work time is limited to less than 30 minutes, unless saturation diving techniques are employed. This 30 minute period is sufficient only for a brief inspection, and is not sufficient time to perform any significant repair or maintenance in the work chamber. The Contract does not specifically require the TBM locks to be designed for saturation interventions, nor does the contract specifically require that the furnishing of a habitat lock be on site to allow same. These facilities would include a surface habitat lock and a "Transport Under Pressure" lock (TUP – shuttle) that can be mated to both the air locks on the TBM and the habitat lock. Please advise if the contractor will be required to have the TBM designed to allow for saturation interventions, and to acquire a habitat lock.	We are not requiring that the TBM be designed to allow for saturation interventions and hence the requirement to reduce pressures using Contractor determined additional measures as necessary to comply with interventions being conducted below 75psi.
58.		DWG N21-SZ008	Drawing N21-SZ008 (Sheet 321), Key Note 5 is shown as applying to the northern part of the open-cut. Is this correct? Our understanding is that the contractor only excavates the southern section to EL. 38? Please clarify.	On the plan shown on N21-SZ008, the locations indicating Note 5 should actually indicate Note 4, and the locations indicating Note 4 should actually indicate Note 5. The Key Note description for 5 is correct, the U220 contractor only excavates the southern section.



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59.		Specification Section 01 57 19	In Specification Section 01 57 19, paragraph 3.01.B.4 states "Bulk fuels may not be stored on the construction site or staging area". Is this meant to preclude the Contractor from having a diesel storage tank on site in order to allow for fueling his equipment at night?	Yes.
60.			Is there a charge to the Contractor for discharges to the Storm Sewer made under the Industrial Waste Discharge Permit? If so, what is the charge?	Yes. There will be a Major Discharge Authorization, not an IWD permit for this contract. Sound Transit will pay for all metered fees related to all discharges to the Seattle Public Utilities sanitary sewer conveyance system for ultimate treatment at KC plants. This will come out of the PS amounts.
61.		2/N21-SD033	There is an arrow pointing to the apparent web of wharf beam and calls out W103, W202, W204, W205, W303; & W404. Other similar notes refer to web doubler plates, some continues some at 6'-0" and a plate designation. What does this particular note indicate?	The arrow and call out to the wales (W202, W204, W205, W303 & W404) is providing information as to which wales these details are applicable to. These wales are shown on the referenced drawings with reference back to the connection detail.
62.		Specification Section 01 71 30	One of the structures specified in Section 01 71 30 of the Specifications as requiring a Pre & Post-Construction survey is UW's Husky Stadium. Based upon what we observed during a recent site visit, we believe that a survey of the stadium, which would include all of the information described in paragraph 1.07.D of that Specification Section, would be impractical. Would you please more specifically define what you require in the way of detail in the survey of the Stadium.	The main portion of the stadium of concern is the west stands of the stadium, closest to the station excavation. Assume the portion that needs to be inspected, in accordance with Section 01 71 30, is the outside façade and adjoining structure between SSP-700 and SSP-705, as shown on Contract Drawing L10-KM115.



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63.		Detail 6, DWG. N21-CP520	We have been unable to ascertain from the Documents at what point in the construction sequence it is anticipated that the Contractor will install the temporary pavement shown as covering the Construction and Staging area, please clarify.	Following excavation to the staging elevation.
64.		Builders Risk Coverage	Does the Earth Quake coverage include coverage for earth movement, landslide, mudflow, and sinkhole collapse?	<u>Earthquake Policy Definition</u> All land movement due to seismic activity, including but not limited to shocks, tremors, volcanic eruption, earth rising or shifting, landslide, subsidence, sinkhole, rockfall and tsunami.



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65.		Builders Risk Coverage	Is the Flood Coverage limited to overflow of a body of water, or does it include inundation of the project worksite due to heavy rain or seepage into a worksite from an external source?	<p>FLOOD: Policy definition</p> <p>A. A general and temporary condition of complete inundation of normally dry land areas, including dewatered areas, from:</p> <p>(1) The overflow of inland or tidal waters;</p> <p>(2) The unusual and rapid accumulation or runoff of surface water *;</p> <p>(3) Mudslides (i.e. mudflows) which are caused by flooding as defined in subparagraph A(2) above and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current;</p> <p>The term "surface water", as used hereunder, shall mean seepage, leakage or influx of water (immediately derived from natural sources) through sidewalks, driveways, foundations, walls, basements or other floors, or through doors, windows or any other openings in such sidewalks, foundations, walls or floors; and shall also include all water which backs up through sewers and drains.</p> <p>B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding the cyclical levels which result in flooding as defined in A(1) above. All whether driven by wind or not.</p>



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66.		Builders Risk Coverage	Does the Transit Coverage include international shipments of materials, including ocean shipments, if applicable to this project?	There is no coverage for international shipments of materials or ocean marine transit. There is no coverage under the policy for international shipments or ocean marine transit of materials.
67.		Builders Risk Coverage	Does the policy include coverage for Soft Costs, Expediting/Extra Expense and Off-Site Fabrication sites? If so, please advise what the limits are.	<p>Limits are:</p> <ul style="list-style-type: none"> Delay In Completion-Soft Costs and/or Loss of Rental Income and/or Loss Profits; · \$10,000,000 or 20% of the amount of physical loss or damage to insured property, whichever is less—Expediting Expense; · \$10,000,000 physical damage to property in Temporary Storage (per location) <p>There is no coverage for soft costs or offsite fabrication sites unless it is temporary storage and the location is requested and approved by the insurance carrier.</p>
68.		Spec sect. 05 05 13	Coatings for metal only lists galvanizing where indicated. What is the material finish for the structural steel wale beams and bracing?	No structural steel finishes are required other than galvanizing where indicated.
69.		General	Who are the general contractors bidding this project?	Refer to the Ebid-system under Bidder's List and the Registration Sheet dated 1/23/09 located in Documents who indicated themselves as Primes.



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70.		Solicitation LR 0001-09 - Community Relations	As part of solicitation LR 0001-09 there is a Community Liaison Officer that anticipates 10 hours a week throughout the life of the project. In Sound Transit's development of the contract and project price what was the engineer's cost estimate for the community liaison portion of the work? (hourly rate and lump sum) Is there also an estimate on the number of hours for this portion of the work?	ST does not disclose its estimate. The Community Liaison Officer is required for the duration of the contract.
71.		Spec Section 31 71 19	Spec Section 31 71 19, in paragraph 3.04.4 discusses daily soil sampling, and states that we are to provide the "bagged" samples to the Resident Engineer. Below that, in 3.04.4.d, "Testing", it calls for providing a third-party lab to test and classify each soil sample taken. Is it your intent that this lab testing and classification be done on every daily sample?	Yes.
72.		Drawing LIO-MP-114 (sheet 423)	On Drawing LIO-MP-114 (sheet 423), construction note 1 calls out station 1087+90 as the end of the NB pipe insulation. Shouldn't that note actually read "station 1187+90"?	Correct. Item updated in Addendum #5.



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73.		Section 31 09 00	Are the surveying activities listed in Section 31 09 00 subject to the Project Labor Agreement?	<p>No. Subsection 1.05 Quality Assurance in Spec Section 31 09 00, Point B states, "Perform all surveying activities under the direct supervision of a licensed Professional Land Surveyor registered in the State of Washington. " This calls for professional services, which are excluded from the scope of the PLA.</p> <p>NOTE: Construction related survey activities (grade checking, footprint marking, etc.) directly part of the on site work and under sub-contract to the general construction contractor are covered by the Project Labor Agreement and subject to payment of Prevailing Wage under the administrative rules (WAC 295-127) of the state of Washington.</p> <p>(WAC 296-127-01396: Construction Site Surveyor – The work of a Construction Site Surveyor includes, but is not limited to: Survey work performed after the contract is awarded and during the actual construction in direct support of construction crews when the worker is in the employ of and working under the direction of a construction contractor to survey check points of location and grade on a construction site using a variety of measurement tools, instruments, and procedures.)</p>



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74.		Electrical Short Circuit Current Ratings, Drawings L10-EP707-707.	What is the Electrical Short Circuit Current Ratings (KA) for all panel boards and mini power centers shown on Drawings L10-EP701 through L10-EP707?	<p>For Drawings L10-EP701 through L10-EP704, the A/C Sym Rating for each 480V Panel shall read as follows:</p> <p>Short Circuit Ratings shall be 14 kA RMS Symmetrical Minimum</p> <p>For Drawings L10-EP705 through L10-EP705, the A/C Sym Rating for each 120V Panel shall read as follows:</p> <p>Short Circuit Ratings shall be 10 kA RMS Symmetrical Minimum</p> <p>Item updated in Addendum #5.</p>
75.		RFI # 27, Clarification # 3:	The question is unanswered here. W36 x 800 is not made in the USA or overseas. It has not been made since the mid 1990s. W36 x 650 is available. It is the largest W36 size made. Will there be a redesign using the 650 with a thicker doubler plate. How do we bid this work?	Bid the work as indicated. All the W36x800 beams are part of the temporary bracing structures. As we have enquired around, although the W36 x 800 may not be a readily available shelf item, we find that the W36X800 can be obtained on special mill order. Also, during the Construction Phase, any changes to design presented by the Contractor will be subject to the VECP process indicated in the General Conditions and will be addressed at that time.
76.		Structural steel finish	Is there any specification for the finish of the structural steel wale and bracing in the U of W station?	No structural steel finishes are required other than galvanizing where indicated.
77.		Drawing N21-SD007	What does WHS mean? If the studs are circular shape in cross section, what do you mean by 2 sides?	WHS indicates Welded Headed Stud. "2 sides" indicates that the callout refers to plates 1" x 30" on 2 sides of the vertical Plate E.



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78.		Engineering	I am a structural engineer (small business). I read this in the prebid conference summary: "The civil and architecture & engineering final design team for University Link is NTP, (Northlink Transit Partners)..." Does that mean NTP is doing all of the engineering for the whole project? Should I bother trying to get subcontractor engineering work from the primes?	NTP developed the contract documents during the design phase and the prime contractors will need to hire engineering firms during the construction phase.
79.		Project Labor Agreement	Article 3: Union Recognition, Representation, Dues, Referral and Security - What does the term "craft personnel" mean? If debris hauling represents a sizeable portion of the bid amount, are they allowed to have a working Steward for each shift?	Craft personnel are represented employees (journey-level and apprentices) from within the jurisdiction of the respective unions working on the project within the scope of the PLA. As provided in the PLA, Unions are allowed (but not required) to designate a working steward for each shift.
80.		Project Labor Agreement	Article 9: Hours of Work, Overtime, Shifts and Holidays I would like clarification regarding how a dump truck firm will have to pay its employee if they are working the 10 pm to 7 am shift. Per the PLA there are three shifts and if I am reading this correctly this would be considered the 3rd (third) shift. If this truly is a third shift then the PLA states that the employee works 7 hours but is paid for 8 hours. The allowable truck hauling time is 10 pm to 7 am which is a 9 hour shift. How will that affect the way we are required to pay the trucking employees?	Article 9.3 must be read in the context of whether a firm will be performing its work on the basis of shifts that it will provide construction services. A contractor may establish shifts for some activities, but established shifts will not necessarily be a requirement for all subcontractors nor for all activities. Allowable truck hauling time does not mean that the particular firm is working multiple shifts, but a single shift that is allowed to take place between the start and end times identified. The contractor may establish different requirements for activities such as trucking, and the PLA does not carry the same requirements for owner-operators. As for a 9-hour shift, that instance would likely be dealt with in the context of overtime.



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81.		Project Labor Agreement	Article 10: Wages and Benefits Does the master contract that will exist between Sound Transit and the selected Prime Contractor have specific language acknowledging the requirement for prevailing wage rate adjustments which are published twice a year? In the interest of saving tax payer dollars are you allowing a change order from the Prime Contractor for the adjustment in payroll or are you expecting the Prime Contractor to bid and estimate the amount of the compensation change?	Incorporated into IFB is Section 1.08.C of the Instructions to Bidders—"In preparing its Total Bid Price, the Bidder shall take into account and include adequate amounts over the Contract Time to comply with the prevailing wage provisions, including the twice annual wage adjustments...and in the Labor Compliance Manual."
82.		Table 03 05 15.A	The 4000A mix requirements include air content. Since the structure is below grade is it necessary to use air entrained concrete? The air content requirement will result in a 5% to 10% increase in concrete cost.	Air entrainment is specified because the entrained air bubbles inhibit groundwater seepage through the concrete.
83.		N21-SE002 N21-SD007	The bracing support plates which are embedded in the slurry walls are shown on the elevation view with lengths up to 56-ft. The details (Type A, D, F) of these plates do not provide a field splice detail. Does the owner require slurry wall panels 56-ft in length to accommodate these plates?	The plates are not required to be spliced at the slurry panel joints. For example, Detail 6 on SD007 shows that Section A on SD008 applies at the long plate. Section A on SD008 indicates Section B on SD008 applies at vertical wall joints. Section B on SD008 shows the long plate to be interrupted at slurry wall joints.
84.		Sheet N21-CP520	Detail (6) Note #1 States "Increase Pavement section by adding 5" of HMA CI 1/2" as Top Course in areas planned for Heavy Truck Traffic". How much area can be expected (i.e. SY) and who will determine this?	This additional thickening shall be done by the Contractor to suit its operations.



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85.		Seattle City Light Contact	As per Spec. 01 51 15.1.03.B, would you please provide us with a Contact at Seattle City Light to whom we could speak regarding details of the equipment, capacity and logistics of the incoming 26.4kV service?	During the Bid Phase, Sound Transit will respond to all questions Bidders have on the requirements of Spec. Sections 01 50 00, 01 51 15, 31 71 26 and all other Sections that require third-party interface. All questions should continue to come through Brian Knight of Sound Transit per the IFB instructions, with the answers provided to all Bidders.
86.		Spec. Sections 01 50 00 & 31 71 26	Would you please provide us with contact information for the person(s) at the Seattle Fire Department to whom we could speak to regarding details of some of the requirements of Spec. Sections 01 50 00 & 31 71 26.	See response to RFI #85.
87.		RFI #60	In your response to RFI #60 in Clarification Publication #3, please clarify what you mean by the last sentence – "This will come out of the PS amounts."? Are you saying that the Contractor will pay the bill and be reimbursed under one of the Provisional Sum Bid Items? If that is the case, which PS will be used?	Yes. Contractor will be reimbursed from the PS for Permits.
88.		General	How will the trucker's be paid? (Weekly, Bi-Weekly, Monthly etc.)	Per their subcontract with the Prime.
89.		General	Will Sound Transit or the Prime Contractor impose a bond on trucking or will bonding be required on all crafts?	Sound Transit requires the prime contractor to bond the entire contract. The bonding requirements for subcontractors are left to the prime contractor.



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90.		General	Given the nature of the work shifts, what will be considered a 40 hour work week?	Work weeks and the requirements appertaining there to are a matter of Washington State law; contractors are directed to the Department of Labor and Industries Employment Standards Program (www.lni.wa.gov/workplacerrights/wages/default.asp).
91.		General	Once the loader has loaded a truck, and if the truck is overloaded, who will be responsible for the citation if one is issued to the driver?	This must be worked out between the hauler and the Prime contractor in their sub-contract.
92.		Spec Section 05 12 00	Clarification No 27 states that the Buy American provision will not apply to temporary wales and struts. Spec Section 05 12 00, Structural Steel Framing, 1.03 requires that for temporary steel we need to submit a "statement that the steel was melted and rolled in the USA". We request that this requirement be deleted.	Item addressed in Addendum#6.
93.		Spec Section 05 12 00	Spec Section 31 50 00, Excavation Support and Protection, 2.01 Materials, states: A. General. Materials for excavation support systems may be new or used B. C. Metals. For all metal materials other than sheet pile refer to Section 05 12 00, Structural Steel Framing Section 05 12 00, 1.03 requires mill certificates for all bracing steel. Will mill certificates be required for used steel?	If mill certs are not available, test data can be submitted for the used steel.



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94.		Specification Section 31 74 16 (Precast Concrete Tunnel Lining) under paragraph 1.04 System	Description provides the minimum criteria for the structural design of the precast concrete tunnel liner to be submitted. Can a tunnel liner with a different geometry than that shown on the contract drawings be used? Will a tunnel liner with six segments of a universal design that does not have parallel radial joints be acceptable?	<p>Yes.</p> <p>Yes.</p> <p>Per the drawings and specifications, final configuration and geometry of the rings are to be determined by the Contractor to suit means and methods.</p>
95.		Under Specification Section 03 24 00 (Fibrous Reinforcing) Part 2 – Products the use of Steel	Fiber Reinforcement is permitted however under item 2.02.A.3 Precast concrete tunnel lining the use of steel fiber reinforcement is not mentioned. Will the use of steel fiber be permitted in the reinforcement design of the precast concrete tunnel liners as the sole method or in combination with steel reinforcement?	Yes, but calculations and analysis will need to be submitted and reviewed for approval. Design criteria for alternative reinforcement schemes for the segments are given in the specifications.



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96.		In Specification Section 31 74 16 under paragraph 1.06.B	Testing there is a requirement to provide an independent testing laboratory. In the offsite manufacturing process of the precast concrete tunnel linings a great number of routine daily tests are made particularly in respect of the concrete. Is it acceptable to perform these routine tests in a factory laboratory by qualified staff using certified equipment and have the laboratory and test machines reviewed and certified quarterly by an independent testing laboratory?	Yes, this would meet the intent of the ITL as long as the factory completing the testing is certified by a nationally or State recognized regulatory agency.
97.		Under Specification Section 31.71.19 TBM Excavation	It is required under Part 2 –Products paragraph E.1 that two new EPBM TBM's are provided. In specification Section 31 74 16 there is no mention under item 2.02 that molds to be used for segment manufacture should also be new. Can you confirm that molds that have been used to manufacture segments on previous projects will not be permitted?	Molds that produce segments meeting specifications will be acceptable.
98.		Reference: Specification Sect. 05 05 13 – Shop Applied Coatings for Metal	Coatings for metal only lists galvanizing where indicated. There is no indication on the drawings to indicate the finish on the structural steel bracing for the UW Station excavation. Do the specifications intend that the structural steel bracing be prime painted with hold backs for welding?	No structural steel finishes are required other than galvanizing where indicated.



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99.		Questions on details of Structural Steel Bracing for the UW Station Excavation - Reference: Detail 1 on Drawing N21-SD033 (Sheet 388)	This detail shows plate G penetrating a rolled up pipe section, and welding to stiffener plates L and a continuous grout plate C. This can be shop fabricate. The rolled up braces S105, S207, 307 and S204 can be slid over this plate with some serious effort. The problem lies with plate H and its weld to plate G. This weld cannot be made over its full length of connection to G. I would suggest that two mating plates similar to Detail 2 on Drawing N21-SD033 (Sheet 388) be added to make this field connection viable.	Bid work as indicated in the Contract Documents. During the Construction Phase, any changes to design presented by the Contractor will be subject to the VECF process indicated in the General Conditions and will be addressed at that time.
100.		Reference: Drawing N21-SD031 (Sheet 386) and Drawing N21-SD032 (Sheet 387)	Detail 2 on Drawing N21-SD031 (Sheet 386) shows Field Weld #1 connecting plate C to the wide flange. This also occurs at Detail C on Drawing N21-SD033 (Sheet 388). Weld #3 shown on Detail 1 on Drawing N21-SD033 (Sheet 388) is shown a field weld. For cost efficiency and erection time, field or shop welding of these connections should be left to the discretion of the contractor. Will the Contractor be allowed to shop weld or field at its discretion?	Yes.
101.		PLA	Is a PLA required now?	Yes



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102.		Reference: 541330 Engineering Services 541340 Drafting Services	Are these 2 NAICS codes being de-bundled? Will Sub have the opportunity to bid these as a separate opportunity?	Firms performing engineering services and drafting services may provide these separately or in some combination depending on the way the firm is organized. Subs must submit bids to primes and should contact them to determine what subcontracting opportunities they are interested in seeking for sub bids.
103.		Reference: N21-EP220, Sheet 278	There is a hand hole called out by the gate house, but I cannot find any information on the size and type of hand hole required.	The hand hole near the south gatehouse is Contractor Designed. The hand hole indicated near the north gatehouse is installed in a previous contract.
104.		Section 31 09 00	Please confirm both horizontal and vertical data is required for the structure settlement task. While reviewing the plans sheets and the locations of the structure settlement points along the route in the Capital Hill area, I am not sure anyone can achieve the horizontal accuracies as stated in Section 31 09 00 (2.04 F-4-b). Since most of the structures are residential in nature, the survey control baselines required to achieve the state accuracy can not be obtained. We feel the site conditions will force some of the baselines between buildings will need to be short and measurements to the monitoring points will also be short distances as well. Please confirm that the horizontal requirement is needed along the tunnel route for the structure settlement task.	Item addressed in Addendum#6.



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
105.		Slurry Wall Reinforcement	The Slurry Walls Reinforcement is extremely heavy, in the norm of standards for slurry walls the weight of reinforcement averages between 15-27 lbs/SF, in some areas of the slurry walls for U220 contracts the weight averages 45-58 lbs/SF, this is above normal and will affect the concrete flowability in the Slurry Wall Panels, please comment.	The high amount of reinforcement is due to the large lateral loads experienced in some locations of the station box. The placement of concrete in these locations will need to be monitored closely to ensure proper placement. The contractor will also have to select slurry wall concrete additives that will maximize flowability. Note that in Specification 03 05 15, the maximum aggregate size in slurry wall mixes is limited to 3/8" in order to improve flowability. This size was selected based on WSDOT recommendations for ratio of maximum aggregate size to rebar clear spacing in drilled shafts.



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106.		Section 01 12 16 - 1.08 7 a 6	<p>We request that you provide some additional information regarding University of Washington constraint days. (The numbered questions, below, correspond to the numbered paragraphs in this specification section.)</p> <ol style="list-style-type: none"> 1. How many UW home football games are in each season of the expected project schedule? College football is normally played on Saturday. Is the Friday before the game considered to be a constraint day? 2. How many calendar days are required for Commencement activities? 3. How many calendar days are required for Convocation activities? 4. How many calendar days are required for Windemere Cup activities? 5. Are the unspecified Special Events a single day or multiple day activity? Is the day preceding the events considered to be a constraint day? 6. How many UW home basketball game are in each season of the expected project schedule? Does this number include both men's and women's basketball games? Is the day preceding the games considered to be a constraint day? 	<ol style="list-style-type: none"> 1. Approximately 7 UW home football games are played each year at Husky Stadium between late August and early December, plus one game in April. The tentative schedules are typically available a year in advance and finalized the preceding spring. Friday is not considered a constraint day but note in Section 01 12 16 – 1.08 7 a 1) a), the north area of the site within the limits of the movable fence will need to be restored 72 hours prior to the start of all scheduled UW home football games. 2. One, the day of Commencement which is traditionally scheduled at Husky Stadium on the second Saturday in June. 3. One, the day of Convocation which is traditionally scheduled at Hec Edmundson Pavilion on the last Sunday in September. 4. One, the day of the Windermere Cup event which is traditionally scheduled on the first Saturday in May. 5. They are expected to be single day events. The day preceding the event is not a constraint day. 6. Constraint applies to both men's and women's basketball games. The season runs from early November to mid March, approximately 40 home basketball games are expected each season. Preliminary schedules are typically available the preceding June and a finalized in September; typically there is a home game every Thursday and Saturday evening each January and February. The day preceding is not considered a constraint day; only the hours indicated in Section 01 12 16 – 1.08, 7a 6) a) are to be constrained by these basketball games.



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
107.		Section 01 12 16 - 1.09 b	Is the permitted working hours for work on the Cross passages the same as allowed for tunnel construction?	Yes.



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
108.		Ground Treatment at Capital Hill and University of Washington Stations	<p>Drawings L10-ST1 04 (sheet 45) and L10-ST1 34 (sheet 57) These drawings show the location of a zone of ground treatment on the north wall of the Capital Hill Station that is labeled (NIC), or "not in contract". This indicates to us that this ground treatment shall be performed by the Capital Hill Station contractor. This ground treatment is to be penetrated by the tunnels to be constructed under this contract.</p> <p>Drawings L10-ST1 15 (sheet 56) and LAO-ST145 (sheet 68) These drawings show the location of a zone of ground treatment on the north wall of the University of Washington Station. This ground treatment is part of this contract. This ground treatment is to be penetrated by the tunnels entering the University of Washington station from the north, under a separate contract.</p> <p>The successful penetration of the tunnels through the station walls depends on a number of factors. One important factor is the efficacy of the ground treatment.</p> <p>This current contractual arrangement splits the responsibility for the penetration of the station walls between two contractors and two contracts. If there are problems with the penetration of the station walls this creates problems with the determination of the source of the problem. Was it the failure of the ground treatment that was the source of the problem or something the inbound contractor created?</p> <p>We suggest that the contractor who is responsible for the penetration of the station walls should install the ground treatment for that penetration. This arrangement places the responsibility of the successful penetration on a single contractor.</p>	<p>ST understands these risks. The sequence shown was determined by many factors including site access, schedule, and contractor crowding.</p>



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
109.		Geotechnical Baseline Report (Volume 8 of 8), Section 5.8 and Drawing L10-ST114 (sheet 55)	<p>The tunnels to be constructed under this contract cross the Montlake Cut between approximately Stations 11 96+50 and 11 99+00. The referenced section of the Geotechnical Baseline Report contains a brief discussion of the conditions of this crossing.</p> <p>We have commissioned a pre-bid geotechnical review of the project. This review is in progress. While performing a preliminary review of the geotechnical conditions, our consultants have expressed some concerns over the stability of the tunnel linings in this zone of low cover above the tunnel. A complete report of the geotechnical review is not available, at this time, and no firm conclusions have been reached.</p> <p>1. Has Sound Transit performed any studies of the stability of the tunnel lining in this low cover zone?</p> <p>2. Does Sound Transit considered it necessary to utilize jet grouting, or other stabilization methods, in this zone of low cover?</p>	<p>1. Yes.</p> <p>2. No.</p>



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
110.		Section 01 51 15 - Temporary Electrical Power	<p>We have engaged a consultant to review the electrical power requirements for the project. Our consultant has very serious concerns that the temporary electrical power facilities described in this section are not adequate to support the simultaneous operation of two tunnel boring machines and their support equipment.</p> <p>Our consultant has prepared a number of questions on this section of the specifications. These questions are submitted as follows:</p> <ol style="list-style-type: none"> 1. Not provided is the name (Engineer) and contact information for Seattle City Light, would you please provide. 2. Multiple paragraphs in Section "01 51 15 Temporary Electrical Power" are very ambiguous, and if true will not allow operation of one let alone two Tunnel Boring Machines, along with there support equipment as bolded and underlined below for clarification. Please respond succinctly to each of the questions in italics below. 	<p>Questions will be responded to in future clarification.</p>



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>1.03 COORDINATION WITH SEATTLE CITY LIGHT (SCL)</p>	<p>C. Preparing necessary documentation required by SCL for service to <u>ensure that there will not be any power quality problems for the power grid.</u></p> <ol style="list-style-type: none"> 1. Isolation Transformer – Is SCL requiring a 26KV x 26KV isolation transformer to ensure that there will not be any power quality problems related to harmonics, ETC? 2. Power Factor Correction – Are power factor correction devices required? If so where? Does the Contractor have the option to select the type and location? (NOTE: Please Specify in Detail) 3. Protection – What type of protection is required e.g. neutral grounding resister, lighting arrestors, ETC? (NOTE: Please Specify in Detail) 4. Voltage Regulation – Is voltage regulation required? If required provide technical description? 5. Flicker – What are the restriction regarding Flicker? (NOTE: Please Specify in Detail) 6. Switchgear & Transformers – What if any are requirements for contractor supplied primary electrical distribution equipment, e.g. metering compartment in switchgear, protective relaying, transformer type, impedance, ETC? (NOTE: Please Specify in Detail) 	



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>2.02 CONTRACTOR-INSTALLED TEMPORARY POWER (SCL)</p>	<p>E. Provide Temporary Pad-Mounted Metering Cabinet to meter power from the SCL construction power feeder to the following items:</p> <p>Metering – Are there special requirements regarding metering e.g. is required on the primary or the secondary side of the system?</p> <p>1. 26 kV to 13.8Y/7.97kV low resistance grounded transformer (estimated) Transformer sized to provide the following estimated tunnel construction power:</p> <p style="margin-left: 20px;">a. The Tunnel Boring Machines (TBM), both in operation in each tunnel.</p> <p style="margin-left: 40px;">1) It is assumed that the boring machines will start boring operation from University of Washington and will end at Capitol Hill station.</p> <p style="margin-left: 40px;">2) 5-minute demand interval tunneling load assumed 2200KVA for each TBM. This results in a total TBM 15-minute interval demand of 4400 KVA at UWS.</p> <p style="margin-left: 40px;">3) Peak tunneling load of 150 percent of the 15-minute power demand or 3300KVA for each TBM. This results in a total TBM peak power demand of 6600 KVA at UWS.</p>	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>2.02 CONTRACTOR-INSTALLED TEMPORARY POWER (SCL)</p>	<p>Adequacy of Transmission Distribution Drop – The assumption made in the previous statements are that there is only 6600KVA available for the two tunnel boring machines. Our calculations indicate conclusively that power supply will have to support the startup of 3,500kVA with a continuous load of up to 10,700KVA for a combined total of up to 14,000 KVA, NEC-70 requirement of 125% of full load during tunneling operations for EACH tunnel boring machine and the related support equipment. How will this situation be rectified prior to bid?</p> <p>5-minute demand interval tunneling load assumed 2200KVA for each TBM. This results in a total TBM 15-minute interval demand of 4400 KVA at UWS – Please clarify if the 5-minute demand interval requires the contractor to start the TBM's five minutes apart?</p> <p>The "TBM 15-minute interval demand of 4400 KVA at UWS" does not account for the total load as calculated for all the required surface support equipment, how will this situation be rectified prior to bid?</p>	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>2.02 CONTRACTOR-INSTALLED TEMPORARY POWER (SCL)</p>	<p>b. It is the <u>Contractor's responsibility to determine actual loads and demands. Confirm demand and voltage rating of the TBM feeder</u> based upon the equipment the Contractor will use as well as the boring operation and boring schedule.</p> <p>Coordination Study – Is a coordination study required for the Contractors temporary electrical distribution system? (NOTE: Please Specify in Detail)</p> <p>Primary Voltages – What is the actual primary 3-phase service voltage 26kV or 26.4kV?</p> <p>Drawings – What drawings are required for the electrical temporary e.g. primary distribution, substation, underground, ETC? (NOTE: Please Specify in Detail)</p>	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>2.02 CONTRACTOR- INSTALLED TEMPORARY POWER (SCL)</p>	<p>2. 26KV/480Y/277V, 3PH, 4W Transformer sized for the sum of the following loads:</p> <ul style="list-style-type: none"> a. Required Tunnel Power: 200kva b. Tunnel Construction Power: determined by Contractor c. U250 contractor construction power: <ul style="list-style-type: none"> 1). Provide 400amp rated 480Y/277V 3PH, 4W switchboard for use by the U250 contractor as indicated on Contract Drawings. d. Suggested U220 UWS Site construction power: determined by Contractor <p>Metering – Will power metering be required for the follow on contractors assume power costs for these items?</p> <p>Power Costs – Will the follow on contractors assume all power costs when connecting to the power supplies as specified?</p> <p>Responsibility and Liability – Will the follow on contractors assume all responsibility and liability for the power drop equipment?</p>	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>3.01 CLOSEOUT ACTIVITIES</p>	<p>A. At the end of the U220 Contract provide a 400KVA, 480VAC source of construction power for the U250 contractor and the U260 contractor.</p> <p>B. This power will be used for Contractor construction trailers, onsite shop operations, temporary power for tunnel ventilation, tunnel lighting, tunnel sump pumps and tunnel outlet power, and 10 KVA of other essential power until permanent power is installed on the U250 and U830 contracts.</p> <p>C. This source may be a continuation of the 400 KVA, 480VAC portion of the SCL construction power feeder.</p> <p>D. Leave all power circuits in the tunnel energized at the end of the U220 contract.</p> <p>Metering – Will power metering be required for the follow on contractors assume power costs for these items?</p> <p>Power Costs – Will the follow on contractors assume all power costs when connecting to the power supplies as specified?</p> <p>Responsibility and Liability – Will the follow on contractors assume all responsibility and liability for the power drop equipment?</p>	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>COST / TARIFFS – Information Requested</p>	<p>The following information is requested for each of the locations referenced in Section "01 51 15 Temporary Electrical Power" as they relate to the temporary electrical power costs and applicable tariffs.</p> <p>Electrical Power - Costs/Tariffs</p> <ol style="list-style-type: none"> a. What are the applicable tariffs? b. KWH Rates @ supplied at 480V and 26KV primary voltage? c. KWH Rates for 24-hr day operations @ +/- 3-years? d. Monthly Service Connection Fee's? e. Basic cost per kilowatt? f. Demand Charge Per KWH? g. Other Charges – What additional charge would be charged e.g. line use fees, peak power purchase, kilovars, ETC.? h. What are the initial drop costs at each of the sites based on supplying primary voltage, or a secondary voltage e.g. 26kV primary, 480V primary ETC? i. Will Seattle City Light offer a fixed cost per kilowatt hour for the durations of the project? If so what is included or excluded? If not what would the applicable "Tariffs" be for the duration of the project +/- three years? 	



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		<p>Continuation of:</p> <p>Section 01 51 15 - Temporary Electrical Power</p> <p>SUBSTATIONS AND EQUIPMENT</p>	<p>The following information is requested for each of the locations referenced in Section "01 51 15 Temporary Electrical Power" regarding the supply voltages, adequacy, substations requirements, specifications and technical requirements, and design and supply of distribution equipment.</p> <ol style="list-style-type: none"> a. City Light Equipment – Will Seattle City Light provide at no cost to the contractor e.g. transformers, switchgear, metering, ETC? b. Power Line Overhead Clearances – What are the applicable overhead clearances? c. Substation Installation – Are there special requirements or directives for substation temporary installation and connection? (NOTE: Please Specify in Detail) d. Connections – What are the requirements for Aerial and Underground Connections? (NOTE: Please Specify in Detail) e. Ground Matt – What is the minimum resistivity to earth required for the ground mat e.g. 5-ohm? Is a ground matt resistivity test required? If required, provide the technical requirements? f. Safety – What are the safety requirements regarding the contractors temporary, primary distribution substation e.g. warning signs in both Spanish and English, lighting, security fencing ETC? (NOTE: Please Specify in Detail) 	



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111.		Seattle City Light	We have learned that the SCL does not have a firm, current estimate available for the cost of bringing the HV power onto the site, but that there was an estimate made some time back that indicated the cost could run in the area of \$400,000. Since it is unlikely that we will be able to get a firm price from the SCL prior to Bid time, would you consider making the cost of bring in the service an Allowance? That would prevent us from having to include any contingency amount in our bid for this activity.	Questions will be responded to in future clarification.
112.		OCIP	We are providing the surveying services on the U-Link project and I have a question regarding the OCIP. Under Article 8.01, Section B., Subsection 1a, surveyors are listed as one of the Excluded Parties. Does this pertain to surveyors that will perform the construction staking?	Link OCIP CGL insurance coverage would apply to surveyors for any potential BI and PD that could result from the contractor's construction staking work. However, the U-Link OCIP insurance coverages do not apply to detailed engineering work that would be a professional exposure.
113.		Section 31 09 099	Are the surveying activities listed in Section 31 09 00 subject to the Project Labor Agreement	See answer to Question #73.
114.			Since ST has chosen to not to include a steel escalation clause in the U220 contract, will ST pay for the steel wales and struts as material on hand when it is delivered to the off site fabricator?	Yes.



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115.		Project Management Services	Will the owner of this project require the successful Prime Contractor to mentor and utilize services from small business? Will the owner be providing any financing assistance for a small business to perform or execute sub contracts for this project? Is there a need for any document printing such as large format drawings? Is there a need for any construction estimating services such as change orders associated with design changes? My firm provides comprehensive quantity take offs for such items as concrete, rebar, dirt excavation yardage.(etc) If the owner has a need for any of these types of services could you put me in contact with someone who could utilize my firm.	Yes. No. Yes. Yes. Subs interested in bidding estimating services should contact the primes.
116.		Trucking /Muck Disposal	Is a trucking company required to pay its drivers travel time to and from the job at the prevailing wage rate per the Project Labor Agreement? If yes then will the trucks be paid travel time to and from home base?	Requirements regarding the payment of Prevailing Wage are covered by the Public Works Act (RCW 39.12 – www.lni.wa.gov/workplacerrights/wages/prevwage/default.asp). Contractors are directed to the Department of Labor and Industries, Prevailing Wage Program. Payment of prevailing wage and the application of the Project Labor Agreement are not directly related; this question is independent of the Project Labor Agreement.
117.		Trucking /Muck Disposal	Given the nature of the material, will there be a clean out area provided at the dump site, if so, will union labor be provided to clean out the trucks?	Bidders must arrange for this with the disposal sites.
118.		Trucking /Muck Disposal	Will the Muck Hauling Truck's be provided with a wheel-wash, if so, will union labor be provided also to insure that all loose material is washed off the Truck before it leaves the job site and or dumpsite?	A wheel wash is shown on the plans. Cleanliness of trucks leaving the UW site is a contract requirement, as it is for trucks traveling on all public right-of-ways.



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119.		Trucking /Muck Disposal	What measures will be taken to ensure that trucks are not overloaded? The drivers do not load themselves so they must rely on the Prime to load their trucks with a safe and legal load. If a driver receives an overweight ticket, who is responsible for paying overweight tickets. The Driver, the Prime, or Sound Transit?	Judgment. Responsibility for overweight loads is determined by the subcontractor's contract with the prime contractor. ST is not responsible for overweight loads.
120.		Safety/Trucking/Traffic Control	If there is insufficient lighting at the job site (at night) and the driver has an accident while being directed by the flaggers, who will be responsible?	Site lighting is a responsibility of the prime Contractor, and is specified.
121.		Safety/Trucking/Traffic Control	Who is responsible if an accident occurs while backing at the direction of a flagger?	Responsibility for accidents is determined by the legal system.
122.		Trucking	Are drivers delivering Precast Tunnel Segments to be paid prevailing wage and comply with the PLA	The Project Labor Agreement does not apply to the shipment of any material which takes place wholly off site where delivery is to a stock pile; only on site trucking is clearly covered by the Project Labor Agreement. Coverage of this activity by Prevailing Wage is a matter of state statute; the contractor is directed to the Department of Labor and Industries, Prevailing Wage Program.
123.		Detail 1 / N21-SD008	This detail for "headed bar anchors" shows a smooth anchor (i.e. no deformations) with an unspecified head size on the end of the anchor. Typical length for this detail is either 24" or 30". It is my understanding that headed studs (WHS) are not made to those lengths. Additionally, if the intent was to be "deformed bar anchors" which are made to that length, they are not fabricated with heads at the end. Please clarify.	Headed bar anchors are intended to consist of Deformed Bar Anchors with Mechanical Anchorages attached to the ends. The Deformed Bar Anchors shall conform to Specification 03 15 25, and the Mechanical Anchorages shall conform to Specification 03 20 00.



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124.		PLA	More of a comment. This effectively costs Sound Transit a substantial amount of money with the wage increases (that are unknown as of bid date) as well as decreasing competition from open shop contractors who can't pay prevailing wages (which do include fringes for our employees) as well as PLS "dues" upon each man hour.	So noted.
125.		Section 015000-1.18-C	This states to provide a minimum 4" temporary line. SFD has indicated that the temporary standpipe will need to be 8". Question: Is the size of the temporary standpipe 4" or 8"?	The temporary standpipe shall be 8-inch size. See current version of specification section 01 50 00 issued with addendums. Paragraph 1.18 D indicates a minimum 8-inch temporary standpipe is required. Paragraph 1.18 G indicates a minimum 6-inch fire department connection is required between the fire department connection manifold and the temporary standpipe.
126.		Drawings N21-EP220 and N21-ED004	Drawing N21-EP220 and N21-ED004 suggest that the Gatehouse feed comes from the Switch Board B. Question #1: Is Switch Board B a 120V power source? Question #2: If not, is there a step-down power source located in the Gatehouse (480/277 to 120V)? Question #3: Will we need to provide a 120V or 480/277V power supply from the Construction Trailer Location once the UW temp power source is disconnected?	1. Yes 2. Not needed 3. This connection will be connected to UW power until removed by the UW or by future construction.



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127.		Drawing N21-UC022	<p>Drawing N21-UC022 notes that the 4 - 5" conduits extend through the wall and are capped for continuation for temporary power, Drawing N21-EP220 suggest the routing of temporary power conduit mounted to the shoring wall.</p> <p>Question #1: How many spare conduits are required from the conduits extended through the wall to the temporary pad-mounted metering cabinet?</p>	The plans indicate 4 - 5" conduit. If the Contractor would like additional conduits, they may install them as desired.
128.			<p>Drawing N21-EP220 shows the conduit route for the 480Y / 277 Switchboard for use by the U250 contractor running across the tunnel excavation.</p> <p>Question #1: Is this suggested route somehow incorporated into the conduit runs for the University of Washington Station shown on the system plans? (N21-JP201 / N21-JP202).</p>	No. N21-JP201/JP202 shows the systems ductbank at the platform level. The conduit to the switchboard for use by the 250 Contractor is for use during construction only.



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129.			<p>Drawing N21-ED004 notes that there are 2 - 5" existing conduits running from the south stands electrical room to MHLCO-12. Drawing N21-EP220 shows 1 - 5" conduit with 3-500 KCMIL, 1-250KCMIL & a 2/0 ground from LCO-I2 to the Gate Muse Hand Hole. (We assume that the 4 #8 and 1 #10 to the Gate House Hand Hole will run in this same 1 - 5" conduit.)</p> <p>Question #1: Is there a requirement to run 2 – 5" conduit from LCO-12 to the Gate House Hand Hole or only one as shown?</p>	<p>Only one is required as shown.</p>
130.			<p>Drawing L10-ED003 shows home run power feeds from temporary power panels (NIC) at the Capital Hill Station to cross passages CP-6 through CP-13. Drawing L10-EP120 appears to duplicate this requirement, but feeders are run to an interface pull box. Note 6 on this drawing suggest that temporary power will be connected here as well. Drawing L10-EP104 appears to duplicate these feeders with screen lines (NIC) to Capitol Hill Station.</p> <p>Question #1: When will power be available from Capital Hill Station (NIC) to feed CP-6 through CP-13? Note: These cross passages (and therefore the tunnels) will be dark until power is available by others.</p>	<p>Both drawings, L10-ED003 and L10-EP104, show the information that at Capital Hill station Temporary Power Panels installed by U230 will be used to supply power to permanently installed panels inside CP-6 thru CP-13. Please note that U220 contractor is responsible to provide construction power inside the tunnel as well as the cross-passages when CP-6 through CP-13 electrical installation is performed by the U220 contractor. There should not be darkness, contractor is responsible to provide temporary lighting and responsible to coordinate with U230 contactor for the availability of temporary power panels in question. For construction power in the tunnel see N21-EP220.</p>



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131.			<p>Drawing N21-EP220 shows diagrammatic power feeds for Tunnel Construction and Required Tunnel Power. Through various notes and specification 01 51 15 the require feeds are connected to the interface pull boxes at or near the face of the tunnel (Aprox.1202+09). The drawing are unclear as to how the feed conduits and feeders are routed through the slurry wall. Additionally the Tunnel Construction Power appears to have the same routing, but it is unclear how these conduits feed the tunnel construction equipment.</p> <p>Question #1: Please provide information for routing these conduits while accounting for the wall and bracing construction taking place and permanent station construction that follows.</p>	<p>The drawing shows suggested routing. Temporary power for construction loads is the responsibility of the contractor as stated in the plans and in spec 01 51 15.</p>



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132.			<p>Discussions have taken place that the power supply provided by SCL will not be sufficient to power the 2 Tunnel Boring Machines. Transformer suppliers have requested additional information on loads and various demands for power. Specification 01 51 15 lists various transformer sizes.</p> <p>Question #1: Is SCL going to increase the necessary power needs to the contractor?</p> <p>Question #2: Is there any restriction using mineral oil filled transformers?</p>	ST shall respond in future clarification/addendum.
133.			<p>Drawing L10-ED053 identifies a 6 SMFO cable from the Fire Alarm Control Panel to a 16" x 12" x 4" junction box.</p> <p>Question #1: Can Sound Transit provide a wire specification for the 6 SMFO cable?</p> <p>Question #2: Does the 6 SMFO cable run in the same conduits as the Monitoring Module or does the 6 SMFO run in a separate conduit? If a separate conduit, what size conduit is required?</p>	<p>1. Cable shall be SMFO, suitable for installation in outdoor, damp environment, HDPE insulation, 0.7dB @1310 nm typical attenuation, compatible with Fire Alarm Control Panel.</p> <p>2. The SMFO and cable for the monitoring module can be in the same conduit as both are for the fire alarm system.</p>



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134.			Collings Johnston Inc. is representing the Dragados-USA/Seli Joint Venture Team that has been formed to bid on the University of Washington LRT Tunnel. We would like to request an extension of one month for the Bid date from March 25th, 2009 to April 25, 2009. We would appreciate this very much and look forward to your response.	No.
135.		Specification 03 24 00	Will steel fibers, as specified in 03 24 00, be approved for use in the precast concrete tunnel lining as partial and/or total replacement for welded wire fabric or bar reinforcement?	Design criteria are provided in Section 31 74 16 to allow for modifications of the conventional steel reinforcement given in the Contract Documents. Use of steel fiber for reinforcement is not precluded. However, substitution of steel fiber would only be allowed if sufficient analysis is provided to verify that segments meet all design requirements, including seismic loading. Quality control testing will also be required to verify design strengths and fiber content.
136.		Specification 31 17 19	Spec. 31 17 19 calls for a continuous 2ft wide walkway for the entire length of the tunnel, which is outside the envelope of rail traffic, and meets the height of the walkway at the rear of the trailing gear. Is it correct that this elevated walkway is only required during the tunnel excavation operation, and that it can be removed as the tunnel cleanup is being done ahead of the invert/sidewalk concrete operations?	Yes.



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137.		Specifications 01 12 16, 1.11.B	In reading Spec Section 01 12 16, 1.11.B, regarding the Award-Fee Program, the way that the subsections of paragraph 10 are numbered has us unsure as to what the intent of the Owner is with regard to the 50%/50% sharing of the award monies with the Laborers and the Subcontractors. Does the 50%/50% sharing apply only to the \$1million award for "Safety and Security", or does the sharing apply to the entire \$3.1Million that could potentially be awarded?	Only to the \$1 million award for "Safety and Security"
138.		Clarifications Publication #3, RFI 27, Item 3	The question was asked if the Engineer will provide an alternate design for the W36x800 beams used in the temporary shaft shoring design, because the material has not been found to be commercially available (regardless of origin) by our vendors. Sound Transit's answer was the Buy American clause does not pertain to temporary shoring. This response does not address the basic issue that the material has been found to not be commercially available. Please reconsider and clarify the response.	See response to RFI #75.



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139.		Specification Section 05 12 00 - Structural Steel Framing, Part 1.03.E	Part 1.03.E, requires that a statement be provided that the steel was melted and rolled in the USA. Does this apply to the shaft framing members? Please differentiate items that are temporary shoring from those that are permanent structural steel framing materials.	The requirement for a statement that steel was melted and rolled in the USA is only required for permanent elements. The following steel elements are temporary: HSS struts shown on N21-SD032, HSS and wide flange wales shown on N21-SD031, and steel plates and other steel materials welded to temporary struts and wales. Note that the double wide flange struts shown on N21-SD032 are permanent.
140.		Clarifications Publication #3, RFI 30	The project Milestone 1 and Milestone 2 require a volume of work activities within a constrained site in a limited timeframe that will compromise the SAFETY of the work. A prudent bidder's remedy will be to include liquidated damages to account for the time required to SAFELY perform the work. Is this Sound Transit's intention?	Safety will not be compromised. Bidders shall plan and resource their work to meet the Contract requirement.
141.		Clarifications Publication #3, RFI 45	The specifications require that all embeds in the Slurry Walls to be hot dipped galvanized. The welding required on these embedded plates will render the galvanizing useless, and pose a health risk to the welders. Are the temporary steel walers and struts to be galvanized?	No, steel wales and struts do not require galvanizing. Note that Specifications 05 05 13 and 05 05 23 require field repair of galvanizing damaged by welding.



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142.		Specification Section 07 10 00 -Waterproofing	Part 2.01.1, refers to protective concrete as per 03 30 00. Table 03 05 15.A, has no design for protective concrete. Please provide the specifications for the protective concrete. Will geotextile be placed between the liner and the protective concrete?	<p>1. Protective concrete: Class 3000A, Misc. Concrete per table 03 05 15.A. This has been amended in the Spec refer Addendum 6 narrative</p> <p>2. No, geotextile required between membrane and protective concrete at tunnel invert.</p>
143.		Specification Section 31 66 17 - Slurry Walls	<p>Part 1.04.C.2, gives the direction (in part) to "Construct face free from imperfections that could damage waterproofing membrane, specified in 07 10 00..."</p> <p>In Section 07 10 00, Part 1, 1.01A, it is stated that this section of the specifications (07 01 00) applies to waterproofing in the cross passages. Does this section apply to the slurry walls?</p> <p>It appears that Section 07 01 00, 3.01 Preparation, is related to shotcrete surfaces. Is the Engineer expecting the inside face of slurry walls to receive a shotcrete coating? If not, please provide specification for slurry wall surface preparation for waterproofing. Also, please delineate the limits of waterproofing on the slurry walls.</p>	<p>No. The reference to 07 10 00 for slurry walls has been removed (refer Addendum)</p> <p>No, shotcrete is not required for the slurry wall surfaces</p>



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144.		Property at 1000 45th Street NE	<p>Please provide a site map delineating the limits of the property available at 1000 45th street NE, between 11th Ave NE and Roosevelt Way NE that is made available for contractors parking.</p> <p>Please provide detailed information on the limits of the demolition at this site.</p> <p>Please provide detailed information on what the Engineer expects the condition of the site to be at the conclusion of this project. Are pavements, or landscaping, or fencing to be installed and to remain in place at the conclusion of this contract?</p> <p>Has Sound Transit acquired the permits to allow the required demolition of the building at 1000 45th St.? Has the building been surveyed for potential hazardous materials, required to be abated prior to demolition? Please provide the results of the building materials survey.</p>	<p>A map is not available. The Contractor may visually inspect the site. The condition of the site at the end of the Contractor's use is adequately described. ST has not acquired the demolition permits, nor has the building been surveyed for hazmat. The Contractor is not required to use this property (and thereby avoid the demolition) if it so wishes. ST believes the rent-free use of the property for the duration of the contract has significant economic value to the Contractor.</p>
145.		Specification Section 31 74 16, 2.01.B.1.	<p>The radial joint connections for the precast concrete tunnel lining are specified in section 31 74 16, 2.01.B.1. There is no specification of the finish of the bolts and washers. Please clarify if the steel bolts and washers are to be plain black, or hot-dipped galvanized.</p>	<p>Steel bolts and washers, as well as steel circumferential dowels (2.01.B.2), will need to be hot-dip galvanized.</p>



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146.		Precast concrete segments reinforcement	Can steel fibers be substituted for the transverse and bursting conventional steel reinforcement in the precast concrete segments ?	Design criteria are provided in Section 31 74 16 to allow for modifications of the conventional steel reinforcement given in the Contract Documents. Use of steel fiber for reinforcement is not precluded. However, substitution of steel fiber would only be allowed if sufficient analysis is provided to verify that segments meet all design requirements, including seismic loading. Quality control testing will also be required to verify design strengths and fiber content.
147.		General Conditions, Article 8.01 .C	<p>This sections states that the Contractor is responsible for all deductibles.</p> <p>1. Please provide the individual deductible amount for each policy type, including General Liability, Pollution Liability, and Builders' Risk.</p> <p>2. Will Sound Transit consider covering the deductible amounts for Acts of God within the Builders Risk policy, those that are not within the Contractors control?</p>	<p>1. The Contractor deductible responsibility on the U220 contract are as follows: Commercial General Liability = \$100K Builders Risk = \$250K Contractors Pollution Liability = \$250K</p> <p>2. No</p>



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148.		Specification Section 05 12 00, Item 1.03.E	<p>This paragraph requires mill certifications for temporary struts. The specs have stated in 31 51 99, 2.01.C, excavation support steel can be new or used. Used steel typically has no mill certificate with it.</p> <p>1. Will a Structural PE stamp on beam condition reports provided in lieu of mill certifications be acceptable to Sound Transit?</p> <p>2. How frequently will coupons be taken and tested to verify steel yields if the original certifications are not available?</p>	<p>1. No, an engineer's stamp on beam condition reports is not adequate. Per the response to RFI #93, coupon testing is required for steel materials lacking mill certs.</p> <p>2. One coupon per steel piece.</p>



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RFI No.	Addendum No. & Issued Date (If applicable)	Reference	Contractor's Questions	ST Response
149.		Drawing N21-SZ008, Plan Sheet 321	<p>1. In grid B-3, there is an outline of a future vent stack. Contractor designed shoring must be 4 feet outside of this vent stack. Please provide a dimensional drawing of the future vent stack.</p> <p>2. What are the design parameters for the Contractor designed temporary shoring parallel to the east and west slurry walls and the distance from the slurry wall to be demolished? Please discuss the requirements for this wall.</p> <p>3. Is there going to be a future cast-in-place lid overhang that must be accounted for with the Contractor Designed shoring?</p> <p>4. Can the Contractor designed shoring be placed closer to the slurry wall or put in later in the contract?</p>	<p>1. See response to RFI #48.</p> <p>2. The requirements for the contractor designed shoring are that it must meet Specifications 31 50 00 and 31 51 00 as appropriate, be designed for the pressures shown on N21-SZ004 and N21-SZ005, and allow the slurry wall demolition shown on N21-SZ007 and N21-SZ008. Type, configuration and exact location of the shoring are left for the contractor to decide.</p> <p>3. No, the only structure that will overhang the slurry walls in the vicinity of the contractor designed shoring will be the future vent structure at the south end shown on N21-SZ006 and N21-SZ007.</p> <p>4. The distance between contractor designed shoring and slurry wall is the contractor's decision. The shoring must be installed prior to beginning mass excavation inside the box as shown in Step 1 on N21-SZ009. This is because the upper slurry walls will be constructed of unreinforced lean concrete thus will not be able to retain soil.</p>
150.		Drawing N21-SD007, Sheet 374	The waler plates that make up the T portion of details A, D, and F have an abbreviation not listed. For the note on grid B-2, what is the designation WHS, 2 sides depicting?	See response to RFI #77.



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151.		Prebid Questions	Today is the cut-off date for questions. Will we be able to request clarification of the Sound Transit's responses to our questions (yet to be received) beyond the deadline of March 10, 2009?	Requests for clarification of the Sound Transit's responses can be made through Friday 13 th March.
152.			The tiebacks for the temporary shoring conflict with the drill holes for the jet grouting at the north end of the station. Can the contractor jet grout during Phase I prior to the installation of the tiebacks? If not, does the ST design anticipate the loss of tieback bond capacity when the jet grout holes are drilled in between the loaded tiebacks? Are these tiebacks designed as permanent anchors?	Jet grout prior to tieback installation. The tieback design did not anticipate any loss of bond due to jet grouting. The tiebacks are not designed as permanent anchors because they will only be used during construction, but they will remain in the ground permanently.
153.		Specifications Section 01 12 19 1.08P	What type of access to leaks in the slurry wall will the U250 contractor provide the U220 contractor? Please define short notice? If there is a leak in the slurry wall, there will be an impact to the U250 schedule. The current language appears to open the U220 contractor to unlimited damage claims from ST directly and the U250 contractor thru ST. It may take up 2 days to mobilize a crane and man basket and up to 2 weeks to get ST to review and approve a hazard analysis before the U220 contractor could access leaks on the U250 contract.	The U220 Contractor's space requirements for repairing a slurry wall leak shall be written into the U250 bid documents. "Short notice" will be defined by Addendum to mean 48 hours. See Addendum #6 for change. A U220 slurry wall leak repair JHA and Work Plan shall be prepared years in advance of any leak being discovered by 250.



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154.		Retail Sales Tax	<p>Instructions 00100 Paragraph 2.04 indicates Sound Transit has determined it is exempt from retail sales tax on all of the Work to be performed under this Contract pursuant to RCW 82.04.050(8) and WAC 458-20-171 ("Rule 171"). Rule 171 indicates, in part, the following: "The retail sales tax applies upon the sale to such contractors of all materials including prefabricated and precast items, equipment and supplies used or consumed in the performance of such contracts. The retail sales tax does not apply upon any portion of the charge made by such contractors. The sales tax does not apply to charges made for labor and services which are exempt from business tax as indicated above." Is it appropriate to conclude from the foregoing that permanent materials, including soldier piles, timber lagging, tiebacks and similar items left in the ground, are exempt from sales tax? For those items which are exempt from sales tax, please confirm whether it is just Sound Transit which is exempt from sales tax or if the contractor is also exempt from sales tax for such items.</p>	<p>Retail sales tax still applies to materials, and is to be paid at the point of purchase. Rule 171 exempts from retail sales tax only the labor and services to be provided under this contract.</p>



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155.		Instrumentation Schedule Drawing # L10-KM706	We are requesting the as built depths from the ground surface to the crown of the utility pipe for the Utility Settlement Point locations: U-320 – U-326, U-361, U-368, and U-374 – U-613. The Utility Settlement Points are referenced on drawings L10-KM706, L10-KM107, L10-KM113 – L10-KM116, and L10-KM500. The depth of these utilities is in question and may be deeper than conventional methods of installation of settlement points currently installed with a Vacuum truck.	The three utilities in question are the 42" Cedar River Pipeline (U320 to U326), a 32"x48" brick CS (U361 and U368), and the 54" Maple Leaf Reservoir Pipeline (U374 to U613). Based upon assumptions in the Utility Settlement Impact Report, the depth of the first two was assumed as 10 feet to invert, and the depth of the 54" was assumed as 8 feet to invert. The two pipelines were constructed with open trench excavations, and limited record photos indicate trench depths of less than 10 feet. Vacuum truck equipment should be able to reach these depths without difficulty.
156.		Escalation	<p>Due to the physical aspects of this project and the unstable economy, material such as the lighting, electrical panels, mini power centers, motor control centers, etc. will not be installed until late 2012 or later. Suppliers of this material will not hold pricing until those dates. If this material is purchased soon after submittal approvals, the material will not be under warranty when installed.</p> <p>Question #1 How does Sound Transit suggest material escalation /warranty be addressed?</p>	Contractor will need to assume this risk, or purchase extended warranties from suppliers.



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157.		Specification Section 26 05 25 - Wire & Cable	<p>We have been asked by the vendors to provide additional information for wire and cable. In particular, all vendors have mentioned "low smoke" as a requirement for all previous tunnel projects and yet there is no mention of this language here. All wire and cable within the tunnel will be in rigid steel conduit and all wire and cable will be used for electrical normal power. This work is solely associated with contract designed work and does not include any critical temporary or emergency work.</p> <p>Question #1 Does Sound Transit requires "low smoke" wire and cable spec for all work inside the tunnel although there is no mention of it in Contract Specs?</p>	See Addendum #6, Section 26 05 25 has been updated to address this requirement.



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158.		Labor Compliance Manual Parking Interpretation	<p>We have read the documents "Attachment D - Parking Interpretation and this implies that all employees will not be allowed to park on the work site and the workers will be bused in. This brings up multiple issues regarding parking.</p> <p>Question #1 - Will the contractor be allowed to leave the bus / buses on the work site while employees are working in the tunnel? If so, where can these vehicles be parked?</p> <p>Question #2 How will parking be addressed for deliveries, how much time will delivery trucks be allowed to park delivering materials?</p> <p>Question #3 Certain vehicles need to remain on the work site. Where will these vehicles be parked?</p>	<ol style="list-style-type: none"> 1. Contractor to determine 2. Contractor to determine; As long as it takes 3. On the site