Formal Task Assignment Document

2019 – 2021 SNOHOMISH COUNTY ON-CALL TASK ASSIGNMENT

Name of Project:	TECT Aerospace Leasehold Remedial Investigation Support Services		
Project Number:	Airport		
Discipline:	Engineering Services		
Task No.:	TA #4	Completion Date:	12/31/2021

The COUNTY desires to authorize services pursuant to the AGREEMENT entered into with **Landau Associates, Inc.,** and executed on December 24, 2018, as amended by Supplement No. 1 on May 22, 2019, and identified as Agreement No. **OCC19/1-7.8(AP)**, On-Call Consultant Services for **Environmental Site Assessment.**

All provisions in the AGREEMENT remain in effect except as expressly modified by this TASK ASSIGNMENT, and are incorporated herein by reference.

ATTACHED TO THIS TASK ASSIGNMENT

- Scope of Work
- Cost Estimate with Total Hours to Perform Work
- Items unique to the project not included in the AGREEMENT and which are to be reimbursed at cost with no markup.

The **Total Amount Authorized** under this TASK ASSIGNMENT, inclusive of all fees and other costs is **$54,000.00**. **No other payment shall be allowed unless a TASK ASSIGNMENT Supplement for changed Scope of Work has been signed and authorized before work is performed**.

All work under this TASK ASSIGNMENT shall be performed pursuant to the terms, conditions, specifications, and limitations contained in the AGREEMENT.

If you concur with this TASK ASSIGNMENT and agree to the items as stated above, please sign and date in the appropriate spaces below and return to the COUNTY for final action.

Gerald Ninteman Digitally signed by Gerald Ninteman Date: 2021.04.13 14:33:09 -07'00'

Consultant Signature

Kendee Yamaguchi Digitally signed by Kendee Yamaguchi Date: 2021.05.19 13:59:08 -07'00'

Approving Authority

COUNCIL USE ONLY

Approved 5/19/21

ECAF # 2021-0231

MOT/ORD Motion 21-175

February 26, 2021

Paine Field/Snohomish County Airport
3220 100th Street SW, Suite A
Everett, WA 98204

Attn: Andrew Rardin, CM

Transmitted via email to: *andrew.rardin@co.snohomish.wa.us*

Re: Proposed Scope of Services and Recommended Budget, Revision 2
TECT Aerospace Leasehold Remedial Investigation Support Services
Paine Field/Snohomish County Airport
Everett, Washington
LAI Project No. 0222057.020.024

Dear Mr. Rardin:

Landau Associates, Inc. (LAI) is pleased to provide you with this proposed scope of services and budget to continue supporting Paine Field/Snohomish County Airport (Airport) in conducting a Model Toxics Control Act (MTCA) remedial investigation/feasibility study (RI/FS) on Airport property formerly leased to TECT Aerospace (TECT) and the former East Fuel Farm (Site). The Site is located in the southeastern portion of Sector 5 of the Airport. If authorized, the proposed services will be provided under LAI's 2019–2021 On-call Engineering Services, Environmental Site Assessment and Geotechnical contract with Snohomish County (County).

This letter contains revisions to earlier versions of this letter (dated January 22 and February 11, 2021) to address Washington State Department of Ecology (Ecology) comments received in a February 24, 2021 email requesting itemization of subcontractor costs (including laboratory costs per sample and the analytical methods proposed) and corresponding, LAI subcontractor markup fees. These revisions will support contracting between Ecology and Snohomish County related to issuance by Ecology of a US Environmental Protection Agency Region 10 Brownfields Grant to Snohomish County, and do not affect the proposed scope or budgets contained in the original proposal.

This revised letter and attachments include a laboratory cost estimate sheet with analytical methods and unit cost per sample, and a revision to the fee determination table (Table 1). Table 1 was included in previous versions of this proposal package, but a note has been added to reflect that there is no subcontractor markup per the contract agreement between the County and LAI.

Background

The Site includes existing Buildings C-19, C-20, C-21, C-22, C-23, as well as former Buildings C-27 and C-29 and the East Fuel Farm. Two phases of the RI, Phase I and Phase II, were previously conducted by

LAI in 2018 and 2019. The results of these first two phases of the RI are documented in the Interim Remedial Investigation Data Report, TECT Aerospace Leasehold (Data Report), dated December 31, 2019. The Data Report identified several data gaps remaining at the conclusion of the Phase II RI, but RI activities were temporarily postponed due to Airport budgetary constraints and the effects of the COVID-19 pandemic. The Airport would like to resume RI activities, and has asked LAI to prepare this scope and budget to address a few of the pending RI data gaps that will inform the subsequent FS.

Proposed Scope of Services

The scope of services identified in this proposal letter is divided into the following three primary tasks:

- Task 1: Building C-19 Indoor Air Evaluation
- Task 2: Cultural Resources Review Support
- Task 3: Monitoring Well Installation and Surveying.

Each of these tasks is described in greater detail below.

Task 1: Building C-19 Indoor Air Evaluation

The Building C-19 Indoor Air Evaluation task is divided into four subtasks: Building Survey, Work Plan Preparation, Sampling Activities, and Reporting as described below.

Building Survey

LAI will conduct a building survey to gain a better understanding of the facility layout and operations and to identify and facilitate potential removal of sources of volatile organic compounds (VOCs) prior to conducting the indoor air survey. The survey will include the following activities:

- Request information from Building C-19 tenants on chemicals used within the building including Safety Data Sheets (SDSs)
- Request information from the building owner and tenants on building operations including heating, ventilation, and air-conditioning (HVAC) systems
- Conduct a building walk-through with tenant representative and document chemicals and chemical storage locations.
- Gain understanding of tenant work schedules within the building
- Prepare a Site map showing chemical storage locations.

Work Plan Preparation

LAI will prepare a work plan to document the building survey, and to present the proposed sampling activities and potential mitigation response actions. The work plan will identify and provide the basis for indoor air screening levels and indoor air action levels (levels that would trigger an immediate

response action) based on Ecology Implementation Memorandum No. 22 (Ecology 2019)[1]. The mitigation response actions will be generalized in order to provide the Airport with immediate options for action if VOC concentrations are found to be elevated inside Building C-19.

A brief quality assurance project plan (QAPP) will also be included in the work plan. The QAPP will identify laboratory data quality objectives to achieve reporting limits below screening levels and assure data quality.

Sampling Activities

The following field activities will require approximately three visits to the Site by LAI field personnel. This will allow for monitoring equipment and data evaluation steps to be completed in a manner sufficient to properly evaluate the data being collected.

- Conduct differential pressure monitoring (sub-slab vs indoor air using a differential pressure datalogger) to gain an understanding of when a negative building pressure driving force would be present. Measure delta P with HVAC on and off and under other conditions (e.g., bay doors open vs closed, heating vs cooling).
  - Install soil gas probe near degreaser pit/sump (permanent vapor pin)
  - Log sub-slab and indoor air pressures over a 2- to 3-day period when the building is occupied
  - Develop conclusions on building conditions present when building is occupied (i.e., is subsurface to indoor air pressure gradient present).
- Conduct time-integrated indoor air sampling during occupied building hours for all VOCs found in soil, groundwater, and sub-slab vapor at three locations.
  - Collect samples over an 8- to 24-hour period using Summa canisters
  - Limit analyte list to only those VOCs found in nearby subsurface soil, groundwater, or soil gas samples. These VOCs include benzene; tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (cDCE); vinyl chloride (VC); 1,1,1-trichloroethane (1,1,1-TCA); 1,1-dichloroethane (1,1-DCA); 1,2-dichloroethane (1,2-DCA); and 1,4-dioxane.
- Conduct contemporaneous time-integrated ambient air sampling to allow subtraction of ambient background concentrations.
  - Collect one ambient air sample over the same period as indoor air samples and analyze for the same parameters.
- Conduct contemporaneous soil gas sampling to gain a better understanding of the source of detected constituents in indoor air.

[1] Ecology. 2019. Implementation Memorandum No. 22: Vapor Intrusion Investigations and Short-Term Trichloroethene Toxicity. Washington State Department of Ecology. October 1. https://fortress.wa.gov/ecy/publications/documents/1809047.pdf.

  - Collect one soil gas grab sample at the previously installed soil gas probe immediately following the conclusion of indoor air sample collection. Analyze this sample for the same VOC parameters as done for the indoor air samples.

- Compare sub-slab data to indoor air data to develop an additional line of evidence as to the likely source of constituents detected in indoor air.

It is assumed that the Airport will coordinate and document access agreements for Building C-19 tenants, and LAI will coordinate Site activity schedules with tenants to provide notifications so as not to interfere with tenant operations.

Reporting

LAI will prepare a draft and final report summarizing the findings of the indoor air evaluation. The draft report will be provided to Ecology and the Airport for review on or before June 11, 2021. Comments received by June 18, 2021 will be incorporated into the final version of the report, which is planned for completion by June 30, 2021. Both draft and final reports will be provided to Ecology and the Airport in PDF format only.

Task 2: Cultural Resources Review Support

Ecology will take the overall lead on the cultural resources assessment. LAI and its subconsultant, Equinox Research and Consulting International Inc. (ERCI) of Mount Vernon, Washington, will prepare an Inadvertent Discovery Plan to satisfy the requirements of Ecology's directives to protect and preserve cultural resources that may be impacted by Ecology grant-funded remedial actions. Task 2 also includes one Site visit to respond to and document an unanticipated discovery of human remains, or historic or prehistoric resources, if needed. The Inadvertent Discovery Plan will be included in an appendix to the final report prepared as part of Task 1.

Task 3: Monitoring Well Installation and Surveying

The Data Report identified delineation of the lateral and vertical extent of VOC contamination in soil and groundwater in the area to the west and south of former Building C-27 as one of the major data gaps remaining at the conclusion of the Phase II RI. There are multiple activities that must be completed to fully address the RI data gaps, but in the short term, LAI plans to complete the following activities to more fully characterize the hydrogeology of the shallow groundwater system in the former Building C-27 area:

- Installation, including well development, of two shallow groundwater monitoring wells screened from 15 to 20 feet below ground surface in the area of former Building C-27. The wells will be installed using hollow stem auger drilling techniques, and will primarily be used for measuring groundwater elevations to more fully develop a conceptual site model describing the seasonal variation in groundwater elevations and the lateral movement of groundwater through the shallow groundwater system in the area of former Building C-27.

- A record drawing of each well containing a lithologic log and monitoring well construction diagram will be prepared following completion of monitoring well installation activities. The drawings will be included in an appendix to the final report prepared as part of Task 1.
- If schedule and budget permit, an elevation survey will be completed to facilitate preparation of a geologic cross section of the Site. Elevation data would be collected from the two new monitoring wells, and at Phase I and II RI interior boring locations where elevations cannot be estimated from available aerial survey databases.

Recommended Budget and Authorization

LAI's recommended budget for completion of this scope of services is $54,000 as presented in Table 1 (attached) and summarized below.

Task	Estimated Subcontractor & Vendor Costs	Recommended Budget
Task 1: Building C-19 Indoor Air Evaluation	$1,500	$36,723
Task 2: Cultural Resources Review Support	$2,000	$2,381
Task 3: Monitoring Well Installation and Surveying	$5,300	$14,896
Total	**8,800**	**$54,000**

The above-described services will be provided on a time-and-expenses basis in accordance with the terms and conditions of LAI's 2019–2021 On-Call Engineering Services, Environmental Site Assessment and Geotechnical contract with the County. LAI is prepared to start immediately upon your review of this proposal and receipt of written authorization to proceed. To authorize our services, please provide LAI with the contract-required authorization.

Project Team

The project team will be led by Jerry Ninteman, PE, as project manager; Jennifer Wynkoop as quality reviewer and senior technical advisor; and Ken Reid and Stephanie Renando as RI task and field manager, respectively. Other LAI personnel, primarily from the Edmonds office, will provide field and office support, as needs require.

* * * * *

Thank you for the opportunity to provide you with this proposal. If you have any questions or comments regarding any part of this proposal, please do not hesitate to contact the undersigned.

LANDAU ASSOCIATES, INC.

Stephanie A. Renando
Project Scientist

Jerry R. Ninteman, PE
Project Manager

SAR/JRN/ccy
\\edmdata02\Proposals\Co_Snohomish\2020-03_TECT Aerospace Phase III RI-FS\January 2021 Scope & Budget for 54K Ecology Grant\Rev 2\LAI TECT Aerospace RI Support Services_prop Rev 2 - 02-26-21.docx

Attachment: Table 1: Fee Determination Summary Sheet

LANDAU ASSOCIATES

Landau Associates, Inc. Field Equipment / Supply Billing Record

TECT Aerospace RI/FS — **Project Name**

Task 1 — **Task Number**

Week Ending

Field	Rate ($)			Enter How Many			Item Code	Charges
	Day	Week	Month	Day	Week	Month		
Daily Field Equipment Charges	20			4				$80.00
Air Velocity Meter	50						5247	$0.00
Anderson Sampler	70						5278	$0.00
Flow Restrictor	15						5224	$0.00
Magnehelic Gage Set	30						5250	$0.00
Air Meter - GasCheck G2 - Helium Gas	80						5316	$0.00
Sub-Slab Sampling Vapor Pin Kit and Shroud	50			1			5005	$50.00
Air Compressor	40						5202	$0.00
Bailer -Stainless Steel/PVC	10						5206	$0.00
Flow Cell - Low Flow Groundwater	5	15	45				5239	$0.00
Groundwater - Dataloggers - (Solinst)	30						5226	$0.00
Meter - DO (dissolved oxygen)	30						5242	$0.00
Meter - ORP (Cole Parmer) & Turbid. (HACH)	30						5259	$0.00
Meter - Cole Parmer (pH/cond/temp)	30						5245	$0.00
Meter - YSI	75	225	675				5256	$0.00
Oil-Water Interface Indicator	60						5252	$0.00
Poly-Tank or Drum (30 gal.)	10						5304	$0.00
Meter - Turbidity (MicroTip or HACH)	30	75	225				5215	$0.00
Pump - Portable Bladder (QED)	40	120	360				5260	$0.00
Pump Controller - Bladder (QED) ONLY	70						5261	$0.00
Pump - Honda 2"	35						5265	$0.00
Pump - Honda 3"	70						5004	$0.00
Pump - Peristaltic	35	105	315				5264	$0.00
Pump - Purge 12 Volt	15	45	135				5271	$0.00
Surge Blocks	3	10	30				5236	$0.00
Water Level Indicator	30	90	270				5225	$0.00
Injection Kit	225						5200	$0.00
Bladder Tank	225						5201	$0.00
Meter -HAZ-DUST 1 Particulate Monitor	75						5244	$0.00
Meter Multi-Gas	85	255	765				5240	$0.00
Meter-PIDs	65						5248	$0.00
Meter-Noise Level	20						5203	$0.00
Pump - Draeger or MSA Hand Pump	10						5263	$0.00
Respirator	5						5210	$0.00
Traffic Cones (per set of 10)	2	15	45		1		5216	$15.00
No Parking Signs (each)	2						5309	$0.00
Weather Station	50						5144	$0.00
Beach Seine	75						5305	$0.00
Benthic Sieving Equipment	45						5314	$0.00
Ekman Grab	45						5282	$0.00
Fathometer	20						5258	$0.00
Sediment - Piston Corer	80						5306	$0.00
Surber Benthic Sampler	50						5279	$0.00
Surface Water Sampler Pole	10						5300	$0.00
Wetland Field Kit	30						5307	$0.00
Density Equipment, Sand Cone	20						5209	$0.00
Density Equipment, Nuclear Densometer	50						5208	$0.00

Ensys Field Test Kit -PCB/TPH	100						5238	$0.00
Peat Probe	5						5235	$0.00
Scale or Soil - Field Gram and Pound	5						5231	$0.00
Soil Hand-Auger Equipment	15						5288	$0.00
Soil Split-Barrel Sampler Kit (Dames & Moore)	25						5285	$0.00
Vane Shear Equipment	40						5296	$0.00
Water Infiltration Testing Equipment	20						5308	$0.00
Verizon - Broadband Computer Internet Card	8						5143	$0.00
Camera, Digital	10	30	90				5302	$0.00
Canopy - 10' x 10' Pop-Up	25	75	225				5212	$0.00
Computer, Portable	35						5507	$0.00
Autolevel with Tripod and Rod	25						5204	$0.00
Generator - Honda EZ3500 or EU2000i	60						5214	$0.00
GPS - Trimble ProXRS/GeoXT/GeoXH	110	330	990				5237	$0.00
Hand Level	5						5205	$0.00
Shop Vacuum	25						5142	$0.00
Weed Whacker/Brush Cutter	20						5310	$0.00
Magnetic Metal Detector	25	105	315				5318	$0.00
Equipment Subtotal								$145.00 ✓

DISPOSABLES	Rate		Enter How Many	Item Code	Charges	Notes
Absorbent Pads (18" by 18")	0.75	each		5297	$0.00	
Gloves, Nitrile	0.20	each	41.00	5299	$8.20	
Gloves, Atlas & Scorpio	6.50	pair		5299	$0.00	
Gloves, Solvex - Elbow	10.00	pair		5299	$0.00	
Gloves, SolVex - Standard	3.50	pair		5299	$0.00	
Protective Suit, Saranex	19.00	each		5299	$0.00	
Protective Suit, Tyvek	7.50	each		5299	$0.00	
Protective Boot Cover, Tyvek	0.50	pair		5299	$0.00	
Protective Boot Cover, PVC	6.00	pair		5299	$0.00	
Respirator Cartridges	10.00	each		5297	$0.00	
Bailer - Rope	0.10	foot		5297	$0.00	
Bladder QED Disposable	10.00	each		5297	$0.00	
Brass Locks	10.00	each		5297	$0.00	
Buckets	5.00	each		5297	$0.00	
Disposable Bailer - Regular	8.00	each		5297	$0.00	
Easy Draw Syringe	2.25	each		5297	$0.00	
Encore Sampler	9.50	each		5297	$0.00	
Free Product Sampler	3.00	each		5297	$0.00	
Locking Well Seal (2-inch)	13.00	each		5297	$0.00	
Groundwater Filter (45 micron)	17.00	each		5297	$0.00	
Peristaltic - Fittings	2.30	each		5297	$0.00	
Peristaltic - Master Flex Tubing	5.00	foot	5.00	5297	$25.00	
Poly Tubing 5/8 inch	0.45	foot		5297	$0.00	
Poly Tubing 1/2 inch	0.35	foot		5297	$0.00	
Poly Tubing 3/8 inch	0.25	foot		5297	$0.00	
Poly Tubing 1/4 inch	0.20	foot		5297	$0.00	
Teflon Tubing 1/4"	2.00	foot	8.00	5297	$16.00	
Qwater Well Developer	32.00	each		5297	$0.00	
Shelby Tube Soil Seals with Caps	10.00	each		5297	$0.00	
Spray Marking Paint	5.00	each		5297	$0.00	
Soil Sample Chip Trays	4.00	each		5297	$0.00	
Survey Flagging	3.00	each		5297	$0.00	
Survey Stakes	0.60	each		5297	$0.00	
Tedlar Bags 1 Liter	16.00	each		5297	$0.00	

Helium Gas (vapor pin and shroud testing)	15.00	test	3.00	5297	$45.00	
Shroud Fittings, implant, tubing, etc.	30.00	test	3.00	5297	$90.00	
Vapor Pin Sleeve and Cap	2.00	each	2.00	5297	$4.00	
Wattera Foot Valve	25.00	each		5297	$0.00	
Wetland Stake	0.10	each		5297	$0.00	
Yeast Extract	8.00	pound		5297	$0.00	
Disposables Subtotal					$ 188	✓

Vehicle Use	**Rate**		**Enter How Many**	**Item Code**	**Charges**	**Notes**
Vehicle Use	50.00	day	8		$ 400	
Mileage	0.560	mile	200		$ 112	✓
Vehicle Subtotal					$ 512	
Total:					**$845.20**	

***Note:**

* Daily units to be charged in 1/2 day increments. Daily rates will be charged unless specified weekly or monthly.

The highlighted equipment and rates are not included on the County-approved equipment list.

LANDAU ASSOCIATES

Landau Associates, Inc. Field Equipment / Supply Billing Record

TECT Aerospace RI/FS — **Project Name**

Task 3 — **Task Number**

Week Ending

Field	Rate ($)			Enter How Many			Item Code	Charges
	Day	Week	Month	Day	Week	Month		
Daily Field Equipment Charges	20			3				$60.00
Air Velocity Meter	50						5247	$0.00
Anderson Sampler	70						5278	$0.00
Flow Restrictor	15						5224	$0.00
Magnehelic Gage Set	30						5250	$0.00
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Sub-Slab Sampling Vapor Pin Kit and Shroud	50						5005	$0.00
Air Compressor	40						5202	$0.00
Bailer -Stainless Steel/PVC	10			1			5206	$10.00
Flow Cell - Low Flow Groundwater	5	15	45	1			5239	$5.00
Groundwater - Dataloggers - (Solinst)	30						5226	$0.00
Meter - DO (dissolved oxygen)	30						5242	$0.00
Meter - ORP (Cole Parmer) & Turbid. (HACH)	30						5259	$0.00
Meter - Cole Parmer (pH/cond/temp)	30			1			5245	$30.00
Meter - YSI	75	225	675				5256	$0.00
Oil-Water Interface Indicator	60			1			5252	$60.00
Poly-Tank or Drum (30 gal.)	10						5304	$0.00
Meter - Turbidity (MicroTip or HACH)	30	75	225	1			5215	$30.00
Pump - Portable Bladder (QED)	40	120	360				5260	$0.00
Pump Controller - Bladder (QED) ONLY	70						5261	$0.00
Pump - Honda 2"	35						5265	$0.00
Pump - Honda 3"	70						5004	$0.00
Pump - Peristaltic	35	105	315				5264	$0.00
Pump - Purge 12 Volt	15	45	135	1			5271	$15.00
Surge Blocks	3	10	30				5236	$0.00
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Ensys Field Test Kit -PCB/TPH	100						5238	$0.00
Peat Probe	5						5235	$0.00
Scale or Soil - Field Gram and Pound	5						5231	$0.00
Soil Hand-Auger Equipment	15						5288	$0.00
Soil Split-Barrel Sampler Kit (Dames & Moore)	25						5285	$0.00
Vane Shear Equipment	40						5296	$0.00
Water Infiltration Testing Equipment	20						5308	$0.00
Verizon - Broadband Computer Internet Card	8						5143	$0.00
Camera, Digital	10	30	90				5302	$0.00
Canopy - 10' x 10' Pop-Up	25	75	225				5212	$0.00
Computer, Portable	35						5507	$0.00
Autolevel with Tripod and Rod	25						5204	$0.00
Generator - Honda EZ3500 or EU2000i	60						5214	$0.00
GPS - Trimble ProXRS/GeoXT/GeoXH	110	330	990	1			5237	$110.00
Hand Level	5						5205	$0.00
Shop Vacuum	25						5142	$0.00
Weed Whacker/Brush Cutter	20						5310	$0.00
Magnetic Metal Detector	25	105	315				5318	$0.00
Equipment Subtotal								$387.00 ✓

DISPOSABLES	Rate		Enter How Many	Item Code	Charges	Notes
Absorbent Pads (18" by 18")	0.75	each		5297	$0.00	
Gloves, Nitrile	0.20	each	44.00	5299	$8.80	
Gloves, Atlas & Scorpio	6.50	pair		5299	$0.00	
Gloves, Solvex - Elbow	10.00	pair		5299	$0.00	
Gloves, SolVex - Standard	3.50	pair		5299	$0.00	
Protective Suit, Saranex	19.00	each		5299	$0.00	
Protective Suit, Tyvek	7.50	each		5299	$0.00	
Protective Boot Cover, Tyvek	0.50	pair		5299	$0.00	
Protective Boot Cover, PVC	6.00	pair		5299	$0.00	
Respirator Cartridges	10.00	each		5297	$0.00	
Bailer - Rope	0.10	foot	40.00	5297	$4.00	
Bladder QED Disposable	10.00	each		5297	$0.00	
Brass Locks	10.00	each	2.00	5297	$20.00	
Buckets	5.00	each		5297	$0.00	
Disposable Bailer - Regular	8.00	each		5297	$0.00	
Easy Draw Syringe	2.25	each		5297	$0.00	
Encore Sampler	9.50	each		5297	$0.00	
Free Product Sampler	3.00	each		5297	$0.00	
Locking Well Seal (2-inch)	13.00	each		5297	$0.00	
Groundwater Filter (45 micron)	17.00	each		5297	$0.00	
Peristaltic - Fittings	2.30	each		5297	$0.00	
Peristaltic - Master Flex Tubing	5.00	foot		5297	$0.00	
Poly Tubing 5/8 inch	0.45	foot	50.00	5297	$22.50	
Poly Tubing 1/2 inch	0.35	foot		5297	$0.00	
Poly Tubing 3/8 inch	0.25	foot		5297	$0.00	
Poly Tubing 1/4 inch	0.20	foot		5297	$0.00	
Teflon Tubing 1/4"	2.00	foot		5297	$0.00	
Qwater Well Developer	32.00	each	2.00	5297	$64.00	
Shelby Tube Soil Seals with Caps	10.00	each		5297	$0.00	
Spray Marking Paint	5.00	each		5297	$0.00	
Soil Sample Chip Trays	4.00	each		5297	$0.00	
Survey Flagging	3.00	each		5297	$0.00	
Survey Stakes	0.60	each		5297	$0.00	
Tedlar Bags 1 Liter	16.00	each		5297	$0.00	

Helium Gas (vapor pin and shroud testing)	15.00	test		5297	$0.00	
Shroud Fittings, implant, tubing, etc.	30.00	test		5297	$0.00	
Vapor Pin Sleeve and Cap	2.00	each		5297	$0.00	
Wattera Foot Valve	25.00	each		5297	$0.00	
Wetland Stake	0.10	each		5297	$0.00	
Yeast Extract	8.00	pound		5297	$0.00	
Disposables Subtotal					$ 119	✓

Vehicle Use	**Rate**		**Enter How Many**	**Item Code**	**Charges**	**Notes**
Vehicle Use	50.00	day	3		$ 150	
Mileage	0.560	mile	75		$ 42	✓
Vehicle Subtotal					$ 192	
Total:					**$698.30**	

***Note:**

* Daily units to be charged in 1/2 day increments. Daily rates will be charged unless specified weekly or monthly.

The highlighted equipment and rates are not included on the County-approved equipment list.

Laboratory Cost Estimate Sheet
Remedial Investigation
TECT Aerospace Lease Area
Everett, Washington

Qty	Analysis/Fee Type	Unit Type	Unit Rate (Pre-Tax)	Item Total
4	TO-15 SIM	Per Sample	145	$ 580.00
5	Canister Rental	Per Canister	75	$ 375.00
0	TO-15 Scan	Per Sample	95	$ -
0	Canister Rental	Per Canister	35	$ -
				$ 955.00 ✓

Table 1
Fee Determination Summary Sheet
Remedial Investigation
TECT Aerospace Lease Area
Everett, Washington

Snohomish County On Call
Agreement No. OCC19/1-7.8(AP)

Paine Field TECT Aerospace Site Phase III Remedial Investigation

Task 1: Building C-19 Indoor Air Evaluation

Classification (a)	Hours	x	Rate (b)	=	Cost
Principal	22		236.96 ✓	$	5,213.12 ✓
Associate	27		177.31 ✓	$	4,787.37 ✓
Senior Project	8		138.84 ✓	$	1,110.72 ✓
Project	122		127.02 ✓	$	15,496.44 ✓
GIS Analyst	13		125.47 ✓	$	1,631.11 ✓
Senior Staff	40		111.25 ✓	$	4,450.00 ✓
Project Coordinator	12		113.21 ✓	$	1,358.52 ✓
Support Staff	4.5		86.26 ✓	$	388.17 ✓
TOTAL LABOR	248.5 ✓			$	34,435.45 ✓
SUBCONTRACTORS (c):			Rate =		
Equipment Rental (Field Environmental)			$487.50		$487.50 ✓
Laboratory Analytical			$955.00		$955.00 ✓
TOTAL SUBCONTRACTORS					$1,442.50 ✓
REIMBURSABLES (c):	Unit	x	Rate =		
Non-labor expenses (see attached detail)	1		$845.20	$	845.20 ✓
TOTAL REIMBURSABLES				$	845.20
Total Task 1					**$ 36,723** ✓

Task 2: Cultural Resources Review Support

Classification (a)	Hours	x	Rate (b)	=	Cost
Project	3		127.02 ✓	$	381.06 ✓
TOTAL LABOR	3			$	381.06 ✓
REIMBURSABLES:			Rate =		
Non-labor expenses (see attached detail)			$0		$0
TOTAL REIMBURSABLES				$	-
SUBCONTRACTORS (c):	Unit	x	Rate =		
Cultural Resource Support Services	1		2000	$	2,000.00 ✓
TOTAL SUBCONTRACTORS				$	2,000.00 ✓
Total Task 2					**$ 2,381** ✓

Table 1
Fee Determination Summary Sheet
Remedial Investigation
TECT Aerospace Lease Area
Everett, Washington

Task 3: Monitoring Well Installation and Surveying

Classification (a)	Hours	x	Rate (b)	=	Cost
Principal	4		236.96 ✓	$	947.84 ✓
Associate	3		177.31 ✓	$	531.93 ✓
GIS Analyst	4		125.47 ✓	$	501.88 ✓
Project	39		127.02 ✓	$	4,953.78 ✓
Senior Staff	11		111.25 ✓	$	1,223.75 ✓
Project Coordinator	5		113.21 ✓	$	566.05 ✓
Support Staff	2		86.26 ✓	$	172.52 ✓
TOTAL LABOR	68			$	8,897.75 ✓
SUBCONTRACTORS (c):	Unit	x	Rate	=	
Private Utility Locate	1		$300	$	300.00
Driller	1		$5,000	$	5,000.00
TOTAL SUBCONTRACTORS				$	5,300.00 ✓
REIMBURSABLES (c):	Unit	x	Rate	=	
Non-labor expenses (see attached detail)	1		$698	$	698.30 ✓
TOTAL REIMBURSABLES				$	698.30
Total Task 3				**$**	**14,896** ✓
TOTAL				**$**	**54,000** ✓

Contract Compliant
By: Gidget Ames Date: 04/12/2021

Notes:

(a) Classifications shown are general, the actual invoice will show our employee's specific discipline (e.g., Senior Associate Engineer, Senior Geologist, Senior Staff Scientist).

(b) Labor rates are based on maximum hourly rates contained in Exhibit D of Supplement No. 2 to Agreement No. OCC19/1-7.8(AP). Actual rates invoiced to the County will be based on actual direct salary rates for project personnel executing the work and the allowed ICR and profit as shown in Exhibit D, subject to the maximum hourly rates allowed for each position classification shown in Exhibit D.

(c) Non-labor/reimbursable rates are shown on the attached detail sheets.

Mileage rate based on current IRS rate and subject to change as new rates are published by the IRS.

There are no markup charges for subcontractors per the agreement between LAI and the County.