

Exhibit A-1

Scope of Work

Consulting Services for Remote Ferry Holding Lot

October 2019

Port of Kingston



505 5TH AVENUE S, SUITE 300
SEATTLE, WA 98104
800.615.9900 | 206.436.0515

INTRODUCTION

The Kingston-Edmonds Ferry, while operated by WSF is part of a larger, regional transit and community system that includes WSF, WSDOT, Kitsap Transit, Kitsap County, Port of Kingston and the Kingston community and businesses. The operations of any one of these system elements can have positive, and negative, effects on the others. As is the subject of this study, the ferry vehicle traffic exceeds the current capacity of the system.

The Problem: The Kingston-Edmonds ferry route handles the second highest annual volume of vehicle and drivers (over 2 million) and the third highest volume of additional passengers (1.9 million) in the Washington State Ferry system. During peak and near-peak periods, the on-dock ferry terminal holding areas fills to maximum capacity without notice, forcing ferry traffic to queue within the travel lane on SR104 from the ferry terminal to Lindvog Road NE (approximately 2/3 mile from the dock) and on a variable width shoulder from Lindvog Road NE to Miller Bay Road (approximately 1.9 miles). The ferry traffic queue creates congestion on SR104 in Kingston, blocking intersections, commercial driveways, and prohibiting local traffic from legal access to downtown Kingston. The traffic conditions frequently result in near or full gridlock in Kingston.

The site to be evaluated is located at the southeast corner of the intersection of Lindvog Road NE and SR104. The site is currently fully wooded and is understood to have never been developed, though it has been previously logged. The site slope generally to the south towards properties that are in development or are already developed.

The Port of Kingston (PORT), leading the effort for the project partners (WSF, WSDOT, Kitsap Transit, and Kitsap County), is revisiting the feasibility of a remote ferry holding lot. This feasibility study will perform site investigations, perform traffic analysis including Project Partner projects already in progress, evaluate potential site vehicle capacity, develop site concepts, evaluate operations and prepare cost estimates for the preferred concept.

Task 1 – Project Management

As the first order of work, Perteet (CONSULTANT) will schedule a kickoff meeting and develop a brief project work plan which builds on the scoping meeting performed during contracting and will include:

- Project goals and vision
- Project budget
- Project schedule
- Project organization plan with key contacts, project stakeholders, and team responsibilities
- Communication plan

A draft of the project plan will be handed out to the design team and the PORT at the kickoff meeting.

As part of the project, the CONSULTANT will prepare monthly progress reports that describe the work items and percentage of work items that were accomplished during a given month, as well as a forecast of work to be completed over the following month. The monthly progress reports will also identify any other issues or problems that may occur in any given month. The CONSULTANT will submit these monthly progress reports to the PORT's Project Manager with the monthly invoices. The CONSULTANT Project Manager will notify the PORT's Project Manager, in writing (memo format), of any out of scope and/or budgetary issues that are inconsistent with this Scope of Work. The PORT and the CONSULTANT will hold approximately bi-weekly project coordination calls.

Work Elements:

- Prepare meeting agenda and minutes for kickoff meeting.
- Facilitate project kickoff meeting.
- Manage subconsultant activities.
- Prepare monthly progress reports/invoices.
- Weekly coordination calls with the PORT
- Facilitate partner team meetings every 6 weeks (6 Partner meetings)

Assumptions:

- This contract duration shall be no longer than eight (8) months, roughly September 2019 to May 2020.
- Project kickoff meeting will be held at the PORT.
- Project meetings will be held at the PORT.
- Perteet will coordinate with subconsultants via e-mails, meetings and weekly 15 minute phone calls.
- Partner team meetings are in Kingston.

Deliverables:

- Kickoff Meeting Agenda and Minutes
- Draft and Final Work Plan

Task 2 – Data Gathering and Site Investigations

The intent of this task is to gather any exiting information already available for the site and to do site specific investigations and reports that will identify site characteristics and constraints for the site. The work in this task includes: gathering and reviewing existing reports and data, survey and base-mapping, geotechnical investigations, and critical areas and wetlands review and mitigation plan. Cultural resources are not included in this scope but can be added as an additional service if determined that the existing report is inadequate. Traffic data collection is included under Task 3.

2.1 – Existing Information Review and Data Gathering

The intent of this task is to gather and review any already existing information for the site and adjacent right-of-way. This includes any survey, reports, studies, traffic data, etc. that may be available.

Work Elements:

- Review existing information.
- Coordinate with the Port for additional data needs.

Assumptions:

- The Port and Project Partners will provide any relevant information or documents related to the project or Partner projects that could influence this project analyses.

Deliverables:

- Summary of documents received and reviewed for the Project (provided as a part of the final report.)

2.2 – Survey and Base-mapping (I-Alliance)

See attached survey scope of work.

2.3 – Geotechnical Investigation (Terracon)

See attached geotechnical scope of work.

2.4 – Critical Areas, Wetland Delineation/Analysis and Mitigation Plan

The intent of this task is to identify any critical areas or wetlands on the site, if identified, delineate, perform a wetlands analysis and prepare a mitigation plan if needed. This task will be performed in two phases, the first is Wetland Site Reconnaissance and the second, if needed, the second task will be a Wetlands delineation and Critical Areas Report, Site Planning and Mitigation Report

Task 2.4.1 – Wetland Site Reconnaissance

Work Elements:

- The Consultant will conduct a wetland delineation for Kitsap County parcel 262702-1-033-2002 (approximately 6.71 acres and under WSDOT ownership), parcel 262702-1-030-2005 (approximately 3.49 acres and also under State Department of Transportation ownership), and parcel 262702-1-018-2001 1.58 (approximately 1.58 acres and under Kitsap County ownership). All parcels are in the jurisdiction of unincorporated Kitsap County. Wetland features were partially delineated on these parcels to 250 feet south of SR 104 by WSDOT in a 2018 Wetland Assessment Report. Wetland features will be additionally delineated under this task and described in a Wetland Delineation and Existing Conditions Critical Area memo under this effort to extend/complete the prior delineations with depicted buffers for team use in site planning and to consider potential impacts and mitigation opportunities associated with the project action.

Assumptions:

- Up to 6 wetland sample test holes with data collection may be completed while on-site.
- Three remaining locations of prior-identified forested wetlands will be delineated by Perteet ecological staff and flagged for survey pickup by others. Up to 50 wetland boundary flags may be placed.
- Two field days are assumed for two Perteet ecological staff for the delineation effort and to conduct data collection and ratings verifications for summary in the Wetland Delineation and Existing Conditions Critical Area Report.
- If additional wetland areas are found and possible to delineate during the reconnaissance, the Consultant may initiate or complete those efforts while on-site if it can be done under the budgeted field time. However, if any added delineation efforts exceed the field time estimated in this task, a supplemental scope and fee may be required to conduct additional field efforts as necessary.
- Data forms conforming to current (2010) Corps of Engineers standards generated from the delineation effort will be included in the Wetland Delineation and Existing Conditions Critical Area memo.
- Figure maps (reduced size maps of wetland and buffer features) will be included in the Wetland Delineation and Existing Conditions Critical Area Report after the survey is provided.
- The Wetland Delineation and Existing Conditions Critical Area Report will include a regulatory review and preliminary impact and mitigation evaluation of the proposed site plan concept provided for this effort for future permit and mitigation planning considerations. The provided memo will be prepared to inform site design efforts and will not be a formal critical area study prepared for permit submittal.
- Wetland or buffer Impacts have yet to be defined and characterized and mitigation design and permitting are not included in this task or scope at this time.

- No meeting attendance is assumed for Perteet ecological staff. Staff will be available by phone and email to answer questions associated with task production efforts.

Deliverables:

- Progress email after the wetland delineation to inform the project team of observed site conditions relative to the prior WSDOT 2018 Wetland Assessment Report.
- Wetland Delineation and Existing Conditions Critical Area memo prepared by the Consultant, draft and final PDF reports – assumes one consolidated round of review comments on the draft memo and minor edits for finalization.

Task 2.4.2 – Wetland Delineation, Critical Areas, Site Planning and Mitigation Report

This task is not included in this scope. If needed, it can be added as an additional service.

2.5 – Cultural and Historical Resources Analysis

Task 2.5.1 – Background Research

Perteet will check the Department of Archaeology and Historic Preservation's (DAHP's) Washington Information System for Architectural and Archaeological records Data (WISAARD) for information about previous cultural resources assessments in the project vicinity and identified archaeological sites. Other background information may be collected from local historical societies, libraries, ethnographic accounts, and affected Tribes.

Task 2.5.2—Field Survey

Prior to the field survey, Perteet will complete a utilities locate, as required by law. Four Perteet archaeologists will conduct a survey of the project area in two days. The fieldwork will include pedestrian survey of the entire project site and excavation of up to 55 shovel probes at approximately 30-meter intervals. Spoils from the shovel probes will be screened through ¼ inch mesh to identify buried cultural material. Any identified artifacts will be described, photographed, and reburied in their probe of origin. Each shovel probe will be recorded with a Global Positioning System (GPS) unit with submeter accuracy. The sediments and cultural material from each probe will be described on standard forms.

Task 2.5.3 – Report Preparation

Perteet will prepare a report that will include a brief description of the project, a summary of the background research, and an assessment of the project's potential for affecting buried pre-contact or historical archaeological sites. The report may include recommendations for ways to complete identification of archaeological sites, like archaeological subsurface testing or archaeological monitoring during construction. The report will be suitable for submission to DAHP and other agencies and will comply with all applicable regulations. The report can be completed within 45 days of notice to proceed. Completion dates may be adjusted to meet project schedules. After one round of review, Perteet will upload the report to the DAHP database. Assessment of later restorations associated with this project could be completed as addendums to this report.

Assumptions:

- If at any time human remains are encountered, work will cease, and notification of DAHP and affected tribes will proceed as directed by RCW 27-44;
- No historical buildings will be recorded;
- No artifacts will be collected;
- Up to 55 shovel probes will be excavated;

- The report will go through one round of review;
- If potentially significant archaeological material is identified, then a scope and budget adjustment may be required to conduct any additional studies to evaluate significance; and
- Treatment of any identified archaeological resources would be determined through consultation with DAHP, affected Tribes, and the City of Seattle, and may require a DAHP-issued excavation permit.

Deliverables:

- Draft report, 1 PDF by email
- Final report, 1 PDF by email, submitted to DAHP by Perteet

Task 3 – Active Traffic Management and Operational Analysis

The intent of this task is to evaluate the necessary traffic impacts of the project. The overall traffic analysis effort will be summarized in a report at the conclusion of this task. Prior to that, the CONSULTANT will submit a series of memoranda and simulation videos that will require review to confirm the traffic analysis approach and accuracy, based on field observations by agency staff.

Assumptions:

- A total of six (6) meetings are assumed to take place for the traffic analysis to develop alternatives or to allow feedback on work submitted. Three (3) meetings are assumed to take place in Bremerton adjacent to the Ferry Terminal. Three (3) are expected to take place at Perteet's office in Seattle. These meetings will span all of the Task 3 subtasks. Meetings will be invoiced under each subtask as required when the meetings are planned and occur.
- Traffic modeling for the SR 104 project will be provided to the CONSULTANT by the PORT. This model will be used as a base for further traffic analyses described below. It is assumed that there are an existing model and a proposed model.
- No operational analyses will be done for the remote lot options located in downtown Kingston.
- Traffic counts will be provided to the CONSULTANT by the PORT.

3.1 – Traffic Analysis Basis of Design and Data Collection

The intent of this subtask is to establish the traffic analysis measures of effectiveness (MOEs) that will be documented, plan for data collection, determine the horizon year for the analysis and traffic volumes at that year, and collect the required traffic data for the analysis.

Work Elements:

- Meet with project stakeholders to establish the required measures of effectiveness that will be reported on in the following Task 3 deliverables, the horizon year for the analysis, and the preferred methodology to establish horizon year volumes (an annual growth rate, for example).
- Review data provided to the CONSULTANT. Data may include queue lengths, travel times, turning movement counts, average daily traffic (ADT) speed and volume counts, and origin-destination information.
- Determine the project's analysis peak hours within the weekday AM, weekday PM, and weekend mid-day times.
- Manipulate volumes using regional forecasts and/or annual growth rate values to develop horizon year traffic and non-motorized volumes.

- Document the above established and developed information in a *Traffic Analysis Basis of Design Memorandum*. A draft version of the memorandum will be submitted to the PORT for review by the PORT and other project stakeholders. Comments will be returned to the CONSULTANT for incorporation into the final version of the memorandum.

Assumptions:

- The PORT and project stakeholders, including WSF, will provide all available recent traffic data (2015 or newer) to the CONSULTANT, including ferry loading volumes throughout the year.

Deliverables:

- Draft Traffic Analysis Basis of Design Memorandum
- Final Traffic Analysis Basis of Design Memorandum

3.2 – Existing Conditions Analysis

The intent of this subtask is to evaluate the existing traffic conditions in the study area. This task includes the VISSIM model development and calibration and confidence testing of the VISSIM models to meet WSDOT standards for model accuracy.

Work Elements:

- Update the existing conditions VISSIM models with updated data. These models will serve as the baseline for future analysis.
- Model existing conditions traffic conditions under each analysis hour.
- Produce VISSIM simulation videos for one analysis hour. The PORT and project stakeholders will provide comments on the accuracy of the simulation model based on personal observations of the traffic patterns in the area, as well as provide comments on the format and style of the video, including length, titles, etc.
- Analyze traffic data for one analysis hour.

Assumptions:

- Three analysis hour will be modeled weekday AM, weekday PM, and weekend mid-day..

Deliverables:

- Preliminary VISSIM simulation video for each existing condition analysis hour (MPEG video format)
- Final VISSIM simulation video for each existing condition analysis hour (MPEG video format)

3.3 – Horizon-Year Conditions Analysis

The intent of this subtask is to model the horizon-year conditions under a baseline (no build) scenario and multiple alternative scenarios. Additionally, this subtask includes the evaluation of active traffic management strategies that may be incorporated into the project to assist with or enhance efficiency associated with the ferry operations.

Work Elements:

- Modify the VISSIM models from Task 3.2 to evaluate up to two preliminary alternative configurations in addition to a baseline (no build) scenario.
- Model horizon-year traffic conditions under each alternative and analysis hour combination.

- Produce VISSIM simulation videos for each scenario for only one analysis hour (the hour to be agreed upon by the CONSULTANT, the PORT, and other stakeholders).
- Analyze traffic data for each scenario and analysis hour combination.
- Research and review active traffic management solutions for use within each alternative.

Assumptions:

- The initial Horizon-Year analysis will include the No Build model and up to two (2) Build alternative configurations. After the preliminary VISSIM simulation videos are delivered, one additional preferred alternative may be modeled for the final VISSIM simulation video deliverable. As such, the final VISSIM simulation deliverable may include up to four videos.
- Three analysis hours will be required for each scenario model: weekday AM, weekday PM, and weekend mid-day. However, the videos will be produced only showing one analysis hour and that same hour will be used across all videos in this subtask.

Deliverables:

- Preliminary VISSIM simulation video for each scenario for only one analysis hour (MPEG video format)
- Final VISSIM simulation video for each scenario for only one analysis hour (MPEG video format)

3.4 – Traffic Analysis Report

The intent of this subtask is to complete the traffic analysis work for the project in a comprehensive report.

Work Elements:

- Summarize the traffic analysis work for the project in a *Traffic Analysis Report* that will include the previously-submitted memoranda (*Traffic Analysis Basis of Design Memorandum*) as an appendix. A draft version of the report will be submitted to the PORT for review by the PORT and other project stakeholders. Comments will be returned to the CONSULTANT for incorporation into the final version of the report.

Assumptions:

- Review comments on the *Traffic Analysis Report* will not require changes to the final versions of the memoranda included as appendices to the report.

Deliverables:

- Draft Traffic Analysis Report
- Final Traffic Analysis Report
- Final VISSIM simulation video (MPEG video format)

3.5 – Traffic Analysis Support Services (Fehr & Peers)

See attached traffic analysis support services scope of work.

Task 4 – Lindvog Fatal Flaw Analysis

The intent of this task is to identify any fatal flaws that may trigger the reevaluation of the Lindvog project site. The analysis will be completed within the first 60 days or as soon as the required data is available for the applicable site investigation reports. At a minimum, the analysis will include holding lot capacity, soils analysis, wetland impacts and mitigation requirements and cultural resources considerations and impacts.

Work Elements:

- Identify potential fatal flaw criteria
- Prepare threshold matrix for identified criteria
- Prepare up to two (2) holding lot layouts to determine potential maximum holding capacity
- Prepare draft fatal flaw memo.
- Address comments on draft memo and prepare final fatal flaw memo

Assumptions:

- Analysis will be based on preliminary (pre-concept designs) holding lot capacity graphics that represent only potential maximum holding capacity. These graphics will take into account only reasonable estimates of space allocations for ticketing and restroom facilities, drive lanes, stormwater facilities or other site features that may impact available space.
- Analysis will be completed after field investigations are complete for wetlands and geotechnical investigations.
- One round of comments on the draft memorandum
- This analysis does not include a separate economic analysis. One has previously been completed by WSDOT and will be provided for use in this study.

Deliverables:

- Draft Fatal flaw analysis memo (PDF)
- Final Fatal flaw analysis memo (PDF)

Task 5 – Conceptual Site Design and Right-of-Way Access Analysis

The intent of this task is to develop overall site concepts that consider lot capacity, access and operations for vehicle movements, ferry ticketing operations and pedestrian (drivers and passengers). The Consultant will prepare concept design level site layout, evaluate vehicle movements and lot operations, right-of-way improvements and grading for the project. This phase may include up to three concept layouts for analysis in conjunction with the traffic, operations and access reviews and analyses.

Work Elements:

- Perform site visit and take site photos.
- Development of site concepts, up to 3 for consideration with the traffic, operations and right-of-way reviews and analyses. This includes:
 - Ferry queueing lanes layout
 - Site facilities: Ticketing, restroom, concessions

- Drive lanes
- Pedestrian paths
- Right-of-way/Site ingress/egress
- Right-of-way improvements (resulting from SR104 project plans)
- Mitigation measures or areas (if required)
- Evaluate vehicle turning movements related to site access and onsite operations

Assumptions:

- Turning movements and holding capacity of the lot will be determined using passenger vehicles and semi-truck WB-62 design vehicles.
- ROW Access analysis will follow the WSDOT LAG manual requirements and procedures.
- Initial concepts will be developed in a rollplot format. The preferred concept plan set will be developed at a 1"=40' scale, approximately 7 sheets.
- Only the preferred concept plan will be developed to a 30% design level.
- No cost estimates will be developed in this task.
- Rough grading and stormwater will not be included in the Task 5 concept task. Rough grading and stormwater facilities are assumed to be feasible and will be evaluated in Task 7 – Final Concept Site Design.
- Task 5 is focused on the capacity and operations/function of the site as it relates to ferry and traffic concerns. Utilities and grading are not evaluated in this phase. Utilities are assumed to be available to serve the site.

Deliverables:

- 30% Site Concept

Task 6 – Stormwater Plan

The intent of this task is to determine stormwater requirements and to prepare concept stormwater systems and to prepare a draft stormwater report for the project site. This task will include concept level stormwater facilities and plans, preliminary sizing of stormwater facilities and a draft stormwater report for only the preferred concept site plan selected in Task 5.

Work Elements:

- Determination of stormwater requirements.
- Perform stormwater flow control and water quality facility sizing calculations
- Perform stormwater conveyance system calculations
- Prepare concept stormwater plans for the preferred site concept, 7 sheets
- Prepare draft stormwater report

Assumptions:

- The Port and Project Partners will provide any relevant information or documents related to the project or Partner projects that could influence this project analyses.

- Only the preferred concept site plan selected in Task 5 will receive stormwater design.

Deliverables:

- Concept sketches for up to 3 concepts (layout only, not sized)
- Stormwater system plans, 7 sheets with sized FC, WQ and conveyance piping.
- Draft stormwater report.

Task 7 – Final Conceptual Site Design and Cost Estimate

The intent of this task is to further develop the preferred concept into 30%/concept level plans that will include site layout, access and right-of-way access/improvements, grading, paving, stormwater, site facilities layout and utilities.

Work Elements:

- Prepare site concept plans:
 - Site layout and Paving plans, 7 sheets
 - Stormwater/Utility plans, 7 sheets (See Task 6)
 - Grading, 7 sheets
 - Illumination, Signal and ITS, 7 sheets
- Prepare quantities for cost estimating
- Prepare cost estimate

Assumptions:

- Plans will be prepared for only the preferred concept.
- Plans will be at a 1"=40' scale.
- Stormwater plans are prepared in Task 6 with the Stormwater Plans and Report.

Deliverables:

- Draft Final Concept Plans
- Final Concept Plans
- Draft Cost Estimate
- Final Cost Estimate

Task 8 – SEPA (State Environmental Policy Act) Support

The intent of this task is to support the PORT/WSDOT in the preparation of the required SEPA checklist process. Supporting this task will include providing quantities for cut/fill based on the concept design, site concept plans and other study information for the project effort to support completing the document.

Work Elements:

- Determine cut/fill quantities.

- Prepare select content sections for the SEPA checklist
- Provide site concept plans for inclusion into the SEPA checklist document.

Assumptions:

- WSDOT will lead the completion and submission of the checklist.

Deliverables:

- Cut/fill quantities.
- Site concept plans.

Task 9 – Final Feasibility Study Documents

The intent of this task to consolidate the various task materials into a final document to document the feasibility study findings and concepts that the PORT/WSDOT can use to pursue future design and construction funding for the project.

Work Elements:

- Consolidate previous task materials into a comprehensive document.
- Prepare summary cover document that includes the work performed as a part of this feasibility study.

Assumptions:

- The background work for this final document will have been previously conducted and reviewed as part of previous tasks.
- New work is limited to a summary of previously performed work by this Scope of Work and summary of any conclusions and recommendations.

Deliverables:

- Draft Feasibility Study
- Final Feasibility Study

Task 10 – Community Outreach

This intent of this task is to communication the progress and results of the feasibility study to the Partner agencies, the Kingston Community, Community Groups and Organizations. The Kingston community has a long history with this project and progress on this project needs to be shared. Community Outreach support will include supporting the Port with preparation of information and graphics that can be used at various community meetings.

Work Elements:

- Prepare boards or graphics to support the PORT at public meetings.
- Prepare status information to support the PORT at public meetings.
- Attend up to two (2) public meetings, to be determined.

Assumptions:

- The graphics will be similar work products that are already underway.
- Location of public meeting(s) will be determined by the PORT. The PORT will obtain any required agreements.
- Public meeting notifications, including flyers, newspaper notices, website updates, etc., will be done by the PORT.

Deliverables:

- Up to three (3) 24-inch by 36-inch poster graphics showing improvements. Improvements may be shown on an aerial background
- Traffic analysis simulation video. Note that this work will be conducted under Task 3.
- Status memorandum and/or talking bullet points.

Items to be furnished by Port of Kingston

- Existing reports, survey or other record or background documents related to the project and site.

Services Performed by Others

- ...

Anticipated Future Assignments

- Downtown Core Alternative Sites Mini-Fatal Flaw Capacity Review
- PS&E Design Services

Optional Services

- Wetland analysis and delineation and mitigation report (if required)

Time for Completion

Tasks 2 and 4 will be completed in 60 calendar days from issuance of the notice to proceed or as quickly as the required studies for the fatal flaw analysis can be completed. The remaining tasks will be completed by April 30, 2020.



26 August 2019
19-137

Patty Buchanan, PE, LEED AP
Perteet
patty.buchanan@perteet.com

**Re: Professional Surveying Services Proposal
Port of Kingston, Remote Ferry Holding Terminal**

Dear Patty,

1 Alliance Geomatics, LLC (1 Alliance) is pleased to provide this proposal for professional surveying and mapping services in support of Perteet on the Port of Kingston, Remote Ferry Holding Terminal project.

Background

This effort is intended to support the consulting services required to determine feasibility of constructing and operating a Remote Ferry Holding Lot at the intersection of SR 104 and Lindvog Road in Kingston, WA on approximately 10 acres currently owned by the WSDOT.

Project Limits

Please see Exhibit A, Surveying Limits, attached to this proposal.

Scope of Services

1. Surveying and Mapping

1.1. Survey PM, Admin, QA/QC

This task includes the survey project management, administrative duties, and quality control required for a project of this complexity and magnitude. Depending on the project requirements, 1 Alliance will assign a Survey Project Manager, Assistant Project Manager, and Survey Quality Leader for this project.

1.2. Survey Control

This task includes the establishment of survey control, or the recovery of existing survey control, as required for the project. Typically, survey control will be set, found, and/or referenced utilizing Real Time Kinematic (RTK) GPS (GNSS) and the Washington State Reference Network (WSRN) in conformance with industry standards. This survey control is then typically propagated, as required, utilizing standard terrestrial total station measurements and adjusted, as required using Least Squares adjustment techniques.

1 Alliance Geomatics
Bellevue | Everett | Tacoma | Portland
Main 425.598.2200 | Fax 425.502.8067
1261A 120th Ave NE, Bellevue, WA 98005



1.2.1. Geodetic Survey Control

A system of horizontal and/or vertical control stations that have been established and adjusted by geodetic methods and in which the shape and the size of the earth (geoid) have been considered in position computations. A geodetic datum is an abstract coordinate system with a reference surface that serves to provide known locations to begin surveys and create maps.

1.2.1.1. Horizontal

Typically, survey work shall reference the Washington State Plane Coordinate System of 1983 as established in accordance with Chapter 58.20 Revised Code of Washington.

1.2.1.2. Vertical

Typically, the Vertical Datum for the survey work shall reference the North American Vertical Datum of 1988 (NAVD88).

1.2.2. Units

Units shall be in US Survey Feet

1.3. Field Surveying and Mapping

This task includes the field surveying and mapping required for this specific effort.

Topographic and Planimetric features will be mapped in the field using industry standard technologies and techniques.

1.3.1. Ground measurements sufficient for the generation of 1-foot contours.

1.3.2. Trees 8 inches+ DBH and up (significant trees) to be surveyed ONLY in the wetland buffer areas. This survey will include type (Evergreen or Deciduous) and the approximate dripline of the trees. No other trees are required to be surveyed.

1.3.3. Structures and permanent artifacts will be located as found.

1.3.4. Wetland delineation flags as directed – [up to 100 flags are estimated at this time for the purposes of estimating.]

1.4. Utility Surveying Services

Surface Observable and Underground Conductible Utility Locates and Surveying.

Dry utilities, as evidenced by surface observable features and underground conductible utilities and identified and marked by a utility locating service.

1. Storm systems to include ditches, structures, and identifiable piping
2. Sewer systems to include manholes, identifiable piping and, if observable, cleanouts



1.5. Office Processing

This task includes the office processing of the collected survey data, data extraction, field book note reductions, CADD drafting, and other duties required for the generation of the deliverable(s).

For 3D laser scanning efforts, sub-tasks include the registering of point clouds; evaluating the registrations; exporting the point cloud data to Civil3D; creating or picking of appropriate points in Civil3D; Linework and Layering, and standard CADD drafting of the deliverables, as required.

1.6. Right-of-Way and Boundary Resolution(s)

Right-of-Way and Parcels Boundaries will be shown using publicly available GIS information.

Understandings

1. Safety will be considered more important than project delivery. Any unsafe conditions or situations will be reported to The Client for consideration of a solution. 1 Alliance will make an estimate if any safety issues possible affect the timing, schedule, or completeness of the surveying services.
2. Rights-of-Entry will be organized, granted, and confirmed by The Client or Others.
3. Permits will not be required for 1 Alliance's efforts.
4. 1 Alliance is not responsible for the quality, completeness, or timeliness of Subconsultants and/or the work of others.
5. GIS from The County, for utilities and/or other information, will be provided to 1 Alliance.
6. Title Reports with underlying documents for the affected Parcels to be provided by others.
7. Heavily-wooded site – 1 Alliance is not providing an exhaustive search for unknown artifacts that might be obscured by heavy vegetation. It is possible that certain items may not be discovered during the survey.
8. A Record of Survey/setting of property corners is not a part of these services.
9. Tree driplines are not a part of these services, except as noted in 1.3.2.

Schedule

1 Alliance is prepared to begin providing services within two weeks of a fully executed contract. Field efforts can typically begin within a week or two after the initial research, planning, and conductible utility locate phases have initiated.

1 Alliance Geomatics
Bellevue | Everett | Tacoma | Portland
Main 425.598.2200 | Fax 425.502.8067
1261A 120th Ave NE, Bellevue, WA 98005



1 ALLIANCE
GEOMATICS
SURVEYING & MAPPING

Deliverables

1. InRoads/MicroStation drawing to WSDOT standards unless otherwise specified by the Client.
2. Signed pdf copy of the mapped areas, if required.
3. Field book notes, if required.
4. ASCII file of all topographic and control points, if required.

Level of Effort

\$72,212

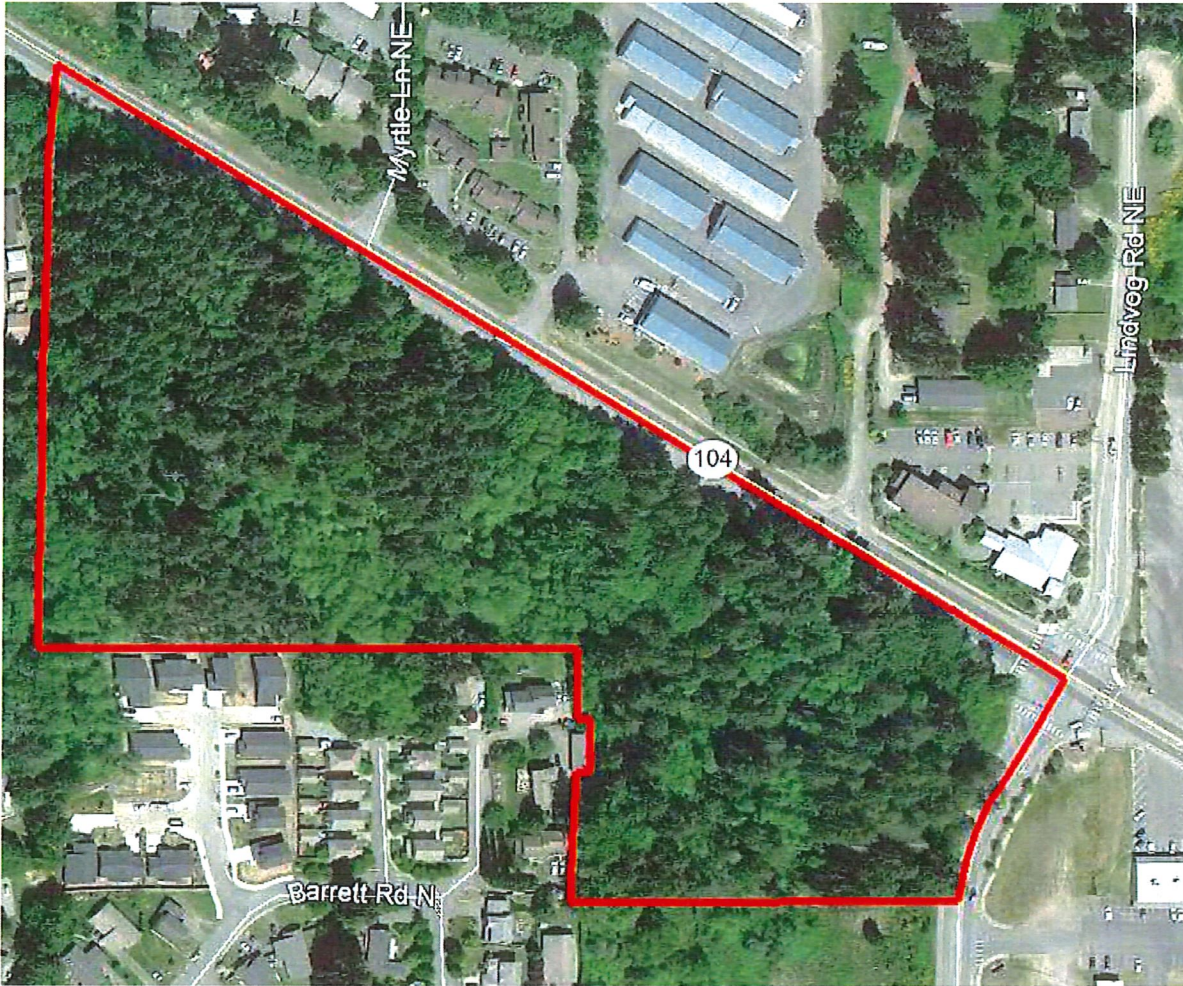
1 Alliance appreciates the opportunity to present this proposal. If you have any questions, please feel free to call.

Sincerely,
1 Alliance Geomatics, LLC

Brian S. Blevins, PLS
Vice President



Exhibit A, Surveying Limits



August 14, 2019



Perteet, Inc.
505 Fifth Avenue, Suite 300
Seattle, WA 98104

Attn: Patty Buchanan – Senior Project Manager
P: (206) 436-0515
E: patty.buchanan@perteet.com

Re: Revised Proposal for Preliminary Geotechnical Engineering Services
Kingston Ferry Holding Lanes Project
State Route 104 and Lindvog Road
Kingston, Washington
Terracon Proposal No. P81195118

Dear Ms. Buchanan:

We appreciate the opportunity to submit this revised proposal to Perteet, Inc. (Perteet) to provide Preliminary Geotechnical Engineering services for the above referenced project. This revised proposal clarifies our approach to addressing the anticipated subsurface conditions and how they will support Perteet's stormwater design effort. The following are exhibits to be attached to an Agreement for Services, which we assume will be provided by Perteet, and discussed in the closing paragraph below

Exhibit A	Project Understanding
Exhibit B	Scope of Services
Exhibit C	Compensation and Project Schedule
Exhibit D	Site Location
Exhibit E	Preliminary Site Layout

Our base fee to perform the Scope of Services described in this proposal is \$22,000. See Exhibit C for more details of our fees.

Your authorization for Terracon to proceed in accordance with this proposal can be issued by attaching this proposal to a subconsultant agreement between Perteet and Terracon consistent with the terms and conditions of previous subconsultant agreements between our firms.

Sincerely,

Terracon Consultants, Inc.

Chad T. McMullen, P.E.
Project Engineer

Dennis R. Stettler, P.E.
Senior Engineering Consultant

Terracon Consultants, Inc. 21905 64th Ave. W, Suite 100 Mountlake Terrace, WA 98043
P (425) 771 3304 F (425) 771 3549 terracon.com

Environmental



Facilities



Geotechnical



Materials

EXHIBIT A - PROJECT UNDERSTANDING

Our Scope of Services is based on our understanding of the project as described by Perteet and the expected subsurface conditions as described below. We have visited the project site briefly, and reviewed geotechnical information sent by Perteet for a site currently under earthwork construction activities, located immediately southeast of the proposed holding lot project site. Aspects of the project, undefined or assumed, are noted below. We request the design team verify all information prior to our initiation of field exploration activities.

Site Location and Anticipated Conditions

Item	Description
Parcel Information	The project is located in the southwest quadrant of the intersection of State Route 104 and Lindvog Road in Kingston, Washington. Lot Size: Approximately 8.6 acres comprised of two contiguous parcels. The site boundary is irregular in shape. Latitude: 47.803396 Longitude: -122.506834 (See Exhibit D)
Existing Improvements	None. Existing signaling and highway luminaire power, plus a waterline appear to be present along the southern shoulder of State Route 104.
Current Ground Cover	Mature, widely-spaced douglas fir, hemlock, and cedar, with a sword fern understory. Young to mature alder and maple are also present. Skunk cabbage, horsetail, and other wetland species are present in isolated areas, primarily in southern portions of the project parcels. Several groundwater seeps emerge in the northern portion of the project site and appear to feed into these wetland areas.
Existing Topography (from preliminary cross-sections provided by Perteet)	The site ground surface descends to the south, with slopes that are irregular but generally gentle to moderate. At the western and eastern ends of the site the total grade change is about 25 to 30 feet; the central portion of the site (which is narrower) includes a grade change of approximately 15 feet. South of the site, a housing subdivision is present. The subdivision is topographically lower than the existing site grade; this subdivision in this area appears to be cut into the previous topography of the area.
Site Access	We expect the site to be reasonably accessible to a small track-mounted excavator. Our proposed subsurface exploration scheme includes test pits distributed across the site, plus three borings distributed along a proposed wall planned along the north side of the proposed parking lot. To access the boring locations we expect to use a small excavator to prepare access for a small track-mounted drill rig. We expect that Perteet will resolve any property access restrictions prior to our mobilization of exploration equipment to the site. We also assume that any notifications that may be necessary for neighbors - plus notification to occupants of several homeless tent-sites located on the property - will be made by others

Item	Description
<p>Expected Subsurface Conditions</p>	<p>Our review of geologic maps and existing subsurface information indicates subsurface conditions will consist of relatively shallow accumulations of recession glacial outwash atop very dense glacially overridden glacial till. Recession glacial outwash soils are expected to be comprised primarily of loose to medium dense soils.</p> <p>Groundwater is expected to be shallow, with isolated surface seeps and weak, wet soils expected in portions of the southern half of the site.</p>

Planned Construction

Item	Description
<p>Information Provided</p>	<p>Email request for proposal prepared by Perteet dated July 29, 2019, which included:</p> <ul style="list-style-type: none"> ■ Site boundaries, preliminary layout including locations of cut walls and fill walls, and gross grading volumes; ■ A summary of Perteet’s project deliverables to the project team, and the general project concept and scope; ■ Geotechnical engineering and wetland reports for the adjoining property to the southeast, prepared for Seaside Kingston LLC. <p>Terracon visited the site on July 30 to gain a better understanding of site access constraints and ground surface conditions.</p>
<p>Project Description</p>	<p>The overall project includes creating a paved holding area for ferry traffic queuing at the project site, signage and lighting of the site, and construction of a ferry customer restroom facility. The layout of these features is preliminary at the time of this proposal. As design progresses, retail restaurant space, landscaping, or other site features may be added. To accommodate the aspects of site development above, substantial earthmoving will be necessary to create a planar parking area and building pad.</p> <p>Beyond the project site, possible reconfiguration of traffic entering/exiting the ferry terminal area (approximately 0.6 miles southeast of the SR 104/Lindvog Road intersection) may occur. Geotechnical evaluation of that reconfiguration (such as an assessment of existing roadway pavements) is not part of this current geotechnical scope.</p>
<p>Building Construction</p>	<p>A restroom structure will be located somewhere within the project site. We anticipate that this structure would consist of light metal or wood framing, and be constructed on conventional spread footings and a concrete slab-on-grade floor. We expect loads on the foundation would be relatively light. We expect that retail structures would be of similar construction.</p>

Item	Description
<p>Grading/Slopes/ Retaining Walls</p>	<p>The planned parking area elevation varies throughout the site, and descends gradually in the direction of eastbound SR 104. Planned finish grade is between about 5 and 10 feet below adjacent portions of the existing highway grade. For the purpose for pavement drainage, the holding area will have a cross-slope (in relation to the highway alignment) of about 2-percent.</p> <p>The preliminary grading concept shows that between 5 and 10 feet of cut alongside SR 104 and up to 12 feet of fill along the southern side of the building pad will be necessary to achieve planned grades. Cuts and fills will be supported by permanent retaining walls. Wall types for these purposes have not been selected. We expect that possible cut-wall types may include soil nail walls and soldier-piles with lagging. Fill walls will likely consist of mechanically stabilized earth (MSE) walls.</p>
<p>Pavements</p>	<p>A considerable portion of the project site will be finished with pavement. We assume both rigid (concrete) and flexible (asphalt) pavement sections should be considered for the holding area. Please confirm this assumption.</p> <p>To complete pavement design we will need traffic information to be collected and provided to us by others. We expect that – at a minimum – the following traffic information will be provided:</p> <ul style="list-style-type: none"> ■ ESALs at the site entrance and exit points ■ ESAL distribution on a lane-by-lane basis within the holding area ■ Projected annual ESAL growth
<p>Stormwater Management</p>	<p>Based upon soil and groundwater observations made during our site visit on July 30, infiltration of groundwater generated on-site will likely be problematic due to unfavorable subsurface conditions and the upslope location of the project site with respect to neighboring properties to the south. Our present scope anticipates that these unfavorable conditions will be represented by the results of our exploration program. However, if more favorable conditions are revealed, additional study and field testing may be warranted through supplemental scope.</p>
<p>Applicable Building Code(s)</p>	<p>2017 Edition of the AASHTO LRFD Bridge Design Specifications 2019 WSDOT Geotechnical Design Manual 2015 International Building Code (applicable to buildings)</p>

EXHIBIT B - SCOPE OF SERVICES

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

We propose that the site subsurface be explored by a combination of borings and test pits. During our reconnaissance visit to the site we observed that access conditions are difficult due to dense brush, irregular terrain, mature trees, and numerous logs. We propose to evenly distribute 8 to 10 test pits across the project site to characterize soil conditions in areas to be graded, and in the general locations of fill walls. Along the cut wall location adjacent to SR 104, we propose 3 borings to characterize soil and groundwater conditions that will be encountered during excavation, and to determine bearing conditions to appropriate depths.

Exploration Type	Number of Explorations	Planned Boring Depth (feet) ¹	Planned Location
Test Pits	8 to 10	10 feet or practical refusal	Graded Areas, Fill-Wall Footings
Soil Borings	3	25 or auger refusal	Cut-Wall Alignment

1. Below existing ground surface

As discussed in the Planned Construction section of Exhibit A, we expect that the field explorations described above will encounter soil and groundwater conditions that are unfavorable for the infiltration of stormwater. However, if more favorable conditions are revealed, additional study and field testing (such as pilot infiltration testing) may be warranted and could be provided through supplemental scope.

Exploration Layout and Elevations: We use handheld GPS equipment to locate the proposed subsurface explorations with an estimated horizontal accuracy of +/-20 feet. Field measurements from existing site features are also used, when practical. If available, approximate elevations are obtained by interpolation from a site specific, surveyed topographic map, otherwise elevations at the explorations locations will be estimated from Google Earth imagery.

Soil Boring Procedures: Soil borings will be advanced using a track-mounted drill rig using continuous-flight hollow-stem augers. Four samples are obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling is typically performed using split-barrel sampling (performed in general accordance with ASTM D1586). This sampling method advances a standard 2-inch outer diameter split-barrel sampling spoon into the subsurface by repeatedly dropping a 140-pound hammer a fall height of 30 inches. The number of blows required to advance the sampler the last 12 inches of a normal 18-inch penetration is recorded as the

Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are reported as uncorrected values on the boring logs at the test depths.

Samples obtained from split-spoon sampling are typically tested for index properties. All samples are placed in appropriate containers, taken to our soil laboratory for testing, and classified by a geotechnical engineer. In addition, we observe and record groundwater levels during drilling and sampling.

Our exploration team prepares draft boring logs in the field (i.e. field logs) as part of standard drilling operations. The field logs include sampling depths, sampler advancement, penetration resistance, and other relevant sampling information. Field logs include visual classifications of materials encountered during drilling, and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the geotechnical engineer's interpretation, and include modifications based on observations and laboratory tests.

Test Pit Procedures: Test pits are advanced via a tracked excavator outfitted with a toothed bucket. The test pit sidewalls and excavated soil are observed by a Terracon field engineer and characterized as described for soil borings. Groundwater seepage depths as well as fill, debris, and other deleterious materials observed are described in the field logs as well. Excavated soils are stockpiled in the vicinity of the pit for further observation and for convenient backfilling. The density/consistency of the soil is inferred through frequent probing of the base of the excavations for the upper 4 feet. Thereafter, soil density is inferred from observations of the excavated soil and excavator level of effort.

Test pits are typically terminated upon contacting dense to very dense/hard soil units. Bulk samples are collected to evaluate potential reuse of onsite soils.

Property Disturbance: Access to the test pit and boring locations will require limited clearing of brush or small trees and other vegetation sufficient to gain access to the exploration locations. The surface of the ground will also be disturbed at the exploration locations. We will make attempts to limit our areas of disturbance, but our scope and budget does not include landscape restoration.

Test pits are backfilled with the excavated soil and placed in lifts with some compaction effort applied by the excavator between lifts. The soil within the backfilled test pits will generally be looser than the in situ, preexisting condition therefore excess soil typically remains following backfilling. Excess soil will be scattered onsite within the vicinity of the test pit unless requested otherwise.

Borings will be backfilled with granular bentonite and abandoned in a manner consistent with Washington State Administrative Code (WAC 173-160). Excess auger cuttings will be dispersed in the general vicinity of the borehole.

Because backfill material often settles below the surface over time, we recommend that test pits and boreholes are checked periodically and backfilled, if necessary.

Site Access: Terracon must be granted access to the site by the property owner. By acceptance of this proposal, without information to the contrary, we consider this as authorization to access the property for conducting field exploration in accordance with the scope of services.

For the purpose of unloading and loading of the excavator and drill rig, access to the site is practical only from the shoulder of eastbound SR 104, in the area where tally slips are currently issued during peak ferry travel times. This access point may require a right-of-way (ROW) permit to be issued by the WSDOT field office. Our schedule and the limited nature of our use of the ROW assumes that the ROW permit will be issued in a timely fashion and that traffic control services will not be required. Our use of the highway shoulder for the purpose of equipment loading/unloading will occur outside of peak ferry travel times.

Safety

Terracon is currently not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our scope of services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings and excavations into the subsurface, therefore Terracon complies with Washington State Administrative Code (WAC) in requesting public utility location service through Washington One Call (811). We consult with the owner/client regarding potential utilities, or other unmarked underground hazards. Based upon the results of this consultation, we consider the need for alternative subsurface exploration methods, as the safety of our field crew is a priority.

Private utilities should be marked by the owner prior to commencement of field exploration. Terracon will not be responsible for damage to private utilities that are not made aware to us. If the owner is not able to accurately locate private utilities, Terracon can assist the owner by coordinating or subcontracting with a private utility locating services. Fees associated with the additional services are not included in our current scope of services. The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility locate service would not relieve the owner of their responsibilities in identifying private underground utilities.

Laboratory Testing

The project engineer reviews field data and assigns various laboratory tests to better understand the engineering properties of various soil strata. Exact types and number of tests cannot be defined until completion of field explorations. Procedural standards noted below are for reference to methodology in general. In some cases, local practices and professional judgement require method variations. Standards noted below include reference to other related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D6913 Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
- ASTM D1557 Test Methods for Laboratory Compaction Characteristics of Soils Using Modified Effort (56,000ft-lbf/ft³)
- ASTM D1883 Standard Test Method for CBR (California Bearing Ratio) of Laboratory-Compacted Soils
- ASTM D1140 Standard Test Method for determining the Amount of Material Finer than 75- μ m (No. 200) Sieve in Soils by Washing
- ASTM D2974 Standard Test Method for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils

Our laboratory testing program includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify soil samples in accordance with the Unified Soil Classification System (USCS). For planning purposes, we anticipate performing the following index tests for further soil classification:

- 20 – ASTM D2216 (Water Content)
- 2 – ASTM D4318 (Atterberg Limits)
- 6 – ASTM D422 (Grain Size Distribution)
- 2 – ASTM D1557 (Modified Proctor Compaction)
- 2 – ASTM D1883 (CBR)

Engineering and Project Delivery

Results of our field and laboratory programs will be evaluated by a professional engineer. The engineer will develop a geotechnical site characterization, perform the engineering calculations necessary to evaluate retaining wall and foundation alternatives, and develop appropriate preliminary geotechnical engineering design criteria for earth-related phases of the project. Given

Proposal for Preliminary Geotechnical Engineering Services

Kingston Ferry Holding Lanes Project ■ Kingston, Washington

August 14, 2019 ■ Terracon Proposal No. P81195118



the preliminary and planning level stage of the project, the geotechnical recommendations will be preliminary and subject to revision once the site design configuration and details for project elements such as retaining walls or other structures are further advanced.

Your project will be delivered using our **GeoReport®** system. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan will be posted for review and verification
- Site Characterization – Findings of the site exploration
- Geotechnical Engineering – Recommendations and geotechnical engineering report

When utilized, our collaboration portal documents communication, eliminating the need for long email threads. This collaborative effort allows prompt evaluation and discussion of options related to the design and associated benefits and risks of each option. With the ability to inform all parties as the work progresses, decisions and consensus can be reached faster. In some cases, only minimal uploads and collaboration will be required, because options for design and construction are limited or unnecessary. This is typically the case for uncomplicated projects with no anomalies found at the site.

When services are complete, we upload a printable version of our completed preliminary geotechnical engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

The geotechnical engineering report will provide the following:

- Boring and test pit logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during exploration
- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Subgrade preparation/earthwork recommendations
- Evaluation of the potential for re-use of site-derived grading spoils
- Seismic considerations and liquefaction potential
- Preliminary shoring/retaining wall design recommendations
- Preliminary lateral earth pressure recommendations
- Preliminary recommended foundation options and engineering design parameters
- Estimated settlement of foundations

- Recommendations for design and construction of interior floor slabs
- Recommended pavement options and design parameters
- The suitability of infiltration as a stormwater management method and – if warranted – preliminary short-term infiltration rates based upon published grain-size correlations.

Project Communications

We recognize that Pertee's deliverables with the project team include postings of progress, budget status, team meetings, and other project management tasks. We expect that Terracon's geotechnical input will be provided on an 'as-needed' basis. For budgeting purposes, we have assumed that Terracon will attend up to three meetings in the Kingston area over the duration of this project, and as part of post-reporting consultation.

Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

Final Design and Review of Plans and Specifications: Our preliminary geotechnical report and associated verbal and written communications will be used by others in the design team to develop preliminary plans and specifications for construction. As the project advances from the planning and preliminary design stages to final design, it may be appropriate to provide additional geotechnical recommendations and design criteria to address project elements that were not well defined at the time of our currently proposed services. Likewise, review of project plans and specifications is a vital part of our overall geotechnical engineering services. This consists of review of project plans and specifications related to site preparation, foundation, and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

Pilot Infiltration Testing: Based upon the anticipated soil and groundwater conditions and the site's position with respect to down-slope properties to the south, infiltration is not expected to be a favorable stormwater management option. However, if subsurface conditions reveal conditions different from those expected and infiltration appears to be favorable, we would be happy to develop a scope, schedule, and budget for pilot infiltration testing and recommendation of a design infiltration rate.

Observation and Testing of Pertinent Construction Materials: Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. This is based on widely spaced exploration locations, and assuming construction methods will be performed in a manner sufficient to meet our expectations, and are consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation, foundation, and pavement construction. This allows a more

comprehensive understanding of subsurface conditions and necessary documentation of construction, to confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.

Perform Environmental Assessments: Our Scope for this project does not include, either specifically or by implication, an environmental assessment of the site intended to identify or quantify potential site contaminants. If the client/owner is concerned about the potential for such conditions, an environmental site assessment should be conducted. We can provide a proposal for an environmental assessment, if desired.

Pavement Condition Assessment: An evaluation of existing pavement conditions, and their capacity to support existing and future traffic under the existing and potential re-routings of ferry traffic through downtown Kingston is excluded from this scope of services.

EXHIBIT C - COMPENSATION AND PROJECT SCHEDULE

Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services outlined in Exhibit B, our expected fee for the above Scope of Services is \$22,000. Our services will be invoiced on a time and materials basis in accordance with the attached Schedule of Fees.

Our Scope of Services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair/replacement of trees or other vegetation that may be disturbed during our field investigation.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization, as evidenced by your signature on the Supplemental Agreement for Services form.

Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, this does not account for delays in field exploration beyond our control, such as weather conditions, permit delays, or lack of permission to access the exploration locations. To the extent that exploration subcontractors are used to accomplish the scope of services, the schedule can be subject to their availability at the time of authorization. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

GeoReport® Delivery	Posting Date from Notice to Proceed ^{1, 2}
Project Planning	1 week
Site Characterization	5 weeks
Geotechnical Engineering	8 weeks

1. Upon receipt of your notice to proceed we will activate the schedule component of our **GeoReport®** website with specific, anticipated calendar days for the three delivery points noted above as well as other pertinent events such as field exploration crews on-site, etc.
2. We will maintain a current calendar of activities within our **GeoReport®** website. In the event of a need to modify the schedule, the schedule will be updated to maintain a current awareness of our plans for delivery.

EXHIBIT D – SITE LOCATION

Kingston Ferry Holding Lanes Project ■ Kingston, Washington
August 14, 2019 ■ Terracon Proposal No. P81195118

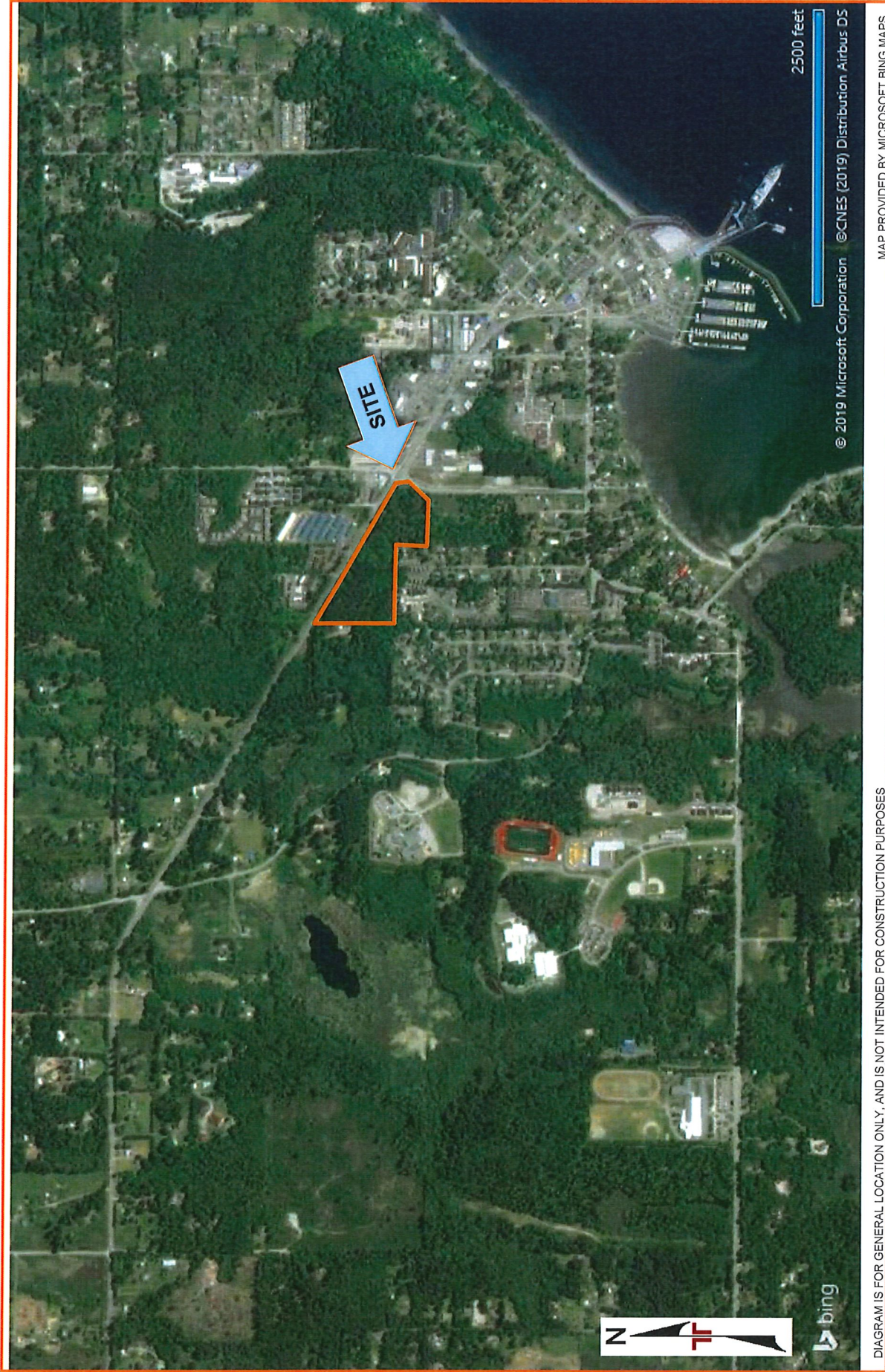


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXHIBIT E – PRELIMINARY SITE LAYOUT
 Kingston Ferry Holding Lanes Project ■ Kingston, Washington
 August 14, 2019 ■ Terracon Proposal No. P81195118

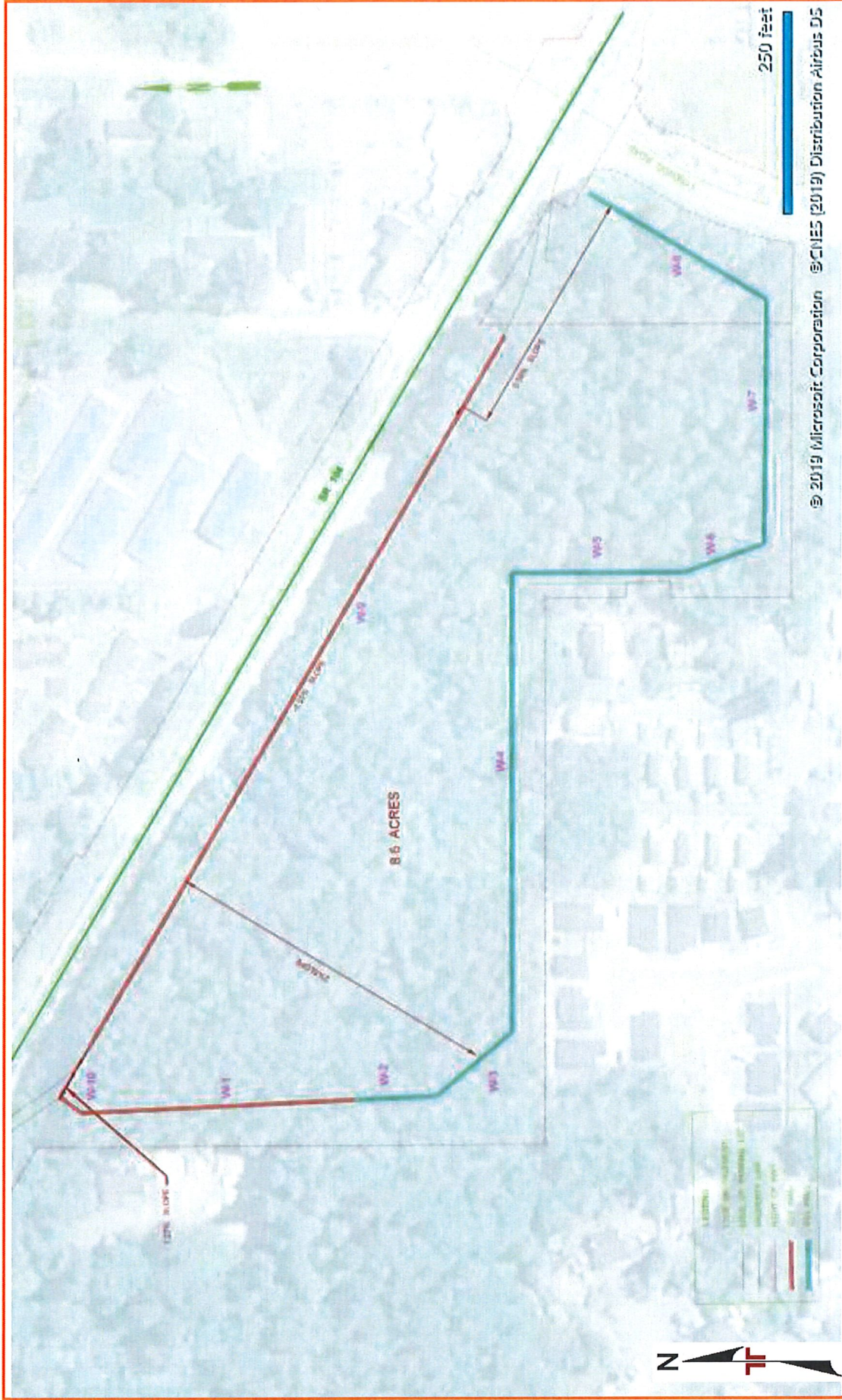


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES



August 8, 2019

Mike Hendrix
Perteet
505 Fifth Ave S, Suite 300
Seattle, WA 98107

Subject: Fehr & Peers Scope and Fee Port of Kingston Remote Lot

Mr. Hendrix:

We appreciate the opportunity to assist Perteet on the Port of Kingston Remote Parking Lot project. The proposed scope and fee is a draft for Fehr & Peers' portion of the project. This draft scope and fee is subject to change.

Task 1 –Meetings

Fehr & Peers will attend up to three (3) meetings for project coordination and brainstorming sessions to be held in Seattle and attended up to one (1) staff and up to two (2) hours each.

Task 2- Peer Review of Traffic Models

Fehr & Peers will provide a Peer Review of Vissim traffic models and developed by Perteet for the project. The review shall include up to three (3) analysis hours (weekday peak AM, weekday peak PM, and weekend midday), for the following scenarios:

- Existing model;
- Horizon year no-build/baseline model; and,
- Up to one (1) build alternative models for the horizon year.

The peer review will occur at the following major milestones:

- following the calibration and validation of the existing conditions model;
- incorporation of the build alternatives; and,
- operational results and performance metrics.

Fehr & Peers will also be available to provide technical guidance and advice as needed throughout the project.

Assumptions:



- Perteet will use modeling previously completed by Fehr & Peers for the SR 104 corridor. Peer review of the existing conditions will be for calibration purposes only. No other support for previously completed model is included in this scope.
- All models will be completed in Vissim and provided by Perteet. Fehr & Peers will not provide any additional modeling.
- No additional meetings are included as part this task. It is assumed any coordination between Fehr & Peers and Perteet will be included in Task 1.

Deliverables:

- Model peer review comments (e-mail format)

A detailed fee estimate is attached for the assumed costs related to the work detailed in this scope. If you have any question related to this scope of work, please feel free to reach out to us.

Sincerely,

Chris Grgich, PE, PTOE
Sr. Traffic Engineer
Fehr & Peers

Dan Grayuski
Regional Principle
Fehr & Peers

Exhibit A-2
List of Deliverables

General

The SR104 Remote Ferry Holding Lot has been a conceptual project proposed for the last 30 years by the citizens of North Kitsap and the Kingston Community, as well as Washington State Department of Transportation (WSDOT) and the Washington State Ferries (WSDOT-WSF). Funding for the project was made available in 2018 with a design contract to be let in Spring of 2019. The intent is to construct a holding facility west of the Kingston Community downtown to better control storage of automobile and truck traffic bound for the Kingston-Edmonds ferry terminal. Ferry traffic backs up on the single route through Kingston's downtown, severely limiting access to local businesses and north/south across the community. While this used to occur primarily during peak summer months and weekends, it now invades the shoulder seasons and throughout the week.

Deliverables

1. Progress Reports and Meetings / Project Administration (Task 1)

This project involves a "team" of local agencies and communication with and among them with regard to task progress, issues, and overall status. Work hours, budget status, monthly billings and typical project administration are part of this task. In addition, meetings with the project team should occur every 6 weeks, and be scheduled, organized, and lead by the Consultant. A record of the agenda, and discussions should be maintained by the Consultant and provided the Port. Furthermore, the CONSULTANT will meet with the CLIENT Project Manager at least weekly and electronic meeting notes will be submitted by the following Tuesday.

Estimated Cost: _____ Estimated Hours: _____

2. Fatal Flaw Analysis (Tasks 2.1 and 4)

Within the first 60 days a fatal flaw analysis will be conducted. This analysis will include the following considerations with criteria and thresholds that would trigger a reevaluation of the project. Fatal flaw analysis must include at least:

- Holding Lot Capacity is sufficient
- Soils analysis that does not preclude development
- Wetland impacts are small enough to be able to be mitigated
- No archaeological impacts are found that preclude development
- Capacity only analysis mini-fatal flaw analysis of two Downtown holding lot options.

Estimated Cost: _____ Estimated Hours: _____

3. Active Traffic Management and Operational Analysis (Task 3)

This task will determine the required overall project features and real holding capacity at the SR104 Remote Holding Lot for automobiles and for semi-truck traffic, using WB-62 as the design truck vehicle.

To undertake this task effectively, the Consultant will need to work individually and as a group with the Project Manager and a project team developed by the Port of Kingston.

Effort under this task will document data on traffic in general for the Kingston area under current conditions and include available projections into the future. Current and projected WDOT data on ferry traffic will be reviewed for peak (daily, weekly, and monthly) flow by vehicle type. Specific analysis will be given the truck traffic requiring WB-62 traffic design. These data will be combined with current and projected ferry operations at Kingston (holding capacity, ferry capacity, and schedules).

This effort will also document existing traffic issues (congestion and safety) during peak periods.

Drivers will need to understand what is expected. Consequently, signage regarding this “tally slip” area will need to be considered. Also, if drivers miss the turn and have to return, a left turn lane might be needed.

In consultation with WSDOT/Washington State Ferries, this analysis will determine how the SR104 Remote Ferry Holding Lot will integrate with ferry and transit operations within downtown Kingston, as well as ingress and egress onto SR104 and pedestrian/bicycle traffic. Integral to this Operational Analysis will be the proposed realignment of SR104 from the existing inbound couplet through the downtown, to the proposed two-way alignment directing inbound and outbound traffic onto 1st Avenue.

The outcome of this task will support tasks involving the size and configuration of new parking capacity, the resulting impacts on traffic and safety, and preliminary design.

Estimated Cost: _____ Estimated Hours: _____

4. Community Outreach (Task 10)

Integral to any design, communication with the community is of primary importance. The Kingston community has a long history with this project and progress on this project needs to be shared. Community Outreach support will include supporting the Port with preparation of information and graphics that can be used at various community meetings. The graphics will be

similar work products that are already underway. The support will include the attendance of one person at, up to 2 public meetings that are to be determined.

It is anticipated that this task may include attendance at community meeting(s) and preparation of publications(s) or other depending to be determined.

Estimated Cost: _____ Estimated Hours: _____

5. Right of Way Access Analysis (Task 5)

The site is owned by WSDOT, as is SR104. This analysis should determine Right-of-Way access and geometric requirements for ingress and egress, and the potential for using the county-owned property adjacent to the site on Lindvog Road.

This task will involve close coordination with WSDOT and WSDOT access requirements. Access requirements may be affected by the task covering operational considerations and will need to be conducted in concert with that task.

The outcome will be a recommended ingress / egress plan (preliminary design) for the proposed parking site. This task conducted in concert with the Operations Analysis Task should result in an approach which can be approved by all involved entities.

Estimated Cost: _____ Estimated Hours: _____

6. Soils Analysis (Task 2.3)

A Soils Analysis will be required to determine the ability of the site to accommodate stormwater and support the parking functionality consistent with Kitsap County's Stormwater Requirements and / or the Western Washington Stormwater Manual and WSDOT design criterial. This analysis should include structural considerations for this site on the existing soils. The task will likely require a Geo-Technical engineer.

Estimated Cost: _____ Estimated Hours: _____

7. Wetland Analysis and Delineation with Mitigation Plan as required (Task 2.4)

This task will confirm the existing wetland delineation a Mitigation Plan (if required) will be developed.

Wetlands will be documented and rated under Washington's Wetland Rating System. The cost for this task will include an initial survey by a wetland biologist to determine presence of wetland(s). Mapping may or may not be necessary. If required, mapping and map production

will be accounted through a separate sub-task. This task will require a certified wetland biologist.

Estimated Cost: _____ Estimated Hours: _____

8. Cultural and Historic Resource Review (Task 2.5)

The State Executive Order 05-05 and the Federal requirements under the National Historic Preservation Act Section 106 both require a review of a proposed capital project from historic and cultural aspects. There is an existing report that was completed in 1999 for the WSF that will be used for this first phase of work. A new cultural and historic resource review will only be performed for the project parcel (Kitsap County) not included in the 1999 report. If a newer report is required for the entirety of the project site, then it will be completed in future phases of work.

Both federal and state requirements include consultation with Tribal Nations. The two Tribal Nations located within Kitsap County (Suquamish Tribe and Port Gamble S'Klallam Tribe) will be consulted regarding potential impacts to cultural resources.

Estimated Cost: _____ Estimated Hours: _____

9. Conceptual Design (Task 5)

The consultant will develop conceptual design which will incorporate project needs and site information (soils, slopes, wetlands, drainage) to allow for preliminary stormwater design and construction costs and determine stormwater requirements based on the preliminary design and estimated costs.

An important aspect of this project is anticipation of the needs of waiting passengers. At a minimum, restroom facilities should be considered. Lighting of the facility will also need to be planned. Other needs might include some retail food and beverage facility similar to other WSDOT facilities.

Estimated Cost: _____ Estimated Hours: _____

10. Stormwater Plan (Task 6)

Based on the results of the Soils Analysis task and the 30% Site Design, a Stormwater Plan will be developed to describe the site conditions, project design, and method(s) that will be used to meet regulatory requirements through storage, treatment and discharge facilities.

Estimated Cost: _____ Estimated Hours: _____

11. Final Concept Design, Cost Estimate & Final Feasibility Study Documents (Tasks 7 and 9)

The Consultant will develop a Preliminary Site Design (Allowing for final adjustment) to illustrate the project and present the integration of the Needs Analysis, Soils Analysis, and Stormwater Analysis for formal review by the WSDOT, WSF, Port of Kingston, Kitsap County, Kitsap Transit, Tribal Governments, Kingston Citizens Advisory Council and citizens of North Kitsap. This task will include a cost estimate based on the Preliminary Design

Estimated Cost: _____ Estimated Hours: _____

12. SEPA (State Environmental Policy Act) (Task 8)

For this project, WSDOT will be the lead agency under SEPA. The Consultant will work with WSDOT staff to prepare a DRAFT SEPA Checklist. The Checklist will use the preliminary design materials

Estimated Cost: _____ Estimated Hours: _____



Project Remote Ferry Holding Lot
 Client Port of Kingston
 PM Patrick Buchanan

Contract Start Date 10/1/2019
 Contract End Date 4/30/2020
 Contract Duration: 6 Months

Last Update date 10/2/2019
 Percent Project No. 20190109.000

Exhibit A-3

Task	Executive	Sr. Associate	Sr. Associate	Sr. Associate / Mgr	Lead Engineer / Mgr	Lead Engineer / Mgr	Engineer II	Engineer I	Lead Technician / Designer	Technician I	Technician I	Technician I	Technician I	Sr. Planner/Cultural Resources Manager	Planner II	Lead Ecologist/Mgr	Accountant	Cheical	Cultural Resources Specialist II	Cultural Resources Specialist I	Total Hours	Labor Dollars	
Task 1 - Project Management	8.00	28.00																					
Total Task 1 - Project Management	8.00	28.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	170.00	\$31,750.00	
Task 2.1 - EX Information Review and Data Gathering	2.00	2.00																					
Total Task 2.1 - EX Information Review and Data Gathering	2.00	2.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	170.00	\$31,750.00	
Task 2.2 - Survey & Resemapping (1-Allen)	0.00	2.00																					
Total Task 2.2 - Survey & Resemapping (1-Allen)	0.00	2.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	18.00	\$3,250.00	
Task 2.3 - Geotechnical Investigations (Terrecon)	0.00	0.00																					
Total Task 2.3 - Geotechnical Investigations (Terrecon)	0.00	0.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	0.00	\$0.00	
Task 2.4A - Wetland Site Reconnaissance	0.00	30.00																					
Total Task 2.4A - Wetland Site Reconnaissance	0.00	30.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	80.00	\$13,250.00	
Task 2.5 - Cultural and Historical Resources Analysis	2.00	64.00																					
Total Task 2.5 - Cultural and Historical Resources Analysis	2.00	64.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	156.00	\$14,710.00	
Task 3 - Active Traffic Management and Operational Analysis	0.00	84.00																					
Total Task 3 - Active Traffic Management and Operational Analysis	0.00	84.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	657.00	\$90,925.00	
Task 4 - Linkage Fatal Flaw Analysis	2.00	4.00																					
Total Task 4 - Linkage Fatal Flaw Analysis	2.00	4.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	70.00	\$10,850.00	
Task 5 - Conceptual Design and ROW Access Analysis	0.00	6.00																					
Total Task 5 - Conceptual Design and ROW Access Analysis	0.00	6.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	175.00	\$25,850.00	
Task 6 - Stormwater Plan	0.00	8.00																					
Total Task 6 - Stormwater Plan	0.00	8.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	182.00	\$28,840.00	
Total	8.00	28.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$70.00	\$165.00	\$115.00	\$145.00	\$55.00	\$85.00	\$110.00	\$110.00	182.00	\$28,840.00	

Task	Executive	Sr. Associate	Sr. Associate	Sr. Associate	Sr. Engineer / Mgr	Lead Engineer / Mgr	Lead Engineer / Mgr	Lead Engineer / Mgr	Engineer II	Engineer I	Lead Technicians / Designer	Technician I	Technician I	Technician I	Planner/Cit	Sr Planner/Resource Manager	Planner II	Lead Ecologist/Mgr	Accountant	Clerical	Cultural Resources Specialist II	Cultural Resources Specialist II	Total Hours	Labor Dollars
Task 7 - Final Conceptual Site Design and Cost Estimate	\$240.00	\$205.00	\$205.00	\$205.00	\$190.00	\$165.00	\$125.00	\$125.00	\$125.00	\$105.00	\$125.00	\$70.00	\$70.00	\$70.00	\$115.00	\$165.00	\$115.00	\$145.00	\$95.00	\$65.00	\$110.00	\$110.00	341.00	\$49,585.00
Total Task 7 - Final Conceptual Site Design and Cost Estimate	0.00	4.00	0.00	18.00	12.00	42.00	105.00	105.00	105.00	0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	341.00	\$49,585.00
Task 8 - SEPA Support																								
Total Task 8 - SEPA Support	0.00	0.00	0.00	0.00	8.00	14.00	18.00	18.00	18.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.00	\$7,080.00
Task 9 - Final Feasibility Study Documents	2.00	4.00	4.00	4.00	8.00	4.00	16.00	16.00	16.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.00	\$8,420.00
Total Task 9 - Final Feasibility Study Documents	2.00	4.00	4.00	4.00	8.00	4.00	16.00	16.00	16.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.00	\$8,420.00
Task 10 - Community Outreach																								
Total Task 10 - Community Outreach	0.00	4.00	0.00	0.00	14.00	0.00	4.00	4.00	4.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.00	\$5,400.00
Total Hours	14.00	116.00	46.00	38.00	231.00	235.00	285.00	285.00	408.00	16.00	170.00	20.00	24.00	20.00	48.00	8.00	48.00	40.00	10.00	40.00	50.00	10.00	34.00	\$5,400.00
Total Dollars	\$3,960.00	\$23,790.00	\$9,450.00	\$7,790.00	\$43,890.00	\$33,825.00	\$31,250.00	\$51,000.00	\$1,680.00	\$1,680.00	\$21,250.00	\$1,400.00	\$1,680.00	\$1,400.00	\$5,820.00	\$1,320.00	\$5,820.00	\$5,800.00	\$850.00	\$3,400.00	\$5,500.00	\$1,100.00	1,985.00	\$289,890.00

Subcontractant Fees:	Cost	Markup	Bill
1 Alliance Geomatics, LLC	72,212		72,212
Fehr & Peers	14,760		14,760
Terracon Consultants, Inc.	22,000		22,000
Totals:	108,972		108,972

233	
300	
307	
Totals:	840

EXPENSES:	
Mileage - \$58	
Printing	
Travel - Allowable	
Totals:	840

SUMMARY	
Labor	\$289,890.00
Expenses	\$840.00
Subcontractants	\$108,972.00
CONTRACT TOTAL	\$399,702.00

