

April 6, 2022  
File No. P-7970

Carla and John Monahan  
2424 67<sup>th</sup> Avenue SE  
Mercer Island, WA 98040

Subject: Proposal for Geotechnical Engineering Services  
Monahan Residence – Proposed Addition  
2424 67<sup>th</sup> Avenue SE, Mercer Island, Washington

Dear Carla and John,

As requested, PanGEO Inc. is pleased to submit the following proposal to provide a geotechnical engineering study for the proposed addition at the above-referenced site. To aid in our effort of preparing this proposal, we collected and reviewed published geotechnical and geological data in the project vicinity and reviewed the preliminary design plans. Our proposed scope of services and fee is outlined below for your review and approval.

#### **SITE AND PROJECT DESCRIPTION**

The subject site is an approximately 8,856 square foot lot located at 2424 67<sup>th</sup> Avenue SE in the City of Mercer Island, Washington. The subject lot is rectangular in shape, and is bordered to the west by 67<sup>th</sup> Avenue SE, and to other three sides by existing single-family residences. A one-story single-family house with a partial basement occupies the approximately middle portion of the site. The site grade generally descends from east to west with a vertical relief of about 12 feet.

Based on the information provided to us, we understand that you plan to remodel the existing house and add a second story addition onto the existing house. According to the City of Mercer Island GIS map, the approximately southeast half of the property is mapped within a potential landslide and erosion hazard area. As such, a geotechnical

report will be required to address these potential geologic hazards as part of the building permit application.

### **GEOTECHNICAL REPORT SCOPE OF WORK**

Based on our understanding of the current project scope, we propose the following scope of work to assist the design team to complete the design and construction of the project:

1. **Site Reconnaissance/Document Review** – We will collect and review readily-available geotechnical and geologic data at the site and in the project vicinity, to plan and supplement our proposed subsurface exploration program. We will also conduct a site reconnaissance to observe any ground features that may impact the proposed development.
2. **Subsurface Explorations** – We will drill two (2) test borings up to a maximum depth of 15 feet below the existing grade, depending on the actual soil conditions encountered. The borings will be drilled with using a hand operated portable drill rig and will be monitored and logged under the full-time observation of a geologist from PanGEO. Standard Penetration Tests (SPT) will be conducted at 2½- and 5-foot intervals.

We assume that you will provide us a right-of-entry to drill on the site. Prior to our field explorations, we will contact the one-call center for underground utility clearance. At the completion of the field work, each borehole will be backfilled. Extra soil cuttings from our test borings will be left on site.

3. **Engineering Analysis** – We will perform engineering analysis and evaluate subsurface data derived from the subsurface investigation. We anticipate that the primary geotechnical considerations will consist of geologic hazards evaluation, Site Class for the seismic design, selection of foundation type and design parameters, and temporary excavation slopes.
4. **Geotechnical Report** – We will prepare a report describing results of our study and design recommendations. The content of the report will generally consist of the following:

- *Site Descriptions* – Description of surface and subsurface conditions (soil and groundwater) at the site, including a site map showing the locations of test borings, summary boring logs, and anticipated soil behavior;
- *Geologic Hazards* – Our opinion regarding the mapped geologic hazards at the property and, if needed, provide recommendations to mitigate the risk. Please note that the current scope does not include a detailed quantitative slope stability analysis using a computer program;
- *Seismic Design* – Seismic site class per 2018 International Building Code (IBC);
- *Foundation Design* – Recommendations for appropriate foundation alternatives and geotechnical design parameters;
- *Retaining Walls* – General recommendations for active, at rest and passive pressures for static and seismic conditions, drainage provisions, and backfill requirements;
- *Floor Slab* – Recommendations for floor subgrade preparation, modulus of subgrade reaction, requirements for capillary break (if needed), and sub-floor drains (if needed);
- *Temporary Excavation Slopes* – Recommendations for maximum allowable cut slope without shoring; and
- *Earthwork* – General earthwork recommendations, including fill placement and compaction guidelines.

Please note that the proposed scope of work does not include an evaluation of chemical properties of soil and groundwater, or the potential presence of wetlands on the site. In addition, the scope of work does not include assessment of infiltration characteristics of the site soils.

**PROPOSED FEE**

We propose to complete the scope of work outlined above for a lump sum fee of \$6,600, which includes the subcontractor driller’s cost. We respectfully request a retainer of \$3,300.

**POST-REPORT GEOTECHNICAL SERVICES**

PanGEO will provide post-report geotechnical support services including additional consultations on an as-needed basis, attending project meetings, providing permitting support, and geotechnical construction monitoring services that may be required by the City. These services will be performed on a time and expense basis. The following is a summary of 2022 hourly rates for reference.

Principal Geotechnical Engineer	\$175 - 205/hr
Senior Engineer/Geologist	\$155 - 175/hr
Project Engineer/Geologist	\$135 - 155/hr
Staff Engineer/Geologist	\$125 - 135/hr
Construction monitoring/Inspection	\$115/hr
Mileage/Parking	At cost

**CLOSURE**

We will perform our work in accordance with the attached General Conditions. If you are in agreement with the scope of services, budget, and terms described herein, please indicate your concurrence by returning one copy of this letter signed in the space provided below.

We appreciate your considerations for PanGEO to perform geotechnical engineering services for the proposed development. Should you have any questions regarding this proposal, please call (206) 262-0370.

Sincerely,

Proposal for Geotechnical Engineering Services  
Proposed Addition: 2424 67<sup>th</sup> Avenue SE, Mercer Island, WA  
April 6, 2022

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Johnny C. Chen, P.E.  
Senior Geotechnical Engineer

Attachments: General Conditions (2 sheets)

I hereby agree to the scope of services, budget, and terms proposed herein and PanGEO Inc. is authorized to proceed.

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Organization

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Signature of Party Responsible  
for Payment

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Title

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Printed Name

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Date

## GENERAL CONDITIONS

**PanGEO, Inc.**, a Washington Corporation (“PanGEO”), and Client agree to a work assignment in accordance with the attached proposal and cost estimate, and the following general conditions.

### INTEGRATION

The attached proposal together with these General Conditions comprises the entire Agreement between the parties. This Agreement may not be changed without the prior written consent of all parties to the Agreement. There are no terms or conditions that are not expressed in this Agreement.

### STANDARD OF CARE

PanGEO agrees to perform its professional services in accordance with that degree of care and skill ordinarily exercised by similarly qualified geotechnical engineering professionals currently practicing in this area under similar conditions. No warranties or other representations are expressed or implied.

### CLIENT FURNISHED INFORMATION AND OBLIGATIONS

The Client is responsible to provide PanGEO with a description of the property, its location, and the locations of any underground utilities, facilities or structures on or adjacent to the property that could impact our work. PanGEO, its owners, employees, subcontractors and agents will not be responsible for any damage to buried utilities or subterranean structures that are not specifically identified to PanGEO. The Client also must advise PanGEO of the location and nature of any known or suspected hazardous materials that may exist on the property.

### SITE ACCESS/RIGHT OF ENTRY

The Client agrees to advise PanGEO, prior to commencement of our services, of any special requirements for entry, work permits, security clearances, licenses, or any other required permissions. If the property is not owned by the Client, the Client shall obtain permission for right-of-entry for the purpose of performing our services.

### SURFACE AND SUBSURFACE DISTURBANCE

PanGEO will take reasonable precautions to minimize surface and subsurface disturbance of the site. In the normal course of exploratory work some disturbance may occur, and the restoration of any disturbance is not part of this Agreement, unless specifically provided in the scope of services and budget for the work.

### UNANTICIPATED CONDITIONS OR HAZARDOUS MATERIALS

Subsurface conditions at some locations at the site may vary from those encountered at the locations where surveys or explorations are made. Because the interpretations and recommendations of PanGEO are based solely on the information available to PanGEO, limitations on the available information will result in some uncertainty, and, therefore, risk, with respect to the interpretation of geologic and geotechnical conditions, despite the use of due professional care. If conditions different from those described in our report are observed or appear to be present, PanGEO should be retained to provide additional analyses as necessary to evaluate the situation and modify our recommendations as appropriate.

The discovery of unanticipated conditions or hazardous materials constitutes a changed condition that may require renegotiation of the scope of services and budget, or termination of services. If unanticipated hazardous materials are encountered, PanGEO may take immediate action to protect health and safety. PanGEO shall notify Client as soon as practically possible should unanticipated hazardous materials be encountered. Client agrees to compensate PanGEO for the additional cost of services necessary to protect the health and safety of the public, PanGEO’s employees, or others.

### INDEMNIFICATION FOR HAZARDOUS MATERIALS AND RELEASE OF POLLUTANTS

Client agrees that any hazardous materials, including asbestos, present at the work site, prior to and during the performance of this Agreement were not generated, stored or disposed of by PanGEO. To the fullest extent permitted by law, the Client shall defend, indemnify and hold harmless PanGEO, its owners, employees, subcontractors and agents, from any and all liability, loss, costs, damage or expenses (including attorneys’ fees and costs upon trial and appeal) arising out of or in connection with (1) any future pollution-related claims or damages at the site, including potential claims from third parties that may name PanGEO as a defendant, and (2) the performance of any professional services of PanGEO that result in alleged exacerbation of existing environmental pollution or contamination, or result in any newly caused or created pollution or contamination. This indemnification will not apply to claims, damages, losses or expenses which are a result of negligent acts by PanGEO under this Agreement, or which arise from new pollutants introduced solely by PanGEO.

### REPORTING OF HAZARDOUS SUBSTANCE RELEASES

The Client is responsible for reporting releases of hazardous substances when such reports are required by government agencies. The Client agrees to defend and hold PanGEO harmless for government or third party action taken for Client’s failure to comply with hazardous substance release reporting requirements.

### JOB SITE CONDUCT AND SAFETY

PanGEO will be responsible for its professional activities on the job site. This will not relieve the Client, Owner, or construction contractors of their obligation to maintain a safe job site. Neither PanGEO’s professional activities nor the presence of its employees nor subcontractors shall be construed to imply responsibility for job site safety.

### SAMPLE RETENTION AND DISPOSAL

Non-hazardous samples will be discarded 30 days after they are obtained unless prior arrangements are made to store or deliver the samples. Samples containing hazardous materials that are regulated under federal, state, or local environmental laws will be returned to the site.

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**INSTRUMENTS OF SERVICE**

Reports, field data, laboratory data, analyses, calculations, estimates, designs and other documents prepared by PanGEO as instruments of service shall remain the property of PanGEO. PanGEO will retain pertinent records relating to the services performed for a period of ten years following submission of the report. Copies of the instruments of service will be made available to the Client on request at a reasonable fee. Reuse of any instruments of service by the Client on extensions of this project or on other projects without PanGEO's written permissions will be at the Client's sole risk. Client agrees to defend, indemnify and hold harmless PanGEO from claims, damages and expenses arising out of such reuse.

**BILLING AND PAYMENT**

Billing for services will be submitted monthly. A service charge of one and one-half percent (1.5%) per month will be added to unpaid accounts due over 60 days. Expenses incurred in preparation and/or foreclosure of any lien or collecting delinquent amounts including, but not limited to attorneys' fees, costs at trial and appeal and charges for PanGEO's staff time shall be paid in addition to the delinquent amount.

**TERMINATION OF SERVICES**

This Agreement may be terminated by either party upon at least seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms and conditions through no fault of the terminating party. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event that the Client requests early termination of our services, PanGEO reserves the right to complete such analyses and records as are necessary to place its files in order and complete a report on the services performed to date. Charges for these termination activities shall be in addition to all charges incurred up to the date of termination.

**INSURANCE**

PanGEO maintains Workers' Compensation and Employer's Liability Insurance as required by state laws. PanGEO also maintains comprehensive general, auto, professional and environmental liability insurance, certificates of which are available upon request.

**LIMIT OF LIABILITY**

*General Liability:* In the performance of this Agreement and subject to the limits, terms and conditions of property damage and public liability coverage, PanGEO agrees to indemnify and hold Client harmless from PanGEO's proportional share of liability resulting from its negligence and any breach of contract compared to that of other persons or entities which results in damage to the Client. PanGEO shall not be responsible for any loss, damage, or liability beyond the amounts, limits, coverage or conditions of its insurance coverage on the date the claim is made. PanGEO shall not be responsible for Client's negligence nor the negligence of third parties.

*Professional Liability:* In consideration of relative opportunities for financial reward from this project for the parties to this Agreement, Client agrees that the maximum aggregate amount of its recovery from PanGEO or its employees due to any and all claims of professional negligence and breach of contract arising out of any incident shall be limited to \$50,000 or the amount of PanGEO's fees for the services provided under this Agreement, whichever is less, unless a higher limit with commensurate compensation is specifically negotiated.

**CONSEQUENTIAL DAMAGES**

PanGEO shall not be liable for consequential damages, including loss of use or loss of profits, or indirect damages, regardless of whether such claim is based upon alleged breach of contract, willful misconduct, strict liability, breach of warranty or negligent act, error or omission, whether professional or nonprofessional.

**DISPUTES**

Any dispute, controversy or claim arising out of or relating to this Agreement, or breach thereof, shall be mediated. The law of the State of Washington will govern the validity and execution of this Agreement and the disposition of any claims related to this Agreement. The prevailing party in any dispute or litigation concerning this Agreement will be entitled to recover reasonable attorneys' fees and costs incurred at trial and appeal, including staff time, court costs, attorneys' fees, and other claim-related expenses.

**ASSIGNMENTS**

Neither the Client nor PanGEO may delegate, assign, sublet or transfer the duties, interests or responsibilities set forth in this agreement without the written consent of the other party.

**SURVIVAL**

These terms and conditions shall survive the completion of the services under the Agreement and the termination of the Agreement for any cause.

**SEVERABILITY**

The Client and PanGEO have entered into this Agreement of their own free will, to communicate to one another mutual understandings and responsibilities. Any element of the Agreement later held to violate a law or regulation shall be deemed void, and remaining provisions shall continue in force. Client and PanGEO shall in good faith attempt to replace any invalid or unenforceable provision with one that is valid and enforceable, and which comes as close as possible to expressing the intent of the original provision.