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March 3, 2017

PRO OREGON CITY OPS CENTER

Deca Architecture Inc.
935 SE Alder Street
Portland, OR 97214

Attention: Brandon Dole

SUBJECT: Proposal for Geotechnical Investigation
Oregon City Public Works Operations (OPS) Center
122 S. Center Street
Oregon City, Oregon

GRI is pleased to submit this proposal to conduct a geotechnical investigation for the proposed improvements to the Oregon City Public Works OPS Center. The improvements are planned on the east side of S. Center Street, north of S. 2nd Street, west and north of Water Board Park Road, and south of residential properties. Our investigation will consist of a review of available geologic information, site reconnaissance, rock mass characterization survey, subsurface explorations, laboratory testing, engineering analyses, and preparation of a report. The report will summarize our findings and present our recommendations for suitably founding the project on the site.

SITE DESCRIPTION

General

The site occupies an area approximately 650 ft long by 450 ft wide. Based on our observations during a February 24, 2017, site walk and review of available topographic maps, the northwest portion of the site is relatively flat, surfaced with asphalt concrete (AC) pavement, and contains an office building and several tilt-up maintenance equipment storage buildings. The east and southeast portions of the site are relatively flat and contain several buildings that appear to be of wood-frame construction. The majority of the southeast portion of the site is surfaced with AC pavement or grass. A near-vertical rock face extends in a generally southwest to northeast direction across the northwest portion of the site. Site grades on the northwest side of the rock face are generally about 40 ft lower than site grades to the southeast. A rockery wall supports John Adams Street above S. Center Street. The rockery wall appears to be up to about 10 ft tall. Center Street and John Adams Street are surfaced with AC pavement. Large basalt blocks up to about 6 ft in diameter were observed where exposed along S. Center Street. Relatively wide discontinuity apertures were observed and several blocks appeared to be overhanging wedges with little support beneath the block. Rock debris could be observed at the base of the slope at a few locations potentially indicating recent rockfall event(s). South of the project site, grades slope steeply upward. Areas of landslide topography were observed south of Water Board Park Road south of the project site. Standing water was observed in the grassy area near the northeast corner of the site.

Geology

The project area is located on a west-facing bluff along the Willamette River. Rock units mapped near Center Street include, from oldest to youngest, Neogene Columbia River Basalt, Neogene/Quaternary

Troutdale Formation, and Quaternary Boring Lava. Columbia River Basalt is exposed along the northwest portion of the site and generally consists of resistant, hard, dark-gray to black basalt. The Troutdale Formation consists of poorly indurated sedimentary rock, mostly siltstone (Ma et al., 2009). In the project area, the Troutdale Formation is not well exposed and is locally prone to slope instability.

The Oregon Department of Geology and Mineral Industries (DOGAMI) is the state agency responsible for geologic hazard mapping for the State of Oregon. DOGAMI has indicated in its statewide landslide hazard database that on the slope immediately adjacent to the south side of the site is a prehistoric (>150 years) rotational rock slide with earthflow features, referred to as Oregon City 243 (Burns et al., 2013). The mapping of landslide deposits are based, in part, on light detection and ranging (lidar)-derived elevation data and interpretation of surface topography typical of landslide features.

Groundwater

Groundwater depth at the site is inferred to be about 62 ft at the southeast portion of the site and 33 ft at the northwest potion of the site (Snyder 2008). However, localized perched conditions may occur at shallower depths within the surficial soils during periods of prolonged or intense precipitation. Based on local topography, groundwater likely flows northwest toward the Willamette River.

PROJECT DESCRIPTION

Based on review of the January 31, 2017, Oregon City Public Works OPS Center 2017 Master Plan Amendment, the existing OPS Center will be redesigned in a three-phase approach. The initial phase will include demolition of the existing wood-frame structures located in the east/southeast portion of the site and construction of a new two-story office building with a footprint of about 8,150 sq ft; three one-to-two-story storage buildings or covered parking areas, associated AC parking areas, and access roads in the east/southeast portion of the site; and an elevator founded at the base of the near-vertical 40-ft-tall rock slope to provide pedestrian access from the northwest portion of the site to the new office building. Phase two of the development will include demolition of the four existing buildings located in the northwest portion of the site and construction of two new one- to two-story storage buildings in the northwest portion of the site. Phase three will include construction of one additional building near the southeast corner of the site.

Although not identified by phase in the 2018 Master Plan Amendment, we understand a stormwater swale for on-site infiltration of stormwater is proposed for the existing grassy area near the northeast corner of the site. Additional improvements will include rebuilding/redesign of the retaining wall supporting John Adams Street above S. Center Street, and full reconstruct of the AC pavement section for S. Center Street in front of the OPS Center property.

APPROACH AND SCOPE OF WORK

Our proposal is based on our understanding of geologic conditions at the site, our experience with similar projects in Oregon City; review of the Oregon City OPS 2017 Master Plan Amendment presentation; our observations during our February 24, 2017, site walk; and information provided in the geotechnical proposal request. This project includes some relatively unique challenges with regard to the proximity of project elements to mapped landslide deposits and potential rockfall hazards. Our suggested approach, described below, has been prepared to reduce the geotechnical uncertainties associated with the project.

Project improvements are planned immediately adjacent to a near-vertical rock face. We recommend a rock mass characterization be completed of the existing rock face. The characterization work will be completed to identify areas of rock mass weakness, discontinuity orientations, block overhangs, and degrees of weathering. These results will be used to evaluate the potential rockfall hazards observed at the site for the development of concept-level preliminary design alternatives. In addition, due to the close proximity of planned improvements to the edge of the vertical rock face, we recommend at least two drilled borings with rock coring be completed along the top of the rock slope. We recommend the boring depths extend to the base of the vertical slope to evaluate rock hardness, degree of weathering, and discontinuities. The data collected during the investigation would be used to provide full mitigation design recommendations for rockfall design near the planned location of the elevator. In addition, preliminary rockfall mitigation concepts and rough construction costs for the remainder of the vertical rock slope would be provided. Following the selection of the preferred design alternative, additional rock engineering design will likely be necessary.

As previously mentioned, areas of landslide topography were observed south of Water Board Park Road to the south of the project site and are geologically mapped by DOGAMI (Burns et al., 2013). It is our understanding that recommendations for landslide mitigation are part of this scope of work. To evaluate the depth of the sliding plane and subsurface conditions of the landslide deposits, we recommend the installation of two inclinometers along Water Board Park Road near areas of observed surface movement or distress. The inclinometers would be installed 20 ft into the underlying rock to properly found the inclinometer and allow evaluation of the depth of movement of the landslide.

The scope of work, discussed in further detail below, is intended to reduce the risk of change of conditions during construction and is based on our understanding of the typical soil and rock conditions at the site and our experience in the Oregon City area. This scope of work can be reduced if the owner is willing to assume a higher risk associated with a limited understanding of subsurface conditions at this phase of design. In addition, based on the results of this subsurface investigation, additional explorations may be considered to further evaluate the subsurface variability.

The proposed geotechnical investigation will include the following items of work:

1) Existing maps and technical reports published by the US Geological Survey (USGS) and the Oregon Department of Geology and Mineral Industries (DOGAMI) will be reviewed for pertinent geologic, hydrogeologic, and soils information. Airborne laser elevation point cloud data collected by lidar methods will be obtained and processed to produce lidar-derived imagery used in the evaluation of topographic features and slope hazards at the site.

2) A geologic site reconnaissance will be completed to collect site data and conduct limited surface mapping. The surface mapping will include evaluation of lidar elevation data, geologic mapping, and mapping of other relevant surface data. Particular attention will be directed toward identifying surface features, such as springs or seeps, rock mass characteristics, rock joints and fractures, and other obvious visible signs of potential slope instability. Representative samples of the rock may be obtained for laboratory testing that could include standard classification tests and rock strength testing.

3) Nine mud-rotary borings will be drilled to provide subsurface information near the area of observed landslide features, near the vertical rock face and near the rockery retaining wall to be rebuilt. The mud-rotary borings will be completed with a rubber-tired, truck-mounted drill rig.

The depth of the borings will depend on the materials encountered, particularly with respect to depth of intact rock. It is estimated the borings will extend to depths ranging from about 25 to 50 ft unless sufficiently hard rock to allow coring is encountered at shallower depths.

Of the nine mud-rotary borings planned, two are planned along Water Board Park Road and will extend 20 ft below the landslide mass. Inclinometer casing will be installed to the bottom of the borings.

Two of the mud-rotary borings are planned near the south edge of the property north of Water Board Park Road. The borings will extend to a depth of 25 ft or cored 5 ft into competent rock, whichever is shallower. The borings are planned near the proposed fleet shop and Phase three storage facility buildings.

Two of the mud-rotary borings are planned near the top of the vertical rock slope. The borings will be located near the alignment of the elevator and two-story office building. The borings will be completed using mud-rotary or rock coring techniques to the bottom of the vertical face, anticipated at depths of about 40 ft.

One of the mud-rotary borings is planned near the bottom of the vertical wall face near the planned location of the elevator. The boring will be drilled to a depth of 40 ft or cored 20 ft into competent rock, whichever is shallower.

Two of the mud-rotary borings are planned along John Adams Street near the location of the existing rockery wall. The borings will be drilled to a depth of 25 ft or cored 5-to- 10 ft into competent rock, whichever is shallower. We assume the two mud-rotary borings planned along John Adams Street will require traffic control.

Disturbed split-spoon samples and/or undisturbed Shelby tube samples will be obtained from the borings at about 2.5-ft intervals of depth in the upper 15 ft and at 5-ft intervals below this depth. The Standard Penetration Test will be conducted while the disturbed split-spoon samples are being taken.

The borings will be subcontracted to a drilling contractor experienced in drilling and sampling soils for engineering purposes. The drilling and sampling will be accomplished under the direction of an experienced geotechnical engineer or engineering geologist from our firm who will locate the general areas for drilling and maintain a detailed log of the materials and conditions uncovered during the course of the work.

4) Eleven solid-stem auger borings will be advanced to depths ranging from 3 to 25 ft to provide information on subsurface conditions for the tool storage building, covered

truck parking buildings, parking areas, stormwater swale, and S. Center Street improvements. The borings will be completed using a trailer-mounted drill rig.

Four of the solid-stem auger borings will be advanced to depths of 25 ft, or refusal drilling condition in the areas of the proposed tool storage building and three covered truck parking buildings, to provide information necessary to suitably found the buildings.

Six of the solid-stem auger borings will be advanced to depths of 10 ft, or refusal drilling conditions to evaluate subsurface conditions in the proposed parking lots; access drive; and S. Center Street. Of these six borings, three are planned along S. Center Street and the existing AC section will be cored at these locations. The borings completed along S. Center Street will require traffic control to close down a lane of the roadway.

Two of the solid-stem auger borings will be completed to depths of about 3 ft in the area of the proposed stormwater swale.

Disturbed split-spoon samples and/or undisturbed Shelby tube samples will be obtained from the borings at about 2.5-ft intervals of depth in the upper 15 ft and at 5-ft intervals below this depth. The Standard Penetration Test will be conducted while the disturbed split-spoon samples are being taken.

The borings will be subcontracted to a drilling contractor experienced in drilling and sampling soils for engineering purposes. The drilling and sampling will be accomplished under the direction of an experienced geotechnical engineer or engineering geologist from our firm who will locate the general areas for drilling and maintain a detailed log of the materials and conditions uncovered during the course of the work.

5) Two infiltration tests will be completed within the borings completed in the proposed stormwater swale at depths of about 3 ft to complete infiltration testing in general accordance with applicable requirements in the City of Portland 2016 Stormwater Management Manual using the Encased Falling-Head test. A PVC casing will be used to keep the borehole open during the duration of testing. The soil will be saturated prior to infiltration testing by adding water into the casing to a height of at least 12 in. above the soil in the bottom of the casing. Following saturation, individual tests will be completed by re-filling the casing with about 12 in. of water and periodically measuring the water level over one hour or until all the water has drained.

6) Obtain Oregon City Right of Way (ROW) permits to complete borings on S. Center Street, John Adams Street, and Water Board Park Road. We have assumed any permit fees will be waived. We have assumed a traffic control plan will be required prior to issuing ROW permits for S. Center Street and John Adams Street.

7) Laboratory tests will be conducted to provide data on the important physical characteristics of the subsoils, essential for engineering studies and analyses. The laboratory tests will include standard classification tests, such as natural water content

and unit weight determinations, as well as strength and consolidation testing, if appropriate. The latter will provide the quantitative data necessary for the various foundation design studies, such as foundation types and estimated settlements. In addition, two to three unconfined compression strength tests will be completed on suitable intact rock core samples (if obtained) near the crest of the vertical rock face to provide information on appropriate bond strengths for rock bolts/anchors.

8) Engineering studies and analyses will be accomplished that will lead to the preparation of conclusions and recommendations concerning (1) excavation, including wet-weather construction, and the suitability of on-site soils for use as structural fill; (2) estimated location of rock (if present) and excavation means and methods; (3) types of foundations; (4) allowable bearing pressures and bearing strata; (5) estimated settlements (total and differential); (6) floor support and subdrainage requirements; (7) design lateral earth pressures and coefficient of base friction; (8) utilities; (9) seismic design criteria, including liquefaction, dynamic settlement, and site classification in accordance with the current International Building Code (IBC and Oregon Structural Specialty Code (OSSC); (10) soil slope stability; (11) rockfall hazard evaluation; (12) rock slope stability and rock slope mitigation design recommendations near the planned location of the elevator; (13) preliminary rockfall mitigation concepts and rough cost for mitigation of rockfall hazards for the remainder of the vertical rock slope; (13) pavement design for parking lots and private access road; and (14) design one new flexible pavement section for Center Street in general conformance with the Oregon Department of Transportation (ODOT) practices, which are based on the American Association of Highway and Transportation Officials (AASHTO) methodologies.

9) A report will be prepared that discusses the work accomplished and presents the results of the various tests and office studies. The report will be provided in electronic format for your use and distribution.

10) GRI will attend up to two, two-hour meetings and provide post-report consultation as requested by the project team.

ASSUMPTIONS

1) Our proposal assumes that petroleum products or other potentially hazardous materials will not be encountered during our subsurface explorations. If petroleum products or other potentially hazardous materials are encountered during our subsurface exploration, we will immediately stop drilling, put the drilling subcontractor and our field staff on standby, and contact you for further guidance. The standby time has not been included in our cost estimate and will be billed on a time-and-expenses basis in accordance with the attached Fee Schedule.

2) We assume that all property access approvals will be coordinated and completed by others. We assume that our field work can be completed without time delays associated with property access approvals. If access to subsurface explorations is delayed due to lack of property access issues, we

will put the drilling subcontractor and our field staff on standby, and contact you for further guidance.

3) Topographic survey of the project site and slopes to the south of the project site will be required to complete our stability analysis. We have assumed the topographic survey will be provided by others.

4) Our pavement design studies assume S. Center Street will be a full reconstruct and that traffic counts and vehicle breakdown by FHWA truck classification for our pavement design studies will be provided by others. In addition, the pavement reconstruct will be limited to S. Center Street from the intersection with S. 3rd Street to approximately 100 ft north of the intersection with S. 1st Street.

5) Steel bollards restricting vehicular access to Water Board Park Road will be removed by others for drill rig access.

6) Our cost estimate assumes the inclinometers will be read a total of three times, with the first reading completed near the time of installation.

SCHEDULE

We are in a position to begin the drilling within four weeks, following your authorization to proceed, depending somewhat on the availability of the drill rigs and the ability to obtain permits to drill in the City of Oregon City Right of Way (ROW). Local mud-rotary drill rigs to complete the conventional borings are currently backlogged about four to eight weeks out at this time. It is anticipated the final report on the investigation can be submitted to you within six weeks after the completion of all field work. Information can be submitted to the project team informally as soon as it becomes available from the studies.

FEE

The services will be provided in accordance with the attached General Conditions of the Proposal. The fee for the above-described work will be computed on a time-and-expenses basis in accordance with the attached Fee Schedule. Our estimated costs for the investigation are summarized below:

Subsurface Explorations	
Mud-rotary drilling Subcontractor	$ 16,500
Solid-stem drilling Subcontractor	2,750
Traffic control plans/flaggers	1,650
Private Utility Locator	500
GRI Engineer (Drilling/Locates/Obtaining Permits)	10,000
GRI Geologist (Geologic Reconnaissance)	2,500
GRI Engineer (Three inclinometer measurements)	1,500
Laboratory Testing	5,000
Engineering and Report	17,000
Meetings and Post-Report Consultation	2,500
Estimated Total:	**$ 59,900**

We request that you provide formal authorization for our services by signing and returning one copy of the attached General Conditions of the Proposal. We appreciate the opportunity to submit this proposal and look forward to being of service to you on this project.

Submitted for GRI,

A. Wesley Spang, PhD, PE, GE
Principal

Brian J. Bayne, PE
Senior Engineer

Michael S. Marshall, CEG
Project Geologist

Enclosures: General Conditions of the Proposal
Fee Schedule

References

Ma, L., Madin, I.P., Olson, K.V., Watzig, R.J., Wells, R.E., Niem, A.R, and Priest, G.R., 2009, Oregon geologic data compilation [OGDC], release 5 (statewide): Oregon Department of Geology and Mineral Industries, Digital Data Series OGDC-5, scale 1:100,000.

Burns, W.J., Mickelson, K.A., Jones, C.B., Pickner, S.G., Hughes, K.L.B. and Sleeter, R., 2013, Landslide Hazard and Risk Study Northwestern Clackamas County, Oregon: Oregon Department of Geology and Mineral Resources, Open File Report O-13-08.

Snyder, D.T., 2008, Estimated depth to ground water and configuration of the water table in the Portland, Oregon area: U.S. Geological Survey Scientific Investigations Report 2008–5059, 40 p. (Available at http://pubs.usgs.gov/sir/2008/5059/).

GENERAL CONDITIONS OF THE PROPOSAL

GRI
9750 SW Nimbus Avenue
Beaverton, Oregon 97008
(503) 641-3478

Attachment to Proposal Dated: March 3, 2017

To: Deca Architecture Inc. / Portland, Oregon

For: Geotechnical Investigation
Oregon City Public Works Operations (OPS) Center
122 S. Center Street
Oregon City, Oregon

PROFESSIONAL SERVICES

Fees for services by GRI's professional, technical, and clerical personnel will be charged according to time expended on the project at rates shown on the attached schedule.

SERVICES, SUPPLIES PROVIDED BY OTHERS, AND REIMBURSABLE EXPENSES

Charges for services, equipment, and supplies not provided directly by GRI will be computed at cost plus 10%. This includes surveying services, land subsurface explorations, construction equipment, testing laboratories, contract labor, shipping charges, living expenses, printing and reproduction, communication and miscellaneous supplies and rentals.

EQUIPMENT CHARGES

Charges for equipment furnished by GRI will be computed in accordance with the unit rates shown on the attached Fee Schedule.

RIGHT-OF-ENTRY

Unless otherwise agreed, you will furnish right-of-entry to the land or structures for us to make planned borings, surveys, and other explorations. We will take reasonable precautions to minimize damage to the land or structures from use of equipment, but have not included in our fee the cost for restoration of damage, which may result from our operation. If you desire us to restore the land or the structures to their former condition, we will accomplish this and add the cost to our fee.

UTILITIES

In the performance of our work, we will take all reasonable precautions to avoid damage or injury to subsurface structures or utilities. The Client/Owner agrees to hold us harmless for any damages to subsurface structures or utilities, which are not called to our attention and correctly shown on the plans furnished.

SAMPLES

All samples will be discarded thirty (30) days after submission of our report, unless you advise us otherwise. Further storage or transfer of samples can be made at your expense upon written request.

INVOICING OF PAYMENT

Invoices will be submitted once a month for services performed during the prior month. Payment will be due within thirty (30) days of receipt of invoice. Interest will be added to overdue accounts at the rate of 1.5% for each month of delinquency.

INSURANCE AND INDEMNITY

Our firm represents and warrants that it and its agents, staff, and consultants employed by it, is and are protected by worker's compensation insurance and that we have such coverage under public liability and property damage insurance policies which we deem to be adequate. Certificates for all such policies of insurance shall be provided to the Client/Owner upon request in writing. Within the limits and conditions of such insurance, and subject to the Limitation of Remedies clause below, we agree to indemnify and save Client/Owner harmless from and against any loss, damage, or liability to the extent caused by any negligent acts by us, our agents, staff, and any consultants employed by us. We shall not be responsible for any loss, damage, or liability beyond the amounts, limits, and conditions of such insurance. We shall not be responsible for any loss, damage, or liability arising from any acts by Client/Owner, its agents, staff, and other consultants or contractors employed by it. Our defense obligation under this indemnity paragraph includes only the reimbursement of reasonable defense costs to the extent of our actual indemnity obligation hereunder.

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CONSEQUENTIAL DAMAGES

Neither Client/Owner nor Engineer will be liable to the other for any special, consequential, incidental or penal losses or damages including but not limited to losses, damages or claims related to the unavailability of property or facilities, shutdowns or service interruptions, loss of use, profits, revenue, or inventory, or for use charges, cost of capital, or claims of the other party or its customers.

OWNERSHIP AND USE OF DOCUMENTS

Client Documents. All documents provided by Client will remain the property of Client. Engineer will return all such documents to Client upon request, but may retain file copies of such documents.

Engineer's Documents. Unless otherwise agreed in writing, all documents and information prepared by Engineer or obtained by Engineer from any third party in connection with the performance of Services, including, but not limited to, Engineer's reports, boring logs, maps, field data, field notes, drawings and specifications, laboratory test data and other similar documents (collectively "Documents") are the property of Engineer. Engineer has the right, in its sole discretion, to dispose of or retain the Documents.

Use of Documents. All Documents prepared by Engineer are solely for use by Client and will not be provided by either party to any other person or entity without Engineer's prior written consent.

Use by Client. Client has the right to reuse the Documents for purposes reasonably connected with the Project for which the Services are provided, including without limitation design and licensing requirements of the Project.

Use by Engineer. Engineer retains the right of ownership with respect to any patentable concepts or copyrightable materials arising from its Services and the right to use the Documents for any purpose.

Electronic Media. Engineer may agree at Client's request to provide Documents and information in an electronic format. Client recognizes that Documents or other information recorded on or transmitted as electronic media are subject to undetectable alteration due to (among other causes) transmission, conversion, media degradation, software error, or human alteration. Accordingly, all Documents and information provided by Engineer in electronic media are for informational purposes only and not as final documentation. Unless otherwise defined in the Scope of Services, Engineer's electronic Documents and media will conform to Engineer's standards. Engineer will provide any requested electronic Documents for a 30-day acceptance period, and Engineer will correct any defects reported by Client to Engineer during this period. Engineer makes no warranties, either express or implied, regarding the fitness or suitability of any electronic Documents or media.

Unauthorized Reuse. No party other than Client may rely, and Client will not represent to any other party that it may rely on Documents without Engineer's express prior written consent and receipt of additional compensation. Client will not permit disclosure, mention, or communication of, or reference to the Documents in any offering circular, securities offering, loan application, real estate sales documentation, or similar promotional material without Engineer's express prior written consent. Client waives any and all claims against Engineer resulting in any way from the unauthorized reuse or alteration of Documents by itself or anyone obtaining them through Client. Client will defend, indemnify and hold harmless Engineer from and against any claim, action or proceeding brought by any party claiming to rely upon information or opinions contained Documents provided to such person or entity, published, disclosed or referred to without Engineer's prior written consent.

STANDARD OF CARE

Service performed by GRI under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions under similar circumstances on similar projects. No warranty, expressed or implied, is made.

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STANDARD OF CARE (continued)

Client/Owner recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by GRI and that the data, interpretations and recommendations of GRI are based solely on the information available to us. GRI will be responsible for those data, interpretations, and recommendations, but shall not be responsible for the interpretation by others of the information developed.

TERMINATION

In the event of termination, or suspension of work for more than three (3) months prior to completion of all reports contemplated by this Agreement, we may complete such analyses and records as are necessary to complete our files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension shall include all direct costs of completing such analyses, records, and reports.

ASSIGNS

During the term of this Agreement and following its interpretation for any reason, neither the Client/Owner nor GRI may delegate, assign, sublet, or transfer their duties or interest in this Agreement without the written consent of the other party.

PROTECTION FROM THIRD-PARTY SUITS

Should GRI be named as a third-party defendant in any litigation brought against the Client/Owner or contractors, the Client/Owner agrees to provide counsel for GRI's defense or to reimburse the reasonable costs thereof. Further, Client/Owner shall defend, indemnify and hold GRI harmless from any and all suits, claims, damages, expenses, losses, or injuries arising out of or in any way related to this Agreement or this project, except to the extent caused by GRI's negligence.

SCOPE OF AGREEMENT

The agreement between the two parties, i.e., GRI and the Client/Owner, consists of the specific items of work outlined in the attached proposal and the general conditions outlined in this document.

LIMITATION OF REMEDIES

It is understood and agreed that the Client/Owner recognizes GRI has neither created nor contributed to the creation, existence, or exacerbation of any hazardous, radioactive, toxic, irritant, pollutant, or otherwise dangerous substance or condition at the site. The Client/Owner agrees that, to the fullest extent permitted by law, GRI's total liability to the Client/Owner is limited to $1,000,000 for any and all of the Client/Owner's injuries, damages, claims, losses, expenses, or claim expenses arising out of this Agreement from any cause or causes, including any indemnity obligation under this Agreement. Such causes include, but are not limited to, GRI's negligence, errors, omissions, breach of contract, breach of warranty, strict liability, negligent misrepresentation, statutory liability, or other acts giving rise to liability based upon contract, tort, or statute. This provision takes precedence over any conflicting provisions of this Agreement.

	GRI
Client/Owner	Consultant
Representative (Print Name)	Principal or Associate
Signature Date	March 3, 2017 Date

Return one signed original to GRI

GRI
Beaverton, Oregon

2017 FEE SCHEDULE

Personnel	Rate/Hour
Principal	$ 215
Associate	$ 190
Senior Engineer/Geologist	$ 160
Project Engineer/Geologist	$ 140
Staff Engineer/Scientist	$ 115
Engineering Assistant	$ 90
Contract Administrator	$ 125
Technical Editor	$ 120
Drafter	$ 100
Secretarial Services	$ 65

Other Charges

Vehicle:	Vehicles will be billed at the current IRS business mileage reimbursement rate.
Fill Control Equipment:	Nuclear Density Gage rental will be billed at $5 per hour, with maximum charge of $25 per day or $125 per week.
Reproduction:	In-house reproduction, $0.10 per sheet.
Field Instrumentation and Monitoring Equipment:	Due to varied conditions, equipment requirements, location and use, rates for field instrumentation, monitoring, and other specialized equipment will be provided as required.
Subcontractor Services:	Charges for subcontractor services will be computed at cost plus 10%.
Travel and Subsistence:	All charges related to travel and subsistence will be computed at cost.

(LAST REVISED 5/1/2016)

GRI