MONTANA STATE UNIVERSITY COMBINED STATE LABS STUDY

A/E #2018-50-01

FEBRUARY 13, 2018





FORM 115



STATE OF MONTANA

DEPARTMENT OF ADMINISTRATION

ARCHITECTURE AND ENGINEERING DIVISION 1520 East Sixth Avenue • P.O. Box 200103 • Helena MT 59620-0103

Phone: 406 444-3104 • Fax: 406 444-3399

STATEMENT OF QUALIFICATIONS for Specific Projects (Form 115)

Р	PROJECT FOR WHICH THE FIRM IS SUBMITTING						
	A/E Project Name & Location (list only one project; provide separate Form 115 for each project):	A/E Project #:					
	Montana State University, Combined State Labs Study	2018-50-01					
	Bozeman, MT						

PRIME FIRM INFORMATION Perkins+Will Firm Name: Contact(s) Name **Email Address** Principal: **Anthony Gianopoulos** Anthony.Gianopoulos@perkinswill.com 1301 Fifth Ave. #2300 Address: (provide mailing address Seattle, WA 98102 Project Mgr: Andrew Clinch Andrew.Clinch@perkinswill.com also, if different) 206.381.6000 Phone #: Project A/E: **Fd Cordes** Ed.Cordes@perkinswill.com 206.441.4981 Fax #:

CATEGORIES OF WORK FOR CONSIDERATION BY PRIME FIRM **PRIME** FIRM PROFILE Year Firm was established: 1935 ARCHITECTURAL: **ENGINEERING:** Mechanical **General Practice** # of Offices in Montana (provide address & contact list if more than one): 0 Historic Restoration **Flectrical** TOTAL PROFESSIONALS/PERSONNEL (provide total & location-specific list): Mechanical Exterior Envelope Structural Architects 37 Master Planning/Programming Civil A.I.T. 45 Electrical 8 Interior Design Environmental Interior Designer Structural 1 AV/Comm/Data/IT Landscape Architect Civil 0 **Specification Writer** E.I.T. 0 Environmental SPECIALTY/OTHER: LANDSCAPE ARCH: Cost Estimator Acoustics **General Practice** 0 **Construction Administrator Energy Analysis** Commissioning Master Planning Production Staff 0 Commissioning 2 Construction Management Environmental Accounting Other (provide list) 8 Geotechnical/Materials Testing **Administrative Support**

Haz Materials Testing/Mitigation

LIST THE FIRM NAME AND ADDRESS FOR EACH OF THE CONSULTANTS ON THIS PROJECT (if different from PRIME above).

ARCHITECT FIRM INFORMATION

ROTH LOT THRW THE ORIGINATION					
Firm Name:	Perkins+Will	Contact(s)	Name	Email Address	
		Principal:	Anthony Gianopoulos	Anthony.Gianopoulos@perkinswill.com	
Address: (provide mailing address also, if different)	1301 Fifth Ave. #2300 Seattle, WA 98102	Project Mgr:	Andrew Clinch	Andrew.Clinch@perkinswill.com	
Phone #: Fax #:	206.381.6000 206.441.4981	Project A/E:	Ed Cordes	Ed.Cordes@perkinswill.com	

MECHANICAL ENGINEER FIRM INFORMATION

Firm Name:	PAE	Contact(s)	Name	Email Address
		Principal:	Allan Montpellier	allan.montpellier@pae-engineers.com
Address: (provide mailing address also, if different)	1501 E. Madison St., Suite 300 Seattle, WA 98122	Project Mgr:	Justin Stenkamp	justin.stenkamp@pae-engineers.com
Phone #: Fax #:	206.596.8615 503.226.2930	Project A/E:	Michael Kim	michael.kim@pae-engineers.com

ELECTRICAL ENGINEER FIRM INFORMATION

ELOTRIONE ENGINEER TRANSPORT						
Firm Name:	PAE	Contact(s)	Name	Email Address		
		Principal:	Allan Montpellier	allan.montpellier@pae-engineers.com		
Address: (provide mailing address also, if different)	1501 E. Madison St., Suite 300 Seattle, WA 98122	Project Mgr:	Justin Stenkamp	justin.stenkamp@pae-engineers.com		
	,	Project A/E:	Michael Kim	michael.kim@pae-engineers.com		
Phone #: Fax #:	206.596.8615 503.226.2930			, ,		

STRUCTURAL ENGINEER FIRM INFORMATION

Firm Name:	KPFF Consulting Engineers	Contact(s)	Name	Email Address
		Principal:	Jason Black	jason.black@kpff.com
Address: (provide mailing address also, if different)	1601 Fifth Ave. #1600 Seattle, WA 98101	Project Mgr:	Jacob McCann	acob.mccann@kpff.com
Phone #: Fax #:	206.622.5822 206.622.8130	Project A/E:	Brian Pavlovec	brian.pavlovec@kpff.com

CIVIL ENGINEER FIRM INFORMATION

ATE ENGLISEER TERM OR PATENT					
Firm Name:	KPFF Consulting Engineers	Contact(s)	Name	Email Address	
		Principal:	Jason Black	jason.black@kpff.com	
Address: (provide mailing address also, if different)	1601 Fifth Ave. #1600 Seattle, WA 98101	Project Mgr:	Jacob McCann	acob.mccann@kpff.com	
Phone #: Fax #:	206.622.5822 206.622.8130	Project A/E:	Brian Pavlovec	brian.pavlovec@kpff.com	

SPECIALTY CONSULTING FIRM INFORMATION

Firm Name:	Cumming Corporation	Contact(s)	Name	Email Address
	Cost Estimators	Principal:	Nick Lafollette	nlafollette@ccorpusa.com
Address: (provide mailing address also, if different)	1325 Fourth Ave. #1010 Seattle, WA 98101	Project Mgr:	na na	maronette@ccorpusa.com
Phone #: Fax #:	206.224.2899	Project A/E:	na	

PROVIDE BRIEF RESUMÉ OF KEY PERSONS OF PRIME FIRM ASSIGNED TO THIS PROJECT (add tables as required)

Name:	ANTHONY GIANOPOLOUS AIA, LEED AP BD+C
Title:	Director of Operations, Principal
Firm Name:	Perkins+Will
Role on This Project:	Managing Principal
Years w/ This Firm:	29
Education (degree/year):	Bachelor of Architecture, 1982
Active Registrations:	Licensed Architect: Montana (No. 2736), Washington, Wyoming, Alaska, Colorado, Idaho, California, Oregon LEED AP BD+C

Experience & Qualifications Relevant to This Project:



As a skilled team manager throughout all phases of the design and construction process, Anthony has provided executive leadership for some of our largest and most complex projects at universities. He provides rigorous oversight and leadership of all contractual obligations for each project's duration and his involvement has been pivotal to the successful realization of our clients' expectations.

Washington State University, Global Animal Health, Phase 2 Pullman, WA

As Managing Principal, Anthony Provided executive interface with design build contractor and client, and design team leadership. Involved in key meetings from the programming period to construction document period. Point for resources and contracts.

Name:	ED CORDES AIA, LEED AP	C
Title:	Principal	Rele
Firm Name:	Perkins+Will	
Role on This Project:	Lab Planning Principal	
Years w/ This Firm:	17	
Education (degree/year):	Masters of Architecture, University of Wisconsin, 1989	
	Bachelor of Arts, Creighton University, 1986	
Active Registrations:	Registered Architect: Texas, Wisconsin, Louisiana, Tennessee, South Carolina	

NCARB Certified

LEED Accredited Professional

University of Washington, South Lake Union - School of Medicine, Phase 3.2 - Seattle, WA

As Managing Principal, Anthony provided executive leadership of design team and interface with Public Private Partnership (PPP) client team for this \$115 million Biomedical Research Laboratory. Attended key meetings and point for resources and contracts. Involved in all phases from programming of over 30 researchers to construction completion.

University of Washington, Life Sciences Building -Seattle, WA As Managing Principal, Anthony provided executive leadership of design team from predesign to construction. Attended project executive, senior management, programming, and technical meetings. Point of contact for resources and contracts. 207,000 square feet, \$125 million research and teaching facilities.

Washington State University, Troy Hall -Pullman, WA

As Managing Principal, Anthony provided executive interface with design build contractor and client, and design team leadership. Involved in key meetings from validation to construction. Point for resources and contracts. Design-build 50,000 square feet renovation and expansion of historic Troy Hall Building.

Experience & Qualifications Relevant to This Project:



Ed is a firm Principal with over 25 years of experience, Ed is an energetic leader, detail oriented and skilled in management of complex teams. Areas of specialty include biomedical & biocontainment lab design, engineering research, animal facilities, and academic research projects. In the past five years, Mr. Cordes served as equipment planner and design consultant for the

322,000-sf National Institutes of Health, John J. Edward Porter Neuroscience Research Center Phase II; Bethesda, Maryland, and as the project manager for the Galveston National Lab, one of two national biocontainment research facilities. Currently, Ed is the lab and vivarium architect for the 345 million dollar Northwestern University School of Medicine MRC2 laboratory tower.

			Texas A&M, University System, Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) - College Station, TX As Lab Planning Principal, Ed oversaw the regional diagnostics lab in west Texas (Amarillo) which was a lab renovation and reconfiguration. National Institutes of Health, Rocky Mountain Laboratory - Hamilton, MT As the Laboratory Planner and Project Manager, Ed led the joint effort with Dewberry Associates. Campus Space Utilization Study (2013). He performed on-site detailed assessment of laboratory spaces, and provided recommendations for lab reconfigurations, and renovation. Texas Institute for Preclinical Studies (TIPS) – College Station, TX As Project Manager and Lab Planner, Ed over all large animal diagnostic and research facility located at Texas A&M University. University of Southern California, Keck School of Medicine – Los Angeles, CA As Project Lab Planner and Project Architect, Ed oversaw the BSL-3 research lab facility, which was a new 7000 sf BS-3 lab suite in existing research lab building (Zilkha Neurogenetic Institute).
Name: Title:	ANDREW CLINCH AIA, LEED AP BD+C Associate Principal	Experience & Qualifications Relevant to This	Andy is a project manager and designer with 20 years of experience with a focus on higher education and
Firm Name:	Perkins+Will	Project:	science and technology projects. He has extensive experience leading complex projects of all sizes and
Role on This Project:	Project Manager		types through programming, design and construction administration. His leadership and management skills aid
Years w/ This Firm:	13		in guiding a successful team through all phases of a project to fulfill the
Education (degree/year):	Master of Architecture, 1997 Bachelor of Science in Architecture, 1995		clients goals and objectives. Andy has worked with various delivery models including Public Private Partnerships (P3), Progressive Design-Build, Design-Build, and Construction Management/General Contractor (CM/GC).
Active Registrations:	Registrations: Licensed Architect: Illinois LEED AP BD+C		Washington State University, Global Animal Health, Phase 2 - Pullman, WA As the project manager Andy led the design team through all phases of design. He was the day to day contact working closely with the design-build partner and subcontractors to ensure the program, design, budget and schedule were aligned.

Name:	RYAN BUSSARD AIA, LEED AP	Experience & Qualifications
Title:	Design Principal	Relevant to This Project:
Firm Name:	Perkins+Will	
Role on This Project:	Design Principal	
Years w/ This Firm:	14	
Education (degree/year):	Master of Architecture, Yale University, 1993	
	Bachelor of Science in Architecture, Ohio State University, Graduated Magna Cum Laude, 1996	
Active Registrations:	Licensed Architect: New York	
	LEED AP	

University of Washington, South Lake Union - School of Medicine, Phase 3.2 -Seattle, WA

As Project Manager/Designer, Andy led the Perkins+Will team through City of Seattle entitlements, master planning, programming, design and construction. He worked closely with the design consultants, contractor and major subcontractors to execute the design and documents on budget and schedule.

University of Washington, Life Sciences Building - Seattle, WA

As Project Manager/Designer, Andy worked closely with the Department of Biology through the predesign documents which included a detailed program and test fits. He worked with the Capital Projects Office, Architectural Commission and contractor to ensure all phases of design and construction were aligned with the goals and mission.

Washington State University, Troy Hall -Pullman, WA

As Project Manager/Designer, Andy led the management of the design and consultant team through design phases and continued and construction administration phases to ensure the original ideas from the competition was executed.



Ryan brings over 21 years of experience in creating and leading architectural designs including a diverse range of award-winning projects. He takes inspiration from his clients' aspirations and visions to create iconic structures and memorable spaces. Ryan's experience includes an emphasis on commercial development and

science / technology, as well as civic and cultural facilities, higher education, and student life facilities. As Design Principal, Ryan leads the design, facilitates an inclusive design process, and directs all design presentations.

Washington State University, Global Animal Health, Phase 2 -Pullman, WA

As Design Principal, Ryan leads the design of the Global Animal Health Phase 2 project blending creative design and integrated functional lab planning into a cohesive and aesthetic Building that respects the Phase 1 building and the WSU campus. He is Instrumental in guiding the design build team from the programming into design.

			Washington State University, Troy Hall -Pullman, WA As Lead Designer, Ryan led the design of the renovation and expansion of Troy Hall blending creative design and integrated functional lab planning into a cohesive and aesthetic Building that respects it's place in the history of the WSU campus. He was Instrumental as guiding the design build team from validation through the design phases. University of Kansa, Integrated Science Building – Lawrence, KS As Lead Designer, Ryan led the multiple building design effort for a new science and student center complex. With a tight budget and material palette he navigated the Public Private Partnership delivery process to design buildings integrated into the campus contextual history with a modern character. Center for Novel Therapeutics (CNT) – San Diego, CA As Lead Designer, Ryan led the interdisciplinary design of CNT integrating UCSD laboratory research with private research. His skills in facilitating creative solutions led to a design concept that enhances the collaboration of the public and private sectors in aesthetic modern vision. He guided the design vision for the owner-design team.
Name:	ALEX CLINTON AIA, LEED AP BD+C, CDT	Experience & Qualifications Relevant to This	Alex's expertise is centered on the planning and design of laboratory/research projects for private
Title:	Associate Principal	Project:	industry, non-profit research organizations, higher education, and
Firm Name:	Perkins+Will		government clients. Alex has a depth of design expertise ranging from
Role on This Project:	Senior Lab Planner		academic teaching labs to complex animal and diagnostic facilities.
Years w/ This Firm:	17		
Education (degree/year):	Bachelor of Environmental Design, 2000		Washington State University, Global Animal Health, Phase 2 - Pullman, WA As Senior Lab Planner, Alex leads all the user programming meetings
Active Registrations:	Licensed Architect: Texas		on the project. He works closely with the Lead Designer to develop an overall planning concept centered around facilitating efficiency in the processes, and sample movement that occurs within the building.
	LEED AP BD+C		University of Washington, South Lake Union - School of Medicine,
			Phase 3.1 -Seattle, WA As Lab Planner/Project Architect, Alex provided lab planning for this
			complex and high containment facility design for the BSL-3/ABSL-3

floor of the project. He was intimately involved from the start of design

through construction, including attendance at design meetings and construction observation walkthroughs.

Texas A&M, University System, Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) - College Station, TX

As Lab Planner/Senior Project Architect, Alex led all design meetings on the project and worked closely with the Lead Designer to develop an overall planning concept centered around facilitating efficiency in the processes and sample movement that occurs within the building.

US Department of Homeland Security, National Bio and Agro-Defense Facility (NBAF) -Manhattan, KS

As Lab Planner/Senior Project Architect, Alex worked closely with the architects and lead designer to develop planning and containment strategy to facilitate workflow at the macro and micro levels. Actively participated in all design meetings and involved in construction administration for the facility.

PROVIDE BRIEF RESUMÉ OF KEY PERSONS OF CONSULTING FIRMS ASSIGNED TO THIS PROJECT (add tables as required)

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Name:	ALLAN MONTPELLIER	Experience &
Title:	Principal	Qualifications Relevant to This Project:
Firm Name:	PAE	j
Role on This Project:	Principal in Charge	
Years w/ This Firm:	4	
Education (degree/year):	Bachelor of Science Mechanical Engineering, 1994	

Professional Engineer

LFFD AP



Allan is a mechanical engineer and a principal at PAE with more than 20 years of experience and a passion for high-performance buildings. Allan has experience with a variety of higher education and laboratory buildings throughout the United States, making him exceptionally skilled at designing energy-efficient, flexible research spaces within a variety of budgets. He focuses on developing integrated

systems through innovative alternatives that lean heavily on sustainable-design strategies. Allan measures success based on a building's actual performance and, most importantly, the relationships he forms along the way.

Washington State University, Global Animal Health Phase 2 - Pullman, WA

As Principal in Charge, Allan implements PAE's quality control process, taking responsibility for the success of PAE's work through the oversight of budget, schedule, and design quality standards. He will help the PAE team successfully communicate with the owner and other team members to aid the decision making process. 63,000 square feet, \$26 million laboratory building.

Active Registrations:

			Washington State University, Troy Hall Renovation & Addition - Pullman, WA As Principal in Charge, Allan implemented PAE's quality control process, taking responsibility for the success of PAE's work through the oversight of budget, schedule, and design quality standards. He helped the PAE team successfully communicate with the owner and other team members to aid the decision making process. 50,000 square feet, \$21 million laboratory building. Oregon State University, Forest Science Complex - Corvallis, OR As Principal in Charge, Allan implements PAE's quality control process, taking responsibility for the success of PAE's work through the oversight of budget, schedule, and design quality standards. He will help the PAE team successfully communicate with the owner and other team members to aid the decision making process. 108,000 square feet, \$65 million academic and research building. Seattle University, Center for Science & Innovation - Seattle, WA As Principal in Charge, Allan implements PAE's quality control process, taking responsibility for the success of PAE's work through the oversight of budget, schedule, and design quality standards. He will help the PAE team successfully communicate with the owner and other team members to aid the decision making process. 106,500 square feet, \$65 million academic and research building.
Name:	JUSTIN STENKAMP	Experience & Qualifications	Justin brings over 19 years of operation, maintenance, and
Title:	Senior Associate	Relevant to This Project:	mechanical design experience. He has a wide range of knowledge ranging
Firm Name:	PAE		from mechanical design to energy modeling to managing large complex
Role on This Project:	Project Manager		maintenance projects. His unique background allows him to bring a
Years w/ This Firm:	10		holistic approach to his designs and project management. Justin has
Education (degree/year):	Bachelor of Science Mechanical Engineering, 2007		provided expertise for a variety of higher education project types, including several for laboratory buildings. This experience will allow him to hit the ground running as
Active Registrations:	Professional Engineer LEED AP		the leader of PAE's project team. With a keen interest in reducing the energy and water use of the built environment, he has contributed to

more than a dozen LEED rated or registered projects, as well as two Living Buildings and several Net Zero Energy and Water projects.

Washington State University, Global Animal Health Phase 2 - Pullman, WA

As Project Manager, Justin will be responsible for the day-to-day management of the project. He will function as PAE's main point of contact with the architect, owner, and other team members and will be responsible for the successful and timely completion of PAE's work. 63,000 square feet, \$26 million laboratory building.

Washington State University, Troy Hall Renovation & Addition - Pullman, WA

As Project Manager, Justin was responsible for the day-to-day management of the project. He functioned as PAE's main point of contact with the architect, owner, and other team members and was be responsible for the successful and timely completion of PAE's work. 50,000 square feet, \$21 million laboratory building.

Washington State University, PACCAR Environmental Technology Hall - Pullman, WA

As the Lead Mechanical Engineer, Justin assessed existing conditions, and developed and implemented the mechanical design for the project. He assisted in managing our team of engineers, designers, and CAD drafts people assigned to the team to develop plans and specifications. 96,000 square feet, \$38 million laboratory building.

Oregon State University, Forest Science Complex - Corvallis, OR
As Project Manager, Justin will be responsible for the day-to-day
management of the project. He will function as PAE's main point of
contact with the architect, owner, and other team members and will be
responsible for the successful and timely completion of PAE's work.
108,000 square feet, \$65 million academic and research building.

Name:

MICHAEL KIM

Title: | Senior As

Senior Associate

Firm Name:

PAE

Role on This Project:

Lead Electrical Engineer

Years w/ This Firm:

: | 2

Education (degree/year):

Bachelor of Science Electrical

Engineering, 1992

Experience & Qualifications Relevant to This Project:



Michael is an electrical engineer with over 20 years of experience in consulting engineering, construction administration, and team management. He has provided design expertise for a number of higher education laboratory projects, giving him a deep understanding for designing energy-efficient, flexible electrical systems for clean spaces. Michael is proficient in educating clients on the value of added

services, and facilitating collaboration between owners, architects, and design-build contractors in order to meet the owner's project requirements and goals.

Active Registrations:	Professional Engineer	Washington State University, Global Animal Health Phase 2 - Pullman, WA As the Electrical Engineer of Record, Michael will oversee the development and implementa tion of the electrical design by leading a team of engineers that will research, analyze, and work with the owner to select innovative systems that provide an optimal balance between first cost, energy performance, indoor environmental quality, and ease of maintenance. 63,000 square feet, \$26 million laboratory building. Washington State University, Troy Hall Renovation & Addition - Pullman, WA As the Electrical Engineer of Record, Michael oversaw the development and implementation of the electrical design by leading a team of engineers that researched, analyzed, and worked with the owner to select innovative systems that provide an optimal balance between first cost, energy performance, indoor environmental quality, and ease of maintenance. 50,000 square feet, \$21 million laboratory building. Western Washington University, Science Building Renovation & Addition Predesign - Bellingham, WA As the Electrical Engineer of Record, Michael oversaw the development and implementation of the electrical design by leading a team of engineers that researched, analyzed, and worked with the owner to select innovative systems that provide an optimal balance between first cost, energy performance, indoor environmental quality, and ease of maintenance. As the Lead Electrical Engineer, Michael developed and implemented electrical design and led a team of engineers, designers, and CAD drafters assigned to assist in the development of plans and specifications. 112,000 square feet of renovation, 38,000 square feet of addition, \$59 million teaching and research building. Georgia Tech, The Living Building - Atlanta, GA As the Electrical Engineer of Record, Michael will oversee the development and implementation of the electrical design by leading a
		of addition, \$59 million teaching and research building. Georgia Tech, The Living Building - Atlanta, GA

Name: CHELSEA GUENETTE Title: Mechanical Engineer Firm Name: PAF Role on This Project: Mechanical Engineer Years w/ This Firm: Education (degree/year): Masters of Science Mechanical Engineering, 2016 Active Registrations: n/a

Experience & Qualifications Relevant to This Project:



Chelsea is a mechanical engineer specializing in energy modeling and analysis, including City of Seattle Code compliance modeling. She is also proficient in HVAC sheet metal and hydronic systems design. Passionate about sustainable systems, Chelsea uses a holistic approach in her work, where analysis informs both architectural and mechanical design to meet high-

performance goals. Chelsea has a master degree in mechanical engineering; her thesis was related to Passive Building technology. She also has nearly 5 years of experience in Montana State University's HVAC research laboratory, where she taught a thermal process lab covering HVAC fundamentals. Chelsea strives for transparent communication across all disciplines throughout the life of a project to help ensure success.

Washington State University, Global Animal Health Phase 2 - Pullman, WA

As the Mechanical Engineer, Chelsea will work under the direction of the Mechanical Lead and is response for the production, calculations, equipment selection and layout and the coordination of these items. She will also meet with the design team members and assure the project is delivered on time. 63,000 square feet, \$26 million laboratory building.

Washington State University, Troy Hall Renovation & Addition - Pullman, WA

As the Mechanical Engineer, Chelsea worked under the direction of the Mechanical Lead and was response for the production, calculations, equipment selection and layout and the coordination of these items. She also met with the design team members to assure the project was delivered on time. 50,000 square feet, \$21 million laboratory building.

Oregon State University, Forest Science Complex - Corvallis, OR As the Mechanical Engineer, Chelsea will work under the direction of the Mechanical Lead and is response for the production, calculations, equipment selection and layout and the coordination of these items. She will also meet with the design team members and assure the project is delivered on time. 108,000 square feet, \$65 million academic and research building.

JASON BLACK Name: SE. PE Title: Principal Firm Name: **KPFF** Consulting Engineers Structural Principal-in-Charge Role on This Project: 18 Years w/ This Firm: MS, Civil Engineering, University of Education (degree/year): Washington; BS, Civil Engineering, University of Washington WA, OR, CA, Structural Engineer **Active Registrations:** WA. OR. CA. PA. Civil Engineer P.Eng, British Columbia

Experience & Qualifications Relevant to This Project:



Jason brings leadership and energy to every project. He has passion for innovative design and working collaboratively with design and construction teams. He will provide leadership for the structural design team, and be responsible for delivering the structural design on schedule and on budget. Jason will focus on innovation, problem solving, and systems integration. His creative

problem solving and practical approach make him particularly well suited for multi-faceted projects involving blended structural systems and construction materials.

Washington State University Paul G. Allen Center for Global Animal Health-Phase I - Pullman, WA

Principal-in-Charge for the first phase of the 65,000 SF research facility for the newly founded School for Global Animal Health. The facility includes open lab spaces, offices, meeting rooms; and BSL2, BSL3, and necropsy laboratories. Design included provisions for future expansion.

Washington State University Paul G. Allen Center for Global Animal Health-Phase II - Pullman, WA

Principal-in-Charge for this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 SF facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.

University of Washington Animal Research & Care Facility - Seattle, WA

Principal-in-Charge for this new state-of-the art 90,000 SF animal research and care facility. The project is a subterranean structure below the permanent water table and used a precast concrete to significantly shorten the construction schedule. It is designed to support a future 6-story lab building that will be constructed above the subterranean structure.

			University of Washington Population Health - Seattle, WA Principal-in-Charge for a 300,000 SF office and classroom building to house the UW's new Population Health Initiative. It is a cast-in-place structure that uses wide shallow beams to create large column-free collaboration space throughout the building. Progressive Design-build delivery method is used to foster innovation with an integrated design and construction team. Total project cost is \$230 million and has a March 2020 target completion date.
Name:	JACOB MCCANN SE, PE Associate	Experience & Qualifications Relevant to This Project:	Jacob brings over 16 years of experience providing structural engineering and project management for complex projects. He continues to
Firm Name:	KPFF Consulting Engineers	r rojosti.	hone his focus on early identification and resolution of critical function, cost, and schedule issues by serving
Role on This Project:	Structural Project Manager		as project manager on WSU's School for Global Animal Health Phase I and
Years w/ This Firm:	14		Phase II, and the University of Washington's Animal Research & Care
Education (degree/year):	MS, Civil Engineering, University of California, Berkeley; BS, Civil Engineering, University of Washington		Facility (ARCF. He has had three projects with Perkins+Will. Washington State University Paul G. Allen Center for Global Animal Health–Phase I - Pullman, WA Project Manager for the first phase of the 65,000 SF research facility
Active Registrations:	WA, Structural Engineer CA, Civil Engineer		for the newly founded School for Global Animal Health. The facility includes open lab spaces, offices, meeting rooms; and BSL2, BSL3, and necropsy laboratories. Design included provisions for future expansion.
			Washington State University Paul G. Allen Center for Global Animal Health–Phase II - Pullman, WA Project Manager for this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 square foot facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.
			University of Washington Animal Research & Care Facility - Seattle, WA Project Manager for this new state-of-the art 90,000 SF animal research and care facility. The project is a subterranean structure below the permanent water table and used a precast concrete to

			significantly shorten the construction schedule. It is designed to support a future 6-story lab building that will be constructed above the subterranean structure. University of Washington Population Health - Seattle, WA Structural Project Manager for a 300,000 SF office and classroom building to house the UW's new Population Health Initiative. It is a cast-in-place structure that uses wide shallow beams to create large column-free collaboration space throughout the building. Progressive Design-build delivery method is used to foster innovation with an integrated design and construction team. Total project cost is \$230 million and has a March 2020 target completion date.
Name: Title: Firm Name: Role on This Project: Years w/ This Firm: Education (degree/year): Active Registrations:	BRIAN PAVLOVEC SE, PE Principal KPFF Consulting Engineers Structural Project Engineer 10 BS Civil Engineering, Iowa State University, Ames, IA; Graduate Studies in Structural Engineering, Iowa State WA, ID, IL Structural Engineer	Experience & Qualifications Relevant to This Project:	Brian has over 30 years of experience in structural engineering, including 7 years working with a leading architecture and engineering firm, similar to Perkins+Will, which focused on institutional projects. That experience reinforced Brian's collaborative design approach, as well as his ability to integrate complex building systems. Brian's work includes many higher education and science buildings, including several with Perkins+Will. Washington State University Global Animal Health-Phase II - Pullman, WA As Design Principal, Brian is serving as the lead structural designer and primary contact from predesign through construction documents. The \$38 million facility will pr ovide 63,000 SFof space for the Washington Animal Disease & Diagnostic Laboratory. University of Washing ton Medicine Lake Union-Phase II - Seattle WA Brian served as Project Manager from predesign through construction documents, and he served as Managing Principal during construction administration. The \$115M project includes two 5-story lab buildings, a 5-story office building and an elegant plaza. In the basement, there is a vivarium under one lab building and 3 levels of parking under the balance of the site.
			Seattle Children's Research Institute, Building Cure - Seattle WA As Managing Principal, Brian is serving as the lead structural designer and primary contact from predesign through construction. The \$230M

			tower provides more than 520,000 square feet of space. Above grade, there are 12 levels of laboratories, offices and support space. Below grade, there is a vivarium and 3 levels parking space. Washington State University, Biotechnology & Life Sciences Building - Pullman WA As Project Manager, Brian served as the lead structural designer and primary contact from predesign through the end of construction. The \$59M facility provided 129,000 square feet of laboratories, support spaces and offices, including a vivarium in the basement.
Name:	Martin F. Chase PE	Experience & Qualifications Relevant to This	Marty Chase will serve as Principal- in-Charge and will oversee all civil aspects of the project. Marty has 32
Title:	Principal	Project:	years of experience with the scope of his work ranging from leading
Firm Name:	KPFF Consulting Engineers		infrastructure improvement projects to providing civil design services for
Role on This Project:	Civil Principal-in-Charge		major campus buildings including complex laboratory facilities.
Years w/ This Firm:	29		
Education (degree/year):	University of California, Davis BS Civil Engineering		Washington State University Paul G. Allen Center for Global Animal Health–Phase I - Pullman, WA
Active Registrations:	WA, ID, OR Civil Engineer		Principal-in-Charge for a 40,000 SF research lab situated on a hillside in the Veterinary Teaching Complex. The remote nature of the project site required implementation of numerous innovative strategies to meet program as well as keep costs within budget. These include: expansion of the regional utility networks; upgrade of an existing water quality/detention pond to serve not only this project but the built-out 20-year master plan for the entire drainage basin; and implementation of various stormwater LID measures to be used as test-cases for climactic studies (porous pavements, biofiltration basins, etc).
			Washington State University Paul G. Allen Center for Global Animal Health–Phase II - Pullman, WA Principal-in-Charge for this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 SF facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.

Washington State University Biotech/Life Sciences Building 2 – Seattle, WA

Civil Principal-in-Charge for the construction phase of this research laboratory building. The 128,000 square foot Biotechnology/Life Sciences Building is located on the east side of Stadium Way, south of South Fairway Road, and north of Johnson Road. The building is a four-story structure above grade with a partially shelled basement. The high-tech facility will contain research laboratories, core laboratories, common support space, conference rooms, and office space for faculty and postdoctoral students. The new facility will also house the administrative offices for the newly-created Center for Biotechnology in support of the University's Biotechnology Strategic Initiative, and the administrative offices for the School of Molecular Biosciences.

University of Washington Animal Research & Care Facility - Seattle, WA

Principal-in-Charge for this 160,000 SF project on the UW Seattle campus. The development is located in a view corridor and, as such, the structure is fully below grade. One unique project challenge requiring innovative design solutions has been the temporary and permanent relocation of several utility systems. These systems are live and provide critical infrastructure support for numerous adjacent facilities, including the adjacent UW Medical Center. Other civil engineering design elements include: site grading; frontage improvements; utility services; building horizontal control; foundation and underslab drainage; and construction support services.

Name: Thaddeus Egging

PE, LEED AP

Principal

Firm Name: | KPFF Consulting Engineers

Role on This Project: Civil Project Manager

Title:

Years w/ This Firm: 17

Education (degree/year): Gonzaga University, BS Civil

Engineering

Active Registrations: WA, Civil Engineer

Experience & Qualifications Relevant to This Project:



Thaddeus has spent his 17 year career providing civil engineering services and prime management consulting on numerous major campus infrastructure and facilities projects. He is known for his ability to quickly understand project goals, develop a clear project vision, and efficiently implement those visions through collaborative design processes.

Washington State University Paul G. Allen Center for Global Animal Health-Phase I - Pullman, WA

Project Manager for a 40,000 SF research lab situated on a hillside in the Veterinary Teaching Complex. The remote nature of the project site required implementation of numerous innovative strategies to meet program as well as keep costs within budget. These include: expansion of the regional utility networks; upgrade of an existing water quality/detention pond to serve not only this project but the built-out 20-year master plan for the entire drainage basin; and implementation of various stormwater LID measures to be used as test-cases for climactic studies (porous pavements, biofiltration basins, etc).

Washington State University Paul G. Allen Center for Global Animal Health-Phase II - Pullman, WA

Design Principal for this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 square foot facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.

University of Washington Animal Research & Care Facility - Seattle, WA

Design Principal for this 160,000 SF project on the UW Seattle campus. One unique project challenge requiring innovative design solutions has been the temporary and permanent relocation of several utility systems. These systems are live and provide critical infrastructure support for numerous adjacent facilities, including the adjacent UW Medical Center. Other civil engineering design elements include: site grading; frontage improvements; utility services; building horizontal control; foundation and underslab drainage; and construction support services.

Washington State University Biotech/Life Sciences Building 2 - Seattle, WA

Quality Control engineer during design and Project Manager for the construction phase of this research laboratory building. The high-tech facility will contain research laboratories, core laboratories, common support space, conference rooms, and office space for faculty and postdoctoral students. The new facility will also house the administrative offices for the newly-created Center for Biotechnology in support of the University's Biotechnology Strategic Initiative, and the administrative offices for the School of Molecular Biosciences.

Name:

JOSS GRAMSTAD

PE, LEED AP

Title:

Associate

Firm Name:

KPFF Consulting Engineers

Role on This Project:

Civil Project Engineer

Years w/ This Firm:

: 12

Education (degree/year):

BS Civil Engineering, University of

Washington

Active Registrations:

WA, Civil Engineer

Experience & Qualifications Relevant to This Project:



Joss Gramstad has 11 years of civil engineering experience and is an Associate within the Seattle office of KPFF. His higher-education expertise includes more than 20 projects and includes civil design services for site development, stormwater management, earthwork, paving, utilities, and erosion and sediment control. His portfolio also includes

other science-focused projects that utilize a variety of delivery methods including Progressive Design-build. Joss is passionate about innovative solutions that save clients time and money.

Washington State University Paul G. Allen Center for Global Animal Health–Phase I - Pullman, WA

Project Engineer for a 40,000 SF research lab situated on a hillside in the Veterinary Teaching Complex. The remote nature of the project site required implementation of numerous innovative strategies to meet program as well as keep costs within budget. These include: expansion of the regional utility networks; upgrade of an existing water quality/detention pond to serve not only this project but the built-out 20-year master plan for the entire drainage basin; and implementation of various stormwater LID measures to be used as test-cases for climactic studies (porous pavements, biofiltration basins, etc).

Washin gton State University Paul G. Allen Center for Global Animal Health–Phase II - Pullman, WA

Project Engineer this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 square foot facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.

University of Washington NanoEngineering and Sciences Building - Seattle, WA

Project Manager for civil engineering services for an addition to the Molecular Engineering Building Phase 1 located at the intersection of Stevens Way and Grant Lane on the University of Washington (UW) Main Campus in Seattle, Washington. Phase 2 will consist of a five-story research building over a basement podium one story below grade.

	University of Washington Population Health - Seattle, WA Project Engineer providing civil services for a 300,000 SF office and classroom building to house the UW's new Population Health Initiative. Total project cost is \$230 million and has a March 2020 target completion date.
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PROJECTS BY PRIME FIRM THAT BEST ILLUSTRATE QUALIFICATIONS RELEVANT TO THIS PROJECT (limit of 5 projects)

Project Name & Location:	Brief Project Description:	GSF, Cost/SF, & Year Completed:	Owner Contact Info:
Washington State University Global Animal Health Phase 2 Pullman, WA PERKINS+WILL	The Global Animal Health 2 (GAH2) facility at Washington State University will house the Washington Animal Disease Diagnostic Laboratory (WADDL) and the global disease detection and surveillance programs of the Paul G. Allen School for Global Animal Health. The WADDL disease surveillance laboratory is on the front lines of our region's and nation's defense against emerging and foreign diseases and food-borne illness. GAH2 will provide increased capacity for testing volume, disease detection, research, and development laboratories, and fulfill quality assurance compliance required for global disease surveillance and will also serve as a teaching laboratory for educating veterinary (DVM), post-DVM and other health professionals, undergraduate and graduate students, and international trainees. GAH2 will provide enhanced sample security and workflow, biosafety, and biosecurity (animal, public and environmental health). This facility will optimize the education synergy of the Allen School and WADDL to develop 21st century animal and human diagnostic tests, implement innovative infectious disease surveillance tools, and train the next of generation scientists and diagnosticians to advance global health security.	SIZE 63,000 GSF COST \$691/SF COMPLETION DATE est. 2020	Jeff Lannigan, Project Manager WSU Facilities Services, Capital 509.335.7221 Iannigan@wsu.edu

University of Washington Life Sciences Building Seattle, WA PERKINS+WILL	The Department of Biology is the hub of biological sciences at the University of Washington with a mission of leadership in research and teaching of biology at the regional, national, and international level. This research and teaching ranges from investigating the ability of vegetation to modify climate to human impact on endangered species. Early visioning meetings with UW Department of Biology established the concepts of "science is a gateway + connections + engagement" to act as a road map through programming and test fitting this building onto a site that had complexities and opportunities. The new state-of-the-art building will become the nucleus for a department that houses 40 principle investigators and their teams. The design of the research labs, teaching labs, vivarium, greenhouse and growth chambers truly integrates their approach to Biology in a space designed around creating a healthy collaborative environment. The programming, design and construction of the Life Sciences Building are being implemented with a deep respect and knowledge of the impacts this project can have on the environment and will achieve a minimum LEED Gold rating.	SIZE 207,000 GSF COST \$536/SF COMPLETION DATE June 2018	Toby Bradshaw Professor, Department of Biology University of Washington 206.616.1796 toby@u.washington.edu
U.S. Department of Homeland Security National Bio and Agro Defense Facility (NBAF) Manhattan, KS PERKINS+WILL	The NBAF is an integrated foreign animal, and zoonotic disease research, development and testing facility that will allow for research to enhance agricultural public health. It will replace and expand the existing mission of the Plum Island Animal Disease Center (PIADC) and enhance capabilities to meet the mandated national and bio and agrodefense mission requirements of the Department of Homeland Security (DHS) and the United States Department of Agriculture (USDA).	\$IZE 708,000 GSF COST \$1,165/SF COMPLETION DATE est. 2021	Eugene Cole Program Technical Director U.S. Dept of Homeland Security 785.320.4180 eugene.cole@fletc.dhs.gov

	The NBAF is a high containment research and diagnostic laboratory facility containing BSL- 2, BSL-3E, BSL-3Ag, and BSL-4 laboratories on a new 45 acre site located adjacent to Kansas State University in Manhattan, Kansas. Perkins+Will provided feasibility study, programming, laboratory planning, architectural design, and interior design services as part of a Joint Venture partnership. Perkins+Will was responsible for the design of the administrative, BSL-2, BSL-3 Enhanced, and BSL-4 portions of the building as well as the exterior and interior design.		
Texas A&M University System, Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) College Station, TX PERKINS+WILL	This building will serve as a replacement facility for the aging TVMDL facility on the Texas A&M University Campus. Perkins+Will was directly selected to lead the planning design of this facility that addresses any potential high-consequence disease outbreak which could result in health risk and economic losses potentially halting exports of Texas agricultural products. TVMDL is one of the highest volume veterinary laboratories in the nation, averaging more than 200,000 cases each year. Routine testing serves as the backbone of a state, national, and global surveillance system, and supports animal health as well as trade, exports, and the economic structure of agriculture in Texas. The facility includes 35,000 SF of BSL-2 diagnostic laboratories and 20,000 SF of Office/Conference space to support routine testing of biological samples. In addition the facility includes two BSL-3 Enhanced lab suites, and a 4,100 SF high-bay BSL-3 Enhanced large animal necropsy to facilitate the identification of unknown pathogens.	SIZE 93,000 SF COST \$408/SF COMPLETION DATE Dec. 2016	Bruce L. Akey MS DVM, Director Texas A&M Veterinary Medical Diagnostic Laboratory 979.862.2592 bakey@tvmdl.tamu.edu
Texas A&M Biocontainment	The Biocontainment Research Facility will	SIZE 107,000 SF	Brett Cumpton
Research Facility College Station, TX	house state-of-the art containment facilities for research on infectious agents and		TAMU Facilities Planning and Construction
PERKINS+WILL	diseases in livestock and humans. Work conducted at the facility will enhance	COST \$616/SF	979.458.7003 cumpton@tamus.edu

researchers' understanding of zoonotic pathogens, allow the development of innovative methods for monitoring, detecting and preventing disease, and provide treatment and containment options during major outbreaks.	COMPLETION DATE Est. March 2019	
The BRF will serve Texas A&M system-wide as a home to specialized research components of the College of Veterinary Medicine and Biomedical Sciences, Texas Veterinary Medical Diagnostic Laboratory, Office of the State Chemist, the Texas A&M Health Science Center (including the College of Medicine), and the Texas AgriLife Research Center. It will accommodate ABSL-2, ABSL-3 and BSL-3Ag research for large to medium sized animals including horses, cattle, bison, camels, deer, elk,		
sheep, pigs, avian species and goats. The facility includes BSL-2 and BSL-3 Laboratories, ABSL-2 and BSL-3Ag Holding Rooms for livestock, and ABSL-3 Holding Rooms for smaller species. Additionally, ACL-2 and ACL-3 insectary spaces are included to address mosquito and other vector-borne diseases of high local and global interest.		

PROJECTS BY PRIMARY CONSULTANT(S) THAT BEST ILLUSTRATE QUALIFICATIONS RELEVANT TO THIS PROJECT (limit of 3 projects/firm)

Project Name & Location:	Brief Project Description:	GSF, Cost/SF, & Year Completed:	Owner Contact Info:
Washington State University Global Animal Health Phase 2 Pullman, WA PAE	PAE is providing mechanical, electrical, plumbing, telecommunications, electronic safety and security, and sustainable design services for this new 63,000 square foot laboratory building. Located within the College of Veterinary Medicine precinct of Pullman's main campus, the facility will house the Washington Animal Disease and	\$IZE 63,000 GSF COST \$691/SF	8 , ,

	Diagnostic Laboratory, and allow the University to provide vital animal disease detection services for food and trade organizations, "first-alert" testing for animal diseases communicable to humans, and a variety of other food safety services. As part of the progressive design-build delivery team, PAE's early involvement will help the University to define systems options, understand project costs, and ensure optimal systems performance. One of PAE's unique technology designs includes a passive optical LAN system, in-lieu of traditional cabling. This reduces the foot print of telecom rooms and provides a future-ready system. The project is aiming for a 40-percent reduction in first and operational costs and energy use compared to recent campus projects.	COMPLETION DATE Est. 2021	
Washington State University, Troy Hall Renovation & Addition Pullman, WA PAE	Originally built in 1926 as a dairy building, Troy Hall is a prominent contributing structure to the historic core of Washington State University's Pullman campus. Today, Troy Hall is home to the school's Department of Chemistry and School of the Environment. PAE provided mechanical design services for the renovation and addition to this historic building. This includes modern academic and laboratory space which will directly support the development of the university's science programs. The floors and roof of the building were demolished and replaced, while the existing building envelope remained. PAE worked closely with the mechanical and electrical contractors for this project to identify any issues early on and prevent lost time during construction. In order to achieve the University's goal of a LEED Silver minimum rating, the building's HVAC system will utilize office ventilation and cooling air as transfer air for the labs, decreasing the need for air handling units and exhaust fans by 15% - saving energy and construction costs.	SIZE 50,000 GSF COST \$420/SF COMPLETION DATE July 2017	Jeff Lannigan, Project Manager WSU Facilities Services, Capital 509.335.7221 lannigan@wsu.edu

Oregon State University
Forest Science Complex
Corvallis, OR
PAE

Scheduled for completion in the spring of 2018, this project encompasses the renovation of existing buildings, as well as new construction, to serve the University's growing Advanced Wood Products Engineering department. The project consists of two buildings – an 18,000 square-foot Advanced Wood Products Laboratory, and a 90,000 square-foot classroom and office building. The two buildings will serve as showcases for the Advanced Wood Engineering Program's innovative uses of wood in sustainable building design. PAE's mechanical and fire protection system design will contribute to the project's focus on sustainability. The project is utilizing a heat recovery chiller with backup heat from the campus steam plant. This system allows for heat recovery from a neighboring building, as well as heat recovery from exhaust air. Offices, classrooms and laboratories will be heated and cooled by an in-floor radiant hydronic system and radiant ceiling panels, which are designed to work in conjunction with optimized building envelopes and exterior shading systems. In addition to energy-efficiency, the radiant system also keeps the ceilings free of HVAC ductwork, preserving architectural aesthetics of the buildings' exposed cross laminated timbers. Passive cooling strategies such as natural ventilation via operable windows and gravity louvers will also be provided for passive cooling at low load conditions. Private offices and group work spaces will be equipped with manually operable windows, while the atrium and light wells will be equipped with DDC controlled motorized windows. An extensive measurement and verification system will closely monitor all of the building's energy use and display the data in the building lobby to further student education.

SIZE 108,000 GSF

COST \$575/SF

COMPLETION DATEEst. 2018

Libby Ramirez, University Architect/Manager, Capital Resources Oregon State University 541.737.4246 Libby.ramirez@oregonstate.edu

Washington State University Paul G. Allen Center for Global Animal Health Phase I Pullman, WA KPFF	A 65,000 SF research facility for the School for Global Animal Health. The Phase I Building provides office, meeting, and research space for 12-15 research scientists and their support staff and graduate students; and BSL2, BSL3, and necropsy laboratories. It includes a state-of-the-art infectious disease research facility designed and equipped to meet today's standards for investigating emerging diseases. These new facilities are near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. The structural design was optimized to provide high performance, low vibration floors in the research and laboratory zones where sensitive laboratory equipment was planned. KPFF assisted WSU in developing vibration criteria for the facility by utilizing in situ vibration measurements within other existing facilities on campus. The weak foundation subgrade at the site was strengthened using rammed aggregate piers, which allowed a higher bearing capacity for the foundations and reduced the amount of settlement. KPFF also designed this facility for a future addition (Phase 2), which eliminated the need for a seismic joint between the building phases.	SIZE 62,000 SF COST \$716/SF COMPLETION DATE May 2012	Jeff Lannigan, Project Manager WSU Facilities Services, Capital 509.335.7221 lannigan@wsu.edu
Washington State University Paul G. Allen Center for Global Animal Health Phase II Pullman, WA KPFF	KPFF is providing civil and structural engineering services for this Progressive Design-build project that is Phase II of the Global Animal Health laboratories. The new 65,000 square foot facility will house WSU's disease surveillance lab, and is also near the existing Animal Disease Biotechnology Facility (ADBF) and the Veterinary Teaching	\$IZE 65,000 SF COST \$691/SF COMPLETION DATE June 2019	Jeff Lannigan, Project Manager WSU Facilities Services, Capital 509.335.7221 lannigan@wsu.edu

	Hospital, within the College of Veterinary Medicine Precinct on the WSU Pullman campus. It will connect to the Global Animal Health Phase I project which opened in 2012.		
University of Washington	KPFF provided civil and structural	SIZE	Steve Tatge, Executive Director, Major
Animal Care and Research	engineering services for this animal research	90,000 SF	Capital Projects, UW
Facility	and care facility in the Southwest portion of		206.221.4231
Seattle, WA	campus. The project includes 90,000 SF	COST	statge@uw.edu
KPFF	and provisions for a new research tower over	\$1,380/SF	
Ki ii	the below-grade facility. An above ground		
	entry pavilion will have stairs into the facility.	COMPLETION DATE	
	Challenges with this project include buoyancy	May 2017	
	issues associated with the groundwater table,		
	proximity of the building within an existing		
	utility corridor and adjacent above and below		
	ground structures, design to accommodate		
	future phases and addressing SPU lift station		
	capacity and water master meters.		

ADDITIONAL RELEVANT INFORMATION (additional attachments, firm information, photos, and/or personnel resumes are acceptable)

See attachment section of package.

SIGNATURE (signature should be that of the firm's principal/owner)

Anthony Gianopoulos

NAME	SIGNATURE
Director of Organitary Deinsing	00/10/10010
Director of Operations, Principal	02/12/2018

TITLE DATE

The state of Montana makes reasonable accommodations for any known disability that may interfere with an applicant's ability to compete in the application and selection process or that may interfere with an applicant's ability to perform the essential duties of the job. In order for the state to make such accommodations, applicants must make known any needed accommodation to the individual project managers or agency contacts listed. Persons using TDD may call the Montana Relay Service at 1-800-253-4091.

Form is available at http://architecture.mt.gov/.

If you experience problems with this form, please contact the A&E Division at AEDivision@mt.gov or (406) 444-3104.

ATTACHMENTS

ABOUT OUR TEAM

PERKINS+WILL

Since 1935, Perkins+Will has created innovative and award-winning designs for the world's most forward-thinking clients. We are architects, interior designers, urban designers, landscape architects, consultants, and branded environment experts who approach design from all scales and perspectives. Engaged, accessible, and collaborative, our staff of 2,000 professionals brings together design excellence, functional performance, and social responsibility to advance project goals. Inspired by the programs within, we design from the inside-out. We combine a humanistic approach with results-driven pragmatism to create dynamic spaces for people.

Research-focused and inventive, every day we reimagine how space can be used to foster stronger ties between communities, the built environment, and nature. With more than 1,000 LEED® Accredited Professionals, sustainable design and the use of healthy building materials are fundamental to our process. Our transformative designs help students learn better, patients heal faster, business teams perform stronger, and city dwellers have more meaningful daily experiences.

PAE

PAE is all about people and nature. Engineers have a reputation for complicating things. But at PAE, they like to keep it simple: People and nature are their driving forces. Internally, they look out for each other and the spaces we occupy—inside and out. And the same applies to our work. They design high-performing buildings that keep people comfortable, healthy, and productive inside, while restoring the natural world outside. PAE's projects range from entirely new buildings to tenant improvements and historic building renovations. They do all this while balancing the project's first cost/pro forma and long-term operational cost requirements.

Among PAE's clients are more than 40 colleges and universities. These clients often have energy efficient and sustainable design goals, requiring highly collaborative teams and superior engineering. From building design that optimizes Indoor Environmental Quality (IEQ) to master planning that maximizes energy and water efficiency on campuses, we create healthy higher-education environments for all budgets. Using innovative techniques to reduce energy and operating costs, we design MEP systems for university and corporate laboratories that are responsive to the dynamic needs of research and teaching facilities. We create a safe and healthy lab environment through in-depth discussions with the users and building personnel during the early phases of each project.

KPFF CONSULTING ENGINEERS

KPFF is a structural and civil engineering firm with over 50 years of continuous service to both the private and public sectors. We provide services for all phases of a project from planning through construction. As one of the largest local engineering firms in the Pacific Northwest, we have the staff available to meet schedules and keep your projects moving.

Universities and colleges are truly unique institutions. Faced with meeting the ever-evolving educational needs of the communities they serve, higher education facilities must be built to last, built to serve, built with future flexibility in mind, built for safety, and built to be sustainable. KPFF has provided structural and civil engineering services for dozens of campuses, from community colleges to state universities.

KPFF's experience includes structural designs for new construction, renovations, planning, and seismic studies for projects ranging from laboratory science buildings, art facilities to student unions, recreation centers and campus housing. Our designs accommodate existing site constraints and scheduling requirements to minimize disruption to ongoing campus activities.

WASHINGTON STATE UNIVERSITY GLOBAL ANIMAL HEALTH PHASE 2







TEXAS A&M VETERINARY MEDICAL DIAGNOSTIC LABORATORY (TVMDL)







U.S. DEPARTMENT OF HOMELAND SECURITY NATIONAL BIO AND AGRO DEFENSE FACILITY(NBAF)







UNIVERSITY OF WASHINGTON LIFE SCIENCES BUILDING







TEXAS A&M UNIVERSITY BIOCONTAINMENT RESEARCH FACILITY

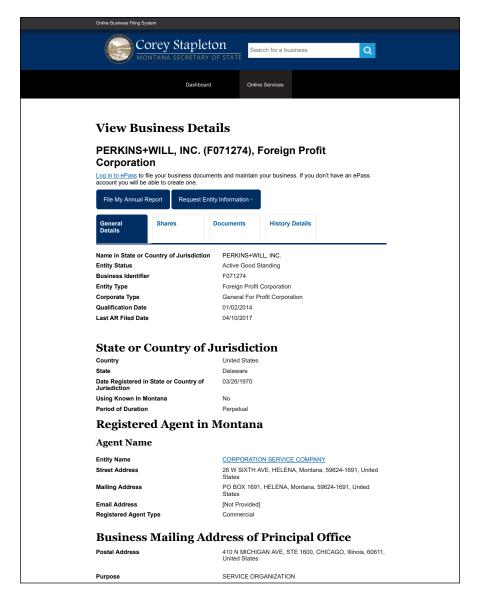




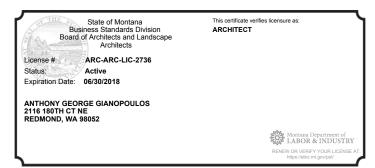


PERKINS+WILL

State of Montana Business License



Anthony Gianopoulos Architect License



PERKINS+WILL

PERKINS+WILL

1301 FIFTH AVE #2300 SEATTLE, WASHINGTON 98101

ANTHONY GIANOPOULOS

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