









#### **APPENDIX B: GAMPE PARTICIPANTS PACKAGE**











#### August 27, 2019

College of Engineers and Surveyors of Puerto Rico Roosevelt Ave., Ing. Antolín Nin Street Hato Rey, Puerto Rico











# Soils Engineering Office Welcome Message:

Welcome to the Geotechnical Asset Management (GAM) Peer Exchange in San Juan, Puerto Rico. San Juan (Spanish for Saint John) is the capital and most populous town in the Commonwealth of Puerto Rico (Spanish for Rich Port), an un-unincorporated territory of the United States of America. According to the 2010 census, the population of San Juan is 395,326, and the population of the Metropolitan Area is about 2.6 million inhabitants. Puerto Ricans have been citizens of the United States of America since 1917. However, Puerto Rico does not have a vote in the United States Congress, which governs the territory with full jurisdiction.

Puerto Rico consists of the main island of Puerto Rico and various smaller islands, including Vieques, Culebra, Mona, Desecheo, and Caja de Muertos. The main island is mostly mountainous with large coastal areas in the north and south. The main mountain range is called La Cordillera Central (The Central Range). The highest peak in Puerto Rico is Cerro Punta, which is 4,390 feet high.

Puerto Rico is composed of Cretaceous to Eocene volcanic and plutonic rocks, overlain by younger Oligocene and more recent carbonates and other sedimentary rocks. Most of the caverns and karst topography on the island occurs in the northern region in the carbonates. The oldest rocks are approximately 190 million years old (Jurassic) and are located at Sierra Bermeja in the southwest part of the island.

The Puerto Rico Highway and Transportation Authority (PRHTA) is a public corporation of the Puerto Rico Department of Transportation and Public Works (DTOP). The PRHTA is responsible for developing, operating, and maintaining Puerto Rico's toll roads, highway network, bridges, tunnels, and other mass transit facilities. The Soils Engineering Office (SEO) of the PRHTA offers technical support to projects under development by the PRHTA Design Area as well for construction projects by the PRHTA Construction Area. The SEO also offers technical recommendations in response to different types of internal, external or interagency requests usually related to geotechnical engineering or geological hazards.

This GAM Peer Exchange will allow you to share your expertise on geotechnical asset management. We hope that this event helps us all to create an atmosphere to identify new opportunities, provide insights, stimulate rational thinking, and promote professional expositions regarding unstable slope management programs.











# FHWA - PR and USVI Division Office Welcome Message:

"The FHWA's PR and USVI Division Office welcomes all participants of the Geotechnical Asset Management Peer Exchange. This technology transfer activity has been a collaborative effort between PRHTA's Soil Engineering Office (SEO), PR LTAP Center and FHWA (Resource Center and Division Office). We would want to thank our presenters from Washing State DOT, New Hampshire DOT, Colorado DOT and PRHTA for taking time in their busy schedules to participate.

As you may know, currently SEO is working toward the development of a Geotechnical Asset Management focusing on soil and rock slopes on their NHS system. This activity, that includes presentations, discussions and a field trip, will allow participants and presenters to continue gaining knowledge and experience from others.

Please take full advantage of this activity and apply as much as you can of your experience to your daily works responsibilities.

Finally, we want to commend and congratulate SEO for their efforts towards the development of the Geotechnical Asset Management and encourage them to take full advantage of this activity towards achieving their goals."











#### Agenda

Day 1		Topic	Presenter			
Moderator: Santiago Carreras						
8:00 am	8:15 am	Welcome and Introductions	Ricardo Romero			
8:15 am	8:25 am	PRHTA Executive Director Remarks	Rosana M. Aguilar Zapata			
8:25 am	25 am 8:35 am FHWA PR remarks		Andrés Alvarez-Ibáñez			
8:35 am	m 8:45 am FHWA Resource Center		Daniel Alzamora			
8:45 am	m 9:15 am PRHTA Organization & Infrastructure Overview		Miguel Pellot Altieri			
9:15 am	10:10 am	PRHTA Geotechnical Asset Management Efforts	Darysabel Pérez			
10:10 am	10:25 am	Break				
10:25 am	10:55 am	Colorado DOT Organization & Infrastructure Overview	T. O. :			
10:55 am	11:50 am Colorado DOT Geotechnical Asset Management Efforts		Ty Ortiz			
11:50 am	1:00 pm	Lunch				
1:00 pm	1:30 pm	Washington State DOT Organization & Infrastructure Overview	Marc Fish			
1:30 pm	2:25 pm	Washington State DOT Geotechnical Asset Management Efforts				
2:25 pm	2:55 pm	New Hampshire DOT Organization & Infrastructure Overview	Krystle Pelham			
2:55 pm	3:10 pm	Break				
3:10 pm	4:00 pm	New Hampshire DOT Geotechnical Asset Management Efforts	Krystle Pelham			
4:00 pm	m 4:45 pm Federal Lands Geotechnical Asset Management Efforts		Douglas A. Anderson			
4:45 pm	4:55 pm	Certificate of Participation to Speakers and Participants				
4:55 pm	5:10 pm	Closure for Day #1 & Field Visit Logistics for those invited to the field trip on Wednesday, August 28, 2019	Santiago Carreras			











#### Ricardo J. Romero-Ramírez, PhD, PE



Ricardo Javier Romero-Ramírez was born in Mayagüez, Puerto Rico, USA. After earning his high school diploma from the Presbyterian College Pablo Casasús in Mayagüez, Puerto Rico, he received a Bachelor of Science in civil engineering in 1993 and a Master of Engineering in civil engineering (geotechnical engineering) in 1996 from the University of Puerto Rico at Mayagüez. After this, he worked for five years as a geotechnical engineer with the Soils Engineering Office of the Puerto Rico Highway and Transportation Authority. Then he attended the University of Missouri at Columbia where he received the degree of Doctor of Philosophy in civil engineering (geotechnical engineering) in December 2003. In 2004, he returned to Puerto Rico to work for the Soils Engineering Office of the Puerto Rico Highway and Transportation Authority, and

in 2009 he earned the position of Chief of the Office. From 2004 to 2010 he was a lecturer in civil engineering (geotechnical engineering) at the Polytechnic University of Puerto Rico. He later became interested in geological engineering (rock engineering) and began his studies as a distance education student in geological engineering in 2014 at the Missouri University of Science and Technology. After being a distance student for three years, he moved to Rolla to begin his research. He received the degree of Doctor of Philosophy in geological engineering (rock engineering) in May 2019. Then he returned to Puerto Rico to work again for the Soils Engineering Office of the Puerto Rico Highway and Transportation Authority.

#### Rosana M. Aguilar-Zapata, PE



Rosana M. Aguilar-Zapata is the Executive Director of the Puerto Rico Highway and Transportation Authority (PRHTA) since January 2019. Eng. Aguilar is a Professional Civil Engineer with over fifteen years of experience in permits, administration, project management, engineering, and construction. She worked at the Permits Management Office in San Juan as an Interim Auxiliary Secretary. Mrs. Aguilar was the former Infrastructure Regional Director in the west region in the Puerto Rico Aqueduct and Sewer Authority (PRASA) in Mayaguez.

Before her position in PRASA, she was the Deputy Secretary for Federal Affairs in the Department of Transportation and Public Works (DTPW) in San Juan for two years. Eng. Aguilar has a Bachelor of Sciences in Civil Engineering from the Mayagüez Campus, University of Puerto Rico and a recipient of the Dwight David Eisenhower Transportation Fellowship Program of the USDOT. Eng. Aguilar was Magna Cum Laude and a Professional Engineer as well as a member of the CIAPR.











#### Andrés Álvarez-Ibáñez



Andrés Álvarez-Ibáñez is the Engineering Team Leader at the Federal Highway Administration (FHWA) Puerto Rico and US Virgin Islands Division. Eng. Álvarez has been with FHWA since 2014. Eng. Álvarez also worked at the private sector, from 2012 to 2014 as a Consultant for a private engineering firm. From 1996 to 2012, he worked for the Puerto Rico Highway and Transportation Authority (PRHTA). In PRHTA he worked at the Design Area (1996 – 1999), Deputy Director (1999-2010) and Acting Director (2010-2012) of the Materials Testing Office. Eng. Álvarez obtained his Bachelor of Science in Civil Engineering in the University of Puerto at Mayagüez (UPRM) and a MSCE at the Polytechnic University of Puerto Rico in San Juan.

#### **Daniel Alzamora**



Daniel Alzamora is a Senior Geotechnical Engineer in the Resource Center with the Federal Highway Administration in Lakewood, Colorado for the past 13 years. He has over 29 years of engineering experience. He is a registered Professional Engineer in the State of Georgia. He received his Bachelor's Degree in Civil Engineering (BSCE) from the University of Connecticut and a Master's Degree in Civil/Geotechnical Engineering (MSCE) from the University of Colorado.











#### Miguel Pellot-Altieri, PE



Miguel Pellot-Altieri has a Bachelor of Science in Civil Engineering from the University of Puerto Rico's Mayaguez Campus. He also completed technical development courses at the Massachusetts Institute of Technology and Georgia Institute of Technology. He is a licensed engineer in Puerto Rico and member of the Institute of Transportation Engineers (ITE) serving as Vice President of ITE's Puerto Rico Section (2014). He had worked in Projects such as The Tren Urbano heavy trail system. He served as the Director of the Transportation Subprogram in the Department of Urbanism at the Municipality of San Juan. He served as Coordinator of Highways Improvements for Transit Systems in the Puerto Rico Highways and Transportation Authority (PRHTA) and manager of the Intermodal Office at the Integrated Transportation Alternative (ATI). Among other, he contributed to the development of guidelines for the preparation of Traffic Impact Studies for Puerto Rico, the "Tren Urbano Feeder Bus Plan" and the "Tren Urbano Bus Bridge Plan". He founded the company Traffic Engineering

Consultants, PSC, where he specialized in traffic impact studies for private developments, conceptual designs of intersections, and other areas of transportation engineering. Miguel Pellot has given seminars on the topics of traffic impact studies and design of bicycle facilities. He currently serves as Special Assistant to the Secretary and Chief of Engineering of the Department of Transportation and Public Works (DTPW) and its affiliated agencies, working and giving support in everything related to the agencies in infrastructure, traffic engineering and highways projects.

#### Darysabel Pérez

Darysabel Pérez is Geologist in the Soils Engineering Office at the Puerto Rico Highway and Transportation Authority (PRHTA) since 2012. She has a Bachelor Degree of Science in Geology from the Mayagüez Campus of the University of Puerto Rico (UPRM). In addition, she studied Natural Resources Management, and Environmental Planning at the Metropolitan University of Puerto Rico. She is a Professional Geologist, by ASBOG examination, since 2009 (first one in PR). From 1998 to 2010 she worked as a Geologist for the Department of Natural and Environmental Resources of Puerto Rico (DNER). Darysabel worked in the development of a Landslide Risk Mitigation Protocol for the Puerto Rico Emergency Management Agency (PREMA) from 2010 to 2012.















Ty Ortiz has been with the Colorado Department of Transportation (CDOT) for over 18 years and before that he was with the Colorado Geological Survey for 10. He became interested in geological hazards while helping senior geologists on construction of the final leg of the US Interstate system, a 13 mile stretch of Interstate 70 through Glenwood Canyon. He currently manages CDOT's Geohazards Program and is working on developing methods to manage geohazards in a measurable and meaningful way within a constrained budget.

#### **Marc Fish**

Marc Fish works as an Engineering Geologist for the Washington State Department of Transportation and manages their unstable slopes program. He is a licensed Engineering Geologist and has over 22 years of experience managing risk relating to unstable slopes and developing cost effective remediation designs for rock slopes, landslides, and debris flows along our state highways.











#### Krystle Pelham

Krystle Pelham is the Engineering Geologist for the New Hampshire Department of Transportation (NHDOT) in the Bureau of Materials and Research. Ms. Pelham has over 13 years of engineering geology experience at the NHDOT supervising the engineering geology unit within the geotechnical section. Her responsibilities include directing the NHDOT Rock Slope Management Program, designing remediation projects for rock slopes to include rock scaling and other stabilization measures along with evaluating and supervise the installation of rock reinforcement systems. Additionally, she provides construction oversight to ensure compliance with specifications during the construction phase of projects and performs geotechnical site investigations for highway projects. She has served as chair of the TRB AFP20 (Geotechnical Site Characterization) committee and collaborated on many topics with the AFP10 (Engineering Geology) and is also a member of that committee. She is also the Vice President of the National Steering Committee of the Highway Geology Symposium.

#### Douglas A. Anderson



Doug has been an engineering geologist for the Western Federal Lands Highway Division of the Federal Highway Administration since 2013, with over 25 years of engineering geology and geotechnical experience with an emphasis in design solutions and construction support that include rock slope stability, rock fall hazards, blasting, landslide mitigation, geotechnical investigation and instrumentation technics, material source development and rehabilitation, and large earthwork projects. For 14 years, prior to joining Western Federal Lands, Doug worked his way up to the assistant chief engineering geologist for the Washington State Department of Transportation in Olympia, Washington after spending nearly 4 years as a geologist with the United States Forest Service on the Mt. Hood National Forest. He also has worked on special "unstable slope" projects in the private consulting industry when interested. He completed his bachelor's degree in geology

at Portland State University in 1995. Mr. Anderson is a licensed geologist and engineering geologist in Washington State and has passed the Cold Region's Engineering Course required for licensing in the State of Alaska.

#### **Geotechnical Asset Management**

#### Peer Exchange (GAMPE)











Date:	Page:

Date:	Page: