

Technical Assessment of the Capital Facility Needs of the National Institute of Standards and Technology

Committee

Ross B. Corotis

Chair

[NAE] Is the Denver Business Challenge Professor of Engineering at the University of Colorado in Boulder. He researches the coordinated roles of engineering and social science in framing and communicating long-term hazard risks and resiliency for the built environment. With all three degrees from MIT, he was on the faculty at Northwestern University, established the Department of Civil Engineering at The Johns Hopkins University, and was Dean of Engineering at CU. He has chaired committees on structural safety for ASCE and ACI, the Executive Committee of the International Association for Structural Safety and Reliability, and was Editor of the journals Structural Safety and ASCE Journal of Engineering Mechanics. For The National Academies he served on the Building Research Board, the steering committee of the Disasters Roundtable, the Board on Infrastructure and the Constructed Environment, the Laboratory Assessment Board, was founding chair of the Committee on NIST Technical Programs, and was Chair of the Civil Engineering Section of the NAE. He is He is a registered professional engineer and structural engineer, Distinguished Member of ASCE, Fellow of both the Structural Engineering and Engineering Mechanics Institutes, recipient of the ASCE OPAL Lifetime Achievement Award in Education, and author of more than 250 publications. In 2007-2008 he served as science advisor at the Department of State in Washington, DC.

Douglas E. Aldrich

Member

Consults on design, construction and operations for industrial and academic labs, including EHS requirements. In this role, he guided and oversaw new labs in USA and China. He worked at Dow Corning for 36 years, half in technical/leader positions for diverse lab types (research, development, analytical, metallurgy). The other half was leading lab strategies and projects for new construction and renovations globally. As facility manager/director, he built ~400K gsf and added ~600K of existing labs worldwide, integrating them with EHS governance. Doug became involved with IFMA (International Facility Management Association) co-founding a networking council for R&D FM's. He was elected to the IFMA Board, EC and became Chair.

He was given an Honorary PhD for contributions to facility plans/projects for his college. Doug was in its first class of Distinguished Alumni and had a Student Learning Center named for him. He was initiated into Sigma Xi, inducted into Theta Tau's Alumni Hall of Fame, and appeared on two magazine covers in the building industry. He received BS and MS ChE degrees from South Dakota Mines, and attended many technical and management programs at universities and institutes during his career.

James B. Clayton

Member

Is Executive Director at the not-for-profit Institute for Responsible Infrastructure Stewardship. He has served as Chair, Board of Advisors for Planate Management Group; President of Unity, Inc.; Vice President of three engineering & management consultant firms; Operations Manager for Kaiser Engineers; and the US Navy head analyst for facilities maintenance and repair funding. James conducts peer reviews of papers submitted by researchers and practitioners to three ASCE Journals of Infrastructure Systems, Management in Engineering and Risk and Uncertainty Analysis. He assisted the Federal Accounting Standards Advisory Board amend SFFAS 6, a facility-related, generally accepted accounting principle (GAAP) for the federal government and used by many state and local governments. He's a contributing author to the IFMA Foundation and the ASCE Journal on Infrastructure Management; a speaker at international, national and regional conferences of AIA, APPA, IFMA and the Federal Facility Council; Principle-in-Charge of many complex projects such as the Virginia Public Higher Education State-wide Facility Condition Assessment; and creator of a Web-based, interactive portal for facility risk management cited by ESRI as a milestone in GIS technology. Mr. Clayton is a Registered Professional Engineer, holds an MSEE from the University of Michigan, a BSME from the US Naval Academy and is a member of the International Society on Multi-Criteria Decision Making. He has trained and worked as a facilities manager, business executive, government official, and private consultant to public agencies and commercial owners.

Jack Dempsey

Member

Is currently the Founder of Asset Management Partnership, LLC, specializing in the implementation of IT-enabled asset management systems and solutions. Formerly Jack served as an Officer and Civil Engineer in the Coast Guard for over 20 years and subsequently worked in leadership positions at Jacobs Engineering and CDM Smith before coming to Definitive Logic. He has led numerous asset management system implementations from enterprise scale across many US Federal departments and agencies to targeted implementations for public utilities. He currently serves as a Member on the US National Academies' Board on Infrastructure and the Constructed Environment, Vice Chair of the US National Academy of Science's Committee on a Strategy to Renew Federal Facilities, and Convener of the International Standards Organization (ISO) Technical Committee 251 on Asset Management System Standards. Jack is also a Fellow with the Institute of Asset Management, services on the Board and is a Senior Fellow at the Asset Leadership Network, and is a licensed Professional Engineer.

Eric T. Dillinger

Member

Is the Vice President and Managing Director for Woolpert's Strategic Consulting business sector. He has over 30 years of professional experience from strategic planning through the life cycle of the built environment. Mr. Dillinger's expertise is focused on improving the performance of buildings and infrastructure to deliver higher operational performance and reduced total cost of ownership. He has been a committee member for two National Academy Press publications; "Stewardship of Federal Facilities" (1998) and "Investments in Federal Facilities, Asset Management Strategies for the 21st Century" (2004) and also provided presentations to several other National Academy efforts. Mr. Dillinger is the recipient of the 2015 "Chairman's Award" from the International Facility Management Association (IFMA), the originator of Return on Perception (ROP), featured in "Urban Design and the Bottom Line: Optimizing Return on Perception", ULI (2008).

Virginia K. Holtzman-Bell

Member

Served as the National Institute of Standards and Technology (NIST) Boulder Laboratories Site Manager from 2009 until her retirement in 2016, and during that time held concurrent positions, including Deputy Director of the Office of Facilities and Property Management (OFPM). She led the development of the Boulder Laboratories Facilities Master Plan and the creation of a data-driven maintenance and repair prioritization program for both the Gaithersburg and Boulder campuses. During her 32-year US Coast Guard (CG) career, she was responsible for planning, budgeting, design and construction, and facility management. In her last posting, CAPT Holtzman-Bell oversaw the civil engineering (CE) program for the Pacific Area, executing an annual program of \$100-\$150 million in support of a \$3 billion facilities portfolio. As a CG CE senior leadership member, she worked on the development of facility asset management strategies and capital investment programs. She was the Commanding Officer of both the Pacific Area Design and Construction Center and prior to that, the Civil Engineering Unit responsible for the maintenance, repair, and environmental compliance/restoration programs for CG facilities in Alaska. She earned a MSCE from the University of Illinois Urbana-Champaign, a BSCE from the US Coast Guard Academy, and a Professional Engineering License.

Steven H. McKnight

Member

Was recently named inaugural Vice President for Strategic Alliances at Virginia Polytechnic and State University (Virginia Tech), where he advances university-wide collaborations and engagement with federal research organizations, Washington-based business groups, associations, and foundations, and other academic institutions. In addition to his administrative leadership role at Virginia Tech, he maintains an active research program focused on advanced composite materials and manufacturing, adhesion and interfaces, and coatings. He holds a faculty appointment in the College of Engineering. Previously, he served the university as the Vice President for the National Capital Region. In that role, he developed and guided strategic initiatives, provided administrative services, and contributed to priority academic and research program initiatives for Virginia Tech in the greater Washington D.C. metropolitan area. Prior to joining Virginia Tech, Dr. McKnight served as director of the Civil, Mechanical, and Manufacturing Innovation Division (CMMI) within the Directorate for Engineering at the National Science Foundation (NSF), a position he held since 2009. He was instrumental in promoting several NSF-wide interdisciplinary and research priorities and represented NSF on several Office of Science and Technology Policy initiatives. Notably Dr. McKnight has led NSF's efforts in advanced manufacturing and played a key role in the Obama administration's advanced manufacturing initiatives and partnership efforts. Dr. McKnight earlier served as chief of the Army Research Laboratory's (ARL) Materials Division. Dr. McKnight holds a B.S. (1990) in materials engineering from Virginia Tech and a Ph.D. (1995) in materials science and engineering from the University of Delaware.

Christine Merdon

Member

Recognized as a leader in the AEC industry, Christine is the former COO and Acting Architect of the Capitol. Most recently, at McKissack & McKissack, she was the Chief Growth Officer and Chief Operating Officer. In the past, as Senior Vice President at McKissack, she was responsible for managing such projects as the Washington Nationals Major League Baseball Stadium, O'Hare Airport Modernization Program, Los Angeles Unified School District, Martin Luther King, Jr. National Memorial, Smithsonian Institution's National Museum for African American History, and the Lincoln and Thomas Jefferson Memorial renovations. The first woman to be the Acting Architect of the Capitol and Chief Operating Officer (COO) of the Architect of the Capitol in over 200 years. She brought over 30 years of experience to the position as the Acting Architect of the Capitol/COO and was responsible for planning, (strategic, master and capital improvement and budget plans) for the historic U.S. Capitol Building. This also included the care and improvement of more than 570 acres of grounds and the operation and maintenance of 18.4 million square feet of buildings including: the House and Senate Congressional Office Buildings, the Capitol Visitor Center, the Library of Congress Buildings, the U.S. Supreme Court Building, the Thurgood Marshall Federal Judiciary Building and other facilities. She also served as Acting Director of the U.S. Botanic Garden and the National Garden. Christine served as a member of the U.S. Capitol Police Board, Advisory Council of Historic Preservation, and the National Building Museum. Awards include, DC National Society of Professional Engineers (2016 Professional Engineer of the Year), American Society of Civil Engineers, Association of General Contractors, Construction Management Association of America. She started her career with as an intern for the U.S. Navy, with her primary project management assignments at the White House Military Office and Camp David.

Kent B. Rochford

Member

Joined SPIE as CEO in May 2018. Previously, Dr. Rochford was Associate Director for Laboratory Programs at the National Institute of Standards and Technology (NIST), providing direction and operational guidance for NIST's scientific and technical laboratory programs with 2,800 staff and an \$800 million budget. In this role he represented the full breadth of laboratory activity to domestic and international constituencies, collaborators, stakeholders, the U.S. Congress, and advisory boards, and served as acting NIST Director and Undersecretary of Commerce for Standards and Technology during 2017. During his career at NIST, he headed up NIST-Boulder Labs and the Communication Technology Laboratory (CTL) in Colorado, and served as chief of both the Quantum Electronics and Photonics and Optoelectronics Divisions at NIST, as well as acting director of the Electronics and Electrical Engineering Laboratory. This work provided measurement R&D and standards support for the optoelectronics and photonics industry, spanning communications, lasers, sensors, quantum optics, and materials. In addition to NIST employment, he was a Senior Director for materials and devices at Sharp Labs of America, managed the systems and architecture department at YAFO, an optical-communications start up, and worked in central research at 3M Corporation. Rochford holds a PhD in optical sciences from the University of Arizona, a BS in electrical engineering from Arizona State University, and an MBA from the University of Colorado.

Clarence D. Turner

Member

U.S. Army, Founder, CEO and President 3E Turner & Associates currently serves on the Board of Directors for Professional Project Services, Board of Directors for America's Watershed Initiatives, Board of Directors, University of Central Alumni Foundation Board as well as holding senior executive roles with Dawson & Associates, Binary Exchange Technologies, Twitty & Associates, Next Generation Logistics, Hyperloop TT, Partners Group and MacDonal d-Bed ford. Previously, Gen. Turner served as President, Military Services Group for American Water Enterprises, where he oversaw operations involving water treatment and supply for 14 U.S. military installations with P/L of \$120M. His experience in the U.S. Army Corps of Engineers (USACE) includes an enviable record of success on policy and projects involving engineering, construction, environmental oversight, contract negotiations and information technology. During his 35 years with the Army, Gen. Turner established a reputation throughout USACE for operational and strategic leadership. During his final decade of service, he commanded Corps of Engineers divisions in Atlanta and San Francisco, USACE District in Korea and served as USACE's Chief of Staff in Washington D.C. Gen. Turner led the largest transformation of the U.S. Army since WWII, while serving as the Army's Division Chief for the 2005 Base Realignment and Closure, an \$18 billion dollar program. He is a former member of the USACE Coastal Engineering Research Board.

Jorge R. Urrutia

Member

Is a former Director of Administration and Chief Financial Officer at the National Institute of Standards and Technology (NIST). He was also a former Director of Engineering Services at the National Institutes of Health (NIH), NIST, and the Naval Research Laboratory (NRL). At NIH, he was responsible for the planning, budgeting, design, construction, outfitting, and maintenance of entire medical and support facilities at all NIH campuses. Mr. Urrutia is also a former Chief, Plant Division at NIST where he was responsible for design, construction, and maintenance of NIST research facilities and where established the NIST facilities program. While working for the Navy, Mr. Urrutia provided engineering services in Spain, Bahrain, Italy and Greece. Mr. Urrutia has a Professional Engineering License.

Mark A. Weatherly

Member

Is a Principal for Weatherly Consulting LLC, providing consulting services to agencies in the Federal Government, non-profit and private organizations, following his work as a Specialist Executive for Deloitte Consulting LLP. Prior to this he served for 15 years as the Deputy Associate Director in the Office of Management and Budget (OMB), first as the top career official with programmatic responsibility for the Department of Energy, NASA, the National Science Foundation, and the Corps of Engineers, and then for the Departments of Treasury, HUD, Commerce, SBA, and the federal financial regulators. He began his OMB service overseeing the Department of Agriculture. Through these positions he acquired and applied a deep understanding of the range of federal research programs, policy, and budgeting issues. He is a two-time recipient of the Presidential Rank Award, and in 2017 was named a Strategic Advisor to Government Executives by the Partnership for Public Service. He received his MBA from Cornell University and BA from Colby College.