

Nov. 17-18, 2021

EQUITABLE + SUSTAINABLE INFRASTRUCTURE

DELIVERING MERIT AND CLIMATE RESILIENCE

DAY 1 – at a glance

Opening Session
10:00 a.m.

Day 1 Keynote
10:15 a.m.
Minelly De Coo
Director, Capital Project Management Office of the
First Deputy Mayor of NYC Office of the Mayor

Session 1: Thinking from the Outside-In
11:30 a.m. – 1:30 p.m.

Panel 1: Evolving Public Policy and Funding
11:30 a.m.

**Panel 2: Local Examples of Implementing
Policies and Securing Funding**
12:30 p.m.

Awards Ceremony and Moment of Recognition
1:45 p.m. – 2:45 p.m.

Session 2: Engaging Stakeholders
3:00 p.m. – 5:00 p.m.

**Panel 1: Connecting Communities through
Robust Stakeholder Engagement**
3:00 p.m.

**Panel 2: Results and Outcomes: Effective
Stakeholder Engagement In Practice**
4:00 p.m.

Networking Session
5:30 p.m. – 6:30 p.m.

DAY 2 – at a glance

Welcome and opening remarks
10:00 a.m.

Day 2 Keynote
10:15 a.m.
Catherine Flowers
Author and internationally recognized environmental
justice advocate for equal water and sanitation access

Session 3: Serving the Underserved
11:30 a.m. – 1:30 p.m.

**Panel 1: Who are the underserved and what is
their infrastructure reality?**
11:30 a.m.

**Panel 2: How can infrastructure serve as
connections to opportunities?**
12:00 p.m.

**Panel 3: How is the infrastructure community
engaging with Envision to lift the underserved that
are impacted by climate change?**
12:30 p.m.

Posters and Networking Session
1:45 p.m. – 2:45 p.m.

Session 4: Thinking from the Inside-Out
3:00 p.m. – 5:30 p.m.

Panel 1: Designing for Merit
3:00 p.m.

**Panel 2: Data, Technology, and Innovation that
Deliver Merit**
4:00 p.m.

Closing remarks
5:00 p.m.

Special thanks to all speakers, moderators, Zofnass Program Sustainable Infrastructure Advisory Board (SIAB), and ENVISION qualified companies (listed on pages 22-23).

SUSTAINABLE INFRASTRUCTURE ADVISORY BOARD “SIAB”

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Conference planning and coordination:

Lindsey Geiger, Institute for Sustainable Infrastructure, geiger@sustainableinfrastructure.org

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Harvard GSD, jirodriguez@gsd.harvard.edu

John Williams, Chairman and CEO, Impact Infrastructure, Inc. and Board Chair,
Institute for Sustainable Infrastructure

ISI & ZPH
Online Conference

Nov. 17-18, 2021

EQUITABLE + SUSTAINABLE INFRASTRUCTURE

DELIVERING MERIT AND CLIMATE RESILIENCE

The Institute for Sustainable Infrastructure (ISI) and the Zofnass Program for Sustainable Infrastructure at Harvard University (ZPH) are proud to be hosting the Equitable and Sustainable Infrastructure: Delivering Merit and Climate Resilience conference on November 17 & 18, 2021.

This conference takes a 360-view of what it means to design, build, and implement infrastructure systems that deliver merit, by deconstructing the term, as well as defining and measuring “merit.”

Merit can be viewed through a series of lenses, including economic, social, environmental and climatic implications. Experts will share new perspectives on the factors that influence the way infrastructure is implemented. Since public policy and funding opportunities often shape the direction of the industry, infrastructure professionals must balance responding to both policy and stakeholder needs, all while securing adequate funding for projects to be successful.

Historically, infrastructure decisions have played a role in creating and amplifying the vulnerability of underserved populations. With climate change, those populations tend to be even more vulnerable to extreme weather. The mindset must now be shifted to correct historical injustices and use infrastructure to provide equitable services to all communities.

Participants in this conference will walk away with a better understanding of the broader landscape of the infrastructure industry today and will see new ideas for how infrastructure can better serve communities with merit.



Agenda

(All times shown in EST)

Welcoming and Opening Remarks

10:00 a.m.

Moderated by John F. Williams, Chairman and CEO, Impact Infrastructure, Inc. and Board Chair, ISI

Anthony Kane

President and CEO
Institute for Sustainable Infrastructure

Spiro Pollalis

Professor and Director of the Zofnass Program
Harvard University

Day 1 Keynote Speaker

10:15 a.m.

Minelly De Coo

Director, Capital Project Management Office of the
First Deputy Mayor of NYC Office of the Mayor

Session 1: Thinking from the Outside-In

11:30 a.m. – 1:30 p.m.

Moderated by Marty Janowitz, Vice President of Sustainable Development (Retired) Stantec, and SIAB Representative, ZPH

Panel 1: Evolving Public Policy and Funding

11:30 a.m.

Andrew Mayock

Federal Chief Sustainability Officer
USA

Linh Do

Senior Vice President
AKRF

Lisa MacTavish

Climate Resilience Engineer
WSP

Panel 2: Local Examples of Implementing Policies and Securing Funding

12:30 p.m.

Kathy Collins

Director of Sustainability and SIAB Representative
NV5

Michael Sussman

Chairman and CEO
OnTrackNorthAmerica and Strategic Rail Finance

Vanessa Velasco

Senior Environmental Scientist
California Department of Water Resources

Awards Ceremony and Moment of Recognition

1:45 p.m.

Moderated by Melissa Peneycad, Managing Director, ISI and Anthony Kane, President and CEO of ISI

Garage souterrain Côte-Vertu

Alexis Lautard

Conseiller corporatif, Développement durable
Société de transport de Montréal

City of Red Deer Water Treatment Plant Residuals Management Facility

Kingsford Amoah Environmental Planning Engineer
City of Red Deer

Miami-Dade County Dolphin Station Park-and-Ride/Transit Terminal Facility

Patricia Gómez Senior Resilience/Energy Program Manager
Miami-Dade County Office of Resilience

Westminster BDCWWTF Solids Dewatering and Campus Wide Improvements

Julie Koehler Utilities Engineering Manager
City of Westminster

Oxford Retention Basin Multiuse Enhancement Project

Ryan Virgin Associate Civil Engineer
Los Angeles County Public Works

VTA's Berryessa Transit Center

Ann Calnan Environmental Programs Manager
Santa Clara Valley Transportation Authority (VTA)

Rachael Keish CEO
Keish Environmental

Session 2: Engaging Stakeholders

3:00 p.m. – 5:00 p.m.

Moderated by Michael Mucha, Chief Engineer and Director, Madison Metropolitan Sewage District

Panel 1: Connecting Communities through Robust Stakeholder Engagement

3:00 p.m.

Melissa Figueroa Chief of Strategic Communications
California High Speed Rail Authority

Oscar Cortes Vice President International Relations
FEMCIC

Diana Mendes Corporate President, Infrastructure and Mobility
Equity HNTB

Panel 2: Results and Outcomes: Effective Stakeholder Engagement In Practice

4:00 p.m.

Kari Hewitt President
Hewitt Sustainability Strategies

April Mendez CEO
Greenprint Partners

Judith Rodríguez Research Associate & Program Administrator, Zofnass
Program for Sustainable Infrastructure, Harvard GSD

Networking Session

5:30 p.m. – 6:30 p.m.

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[All times shown in EST]

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10:00 a.m.

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Author and internationally recognized environmental justice advocate for equal water and sanitation access

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11:30 a.m. – 1:30 p.m.

Moderated by John F. Williams, Chairman and CEO, Impact Infrastructure, Inc. and Board Chair, ISI

Panel 1: Who are the underserved and what is their infrastructure reality?

11:30 a.m.

Jade Begay

Climate Justice Campaign Director
NDN Collective

Sonal Jessel

Director of Policy
WE ACT for Environmental Justice

Panel 2: How can infrastructure serve as connections to opportunities?

12:00 p.m.

Cris B. Liban

Chief Sustainability Officer
LA Metro

Jean Paul (JP) Liban

Environmental and Ecological Engineering Student
Purdue University

Panel 3: How is the infrastructure community engaging with Envision to lift the underserved that are impacted by climate change?

12:30 p.m.

Elizabeth Knauer

Principal
Sive, Paget & Riesel P.C.

Jason Waldron

Transportation Director
City of Kansas City, Missouri (KCMO)

Posters and Networking Session

1:45 p.m. – 2:45 p.m.

Baseco Children's Playhouse

From Trash to Fish: A Sustainable Infrastructure Framework for Marine Debris Problem

HEAL + : A regenerative design and implementation framework for localizing SDG in Covai

Park-And-Thrive

Redefining Relationships During the Project Pursuit Phase - Teaming Frameworks and the Role of Agencies

Resilient Hub

Smartphone Community for an Urban Noise Monitor tool

The Table that Makes the City

VACANCY & OPPORTUNITIES

ZONE ZERO DELRAY

Session 4: Thinking from the Inside-Out

3:00 p.m. – 5:00 p.m.

Moderated by Eric Bill, Chief Economist, Autocase

Panel 1: Designing for Merit

3:00 p.m.

Eric Bill Chief Economist,
Autocase

Gregory Huang Vice President
CCR Airports

Panel 2: Data, Technology, and Innovation that Deliver Merit

4:00 p.m.

Thomas Bucci VP of Global Building and Facilities Leader
Wood Group

Joel Burroughs Account Manager
NV5

Closing remarks

5:00 p.m.

Detailed Agenda

November 17, 2021

10:00 am

EQUITABLE + SUSTAINABLE INFRASTRUCTURE

DELIVERING MERIT AND CLIMATE RESILIENCE

Conference Welcome and Opening Remarks

Moderator:

John F. Williams

Chairman & CEO, Impact Infrastructure, Inc., makers of Autocase Software
Board Chair, Institute for Sustainable Infrastructure



John Williams has forty-two years of experience as an advisor to infrastructure and building development in 20 states. He started his career as a Community Liaison for major infrastructure projects in NYC. In latter years, he served as owners' representative for the development of more than \$5B in successful Public-Private ventures. In 2007, he initiated a movement aimed at measuring the value of "Green" infrastructure and buildings. He coined the phrase: SROI (Sustainable Return on Investment) and led a team of economists charged with creating an objective, transparent framework for measuring tangible and intangible benefits associated with investments in infrastructure and buildings. In 2012 he founded Impact Infrastructure, the makers of Autocase software for automated economic analysis. Autocase leveraged cloud-based computing to dramatically reduce the cost and improve the quality of economic assessments on more than \$100B in projects including airports; university campuses; hospitals; power infrastructure; commercial buildings; manufacturing, water, wastewater and stormwater facilities; and mobility investments. More than 1200 projects have benefited from Autocase business cases.

John is part of the group developing the ASCE Sustainability Standard, He is in his fourth term as Board Chair at ISI, he is an SASB Subject Matter Expert and served on the Advisory Committee for NYU SDG Invest NYC at the Stern School of Business. He served on the adjunct faculty at Columbia University's School of International and Public Affairs (SIPA) for more than fifteen years.

Spiro Pollalis

Professor and Director of the Zofnass Program for Sustainable Infrastructure, Harvard University GSD



Prof. Pollalis, now Emeritus, has been Professor of Design Technology and Management at the Graduate School of Design since 1986. He is the Director of the Zofnass Program for the Sustainability of Infrastructure, which has developed the Envision® rating system and the Planning Guidelines for Sustainable Cities, and the Principal Investigator of the research project “Gulf Sustainable Urbanism” (2010-2013). His ongoing research efforts focus on developing a rating system for infrastructure systems regarding climate action.

Prof. Pollalis has taught as a visiting professor at Uni-Stuttgart, TU-Delft, and ETH-Zurich. He has published several books and articles in journals and has given many lectures at conferences.

In his private practice, Prof. Pollalis consults worldwide on sustainability, urbanism, and management. He is a consultant to the GSA, the Asian Development Bank, the World Bank, the UNECE, the UNEP, the NRCC, and the Greek Government. He has led the National Urban Assessment of Pakistan and has planned sustainable cities in Asia, including the DHA City Karachi, which is under construction.

Prof. Pollalis received his first degree from the University in Athens (EMP) and his Master’s and PhD from MIT. His MBA in high technology is from Northeastern University. He has an honorary Master’s degree in Architecture from Harvard.

Anthony Kane

President and CEO, Institute for Sustainable Infrastructure



Anthony Kane is President & CEO of the Institute for Sustainable Infrastructure in Washington, DC where he oversees the organization’s overall operations and leads the development of the Envision framework for sustainable infrastructure. He is also a commissioner on the Washington DC Commission on Climate Change and Resiliency. Anthony was formerly a research director at the Zofnass Program for Sustainable Infrastructure at Harvard University’s Graduate School of Design, a research associate with the Materials, Processes, and Systems Group at Harvard University, and an instructor at the Boston Architectural College. He holds a Bachelor of Architecture summa cum laude from Virginia Tech and a Master in Design Studies from Harvard University. Anthony is a co-author of Ceramic Material Systems in Architecture and Interior Design and a contributing author of Infrastructure Sustainability and Design.

10:15 am

Building Sustainable Infrastructure - Bridging the Gap between Vision & Implementation

The increased frequency of extreme weather events is causing devastating impacts to our cities' most vulnerable populations and its aging infrastructure. These events, and the influx of funding - federal, state, and local - that typically follows, provide cities with an opportunity to re-imagine infrastructure solutions that can respond to the needs of our communities today and into the future.

This presentation will focus on lessons learned in executing those types of solutions in New York City, particularly when building new coastal protection infrastructure after Hurricane Sandy. How can leaders across all sectors prepare and effectively bridge the gap between the visioning stage and implementation phase of these projects, while responding to and amplifying the voices of the communities they serve.

Minelly De Coo

Director, Capital Project Management Office of the First Deputy Mayor of
NYC Office of the Mayor



Minelly has over a decade of experience in design and construction. In her current role, she leads the delivery of priority projects for the City, bringing together interdisciplinary multi-agency teams to develop and execute strategies for successful project implementation. Her portfolio includes major coastal resiliency projects, the Borough Based Jails program, community centers and cultural institutions. Prior to joining the City, Minelly worked in engineering consulting where she led environmental planning, review, monitoring, and construction for a broad range of transit, bridge, and facility development projects. Her passion is leveraging engineering and policy to create great infrastructure that improves people's lives.

Minelly holds a B.S. in Civil Engineering from NYU Tandon School of Engineering and an M.S. in Sustainability Management from Columbia University.

Q & A Led by John Williams.

11:30 a.m. – 1:30 p.m.

Thinking from the Outside-In

The technical program opens with a discussion of the factors that shape infrastructure development. Speakers will discuss the needs of the “outside world” and how those needs can be met by infrastructure professionals or the “inside world.” the speakers addressing public-policy issues will touch on climate change, lifecycle cost-effectiveness, and equity in a post-pandemic recovery. Experts will shine a light on public-sector funding in the form of stimulus and grants as well as private-sector financing. Examples of localized success stories will be shared.

Moderator:

Marty Janowitz, MES, ENV SP

Vice President of Sustainable Development (Retired), StantecSIAB Representative



As Stantec’s Vice President, Sustainable Development (10+ years), Marty was responsible for guiding Stantec to become a cutting-edge innovator and exemplary model of sustainability. Over twenty-five years he played a prominent role in the emergence of sustainable infrastructure within integrated urban systems, optimized for lifecycle triple bottom line benefits. He has written, presented and participated widely in policy-forward events and initiatives.

In addition to being an early contributor to Envision and member of the SIAB, Marty serves as a member of the Institute for Sustainable Infrastructure’s Board of Directors, Envision Review Board (technical supervisory), and as an authorized Envision Verifier and Trainer. As a hands-on practitioner, he was senior advisor on the first two Canadian Envision verified projects and for more than a dozen Envision-related designs, reviews, and verifications. Marty was selected as a founding member of Canada’s Clean 50 - outstanding contributors to sustainable development and clean capitalism.

11:30 a.m.

Panel 1: Evolving Public Policy and Funding

Andrew Mayock

Federal Chief Sustainability Officer, USA



As the Federal Chief Sustainability Officer, Andrew Mayock leads President Biden’s efforts to improve the sustainability of the Federal government, including by helping Federal agencies prepare for and respond to the impacts of climate change on their operations and services.

Andrew brings over 25 years of public and private sector experience to the Biden Administration, including service in the Obama and Clinton Administrations. In the Obama Administration, Andrew served as Deputy Director for Management and Associate Director

for General Government Programs at the Office of Management and Budget (OMB). At OMB, he led OMB's management offices and the President's Management Council with a focus on digital services, cybersecurity, acquisitions, financial management, personnel and performance management. As Associate Director for General Government Programs, he oversaw policy and budget for six cabinet agencies comprising \$225 billion of the President's budget and covering over one million federal employees.

Prior to his OMB roles, Andrew served as the Deputy Vice President for Compact Operations for East and Southern Africa at the Millennium Challenge Corporation. He served as Executive Secretary at the U.S. Treasury Department from 2009-2010.

In the Clinton Administration from 1995-2000, Andrew worked at the White House and the U.S. Treasury Department. Andrew was a consultant at Booz Allen Hamilton from 2003-2009 and McKinsey & Company from 2017-2020, where he focused on public sector programs.

During 2019-2020, Andrew served on the steering committee of the Climate 21 Project, which delivered advice for a coordinated, rapid-start, whole-of-government climate response.

Andrew received a bachelor's degree from the University of Illinois, law degree from The George Washington University Law School, and a master in public administration from the Kennedy School of Government at Harvard University.

He and his wife have two children and reside in Washington, D.C.

Linh Do

Senior Vice President, AKRF, Inc.



Linh Do is a Principal and Senior Vice President of AKRF responsible for environmental and land use planning. She has managed comprehensive environmental impact assessments for many of New York City's most important public and private urban development projects, cultivating a deep familiarity with the city's physical geography, social fabric, public policy, and land development and governance processes. Linh has successfully overseen large, complex projects through the Uniform Land Use Review Procedure and is an expert in the city, state, and federal

environmental review processes as they pertain to New York City real estate, transportation, and infrastructure initiatives. She is a board member of the Citizens Housing Planning Council and member of the Urban Land Institute's New York Chapter Housing Council. Linh earned a BS from Columbia University in Applied Physics.

Evolving Public Policy and Funding

Sustainable infrastructure takes on many forms in New York City, having evolved from a conventional understanding of 'green' sustainability to address a broad series of physical, social, economic, and intellectual considerations in urban planning and development. In this session, Linh Do of AKRF will look at each of these four fabrics of sustainable infrastructure and discuss how the public and private sectors have come together with public policy and funding strategies to cultivate a more equitable and sustainable society.

This has been a year of change that will inform land use and community development for the foreseeable future. From physical infrastructure solutions like the approval of a zoning text amendment to promote the design of more resilient buildings throughout current and future floodplains; to social infrastructure in adopted legislation that requires the city to assess the racial impact of land use proposals; to economic infrastructure seen in a city-sponsored solicitation for innovative shared-equity models that promote collective ownership of

neighborhood assets; and, finally, to the Universal Solicitation for Broadband, an innovative intellectual infrastructure measure to close the digital divide in broadband access.

Moreover, the application of sustainable infrastructure solutions must be fair and equitable, such as resiliency solutions to sea level rise and heat vulnerability in disadvantaged communities, and job opportunity and workforce development among the underprivileged and underrepresented. A balance of holistic citywide planning and targeted, context-sensitive mitigations for neighborhoods in need is the best way to ensure New York City rebounds socially and economically to the benefit of all its citizens.

Lisa MacTavish, M.Eng., P.Eng.,
Climate Resilience Engineer, WSP



Lisa MacTavish is a Structural Engineer focused on resilience and climate change adaptation. She applies risk assessment and climate adaptation frameworks such as the ISO 31000, ISO 14091, PIEVC and Climate Lens to help communities and organizations understand their exposure to climate change and reduce risks. Lisa has contributed to the resilience of office build-ings, industrial sites, shared and single-family residences, rail operations, culverts and dams in Canada. She has an education in Structural Engineering, International Development, Cities Engineering and Management, and Infrastructure Resilience.

Q & A Led by Marty Janowitz.

SESSION 1

12:30 p.m.

Panel 2: Local Examples of Implementing Policies and Securing Funding

Kathy Collins

Director of Sustainability, NV5, and SIAB Representative



At NV5, Kathy leads the Sustainability team, focusing on engineering solutions where sustainability, resilience and wellbeing shape the future of cities, buildings and how we live and work. Ms. Collins has more than twenty years of experience in the building industry and provides sustainability consulting services to large commercial real estate asset portfolio accounts, including Brookfield Properties and Hines Interests. Her team supports both existing buildings and new construction, assessing and implementing strategic paths to decarbonization and ongoing tracking of a building portfolio of

facilities and their operating efficiency performance. Kathy works with a team of experts specializing in energy and sustainability, alternatives to grid energy (renewables, microgrid, PPAs), project management and facilitation, data tracking, ESG and carbon reporting, envelope commissioning, and certifications for the built environment. Kathy is a licensed professional in New York, Texas, and Illinois.

Reaching 40% Decarbonization

Buildings account for more than 38% of energy-related CO2 emissions globally. Decarbonizing the Building Industry will be a major undertaking for the office and industrial market sector, and countries will not achieve this success by government policy and public infrastructure projects alone— several leaders in the real estate industry are poised for significant investment in energy and renewables projects and are stepping up to become part of the investment team with private and public utility to help us more quickly transition to a low-carbon economy.

The IEA (International Energy Agency) projects that while advanced economies are on course to be below pre-COVID energy demand, overall global energy is set to increase. With 2021 numbers approaching 2019 heights, many in the Commercial Real Estate Industry have been on an aggressive path to Decarbonization and aligning themselves with the Paris Agreement. Not only for their operations, but for their clients to comply as well— to improve carbon efficiency and help put us on a much needed path to net zero.

Michael Sussman

Chairman and CEO, OnTrackNorthAmerica and Strategic Rail Finance



I began my career in transportation in 1994 by launching Strategic Rail Finance, a North American transportation-industry consulting firm. My associates and I have been busy since then, advising private and public sector clients in 44 states and Canada. I entered the rail industry with the intention to improve how we invest capital in infrastructure and industrial systems. I have found that our common sense message, based in whole-system thinking, resonates across the political spectrum. We currently advise on \$2B of rail infrastructure projects, including the Port of Long Beach's Pier B intermodal project. Our nonprofit transportation think tank, OnTrackNorthAmerica, leads a breakthrough institutional design

for multi-state, regional supply chain planning and investment, the Southwest Supply Chain Coalition, a collaboration among Nevada, California, Arizona and Utah. OnTrackNorthAmerica also leads the Land Freight Lifecycle Impact Project, gathering data on 40 comparative factors between building roads and rail lines to move freight.

The Future of Land Freight Lifecycle Impact Assessment, A Case Study: Port of Long B

The United States and much of the world has neglected to embrace full life-cycle assessment of goods movement infrastructure. We do not yet understand the return on investment from building roads for trucks to move freight versus building rail lines for trains to move freight. To guide future infrastructure investment toward sustainability, OnTrackNorthAmerica is leading a ground-breaking project to pinpoint this comparative assessment and has begun applying the foundational thinking to its clients' projects. OnTrackNorthAmerica's Land Freight Lifecycle Impact Project, now being advanced with the assistance of the University of Tennessee's Institute for a Secure and Sustainable Environment, has identified 40 impact factors that will be addressed in a side-by-side comparison of society's investment in roads and rail lines for goods movement.

The success of Port of Long Beach's \$8MM grant application based on this approach will be presented along with an overview of the Land Freight Lifecycle Impact Project.

Typical Benefit-Cost Analysis as deployed in North America and as now required by most public sector infrastructure grant programs only utilize a narrow set of standard cost factors and questionable benefit factors. There are many other factors of significance that need to be applied to project conception and assessment. This presentation will highlight operational realities that add environmental and social impacts that were not considered in the project's previous Benefit Cost Analyses. Applying full lifecycle impact analysis to freight projects and investments will lead project sponsors to more successful grant applications and society to a built world that serves the community and the environment.

Vanessa Velasco

Senior Environmental Scientist, California Department of Water Resources



Vanessa Velasco is a passionate environmentalist working as a Senior Environmental Scientist in the Climate Change Program at the California Department of Water Resources. She assists local water managers in the southern region of California with climate change planning and supports the department's climate resiliency efforts. She earned a bachelor's degree in Environmental Biology from California State University Northridge and master's degree in Environmental Science from Loyola Marymount University.

Fitting Envision into A State Agency's World

The California Department of Water Resources (DWR) has made a commitment to sustainability by utilizing the Envision Rating Tool. The rating tool was implemented into a DWR grant selection process in which ultimately the Southport Levee Improvements Project was selected. This multi-benefit flood risk reduction and ecosystem restoration project in the West Sacramento levee system recently received the Envision Platinum Award. The integration process of Envision into the grant process will be discussed, as well as the addition of the Envision Rating Tool into the Department's Strategic Plan Goal in hopes of ensuring future infrastructure projects are as sustainable as they are effective.

Q & A Led by Marty Janowitz.

1:45 p.m.

Awards Ceremony and Moment of Recognition

Join our special one-hour webinar as we celebrate the recent achievements of the ISI and ZPH networks. Recent project award recipients will be invited to share highlights from their Envision projects.

Moderators:

Melissa Peneycad

Managing Director, Institute for Sustainable Infrastructure



Melissa Peneycad has devoted her career to making a positive impact by developing and implementing sustainability frameworks, standards, evaluation methodologies and strategies that have pushed whole industries forward, that have raised the bar for what is considered excellent performance from an environmental, social & governance and sustainability perspective. Her work has led to advancements in ESG/sustainability in infrastructure and public-private partnerships, commercial real estate, and B2B/B2G procurement. Melissa is managing director at the Institute for Sustainable Infrastructure where she oversees ISI's global Envision® infrastructure project verification and awards program, a program that boasts more than \$131 billion in sustainable development. She also oversees ISI's marketing and communications function, and represents ISI and Envision in Canada.

Anthony Kane

President and CEO, Institute for Sustainable Infrastructure



Anthony Kane is President & CEO of the Institute for Sustainable Infrastructure in Washington, DC where he oversees the organization's overall operations and leads the development of the Envision framework for sustainable infrastructure. He is also a commissioner on the Washington DC Commission on Climate Change and Resiliency. Anthony was formerly a research director at the Zofnass Program for Sustainable Infrastructure at Harvard University's Graduate School of Design, a research associate with the Materials, Processes, and Systems Group at Harvard University, and an instructor at the Boston Architectural College. He holds a Bachelor of Architecture summa cum laude from Virginia Tech and a Master in Design Studies from Harvard University. Anthony is a co-author of Ceramic Material Systems in Architecture and Interior Design and a contributing author of Infrastructure Sustainability and Design.

Select project highlights include:



Garage souterrain Côte-Vertu

Alexis Lautard, Conseiller corporatif, Développement durable, Société de transport de Montréal

The underground garage project for metro cars (Côte-Vertu garage), owned by STM (Société de transport de Montréal)—Montreal’s transit authority—was designed to respond to several needs, including having an accessible place to maintain trains, adding parking at each end of the line served, and alleviating mounting pressure on a busy and growing metro network by reducing downtime and enabling more frequent trips. Located near the Côte-Vertu metro station, the project consists of three buildings, including a ten-story building that goes underground to the tunnels to house a maintenance workshop. The project also includes a connecting track to enable trains to access the garage from the Côte-Vertu terminal station and track devices to guide trains to one of three tunnels.



City of Red Deer Water Treatment Plant Residuals Management Facility

Kingsford Amoah, Environmental Planning Engineer, City of Red Deer

The City of Red Deer (the City), located in Alberta, Canada, operates a conventional surface water treatment plant (WTP2) that draws water from the Red Deer River and provides potable drinking water to more than 125,000 people in the City and the surrounding Region.

The approval to operate the City’s waterworks system requires the completion of a study of alternate options for the treatment and disposal of residuals from the WTP2. However, the

City has decided to proceed with the construction of a residuals management facility (RMF). The project is not only a proactive step in the City's ongoing upgrades to its water treatment plant but also demonstrates its environmental leadership and commitment to achieving environmental sustainability.

The primary goal of the RMF is improvement of the quality of the clarification process waste stream prior to discharge into the Red Deer River. Improved treatment of the waste stream in the RMF would reduce the visible plume currently created by the discharge, improve the river's aesthetics, reduce solids sedimentation and consequent impact on fish habitats, and encourage recreational activities on the river.

The project team, comprised of the City, Associated Engineering Ltd. and Chandos Construction Ltd., used Envision to guide the design and construction of the RMF as well as its ongoing operations and maintenance. Envision helped the team develop a cost-effective and more resource-efficient facility and reduce the RMF's environmental impacts. The project's key sustainability achievements were:

- a. Minimizing noise and vibration from plant operations;
- b. Reducing operational energy consumption by 23.6% compared to industry norm;
- c. Developing a comprehensive plan for long-term monitoring and maintenance;
- d. Supporting sustainable procurement practices;
- e. Preventing surface and groundwater contamination;
- f. Preserving greenfields;
- g. Assessing climate threat; and
- h. Preparing for long-term adaptability.



Miami-Dade County Dolphin Station Park-and-Ride/Transit Terminal Facility
Patricia Gómez, Ph.D., Senior Resilience/Energy Program Manager, Miami-Dade County Office of Resilience

The Dolphin Park and Ride Station supports a critical east-west transportation corridor by providing a public transit hub for transit riders in West Miami-Dade to access major employment areas near downtown Miami.

Westminster BDCWWTF Solids Dewatering and Campus Wide Improvements
Julie Koehler, Utilities Engineering Manager, City of Westminster

Oxford Retention Basin Multiuse Enhancement Project
Ryan Virgin, Associate Civil Engineer, Los Angeles County Public Works



VTA's Berryessa Transit Center

Ann Calnan, VTA Environmental Programs Manager

Rachael Keish, CEO, Keish Environmental

The Santa Clara Valley Transportation Authority (VTA) Berryessa Transit Center Project is a multi-modal regional transportation hub located in San Jose, California. The Project enhances community quality of life by addressing much needed connectivity between local and regional transportation systems and increasing access to employment and critical services, such as education and healthcare, for all – including low-income, youth, elderly, and people with disabilities. The Project also incorporates many environmental and sustainability features including: a creek habitat restoration that reconfigured a degraded, linear channel into a sinuous creek with bioengineering features, native plantings, wetlands, riparian habitat, and a large floodplain to support wildlife and improve water quality; a Contemplation Garden to honor the Muwekma Ohlone Indian Tribe that includes educational signage and native plantings historically used by the Native Americans; locally created public artwork throughout the Transit Center reflecting the character of the surrounding area; a pedestrian and bicycle trail that connects to a regional trail network; and bioretention areas to capture and treat stormwater runoff with educational signage about the natural treatment process. Other green building features include a solar system, EV charging stations, recycled water and a weather-based irrigation system, low flow fixtures, variable speed escalators, and LED lighting throughout the Transit Center with dimmable lighting in the parking garage activated by motion detection. Finally, the project reduces greenhouse gas emissions by providing viable local and regional transportation alternatives to the single occupant vehicle, including access to the Bay Area Rapid Transit (BART) system. These and other sustainability features for the Project were considered in the earliest conceptual and planning phases and were incorporated throughout design and construction.

The Berryessa Transit Center Project earned Envision Platinum in March 2021. This recognition acknowledges the commitment VTA made in improving the area's environmental resiliency, addressing long-term sustainability, and increasing mobility for all.

Q & A Led by Melissa Peneycad, and Anthony Kane.

3:00 p.m. – 5:00 p.m.

Engaging Stakeholders

Assessing stakeholder needs allows us to be better positioned to identify appropriate solutions, and this session puts a laser focus on best practices in stakeholder engagement. Speakers in this session share perspectives from the asset owner, infrastructure users, and the “host” community to create a two-way street of communication between stakeholders and infrastructure professionals. Special attention will be paid to engaging multiple public community groups in cases where stakeholders have been previously disconnected and where communities are working toward climate resilience. Additionally, lessons learned from the pandemic will be discussed in terms of how COVID has changed how we engage our stakeholders, and which new best practices are here to stay.

Moderator:

Michael Mucha

Chief Engineer and Director, Madison Metropolitan Sewerage District



Michael Mucha is the Chief Engineer and Director for the Madison Metropolitan Sewerage District. He has dedicated his 28-year career in local government to building public trust through sustainability. “Anything can be accomplished if you have the public working with you.”

Michael is chair for the US Water Alliance’s One Water Council. He also teaches courses in sustainable infrastructure management and adaptive leadership at the University of Wisconsin and Edgewood College.

Michael is a professional engineer, with his B.S. in Civil Engineering from the University of Wisconsin Milwaukee and a Master’s in Public Administration from the University of Washington-Seattle.

3:00 p.m.

Panel 1: Connecting Communities through Robust Stakeholder Engagement

Melissa Figueroa

Chief of Strategic Communications, California High Speed Rail Authority



As the Chief of Strategic Communications, Melissa oversees the communications branches for media, stakeholder engagement, special projects, and outreach. Melissa was appointed Chief of Strategic Communications in August of 2019.

Melissa previously served as CalSTA’s Deputy Secretary of Communications and Strategic Planning; Deputy Secretary of Communications and External Affairs at the Business,

Consumer Services and Housing Agency; and Deputy Secretary of Communications at the State and Consumer Services Agency.

Before beginning work in the state's executive branch, Melissa worked within the Legislature as Press Secretary for California State Senator Joe Simitian.

In her early career, Figueroa worked in news media as the consumer and special projects producer for KCRA-TV and as the newscast producer for KSBY 6.

Figueroa graduated from Cal Poly, San Luis Obispo in 2002 with a degree in Journalism. She served as a student representative on the department's advisory board and currently serves on the Cal Poly Journalism Advisory Board.

The Role of Stakeholder Engagement in Delivering California High-Speed Rail

With 520 miles of electrified high-speed rail, connecting up to 24 station cities, California High-Speed Rail is building the backbone of a transformative statewide transportation system. The range of vested stakeholders from local communities, elected officials, regional CBOs, local municipalities, to statewide environmental, business, and labor groups is staggering. Stakeholder engagement on a project of this size and scope must be far reaching, intentional, and meaningful. We will discuss the values that drive our stakeholder engagement, how we utilize state and local partnerships, and how we ensure community input is heard and incorporated into the system. Stakeholder input will ensure the system delivers on its sustainability, equity and diversity goals and lives up to the promises the voters approved when they said yes to California High-Speed Rail.

Oscar Cortes

Vice President International Relations, FEMCIC



Highly experience Binational (+ 30 years) Consultant Project Manager Engineer with history of effective leadership for major Civil Engineering initiatives, design, construction and economic feasibility studies and stewardship of large Infrastructure capital projects and PPPs in Mexico and USA. Experience in Sustainable Infrastructure Development and PPP for Water Desalination, Road Infrastructure, Renewable Energy, Mass Transit and Social P3 projects.

Stakeholder Engagement and Infrastructure: Integrating Best Practices for Construction

In today's competitive construction market, sustainability is often used as a catchword as well as a watchword. Compared to other sectors, research found that little systematic work on the implementation of sustainability agenda has been done in the infrastructure industry. The lack of common understanding among various stakeholders in infrastructure projects is generally perceived to be the primary cause. Opportunistically, the application of sustainable principles in overall infrastructure development and related businesses is surely an advantaged differentiator in the market. More importantly, it also brings about social and environmental benefits. To do so, however, the different levels and types of interests and the needs of various project stakeholders in the infrastructure projects must be looked into and understood. On-going methods identify and integrate the different perceptions and priority needs of the stakeholders, along with identifying issues that impact on achieving sustainability objectives, in order to develop integrated decision-making guidelines for improving sustainability outcomes in infrastructure projects. As an integral of such methods are public meetings on the definitions of sustainability and project expectations to the infrastructure project stakeholders in community and project team.

Achieving sustainability-related targets in construction projects is increasingly becoming a key performance driver. Yet sustainability is a complex concept in projects and there are many diverse stakeholders. Some stakeholders are generally recognized as important, i.e., the client and main contractor, yet there are others not always perceived as such and whose

absence from the decision-making processes may result in a failure to address sustainability issues. Hence there is a need for a systematic approach to engage with stakeholders with high salience in relation to sustainability

Diana C. Mendes, AICP

Corporate President, Infrastructure and Mobility Equity, HNTB



Credentialed by the American Institute of Certified Planners, Ms. Mendes has over 35 years of leadership experience in transportation consulting. She currently serves as Corporate President for Infrastructure and Mobility Equity at HNTB, where she previously served as Mid-Atlantic Division President and as the National Transit/Rail Market Sector Leader. She is the Chair of the Board of Directors of Rail-Volution, a national non-profit focused on building livable, equitable communities through transit and serves on the American Public Transportation Association Awards Committee.

Diana has been honored by several organizations for her contributions. These include the 2019 Conference of Minority Transportation Officials (COMTO) Executive of the Year, the American Road and Transportation Builders Association Ethel S. Birchland Lifetime Achievement Award in 2018, the 2018 COMTO Shirley A. DeLibero Women Who Move the Nation Award, and the 2005 Women's Transportation Seminar DC Chapter Woman of the Year. She was recognized in 2018 by the Washington Business Journal (Women Who Mean Business) and in 2021 she received the Virginia Business Women in Leadership Award.

Diana has a BA in Sociology from Mount Holyoke College, and a Master of City Planning from the University of Pennsylvania. She also holds a Certificate in Diversity and Inclusion from Cornell University.

Bridging the Gap to Unite Communities

The transformational impact of transportation infrastructure investments is well documented, yet not always fully understood. Positive community “benefits” are routinely assumed as par for the course, spanning everything from enhanced access to opportunities, improved quality of life, and economic revitalization. While benefits undoubtedly accrue, not everyone and not all communities benefit equitably. A major contributing factor to this is that “benefits” are in the eye of the beholder as not all populations and communities define or view benefits in the same way, and while perhaps not intentional, one person’s benefit sometimes can be another’s misfortune. The resulting gap in benefits to all populations undermines the accrual of generational wealth and long-term community stability, while undermining economic sustainability.

Achieving more equitable outcomes requires intentional commitment to proactively think beyond the right-of-way and the traditional beneficiaries to tailor results to benefit a wider range of community interests and diverse populations. Bridging this gap in benefits requires several fundamental changes in how we approach infrastructure planning and delivery, including policy and regulatory reforms, rethinking how we educate industry professionals, changing our approach to project development and implementation, and redefining how we measure success. It can be done, as illustrated by the accomplishments of agencies and project teams that are already working to transform how we can deliver the next generation of infrastructure in a way that unlocks more equitable, sustainable, and meritorious outcomes. A common key to unlocking these outcomes is a robust understanding of, and meaningful engagement with, all communities in new ways.

Q & A Led by Michael Mucha.



4:00 p.m.

Panel 2: Results and Outcomes: Effective Stakeholder Engagement In Practice

Kari Hewitt

President, Hewitt Sustainability Strategies



Kari Hewitt, has 15 years of experience working in the sustainability field across public, private, institutional, and non-profit sectors. For more than a decade, she has worked as a consultant leading climate action, sustainability, and resiliency plans for communities, airports, transportation agencies, and other entities. She has facilitated public and stakeholder engagement workshops and technical meetings throughout the country and has experience integrating of sustainability and resiliency into building and infrastructure design. Kari has been an ENV SP, Envision Verifier, and Trainer since 2013 and served on ISI's Envision Review Board from 2015-2019. She is currently a member of the Board of Directors for New Ecology, Inc, a national non-profit delivering sustainability solutions at the community level. She holds an M.A. in Urban & Environmental Policy & Planning from Tufts University, where she is also an adjunct instructor, and a B.A. in Sociology from Smith College.

Avoiding False Solutions - Centering People and Equity in Infrastructure

One cannot turn on the news this year and not hear extensive discussion and debate about infrastructure - what it means, how it should be built, and who benefits. Historically, many infrastructure projects have, at best, not always benefited their communities and, at worst, created lasting harm. This presentation will look at the past, present, and future of infrastructure development to better understand how we can place equity at the center of this work. What does it mean to do so? And how can we begin to operationalize it? This presentation will offer a glimpse at emerging best practices and new ideas for engagement and decision-making for infrastructure projects that can begin to shift outcomes and ensure that infrastructure serves its purpose and will remind us all of the important questions that Envision begs us to ask about both doing the right project and doing the project right. This presentation will also challenge you to think differently about who ultimately makes those decisions.

April Mendez

CEO, Greenprint Partners



April Mendez is the CEO for Greenprint Partners (WBE, B-Corp), a green infrastructure project development and advisory firm that helps cities implement equitable, community-driven, multi-benefit stormwater solutions. She leads a national team of urban planners, engineers, community organizers and finance professionals on a mission to get the most good out of green infrastructure.

Driven by an inherent respect for the human spirit, April approaches Greenprint's work with a vision for fostering environments in which everyone can thrive and make their mark on our collective future. April co-founded and spent 13 years building Interfaith Youth Core (IFYC), a \$4.5 million nonprofit that is transforming the way higher education engages religious diversity. She has also worked for the Steans Family Foundation and founded an organization dedicated

to developing social entrepreneurship among minority youth in some of Chicago's toughest neighborhoods. April holds a B.A. from Carleton College and completed MBA coursework at the Kellogg School of Management at Northwestern University focusing on social innovation.

Designing Equitable Rainscapes with Mission-based Communities in St. Louis

Community centering is key to successfully developing equitable green stormwater infrastructure (GSI). By thoughtfully engaging with the community from the beginning, Greenprint Partners builds capacity for local, representative community members to take a leadership role in their green infrastructure projects. This ensures that projects are built to meet landowner and community goals while also fostering a sense of personal ownership and value for those who live, work, and play nearby. When impacted community members understand the value of green infrastructure and are empowered in the decision making process, projects are more likely to positively benefit the community and be protected in the long-run.

Through a portfolio of projects designed in collaboration with 12 mission-driven organizations across St. Louis, MO, this presentation will showcase the Greenprint Partners model and process for designing equitable, community-centered green infrastructure. Supported by grant funding from the Kresge Foundation and St. Louis Metropolitan Sewer District's (MSD) Large Rainscaping Grants program, the portfolio demonstrates how equitable siting and collaborative design help to address economic, community, and environmental goals while also managing stormwater and reducing runoff pollution in the Mississippi watershed. Topics discussed will include engaging the St. Louis Metropolitan Sewer District (MSD) and Kresge Foundation as stakeholders in this work, Greenprint's approach to reducing barriers to participation in MSD's Large Rainscaping Grants program for low income and communities of color, and Greenprint's five pillars for community activation: trust building, knowledge sharing, authorship, celebrations, and storytelling. We will explore how this approach works to empower project stakeholders in the decision-making process and create equitable, long-lasting green infrastructure projects that directly benefit the communities in which they are located.

St. Louis Green Sustainable Infrastructure Portfolio Envision Checklist Assessment

Judith Rodríguez, Research Associate and Administrator, Zofnass Program for Sustainable Infrastructure, Harvard GSD



Judith Rodríguez is an experienced researcher and designer with domain expertise in sustainability standards, ratings, tool use and training. Her work in sustainability, resilience, and health, includes assessments of large-scale infrastructure, best practices, and risk reduction. She has extensive strong experience evaluating the social and environmental sustainability, and climate resilience of city infrastructure.

Q & A Led by Michael Mucha.

5:30 p.m. – 6:30 p.m.

Networking Session

Register to attend this interactive networking session using the Remo platform. Participants will be able to engage with conference attendees through round table discussions.

November 18, 2021

10:00 am

Welcoming and Opening Remarks

Moderator:

Melissa Peneycad

Managing Director, Institute for Sustainable Infrastructure



Melissa Peneycad has devoted her career to making a positive impact by developing and implementing sustainability frameworks, standards, evaluation methodologies and strategies that have pushed whole industries forward, that have raised the bar for what is considered excellent performance from an environmental, social & governance and sustainability perspective. Her work has led to advancements in ESG/sustainability in infrastructure and public-private partnerships, commercial real estate, and B2B/B2G procurement. Melissa is managing director at the Institute for Sustainable Infrastructure where she oversees ISI's global Envision® infrastructure project verification and awards program, a program that boasts more than \$131 billion in sustainable development. She also oversees ISI's marketing and communications function, and represents ISI and Envision in Canada.

10:15 am

Catherine Flowers

Catherine Flowers, author and internationally recognized environmental justice advocate for equal water and sanitation access, will be speaking 10 a.m. ET. Her thought-provoking talks leave audiences with modern-day tangible solutions and ways to take action to address today's current environmental challenges, including addressing equal access to water, the effects of climate change on different communities, and the impacts of history on today's inequities.

Catherine Flowers

Author and internationally recognized environmental justice advocate for equal water and sanitation access



Catherine is an author and internationally recognized environmental justice advocate for equal water and sanitation access. She offers informative, engaging talks on environmental justice and climate change. Catherine has dedicated her life's work to advocating for environmental justice, primarily equal access to clean water and sanitation for communities in the United States. She will be discussing sanitation and its correlation with systemic class, racial, and geographic prejudice that affects people across the United States.

In 2021, her leadership in fighting for solutions to these issues led her to one of her most notable appointments yet — Vice Chair of the Biden Administration's inaugural White House Environmental Justice Advisory Council.

Catherine is also founder of the Center for Rural Enterprise and Environmental Justice (CREEJ). She is a senior fellow for the Center for Earth Ethics at Union Theological Seminary, and sits on the board of directors for the Climate Reality Project and the Natural Resources Defense Council.

Catherine has written two books: *Waste: One Woman's Fight Against America's Dirty Secret* and *Flushed and Forgotten: Sanitation and Wastewater in Rural Communities in the United States*.

Q & A Led by Melissa Peneycad.

11:30 a.m. – 1:30 p.m.

Serving the Underserved

For generations, infrastructure projects have resulted in a mixture of impacts and benefits. Many of the impacts flowed to communities that struggle to access opportunities to improve their lives. In this session, we will shine a light on the realities of infrastructure development, including tradeoffs that all of us have faced striving to deliver solutions to serve the needs of the broadest communities.

Moderator:

John F. Williams

Chairman & CEO, Impact Infrastructure, Inc., makers of Autocase Software
Board Chair, Institute for Sustainable Infrastructure



John Williams has forty-two years of experience as an advisor to infrastructure and building development in 20 states. He started his career as a Community Liaison for major infrastructure projects in NYC. In latter years, he served as owners' representative for the development of more than \$5B in successful Public-Private ventures. In 2007, he initiated a movement aimed at measuring the value of "Green" infrastructure and buildings. He coined the phrase: SROI (Sustainable Return on Investment) and led a team of economists charged with creating an objective, transparent framework for measuring tangible and intangible benefits associated with investments in infrastructure and buildings. In 2012 he founded Impact Infrastructure, the makers of Autocase software for automated economic analysis. Autocase leveraged cloud-based computing to dramatically reduce the cost and improve the quality of economic assessments on more than \$100B in projects including airports; university campuses; hospitals; power infrastructure; commercial buildings; manufacturing, water, wastewater and stormwater facilities; and mobility investments. More than 1200 projects have benefited from Autocase business cases.

John is part of the group developing the ASCE Sustainability Standard, He is in his fourth term as Board Chair at ISI, he is an SASB Subject Matter Expert and served on the Advisory Committee for NYU SDG Invest NYC at the Stern School of Business. He served on the adjunct faculty at Columbia University's School of International and Public Affairs (SIPA) for more than fifteen years.

11:30 a.m.

Panel 1: Who are the underserved and what is their infrastructure reality?

Jade Begay

Climate Justice Campaign Director, NDN Collective



Jade Begay, Diné and Tesuque Pueblo, an Indigenous rights and climate organizer and narrative strategist. Jade has partnered with organizations like Resource Media, United Nations Universal Access Project, 350.org, Indigenous Environmental Network, Bioneers, Indigenous Climate Action, the Women's Earth and Climate Action Network, Allied Media Projects, and Tribal Nations from the Arctic to the Amazon to develop strategies and building campaigns to mobilize and create engagement and impact around issues like climate change, Indigenous self-determination, and environmental justice.

Jade is the Climate Justice Campaign Director at NDN Collective and serves on the board of Amazon Watch, the Native Conservancy, and the White House Environmental Justice Advisory Council.

Sonal Jessel

Director of Policy, WE ACT for Environmental Justice



Sonal Jessel is the Director of Policy at WE ACT for Environmental Justice. She is responsible for advancing the organization's policy agenda at the local, state, and national levels, in addition to leading our New York City policy initiatives and the Northern Manhattan Climate Action (NMCA) Plan. Prior to joining WE ACT, she conducted research in energy insecurity, housing, and public health at Columbia University. Sonal has an MPH in Population and Family Health with a concentration in Climate and Health from Columbia University's Mailman School of Public Health, and a BA in Organismal Biology from Pitzer College, in California.

Climate Justice & Infrastructure in Northern Manhattan

Presentation about climate justice needs for Northern Manhattan communities (Harlem, Washington Heights, Inwood) for adaptation, mitigation, and resilience to climate impacts. The presentation will discuss critical infrastructural needs for these environmental justice communities and how to expand our definition of infrastructure.

Q & A Led by John F. Williams.

12:00 p.m.

Panel 2: How can infrastructure serve as connections to opportunities?

Cris B. Liban

Chief Sustainability Officer, Los Angeles County Metropolitan Transportation Authority and SIAB Representative



Dr. Cris B. Liban, P.E., serves as Chief Sustainability Officer at the Los Angeles County Metropolitan Transportation Authority (LA Metro). Dr. Liban has worked at LA Metro since 2003 and has grown his agency's environmental and sustainability practice into one of the most progressive and forward-looking in the country, implementing over 150 sustainability initiatives to date. He is working to ensure that \$140B in capital projects that are programmed for the next 40

years are sustainable, climate-adapted, and resilient for the more than 10 million people of Los Angeles County. Many of these are to be completed in time for the 2028 Olympics.

Dr. Liban holds concurrent appointments in the State of California Green Bonds Development Committee, Los Angeles County Beach Commission, and the City of Los Angeles Board of Transportation Commissioners. He is currently the Chapter Lead in writing the Transportation Chapter of the forthcoming Fifth National Climate Assessment (<https://www.globalchange.gov/nca5>).

He held previous political appointments as a member of the USEPA's National Advisory Council for Environmental Policy and Technology and the California Climate Safe Infrastructure Working Group.

Cris was the recent Chair of the American Society of Civil Engineers' Committee on Sustainability where he led the effort to develop a global sustainable infrastructure standard; and guidance documents that incorporate climate science into both the practice of civil engineering and procurement and execution of sustainable infrastructures. He is currently the Co-Chair of the American Public Transportation Association's Sustainability Commitment Committee. He conceptualized and co-led the formation of the International Coalition for Sustainable Infrastructure in 2019, which now has become a global coalition of almost 200,000 engineers and more than 10,000 cities around the world. Cris previously received in 2016 the Philippines' highest civilian honor for Filipinos living overseas, the Pamana ng Pilipino Award, from Philippines President Rodrigo Duterte. In addition, because of his singular focus on building a sustainable transportation system that is also economically and socially beneficial to all levels of society, Cris was awarded the Engineering-News Record's (ENR) 2020 Award of Excellence. Cris was elected to the National Academy of Construction in 2021. Dr. Liban has degrees in geology, civil engineering, and environmental science and engineering.

Jean Paul (JP) Liban

Environmental and Ecological Engineering Student Purdue University



Jean Paul (JP) Liban is currently a senior in Environmental and Ecological Engineering (EEE) at Purdue University. There he is an ambassador for EEE and the College of Engineering, a Senior Advisor for the Purdue Filipino Association, and a Captain for the Engineering Mentor Corps. Through these different positions he is an advocate for not only engineering students, but also the greater Asian community within Purdue. Though he is set to graduate in December 2021, he is continuing at Purdue to complete his Masters Degree in EEE through their Combined Degree Program.

He is currently interested in urban development and land/water remediation as potential industries to go into post-graduation. He earned his ENV SP in June 2020 and has had previous internships with the Institute for Sustainable Infrastructure and Lyondellbasell.

12:30 p.m.

Panel 3: How is the infrastructure community engaging with Envision to lift the underserved that are impacted by climate change?

Elizabeth Knauer

Principal, Sive, Paget & Riesel P.C.



Elizabeth is a principal at Sive, Paget & Riesel, a boutique environmental and energy law firm in New York City. She advises public and private clients on compliance with the New York State Environmental Quality Review Act and the National Environmental Policy Act and related laws, and environmental permitting. She has advised both governmental and private clients on the environmental assessment of, and other environmental issues related to, projects ranging from major transportation projects to

small affordable housing developments. Elizabeth also litigates cases relating to development approvals and a variety of pollution issues in State and Federal courts.

Community Equity Agreements

This presentation will introduce the concept of Community Equity Agreements (CEAs), agreements between community stakeholders and infrastructure developers designed to facilitate a community's participation in and benefit from infrastructure development over the long term. The discussion will focus on how CEAs can ensure that communities impacted by infrastructure projects can voice their needs and secure substantial commitments contributing to fairness and equity over the life of a project investment. It will also discuss challenges to developing agreements that can practically achieve such goals in the real-world context, and intersections with legal processes attendant to project development.

Jason Waldron

Transportation Director, City of Kansas City, Missouri (KCMO)



Jason Waldron serves as the Transportation Director for the City of Kansas City, Missouri (KCMO) Public Works Department where he is responsible for the Transportation Division. Jason oversees the development of comprehensive transportation policies integrating capital and street maintenance projects with neighborhood, mobility, transit, parking and traffic needs. He is currently leading the development of KCMO's recently adopted Vision Zero program.

Mr. Waldron also serves as the project manager for the KC Streetcar Main Street Extension. He has been involved with the Kansas City Streetcar Program from the early conceptual planning, through design and construction and into passenger service.

Jason is a registered professional engineer and holds a Bachelor's of Science in Civil Engineering from Iowa State University. In 2018, Jason was selected for the American Public Works Association Jennings Randolph International Fellowship to study emerging and re-emerging multimodal transportation policies and best practices in Auckland, New Zealand and Sydney, Australia.

Q & A Led by John F. Williams.

Nov. 17-18, 2021

EQUITABLE + SUSTAINABLE INFRASTRUCTURE

DELIVERING MERIT AND CLIMATE RESILIENCE

Nov. 18, 2021 from 1:45 p.m. – 2:45 p.m.

Posters and Networking Session

This is an interactive poster and networking session is an opportunity to engage with poster presenters and conference attendees using the Remo platform. The poster session features innovative sustainable infrastructure ideas and projects. Join and support the submissions accepted to the conference. More details about each submission in the Poster Session Booklet.

The Zofnass Program (ZPH, <http://research.gsd.harvard.edu/zofnass/>) and the Institute for Sustainable Infrastructure (ISI: <http://www.sustainableinfrastructure.org/>) invited students and professionals to submit a board or media to the ISI/ZPH Conference Poster and Networking Session, to be held on November 18, 2021, 1:35 - 2:45 pm (EST). The call for boards looks for projects, ideas, and research on all types of sustainable and equitable infrastructure. The boards should explore the topic of the conference in taking a 360-view of what it means to design, build, and implement infrastructure systems that deliver merit, climate action, and provide equitable services to communities.

Each entry completed includes a questionnaire based on the checklist of the Envision rating system. The answers to the questionnaire will give a measure on the sustainability performance of the project. The submissions have been reviewed by ZPH and ISI for acceptance into the poster session on their quality and sustainability merit. The best poster award will be announced in the conference during the Closing Remarks.

Accepted Submissions

- Baseco Children's Playhouse
- From Trash to Fish: A Sustainable Infrastructure Framework for Marine Debris Problem
- HEAL + : A regenerative design and implementation framework for localizing SDG in Covai
- Park-And-Thrive
- Redefining Relationships During the Project Pursuit Phase - Teaming Frameworks and the Role of Agencies
- Resilient Hub
- Smartphone Community for an Urban Noise Monitor tool
- The Table that Makes the City
- VACANCY & OPPORTUNITIES
- ZONE ZERO DELRAY

3:00 p.m. – 5:00 p.m.

Thinking from the Inside-Out

Throughout the virtual conference, external “influence” factors have been analyzed with respect to how they may inform infrastructure decisions. As a session intended to culminate the ideas and best practices, the final session is forward-thinking. It showcases how infrastructure professionals can plan for and design systems that meet current demands. Speakers will define “merit” in the context of infrastructure design and spotlight technology and innovation to deliver merit.

3:00 p.m.

Panel 1: Designing for Merit

Moderator:

Eric Bill

Chief Economist, Autocase



Eric Bill is the Chief Economist and leads the research and economics advisory teams at Autocase Economics. The firm’s primary goal is to create a standardized suite of business case analysis tools to promote the development of more sustainable and resilient communities. Eric has extensive experience leveraging economic concepts and data analytics to incorporate sustainability, resilience, and social outcomes into decision making for capital projects, programs, and policies across all infrastructure and real estate sectors. He has been involved in hundreds of projects and policy programs supporting all levels of governments across North America, as well as corporations, investors, NGO’s, non-profits, real estate and infrastructure owners, architecture and engineering firms. Eric works with clients who wish to customize Autocase products as well as those that wish to create unique solutions and insights for their organizations using state-of-the-art economic, financial, and risk analysis concepts.

Merit Based Decision Making

Not all infrastructure and real estate projects are created equal – each has varying design elements, costs, and impacts. Better designs drive user, occupant, and community benefits – benefits to society and the environment (also called environmental, social, governance (ESG) impacts). Understanding how project costs trade-off against these benefits provides insights to inform projects and policies towards optimal design, as well as allowing investment capital to be allocated to only the worthiest projects. This information is also critical in providing evidence to stakeholders to engage in dialog regarding merit with objective and defensible empirical evidence. This session will cover how economic analysis, specifically life cycle cost analysis (LCCA), cost benefit analysis (CBA), and multicriteria decision analysis (MCDA) frameworks, can support complex decision making, funding applications, and stakeholder engagement with insights and examples.

Gregory Huang

Vice President, CCR Airports



Gregory Huang is in charge of business development for CCR Airports in North America. His airport development and management career spans over 13 years. He has served as the CFO for Total Airport Services, an aviation services company that has over 1,500 employees and operates at 8 different airports in the US. Prior to CCR Airports, he served as Vice President at Airports Worldwide where he was responsible for the company's strategic initiatives and project financing activities. Mr. Huang has served on numerous Boards of airport concession companies internationally and has participated in P3 processes around the world.

Sustainability and Equity Case for a Vertically Integrated Air Cargo Facility at LAX

More than ever before, the US is relying more on air cargo to meet the demand for high value and time sensitive goods as well as the growing consumer dependence on e-commerce. Despite this demand, the industry has been historically slow to innovate and address organic growth. Most airports have insufficient capital reserves for investment to improve or replace outdated cargo infrastructure and make technological advancements.

CCR with its partner Airis, has been developing a privately financed next generation air cargo facility for major US gateway airports. The VICC, a Vertically Integrated Cargo Community, introduces a sustainable air cargo business platform that provides a community of enterprises, services and people to promote and expand aviation commerce. With its vertically integrated design and the most recent advancements in cargo handling technology, it provides land constraint airports such as LAX an abundance of air cargo capacity for today and into the future.

The VICC is in early stages of development and being proposed for construction at the Los Angeles International Airport (LAX).

Q & A Led by Eric Bill.

4:00 p.m.

Panel 2: Data, Technology, and Innovation that Deliver Merit

Thomas Bucci

VP of Global Building and Facilities Leader, Wood Group



Tom Bucci has 30 years of project, program, client, and operational management experience in the building and facilities, environmental, infrastructure, construction, and engineering industries for both public and private clients. His career has focused primarily on U.S. operations, but he has worked on projects for customers around the globe. For the last 20 years, he has led hundreds of employees and numerous businesses ranging from Geotechnical, Environmental, Telecommunications, Engineering Design, Water Resources and Transportation. He has also served in several operational, business development, client account, and strategic imperatives roles and currently serves as Wood's Building & Facilities Technical Domain Leader where he both helps clients

design and evaluate sustainability programs as well as delivering customized sustainable solutions for his clients assets.

In this role, Tom integrates sustainability and resiliency solutions to clients that support their energy transition, and ESG objectives. Tom also provides leadership in strategic and tactical business development, startup of new market sectors and services, personnel mentoring and coaching, team-building, and operations management.

Joel Burroughs

Account Manager, NV5 Geospatial



Joel Burroughs has over 16 years of experience in the geospatial field. His technical background is in wide-area lidar data acquisition and processing, and elevation derived derivative products. Joel has been with NV5 Geospatial for the last 10 years, and serves as an Account Manager within their Federal Team. Joel's primary focus now is in supporting USGS and their programs through management of NV5G's Geospatial Products and Services Contract (GPSC). Joel lives in Louisville, Kentucky.

3D Elevation Program: Enabling Infrastructure Equality Across Communities

In 2015, the U.S. Geological Survey (USGS) created the 3D Elevation Program (3DEP) to respond to the growing needs for high-quality topographic data across the country. This program has the goal of providing wall to wall high-resolution, homogenous elevation data of all 50 states and U.S. territories by 2023. These data will be the underpinning of a myriad of projects that will address the nations aging infrastructure, advance planning for natural disasters such as wildfires, floods, and landslides, bringing broadband to underserved and remote parts of the country, and making us more resilient against an ever-changing climate. 3DEP has been successful to date by engaging and partnering with the entire geospatial community. This includes Federal agencies outside of USGS, States, Counties, Municipalities, and the private sector. Since the beginning of 3DEP, NV5 Geospatial has been awarded task orders to collect and process over 1 million miles of lidar data for the program. This presentation seeks to provide an overview of the 3DEP program, highlight the use cases for the data using NV5 Geospatial's own project examples, and look to what is next as the program evolves past the initial goal of wall-to-wall coverage of high-resolution elevation data.

Q & A Led by Eric Bill.

5:00 p.m.

Closing remarks

Envision Qualified Companies

- 300 Engineering Group, P.A.
- 3T-Design & Development LLC
- 5engineering
- Advanced Drainage Systems, Inc.
- Advanced Infrastructure Technologies
- AECOM
- Aero Aggregates of North America LLC
- AKRF Inc.
- Alisto Engineering Group
- American Public Works Association
- American Society of Civil Engineers
- AmeriTex Pipe & Products
- Anderson Bogert
- Aplin & Martin Consultants Ltd
- ARC Alternative and Renewable Construction LLC
- Arcadis
- Arup
- ATCS
- Autocase by Impact Infrastructure
- Aviasolutions
- B. Thayer Associates
- Barr engineering
- BA Blacktop Ltd
- Baxter & Woodman
- Beals and Thomas, Inc.
- Bechtel Infrastructure
- Being Here Landscape architecture
- BETA Group, Inc.
- Black & Veatch Corporation
- Blue Ocean Civil Consulting
- Brightworks Sustainability
- Brooks + Scarpa Architects, Inc.
- Brooks and Sparks
- Brown and Caldwell
- Burns & McDonnell
- C&S Engineers
- Calibrate Collaborative Inc
- Carollo Engineers
- CDM Smith
- CES Consultants, Inc.
- CHA Consulting
- Chastain & Associates LLC
- Chastain-Skillman, Inc.
- Chen Moore and Associates
- CIMA s.e.n.c
- Cima Engineering Corp
- CivilTech Engineering, Inc.
- Clark Dietz, Inc.
- Clark Nexsen, Inc.
- Costello, Inc.
- COWI North America
- CPH, Inc
- Crawford, Murphy & Tilly, Inc.
- CWE
- Dar Al-Handasah (Shair and Partners)
- Design Management Services, Inc.
- Dewberry
- Donohue & Associates, Inc.
- Doucet
- DRMP, Inc
- Ductile Iron Pipe Research Association
- EA Engineering, Science, and Technology, Inc., PBC
- Economides Consulting
- Ecovert Sustainability Consultants
- EHRA Engineering
- EllisDon Construction Service, Inc
- Emmons & Olivier Resources
- Entuitive
- EXP Global
- Expanded Shale, Clay, and Slate Institute
- FGB Studio
- Flatiron
- Freese and Nichols, Inc.
- Fukunaga & Associates
- Fuscoe Engineering, Inc.
- G70
- Gannett Fleming, Inc.
- Garver
- Gedeon GRC Consulting
- GeoEngineers
- GHD Inc.
- Granite Construction Inc.
- Greeley and Hansen
- Greenman-Pedersen, Inc
- Gresham Smith
- Grimshaw
- Haley & Aldrich, Inc.
- Hanson Professional Services Inc.
- Harper Corporation
- Harris & Associates
- Haskell
- Hatch
- Hazen and Sawyer
- HDR Inc.
- Hewitt Sustainability Strategies, LLC
- HNTB Corporation
- HR Green, Inc.
- ICMQ S.p.A.
- Jacobs
- Jones Edmunds & Associates, Inc
- Kabbes Engineering, Inc
- KCI Technologies, Inc
- Keish Environmental, PC

- Kennedy/Jenks Consultants
- KERAMIDA, Inc.
- Kiewit Corporation
- Kim Lundgren Associates, Inc.
- Kimley-Horn
- Kleinfelder
- KMEA
- KS Engineers, P.C.
- Lamp Rynearson
- Land Design
- Latin American & Caribbean Council on Renewable Energy
- LiRo Engineers, Inc
- Louis Berger
- Lumsden Associates, P.C.
- Luceo Consulting Inc.
- McCarthy Building Companies, Inc
- McElhanney
- McGowan Consulting
- McKim & Creed, Inc.
- McMillen Jacobs Associates
- McWane Ductile
- Mead & Hunt
- Merrick & Co
- Michael Baker International
- Moffatt & Nichol
- Moore & Bruggink
- Mott MacDonald
- MS Consultants
- MSA Professional Services
- MSI Marine Solutions
- Naik Consulting Group
- Nelson + Pope
- Nitsch Engineering
- NorLand Limited
- Nova Consulting
- NovelEsolutions, Inc.
- NV5, Inc
- O'Brien & Gere
- O'Brien360
- Okapi Architecture, Inc
- Otak, Inc.
- Parametrix
- Pare Corporation
- Parsons
- Pennoni Associates
- Pinyon Environmental, Inc.
- PMCS Group, Inc.
- Pomerleau
- Powell CWM, Inc.
- Power Engineers Inc.
- Primoris Renewable Energy, Inc
- Professional Land Services LLC
- Psomas
- Quad Knopf, Inc.
- R. G. Miller Engineers, Inc.
- R. M. Towill Corporation
- RPS Group
- SANPEC Inc
- Sargent & Lundy
- Schnabel Engineering
- Schweitzer & Associates, Inc
- SCV Consulting Ltd
- Short Elliott Hendrickson Inc
- Skanska USA
- SNC-Lavalin Inc
- SPEC Services, Inc
- Spirit Environmental
- SSFM International, Inc
- Stanley Consultants Inc
- Stantec Consulting, Ltd
- Strand Associates, Inc
- STV Inc
- SUMAC
- Sundt Construction, Inc.
- Taliaferro and Browne
- Taylor Future Solutions
- Terracon Consultants, Inc.
- Thornton Tomasetti
- Timmons Group, Inc.
- TranSystems Corporation
- TREKK Design Group, LLC
- Two Trails, Inc
- Ulliman Schutte Construction
- VHB
- Volkert, Inc.
- V.W. Housen & Associates, Inc
- Wade Trim
- Walter P. Moore and Associates, Inc
- Webbers, LLC
- West Yost Associates
- Whitman, Requardt and Associates, LLP
- Wood
- Woodard & Curran
- Woolpert Inc
- Wight & Company
- WSP

The background of the entire page is an aerial photograph of a city street grid. Overlaid on this map are several semi-transparent, colored regions. A large purple region is in the upper left, a green region is in the upper center, and a yellow region is in the upper right. These regions appear to be thematic maps, possibly showing different types of infrastructure or land use. The text is located in the bottom left corner of the page.

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