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## LearningSCAPES 2018

On behalf of the Board of Directors of the Association for Learning Environments I would like to welcome you to Chicago and the 2018 LearningSCAPES Conference! During this week, professionals from around the globe will gather to re-imagine how our schools can best prepare our students to succeed now and in the future.

This week's activities will offer you the opportunity to experience an interactive learning environment. World-class educational sessions offering the latest state-of-the-art information will equip you in becoming part of the solution that builds the intersection of learning and place. Keynote speakers who are experts in resilience, school safety and security, will provide you a glimpse of the future as it relates to the learning environment. Also, a wide array of solutions to your immediate challenges will be exhibited in LE Market Place. These solution providers offer services or products that can help you create the best learning environments possible!

A comprehensive range of learning tours will include schools and other varied options that will provide you an occasion to learn something new. Please take advantage of these learning tours so you can see real results in action!

The Association's flagship program, the SchoolsNEXT student design competition, will be on proud display! Take the time to interact with students who have a vision for schools of the future, they will inspire you and they love talking with adults about their passion.

There will be several opportunities to network with your colleagues to discuss the present and future challenges that face our industry. Our intent is to provide you with knowledge and connections for you to take home that will help you make a difference in creating quality learning environments.

Engagement at this conference does not end here. The Association for Learning Environments is an organization committed to the betterment of all educational spaces for students everywhere. I encourage you to get involved at the chapter, region, or global level. We have nearly 5000 professionals just like you, spread across several continents (and growing)!

Your program will be laden with learning and networking junctures; however, take some time for yourself. Chicago is famed for its bold architecture, art museums, food and music. What a great place to enjoy and learn in our continual quest to bring us closer to what we need to know! Thanks for your efforts in the development of quality learning environments.

Bill Stice, REFP Chairman

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# **KEYNOTE SPEAKERS**



## Dr. Michael Hinojosa

Dr. Michael Hinojosa returned to Dallas ISD when he was named by the board of trustees to serve as superintendent in October 2015. Dr. Hinojosa has served 20 years as a superintendent/CEO of six public education systems, including two of the 25 largest school systems in America, Dallas ISD in Texas and the Cobb County School District in suburban Atlanta, Georgia. His career in public education, from teacher and coach to superintendent/CEO, spans more than three decades.

With a firm belief that education and not environment is the key to a student's success, he has led several school districts to improved student achievement. Dr. Hinojosa's recognitions include being named 2002 Superintendent of the Year by the Texas Association of School Boards and 2005 Superintendent of the Year by the University of Texas at Austin. He was honored as Distinguished Alumnus by the College of Education at Texas Tech University and as the Outstanding Latino Educator by the Association of School Administrators and Superintendents in 2014. He is a past president of the Texas Association of School Administrators. He has served as an educational consultant for various organizations that support public education, including as a master teacher and coach for the American Association of School Administrators and the Association of Latino Administrators and Superintendents.

Dr. Hinojosa, a proud graduate of Dallas Independent School District, holds a doctorate in education from the University of Texas at Austin. He and wife Kitty have two sons, graduates of Princeton University and Harvard University. He has a son from a previous marriage who graduated from Texas Tech University. All three attended Dallas ISD for a significant portion of their K-12 careers.

# **KEYNOTE SPEAKERS**



## **Michael Dorn**

We all know that safety is any school's first and most important responsibility. Michael Dorn serves as the Executive Director of Safe Havens International Inc., a global non-profit school safety center whose analysts have worked in more than two dozen countries. During his 36-year career, Michael served as a campus police officer, corporal, sergeant, lieutenant and school district police chief. He was then appointed as the School Safety Specialist for the State of Georgia and later as the Lead Program Manager of the Terrorism Division of the Georgia Office of Homeland Security. Michael was selected as the top school safety expert by Jane's, the British intelligence, defense and security publisher after an international search. Michael has also provided post-incident assistance to law firms, school systems, state agencies and insurance carriers for thirteen active shooter and targeted school shooting incidents in K12 schools in the United States and Canada.

Michael is a graduate of the FBI National Academy and has received extensive antiterrorism training in the United States and in Israel. Michael's work has taken him to Canada, Mexico, Honduras, Trinidad-Tobago, the United Kingdom, South Africa, Mozambique, Kenya, India, Vietnam and Israel. Michael has authored, co-authored and served as a contributing author for 27 books on school safety and public safety. His latest book Staying Alive – How to Act Fast and Survive Deadly Encounters was released by Barron's in May 2014. Michael is currently co-authoring a 600-page higher education textbook with the working title Extreme Violence – Protecting People From and Understanding Active Assailant, Hate Crimes and Acts of Terrorism due for publication by Cognella in 2019. Michael also served on the team that co-authored the IS360 – Preparing for Mass Casualty Incidents: A Guide for Schools, Higher Education and Houses of Worship web course for the United States Department of Homeland Security as part of the 2013 White House School Safety Initiative.

Michael also authored and co-authored hundreds of web courses, journal articles, magazine articles, blogs and columns for Campus Safety Magazine, Police Chief, Law and Order, Police, the Journal of Emergency Management, School Planning and Management, College Planning and Management and other national level publications. He has appeared in numerous campus safety training videos as well as audio and video training podcasts. Michael is regularly interviewed by national and international media organizations including NPR, 20/20, CNN, CNN Headline News, Good Morning America, ABC, NBC, MSNBC, FOX News, CBS, the Wall Street Journal, Time Magazine, the New York Times, the London Times, Univision, the BBC, Canadian Television News, and Tokyo Broadcasting. Michael has appeared in live interviews following major school safety events for programs as diverse as Anderson Cooper 360, Al Jazeera America and Hannity.

A graduate of the 181st session of the FBI National Academy, Michael received advanced anti-terrorism training in Israel as a delegate with the Georgia International Law Enforcement Exchange Program and have provided training to two groups of ranking personnel from the Israel National Police. Michael regularly keynotes major conferences such as the International Bullying Prevention Conference, The International Conference on Safe School Design, The First National School Violence Prevention Conference in Trinidad-Tobago, School Safety conferences at Vietnam National University in Saigon, Vietnam and at the International Association of Campus Law Enforcement Administrators Annual Conference in Quebec City, Canada. Michael has captivated audiences of up to 3,500 people from Virginia to Vietnam with his powerful and unforgettable presentations. You will never forget Michael's gripping, information packed and informative training sessions.

# **KEYNOTE SPEAKERS**



## Karen Reivich, Ph.D.

Karen Reivich is the Director of Resilience and Positive Psychology Training at the Positive Psychology Center and an instructor in the Master of Applied Positive Psychology Program at the University of Pennsylvania. She is a leader in the fields of resilience, optimism, and Positive Psychology. Dr. Reivich completed her B.A. and Ph.D. at the University of Pennsylvania. Dr. Reivich's work focuses on helping educators, organizations, the US Army and First Responders promote resilience and well-being in themselves and those they serve. Her research has been funded by the National Institute of Mental Health and the Department of Education. She provides workshops and consultation for schools and organizations throughout the US and internationally. Dr. Reivich's scholarly publications have appeared in academic journals including Psychological Science, Journal of Early Adolescence, School Psychology. She is a co-author of the books The Optimistic Child and The Resilience Factor. Dr. Reivich is the mother of four delightful children.

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The comprehensive program of study is grounded in the key knowledge and skills central to the sound planning, building and maintaining of learner-centered school facilities. Each course addresses one phase of the capital project, while the complete program emphasizes a collaborative process that engages all stakeholders. Participants will be introduced to a learner-centered approach to school facility planning, provoking thought and prompting educational leaders, planners, designers and construction managers to give careful consideration to the educational, developmental, psychological and social needs of learners.

It is the intent of The Association and this program, to define a process and promote successful practices that result in learning environments that support the students, teachers, and community. Upon successful completion of the full program, participants will have gained critical insight that expands their sphere of knowledge of quality learning environments, quality education, and increased student achievement.



# **SCHOOLSNEXT**



With the intent to bring the student voice into the planning and design of exceptional learning environments, SchoolsNEXT teams from across the globe demonstrate their passion in rethinking the requisites of tomorrow's 21st century learning environments, reaching beyond the school walls and developing solutions to global design challenges that inspire transformation in education.

Their desire to make a difference in the world is remarkable and humbling. Challenged to plan and design resilient learning spaces that provide real world learning experiences fostering innovation, critical thinking and collaboration, enabling the students to master the skills they need to take on the challenges of a world defined by change.

Envision the future of education through these young designer's eyes. Hear what they have to say and prepare to be amazed by what they have accomplished!

#### **Congratulations to the 2018 SchoolsNEXT Finalist Teams!**

Lake Oswego Junior High	
Lake Oswego, Oregon	

Frederick County CTE High School Frederick, Maryland Neal Middle School Durham, North Carolina

Sutter Middle School Folsom, California St. Michael's Academy Springfield, Massachusetts







SchoolsNEXT Presentation by Lake Oswego Junior High LEsolutions Awards Reception – Saturday, November 3 – 6:00 pm – 7 :15 pm

## **2018 LE AWARDS**



## 2018 LEsolutions James D. MacConnell Finalists

Environmental Learning Center Tacoma Public Schools McGranahan Architects



Pathways Innovation Center/ Roosevelt High School Natrona County School Cuningham Group Architecture, Inc. MOA Architecture

South Melbourne Primary School State of Victoria Hayball



## 2018 LEsolutions Planning and Design Award Winners

**Project of Distinction** Sammamish High School Bellevue School District Integrus Architecture

Small/Special Project Category Waukee Innovation & Learning Center Waukee Community School District CannonDesign

New Learning Environment Arlington Elementary School Tacoma Public Schools Mahlum Architects



## 2018 LEsolutions Planning and Design Award Winners

New Learning Environment George Wagner Middle School Georgetown ISD Huckabee

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Jury's Award Zacharias John Williams Memorial School/ Napaskiak K-12 School Lower Kuskokwim School District ECI Alaska



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**Mark French** AIA, ALEP, RID, LEED AP BD+C IBI Group Architects





**Duane M. Harver** LEED AP BD+C RRMM Architects, P.C.

**Philip J. Poinelli** ALEP Symmes Maini & McKee Associates



**Edward J. Peters** ALEP Edmonds School District

## **2018 LE Fellows**



Kathy J. Christy ALEP Northwest Arctic Borough School District



Irene Nigaglioni ALEP IN2 Architecture



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# PROGRAM GUIDE

### WEDNESDAY, OCTOBER 31

8:00 am	ALEP Interviews
1:00 pm	International Board Meeting
6:00 pm	Registration- Self Check in

#### **THURSDAY, NOVEMBER 1**

7:00 am	Registration Opens
8:00 am	KI Workshop & Tour Buffalo Grove
	High School
10:00 am	Tour #1- Mundelein High; Haskins
	Library at Deer Path Middle School;
	Adlai Stevenson High School
10:00 am	Tour # 2- Jane Westerhold Early
	Learning Center; Kennedy Elementary
	School; CCSD 59 Early Learning Center
10:30 am	(5) Breakout sessions (90 minutes)
11:00 am	Lunch on your own (60 minutes)
12:00 pm	Tour #3- GEMS World Academy; Idea
	Realization Lab @ DePaul University;
	Bennett Day School
12:00 pm	Tour #4- Sunset Ridge School; New
	Trier High School; Chiaravalle Montes
	sori School; Crow Island
12:15 pm	(3) Breakout sessions (90 minutes)
12:15 pm	(2) Breakout sessions (60 minutes)
1:30 pm	(1) Breakout session (60 minutes)
2:45 pm	(2) Breakout sessions (90 minutes)
	(2) Breakout sessions (120 minutes)
6:00 pm	LearningSCAPES Market Place Grand
_	Opening

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### **FRIDAY, NOVEMBER 2**

7:00 am	Registration Opens
8:00 am	Opening General Session-
	Keynote Dr. Michael Hinojosa
10:30 am	(3) Breakout sessions (90 minutes)
10:30 am	(4) Breakout sessions (60 minutes)
1:30 am	Lunch-
12:30 pm	School Safety and Security Symposium
1:00 pm	(7) Breakout sessions (60 minutes)
2:15 pm	(7) Breakout sessions (60 minutes)
3:30 pm	(3) Breakout sessions (60 minutes)
3:30 pm	(2) Breakout sessions (90 minutes)
5:30 pm	Conference Reception- DIRTT
	(ALEP Celebration)

### **SATURDAY, NOVEMBER 3**

7:00 am	Registration Opens
8:00 am	General Session
	Keynote- Michael Dorn
9:15 am	Break
10:15 am	SchoolsNEXT Team Presentations
10:15 am	(4) Breakout sessions (60 minutes)
10:15 am	(3) Breakout sessions (120 minutes)
11:30 am	(3) Breakout sessions (60 minutes)
12:30 pm	Lunch
2:15 pm	(7) Breakout sessions (60 minutes)
3:30 pm	(6) Breakout sessions (60 minutes)
5:30 pm	LEsolutions Awards Reception
7:30 pm	Regional Meetings

### **SUNDAY, NOVEMBER 4**

8:00 am	Registration opens
9:00 am	General Session
	Keynote- Karen Reivich, PH.D.

# DAILY SCHEDULE

### WEDNESDAY, OCTOBER 31

8:00 am - 5:00 pm 1:00 pm - 3:00 pm 6:00 pm ALEP Interviews *Ashland* International Board Meeting *Price Room* Registration- Self Check in

### THURSDAY, NOVEMBER 1

7:00 am - 5:00 pm	Registration Open
8:00 am - 1:00 pm	Workshop & Tour / Buffalo Grove High School Sponsored by KI
10:00 am - 3:30 pm	Tour #1- Mundelein High; Haskins Library at Deer Path Middle School;
-	Adlai Stevenson High School
10:00 am - 2:45 pm	Tour # 2- Jane Westerhold Early Learning Center; Kennedy Elementary
	School; CCSD 59 Early Learning Center
10:30 am - 12:00 pm	(5) Breakout sessions (90 minutes)
_	• Using Neuroscience Research to Impact Environment Design to Support
	Student Learning Salon 4
	• What is the future of student qualifications? <i>Salon 5</i>
	• How Do We Get There From Here? Master Planning Best Practices for
	Existing Schools Salon 7
	• A Quick(er) Transition – Research-Based Strategies for Making a Holistic
	Shift from Traditional to 'Innovative' Facilities Salon 1
	• All-Inclusive Restrooms: A Comprehensive Analysis and Design + Code
	Compliance Guide to All-Inclusive & Gender Specific Restrooms in K-12
	Schools Salon 3
11:00 am - 12:00 pm	Lunch on your own (60 minutes)
12:00 pm - 4:30 pm	Tour #3- GEMS World Academy; Idea Realization Lab @ DePaul University;
	Bennett Day School
12:00 pm - 5:30 pm	Tour #4- Sunset Ridge School; New Trier High School; Chiaravalle
	Montessori School; Crow Island
12:15 pm - 1:45 pm	(3) Breakout sessions (90 minutes)
	• Telling our Stories; Places That Create a Sense of Belonging Salon 3
	• Tapping into the Creative Potential of Teachers and Students as Designers
	Salon 7
	• Creating a Campus where Learning Happens Everywhere Salon 1

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### THURSDAY, NOVEMBER 1 (cont'd)

12:15 pm - 1:15 pm	<ul> <li>(2) Breakout sessions (60 minutes)</li> <li>Managing Risk Through Design-Build Procurement and Delivery <i>Salon 4</i></li> <li>Potty Talk: Redesigning the Toilet Experience to Promote Universal &amp; Inclusive Design <i>Salon 5</i></li> </ul>
1:30 pm - 2:30 pm	<ul> <li>(1) Breakout session (60 minutes)</li> <li>Intertwining Environments, Experiences, and Culture to Empower Modern Learning <i>Salon 4</i></li> </ul>
2:45 pm - 4:15 pm	<ul> <li>(2) Breakout sessions (90 minutes)</li> <li>Hacking the classroom: Using prototyping to (re)imagine new learning environments <i>Salon 3</i></li> <li>Using a Capital Facilities Advisory Committee to Engage a Community <i>Salon 5</i></li> </ul>
2:45 pm - 4:45 pm	<ul> <li>(2) Breakout sessions (120 minutes)</li> <li>A Discussion of Planning Techniques and Tips- Making It Fun and Purposeful Salon 4</li> <li>(RE) Constructing Community by (RE) Imagining School as an Opportunity Center Salon 7</li> </ul>
6:00 pm - 8:00 pm	LearningSCAPES Market Place Grand Opening

### FRIDAY, NOVEMBER 2

7:00 am - 5:00 pm	Registration Open
8:00 am - 10:00 am	Opening General Session-Keynote Dr. Michael Hinojosa Grand Ballroom
10:30 am - 12:00 pm	(3) Breakout sessions (90 minutes)
	• Resilience Strategies for Communities, Facilities, Learners <i>Salon 3</i>
	BrainSensing: Understanding the Brain's Activity in the Immersive
	Learningscape Salon 10
	• Real World, Hands-on and Integrated: Exploring facilities for STEAM and
	Career Technical Education Salon 12
10:30 am - 11:30 am	(4) Breakout sessions (60 minutes)
	• Re-Imagining the Studio Art Classroom: From Tired to Inspired <i>Salon 5</i>
	• ACES OF SPACE // How innovative design transforms classrooms into safe
	NextGen learning spaces for students with elevated ACE scores Salon 4
	• How Buildings Teach Kindness; inspiring social emotional learning in an
	Illinois School District that chooses kindness as their mission Salon 2
	• Transforming from the ground up with technology <i>Salon 7</i>

### FRIDAY, NOVEMBER 2 (cont'd)

11:30 am - 1:00 pm 12:30 pm - 4:30 pm 1:00 pm - 2:00 pm	<ul> <li>Lunch <i>Market Place</i></li> <li>School Safety and Security Symposium <i>Grand Ballroom</i></li> <li>(7) Breakout sessions (60 minutes)</li> <li>Can Virtual Reality Revolutionize the process for Designing Schools <i>Salon 4</i></li> <li>Re-imagining the Media Center: From Central Hub to Distributed Creation Labs <i>Salon 7</i></li> <li>A Giraffe Ate My Homework! Designing for Adventure Education in Omaha's Zoo School <i>Salon 2</i></li> <li>Reimagining Spaces for Tomorrow's Thinkers <i>Salon 5</i></li> <li>A Day at the Museum: Creating engaging PK-12 learning environments</li> </ul>
2:15 pm - 3:15 pm	<ul> <li>through emulating children's museum design Salon 12</li> <li>Making the rhetoric of learning spaces a realityDesignEverywhere Salon 10</li> <li>STOP The Threat – 21st Century Safe School Best Practices Salon 3</li> <li>(7) Breakout sessions (60 minutes)</li> <li>Empowering Students with Special Needs through Flexible Learning Environments Salon 4</li> <li>Get Academic ROI on Your Facilities Salon 5</li> <li>Environmental STEM in an Urban Context Salon 2</li> </ul>
	<ul> <li>How Design Thinking, Project Based Learning and Innovation focused STEM Curriculum initiatives are informing our contemporary learning environments <i>Salon 3</i></li> <li>Captured Space: Reimagining unused space as a Learning Environment <i>Salon 10</i></li> <li>Architecture Lessons from Crow Island: A Modern Masterpiece of Design for Children <i>Salon12</i></li> <li>Resiliency in remote communities: How to listen when your ears are frozen <i>Salon 7</i></li> </ul>
3:30 pm - 4:30 pm	<ul> <li>(3) Breakout sessions (60 minutes)</li> <li>Elevating All Students: Planning and Design Strategies to Maximize Equity and Opportunity <i>Salon 5</i></li> <li>Impactful Learning Transformations <i>Salon 7</i></li> <li>Space Matters And Research That Begins to Prove It: Piloting Student Engagement in Grades 9-12 <i>Salon 2</i></li> </ul>

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## NEW ONLINE CERTIFICATE COURSE

## **Vibrant Learning Environments:**

Enhance Learning and Teaching Experiences By Linking Technology, Spaces and Pedagogy

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Learn from industry-leading professionals whose focus is on re-imagining student learning, classroom design and teaching strategies. The 6-week Vibrant Learning Environments course also provides the perspective of architects, designers and technology experts seeking to inspire today's students with an enriching, rewarding academic experience.

- · Plan and design Vibrant Learning Environments.
- Uncover practical strategies for schools to enhance physical spaces, from planning to pedagogy.
- Hear best-practice, evidence-based research to ensure the success of your learning spaces.
- Make the most of existing spaces through cost-effective refurbishment.
- Integrate pedagogical practices with modern learning technology and tailored teaching.
- Evaluate and measure your Vibrant Learning Environment impact.



Bill Latham MBA ALEP MeTEOR Education



Irene Nigaglioni AIA, ALEP, LEED AP BD+C K-12 Leader, Natl. Planning Dir.

Desireé Moodley Curriculum Specialist and Facilitator.

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### FRIDAY, NOVEMBER 2 (cont'd)

3:30 pm - 5:00 pm

#### (2) Breakout sessions (90 minutes)

- UDL: How can the Science Behind Learning Inform More Effective Instruction & Space Design? *Salon 3*
- Greening of Schoolyards Expanding Learning Opportunities Across the Campus Salon 10

5:30 pm - 7:30 pm Conference Reception / ALEP Celebration *DIRTT Showroom* 

### SATURDAY, NOVEMBER 3

7:00 am - 5:00 pm 8:00 am - 9:30 am 9:15 am - 10:00 am 10:15 am - 12:30 pm	Registration Opens General Session Keynote- Michael Dorn <i>Grand Ballroom</i> Break <i>Market Place</i> SchoolsNEXT Team Presentations <i>Visioning Theater/ Market Place</i> • 10:15 - 10:45 am Sutter Middle School Folsom, California
	<ul> <li>10:50 - 11:20 am Neal Middle School Durham, North Carolina</li> </ul>
	<ul> <li>11:25 - 11:55 am Lake Oswego Junior High Lake Oswego, Oregon</li> </ul>
10:15 am - 11:15 am	<ul> <li>12:00 - 12:30 pm Frederick County CTE High School Frederick, Maryland</li> <li>(4) Breakout sessions (60 minutes)</li> <li>Thinking Inside the Box – The Case for Transformation Salon 5</li> <li>Material Transparency and Healthier Choices: Building Local Advocacy with Global Impact Salon 7</li> <li>Making Room- customizing the classroom planning process Salon 2</li> <li>Learning Landscapes Increase Physical and Mental Wellbeing of Students Salon 4</li> </ul>

### SATURDAY, NOVEMBER 3 (cont'd)

10:15 am - 12:15 pm	(3) Breakout sessions (120 minutes)
Ĩ	• Shifting the Paradigm: Reimagining School Design for the Future <i>Salon 3</i>
	• #AISDFuture – Building it Together <i>Salon 10</i>
	Unconference for Organizational Resilience Salon 12
11:30 am - 12:30 pm	(3) Breakout sessions (60 minutes)
-	• Monarch School "Launch Pointe" – hands-on education for homeless teens
	Salon 4
	Closet to Classroom <i>Salon 5</i>
	Reimagining the Student Experience Salon 7
12:30 pm - 2:00 pm	Lunch Market Place
2:15 pm - 3:15 pm	(7) Breakout sessions (60 minutes)
	<ul> <li>Harnessing History: Restoration though Modern Technology and</li> </ul>
	Traditional Techniques Salon 5
	<ul> <li>Inclusive Environments for Teaching and Learning Salon 4</li> </ul>
	• Why Play is Key to Resilience and Re(Imagined) Learning Environments
	Salon 7
	It's Like Google for Kids": How a Tech Icon's Principles Inspire Learning
	Salon 3
	<ul> <li>Innovative higher education learning spaces, can they curate 'the</li> </ul>
	employability skills gap'? Salon 10
	• Strengthening Neighborhoods through their Schools: Lessons Learned from DC for Urban School Revitalization Programs <i>Salon 12</i>
	• When Great Isn't Good Enough: How Two Nationally Recognized High
	Schools Are Evolving to Keep Their Edge Salon 2
3:30 pm - 4:30 pm	(6) Breakout sessions (60 minutes)
	• Ace the Space: Designing Effective Learning Environments without thinking
	about furniture <i>Salon 4</i>
	• Student Innovation Teams: Developing A Culture of Innovation To Drive
	21st Century Change Salon 5
	Growth Mindset Incubator: A Case Study Salon 7
	Ohio: A State-Sponsored School Building Transformation Story <i>Salon 10</i>
	<ul> <li>mâmawêyatitân centre: (re)defining shared Salon 12</li> </ul>
	• Capture the elephant in the room: Learn what best ball golf, project-based
	learning, and successful projects have in common Salon 3

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### SATURDAY, NOVEMBER 3 (cont'd)

5:30 pm - 7:15 pm 7:30 pm - 8:30 pm LE Solutions Awards Reception Grand Ballroom Regional Meetings

- Midwest/Great Lakes Region Salon 2
- Northeast Region Meeting Salon 4
- Pacific Northwest Region Salon 7
- Southeast Region Salon 5
- Southern Region Salon 3
- Southwest Region Salon 1

### **SUNDAY, NOVEMBER 4**

8:00 am - 10:00 amRegistration opens9:00 am - 11:00 amGeneral Session Keynote- Karen Reivich, PH.D. Grand Ballroom



## SESSION ABSTRACTS

### THURSDAY, NOVEMBER 1 10:30 am - 12:00 pm

Using Neuroscience Research to Impact Environment Design to Support Student Learning Salon 4 Page Dettmann PhD, ALEP, MeTEOR Education / Melissa Cantrell, AIA, LEED AP, Principal, CDH Partners

Education is an applied science that benefits from being grounded in empirical research of how the brain learns. This evidence-based information helps educators with the design of innovative learning experiences that engage students and lead to successful learning. Emerging research now is linking the science of learning to a school's physical design. Features of a school environment can have a significant impact on student learning success. Neuroscientists are studying how the environment triggers the brain for learning, supports absorption of information, provides retrieval cues, activates the senses, and helps learning occur more rapidly and with greater retention. The session will present a bi-directional conversation between education and architecture to translate what we currently know about the science of learning to the design of school facilities. The overall focus will examine how the scientific principles of innovative teaching and learning can be highly supported by the design of school spaces. Our conversation will outline key principles about how students learn, apply those principles to a new mindset for teaching and learning, and further apply the principles to their direct influence on environmental design.

#### Learning Objectives:

- Participants will gain knowledge on how learning and memory work and the effects of color on memory
- Participants will become aware of the impact of environmental factors on learning and memory
- Participants will become familiar with the key brain structures and systems involved in learning and the effect of shapes in the built environment on the learning process
- Participants will learn about the role of key brain structures and emotions in learning and the intricate relationships among environmental, social, and individual factors

#### What is the future of student qualifications? Salon 5

Cole Webber, Student

What is a qualification? What is a degree? Research suggests that the future of employable skills lies in abstract, creative problem solving. Yet, even with curriculum attempting to address these areas, in a recent survey three quarters of employers said University graduates coming to them were specifically ill-prepared in creativity and problem solving. Will the future of the qualification be the University degree? How to we allow students to solve real world problems, and, just as importantly, demonstrate that they can, and have? Part session and part workshop, Cole will first take guests through one of the subjects of his recent TEDx talk: the future of qualifications, arguing that instead of degrees, they will become demonstrations of 'real-world' experience and development: designs, patents, books, and providing examples. The processes of 'real-world' pioneers will be examined for inspiration. The majority of the session will be a workshop, wherein guests will be led through activities to examine how we can bring these processes and opportunities for creation to students. Groups will widely be divided based on building process and building product. Main questions will include: -How can we utilize our experience, as well as the design and construction of our school projects, as opportunities for students

## SESSIONABSTRACTS continued...

to build, affect and demonstrate competencies with real-world design problems? -What types of 'real-world' problem solving can be brought into the school? How can students be taken out of the school to participate? -How the end-product of school design shape the way in which students solve real-world problems, and demonstrate these through products?

Learning Objectives:

- Provide background information and research on the history of qualifications and how they were and are perceived by employers;
- Challenge practitioners and designers to consider how qualifications may change due to world trends
- Provide an opportunity to consider how new qualifications affect the design needs of a school;
- Question and synthesize solutions as to how the building process itself can be integrated with the learning process to produce demonstrable outcomes

How Do We Get There From Here? Master Planning Best Practices for Existing Schools Salon 7 Laura Knauss, AIA, ALEP, LEED AP, Lionakis / Kathleen Moore, ALEP, School Facilities & Education Consultant /Mary Morris, AIA, REFP, LEED AP, Lionakis / Carole Wenell

As public school districts contemplate local bond campaigns to address changing pedagogy, growth and aging infrastructure, a master plan is the right place to start. The process, however, can be daunting. The reality of existing buildings, complex and phased implementation and budget must be balanced with the needs of 21st Century, active learning, evolving technology needs and community vision. Join us in an interactive session that shares the process, pitfalls and best practices for master planning. How do you customize a plan to meet the specific needs of your community? What are the best practices and plan components on the menu of services. How do you get there from here? Exercise: Tools for Community Engagement This breakout session will model some of the exercises that design teams use to engage community members and district stakeholders. The tools are designed to help stakeholders express their priorities, educate the community on planning parameters such as budget and schedule, and inspire the participants in a way that is both useful and fun.

#### Learning Objectives:

- Allow participants to understand the unique possibilities when a single educational specification is applied to distinct existing schools.
- Engage participants in a mock "research" program to understand the flexible layouts applicable to 21st century learning environments.
- Demonstrate community engagement strategies, including participants as stakeholders in the process.
- Understand the perspective of school district leaders as they leverage the momentum of the planning process into a bond campaign.

#### A Quick(er) Transition – Research-Based Strategies for Making a Holistic Shift from Traditional to 'Innovative' Facilities Salon 1 Raechel French, DLR Group

Many schools today are trading in their identical classroom model for activity-driven, technology-infused spaces allowing for movement and variety in the learning experience. However, changing space is easier than changing

## SESSIONABSTRACTS continued...

practice. As an extension of the ongoing Innovative Learning Environments and Teacher Change (ILETC) research project out of Melbourne, Australia, this session will share research case studies of schools in Australia, New Zealand, and the United States that have supplemented their new designs with initiatives to align teaching practices, organizational structures, and leadership with the intended vision. Such initiatives are crucial for resiliency of the intended shift in practice and efficacy of the design. Specific examples of strategies and tools for designers, educators, and school leaders will be explored and participants will have the opportunity to apply some of these lessons to their own struggles with making the shift. On-going ILETC research findings on the link between space design and teaching and learning will also be shared.

#### Learning Objectives:

- Learn and apply specific, global examples of strategies for successful school change in the context of new facilities, applicable for designers, educators, and school leaders.
- Experience the power of a holistic effort in creating a resilient school culture and successfully inhabiting multi-modal, student-centered facilities.
- Hear evidence regarding the link between innovative learning environments, teacher mind frames, and student deep learning.
- Awareness of valuable international research collaborations and the impact these can have on school systems and facilities in the United States.

## All-Inclusive Restrooms: A Comprehensive Analysis and Design + Code Compliance Guide to All-Inclusive & Gender Specific Restrooms in K-12 Schools Salon 3

Heidi Neumueller, AIA, LEED AP, Cuningham Group Architecture / Angela Selb-Sack, Senior Project Manager Facilities Department, St. Paul Public Schools

The design of public restrooms has long been a contested territory for civil rights issues and policy debates of the time. Currently, segregated facilities, which were created to prevent discrimination on the basis of gender, are increasingly coming under scrutiny by the LGBTQ community, as they fail to recognize the non-binary nature of gender and create social difficulties for members of the transgender community. While ongoing conversations and laws continue to evolve at the local and federal levels, very little data regarding the implementation and logistics of all-inclusive bathrooms, or bathrooms which are non-gender specific, exist at the K-12 level. In much of the United States, school districts recognize the issue but do not have the information readily available to address it. The intent of this presentation is to provide a case study of all-inclusive restroom at SPPS Johnson High School, including design, and methods to reach alternative code compliance using the key components of the design of all-inclusive restrooms, prior to the adoption of the 2018 ICC code change which allows all inclusive restrooms.

#### Learning Objectives:

- Describe the key design components in all-inclusive restroom design.
- Describe alternative code compliance methods.
- Describe code implications of all inclusive restroom design.
- Describe the history of segregated restrooms.
### THURSDAY, NOVEMBER 1 12:15 pm - 1:45 pm

#### Telling our Stories: Places That Create a Sense of Belonging Salon 3

James E. LaPosta, Jr., FAIA Design Principal, JCJ Architecture / Emily Czarnecki, NCIDQ Interior Designer, JCJ Architecture / Scott Celella, Principal/Chief Project Officer, JCJ Architecture

Stories are one of the most powerful ways we learn. Every community has a set of stories that explains its origin, embodies it values, and defines its identity. The sharing of our stories creates a continuum of culture from one generation to the next and can be a powerful tool in the development of learning environments. A compelling example of this process can be seen in Native American communities as they seek to transmit their mythological, spiritual and historical understanding of themselves. In attempting to deal with the intertwined issues of language, cultural preservation, and community building, Tribal Nations are seeking to provide life changing and multi-generational educational opportunities. By tapping their rich tradition of storytelling they have created a variety of physical environments that connect deeply to their culture and offer broader lessons as we seek to create strong communities. This session will discuss approaches from a variety of tribal nations and discuss key aspects that influence the successful implementation of culturally sensitive and mission driven learning environments.

- Review the characteristics of belonging to a community
- Explore the ways storytelling can inform the built environment
- Discuss the applicability of storytelling to public school design
- Develop a set of storytelling tools to engage communities in the design process

#### Learning Objectives:

- Review the characteristics of belonging to a community.
- Explore the ways storytelling can inform the built environment.
- Discuss the applicability of storytelling to public school design.
- Develop a set of storytelling tools to engage communities in the design process.

#### Tapping into the Creative Potential of Teachers and Students as Designers Salon 7

Nicole Snedden, National Board Certified Teacher, Minnetonka Public Schools / Julie Baeb, Innovation/ Design Thinking Consultant, Minnetonka Public Schools / Lisa Reed Tonka, Coders & Makers Middle School TOSA;Minnetonka Public Schools / Eric Anderson

During this hands-on, minds-on session, participants will explore the unique and inspiring design outcomes when architects and designers authentically engage with teachers and students throughout the design process. This session will begin with the story of a midwest school district and a grassroots movement called "Design for Learning", which focuses on involving student and teacher voice, a modest budget, and organically embedding the curriculum into the design of learning spaces. Next, participants will have an opportunity to collaborate with actual students from a local Chicago school, to rethink an existing space. At the core of this workshop, participants will work through a charrette using the Human Centered Design process. They will discover first-hand the benefits of involving students including: the barrier-free creativity of youth, enhanced standards-based learning opportunities for students and the power of teacher and student buy-in for a space that they helped design. The session will end with a reflection on how this process compares and/or contrasts to current models of design, and a rich discussion of next steps and takeaways for designers and educators.

#### Learning Objectives:

- Participants will explore how to reimagine existing spaces and envision new learning spaces, in a cost effective way.
- Participants will learn relevant strategies of how to tap into the creative potential of teachers and students as designers.
- Participants will rethink the way they engage key stakeholders in the conversation and creation of learning spaces.
- Participants will learn about Human Centered Design and how this problem-solving tool can support innovative work around learning spaces.

#### Creating a Campus where Learning Happens Everywhere Salon 1

Sandra Kate LEED AP, REFP, HMC Architects / Kim Coffeen REFP, Architect Irvine USD / James Krueger Assoc. AIA, HMC Architects

Many school districts are looking for ways to increase students' academic performance and to provide spaces that encourage a sense of community and connectedness. There has been a lot of focus on creating campus environments where"learning happens everywhere". So, it begs the question; Does the notion that learning happens everywhere have merit? Is it possible to create spaces that facilitate and encourage deeper learning and understanding? Recognizing the importance of post- occupancy evaluations, and their ability to help us create better learning environments, we decided to do a deep dive on Irvine Unified School Districts Portola High School. This campus opened in the fall of 2016, and is now in its second year of use. It was planned and designed to be a campus where learning truly happens everywhere. This campus includes various indoor/outdoor collaboration and encounter spaces to promote the sharing of ideas and hang out, as well as passive study spaces for both students and faculty. Classrooms surround collaboration suites that connect different disciplines to each other. These spaces have flexible furniture, writable surfaces, and technology that accommodates many different activities. The campus Maker-Space was strategically placed adjacent to the Campus Center building (the school's student union) that sits in the heart of the campus for maximum visibility and use. The Campus Center houses a large flexible study space, library, ASB functions, parent center, and the Maker-Space that were all driven by stakeholder planning discussions. The union and library open to each other via a large sliding glass wall that allows the resulting larger space to be used for various functions during, before, and after school. Outside, there are two distinct quads - one that is more active near student dining (more of a noisy/hang-out space) and one that provides more quiet spaces near the classroom building clusters. So, the big questions are Does it work for the intended vision of how students interact and learn? Are the spaces being used as intended? Were some elements more successful than others? What made these spaces highly used, or what could have been added to make them great? Were there any unintended consequences (positive or negative)? In this work session, we will provide a brief overview of different types of post-occupancy evaluations; then we'll do a deep dive on the planning process that defined the spaces, and review the findings through a dynamic post- occupancy evaluation (D-P.O.E). This D-P.O.E. will include the district and campus leadership team, faculty, maintenance staff, and most importantly the students themselves. Some people surveyed will join us on stage and in video from the actual spaces on campus. This will allow for a deeper look into the findings and provide a great learning experience for anyone involved in the planning and designing of learning environments that facilitate collaboration. Did the input from the stakeholder planning team capture the needs of students and help create

spaces that are used the way they were imagined? Are teachers and students aware of the intended functions and opportunities of the spaces? We will talk about the district's plans and processes for working with building users on educational commissioning.

#### Learning Objectives:

- Learn about types and processes for post-occupancy evaluations.
- Understand the importance of educational commissioning of a school
- Look at spaces from the students' perspective to understand how emerging spaces in schools are used/ appreciated.
- Exploring dynamic ways to collect data & test efficacy of space.



This intense, high quality program consists of SIX, 6-week online courses created by industry experts and is delivered through San Diego State University's Interwork Institute Center for Distance Learning (IL-CDL). The comprehensive program of study is grounded in the key knowledge and skills central to the sound planning, building and maintaining of learner-centered school facilities.



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### THURSDAY, NOVEMBER 1 12:15 pm - 1:15 pm

#### Managing Risk Through Design-Build Procurement and Delivery Salon 4 Robynne Parkinson, JD, DBIA / Thaxton Parkinson, PLLC

Design-Build procurement and delivery is no longer an "alternative" delivery method. Most public entities have the regulatory authority to utilize the delivery method. In this session, Robynne Thaxton Parkinson, attorney and nationally recognized expert in design-build, will discuss how design-build can help owners better manage their risk in construction. This session will go deeper than a simple "design-build 101" discussion. Design-build is not a panacea that eliminates risk on a construction project. Robynne will also discuss common pitfalls owners should avoid and how owners can manage their risk on the project through the delivery method. Robynne will also discuss how owners can more thoroughly engage stakeholders such as teachers and administrators in the design-build process, ultimately resulting in an optimal project for all parties.

#### Learning Objectives:

- In depth understanding of the risks for owners in design-build procurement and delivery.
- How an owner can use the procurement process to manage its risk during delivery.
- Effective engagement of stakeholders, such as teachers and administrators, in every stage of the project.
- Common pitfalls owners should avoid in using design-build.

**Potty Talk: Redesigning the Toilet Experience to Promote Universal & Inclusive Design Salon 5** Corrie Rosen, AIA, LEED AP, Mahlum / Taine Wilton, AIA, LEED ALEP, Edmonds School District / Nazia Junejo,Edmonds School District

Using the toilet is one of humanity's simplest and most essential needs. It is also one of our most private acts, one that has the power to affect every person's sense of self-esteem and health. Recent laws, federal directives and high-profile news stories are focusing on how non-inclusivity impacts behavior, safety, health and equity for the transgender population. But this is not solely a gender issue: universal toileting supports human dignity for anyone who needs increased privacy, whether it's due to preference, physical ability, religion, illness or families accompanying small children. So, how can redesigning the toilet experience benefit us all? While many districts have Board policies in place to foster an educational environment that is safe and free of discrimination for all students, there are few facilities where the building supports them when it comes to toileting. This panel discussion will provide effective and replicable strategies to align the built environment with policy and design that is universal. Join in the dialogue with the Edmonds School District Capital Projects team members, a student leader, a Family Engagement Liaison who is also a parent of a transgender student, and an architect collaborating with the district on the design of a K-8 facility. Considerations will include safety and security, privacy, hygiene, signage conventions, acoustics, maintenance, cost and code implications. The panel will present different perspectives and drill down on the critical opportunities and challenges to creating safe, secure and inclusive toilet facilities that comply with the May 2016 United States "Department of Justice and Department of Education Joint Guidance on Civil Rights of Transgender Students" and the Washington Law Against Discrimination (RCW 49.60).

### \*Please note: This schedule is subject to change. For the most up to date information, changes and notifications, please download our Event App. Instructions are in the front of this program.

Learning Objectives:

- Explore the context of toileting needs today; physical, emotional, health, religious and political.
- Hear first-hand from stakeholders positively impacted by universal toilet design.
- Identify best practices, cost and code implications, and learn to compare design details that do or do not enhance privacy and human dignity.
- Discover new inclusive restroom layouts currently under construction or in design.

### THURSDAY, NOVEMBER 1 1:30 pm - 2:30 pm

**Intertwining Environments, Experiences, and Culture to Empower Modern Learning** Salon 4 Page Dettmann Ph.D., ALEP, MeTEOR Education / Melissa Cantrell, AIA, LEED AP, Principal, CDH Partners

Future Ready Schools recognize that today's Generation Z students think about learning differently than past generations. As a result, when we connect the design of modern spaces to best-practice teaching methods and tools wrapped inside a refreshed culture of learning — we activate a chain reaction that leads to a holistic educational plan with the power to prepare students with the critical 'soft skills' they'll need for a rapidly unfolding (and still largely unknown) future. Emerging and shifting pedagogies necessitate the design of supportive, sustainable, and flexible spaces that respond to new methods of instructional practice and changing technologies. The idea of developing spaces to support a broad range of desired learning opportunities requires intentional sequencing of a learning design process within a comprehensive facility design. The discovery of desired priority learning outcomes and experiences becomes an ecosystem touchstone that should lead conversations about space design. The goal for school and community leaders is to engage in a process of cultural renewal, intertwining the discovery and implementation of modernized learning practices to authentically engage learners with space design elements that will augment and support the intended learning experiences. Through engaging audience participation, this session will examine the concept of a renewed cultural ecosystem that must be thoughtfully designed and skillfully executed. Cultural change comes through local stakeholder engagement built around the vision for learning that ultimately guides renewal. Rather than artificially trying to thrust a new culture into a school that will likely reject it, investment in a symphony approach, where methods, tools, environments, and relationships all work in concert with each other and around the stakeholder vision allows the development of lasting, transformational solutions for schools. This session will explore redesign of an ecosystem evolving around a bold vision, the process of unleashing the desired innovation that empowers modern learning within new, modernized spaces, and the leveraging of neuroscience and evidence-based research to proactively frame the change process.

- Participants will explore how to engage in the process of design and execution of a renewed cultural ecosystem through stakeholder engagement.
- Participants will learn how to intentionally link modern learning environments with learning experiences.
- Participants will learn why we must shift learning from teacher-centered to learner-centered in order to foster pro-social skills and experiential learning, the keys to preparing students with future-ready skills.
- Participants will learn the foundational neuroscience and evidence-based research that guides the elements of cultural change.

### THURSDAY, NOVEMBER 1 2:45 pm - 4:15 pm

#### Hacking the classroom: Using prototyping to (re)imagine new learning environments Salon 3 Richard Leonard, Director, Architect, Hayball / Lisa Horton, Associate, Interior Design, Hayball

Globally, schools across all sectors are transitioning towards contemporary teaching and learning practices and as such, constructing new environments to support these pedagogies. The shared challenge we face as designers is to reimagine these environments from the traditional, familiar classroom to highly connected and diverse learning landscapes supporting a range of activities. For educators, this reimagining of the physical environment sits alongside a reimagining of professional practice and classroom dynamics, a significant change for both educators as individuals and leaders inspiring change within their school communities. There is no doubt that traditional design processes and methodologies need to evolve to enable the navigation of such complex changes. The session addresses the important questions:

- What are the new models supporting contemporary education?
- How can designers, educators and students work together to define their new models?
- How do you initiate change and how do you progress sustainable models?

This workshop will look at prototyping as a technique for creating sustainable change in both the design of learning environments and the teaching practices they support through the presentation of case studies and some interactive, hands-on collaboration. Applying a global perspective, this participatory workshop will mix theory, experience and practice to provide delegates with an overview of several innovative school exemplars including the 2017 MacConnell Award Winning Learning Project at Caulfield Grammar School in Melbourne, Australia. Unpacking lessons learnt from all project stages, from briefing through to occupancy, the workshop will cover the successes, failures and impact from a decade of radical, real-world case studies. Alongside this, prototyping as a process will be further examined, with the opportunity for delegates to engage with prototyping methodologies and techniques to develop ways of reimagining collaborative learning environment design for sustainable change in schools.

#### Learning Objectives:

- Develop a greater understanding of the interaction between education pedagogy and space, and the techniques to define that interaction.
- Analyse recent outcomes from formal academic research on contemporary education facilities.
- Study real-world examples where collaboration has led to award-winning and sustainable solutions, applying an international perspective.
- Learn new methodologies to facilitate collaboration between designers, educators and students that you can apply to your specific context.

#### Using a Capital Facilities Advisory Committee to Engage a Community Salon 5

Nathan McCann Ed.D., Ridgefield School District

In the fall of 2015 the Ridgefield School District launched a Capital Facilities Advisory Committee (CFAC). Working collaboratively with the district's architectural firrm, the CFAC was asked to evaluate current facility conditions, future needs, and make recommendations. Central to this process was an unique engagement

strategy that ultimately helped the district pass their largest bond in history (\$78 million) with a record-setting 69% YES vote!

#### Learning Objectives:

- Leverage expert vendor knowledge (architectural, engineering, etc.) to build knowledge capacity of the Capital Facilities Advisory Committee.
- Outreach strategies to effectively engage, educate, and inspire a diverse public.
- Using a long-range capital-planning process to identify and support programming that serves all students.
- Crafting a creative long-range plan that addresses urgent needs, while maintaining optimal flexibility.

### THURSDAY, NOVEMBER 1 2:45 pm - 4:45 pm

#### A Discussion of Planning Techniques and Tips- Making It Fun and Purposeful Salon 4

Molly Smith, AICP, REFP, Founder/Lead Planner, thinkSMART Planning Inc. / Jim Brady, FAIA, ALEP, PAGE / Jimmy Disler, Executive Director for Capital Improvements, Leander ISD

A4LE is a venue for knowledge sharing. We see lots of really great projects, but rarely get a glimpse at "how" the great projects came about. It's not magic! It's not a big secret! Great schools are the result of intentional consensus building – and it's hard work. Our team has created this workshop because of our desire to share and demonstrate successful "tools of the trade" developed through our collective experiences.We want to share, discuss, debate and demonstrate our experiences in working with commuties planning terrific school environments. Here's what we will share:

- Collaborative Planning- the Who and Why: Team composition, seating, time frames, and how they create a dynamic committee
- Facilitator not Preacher: The facilitator is the guide or "discussion leader" for the group. The process of facilitation is a way of providing leadership without taking the reins. A facilitator's job is to get others to assume responsibility and take the lead. The facilitator skillfully and thoughtfully guides the content and process in order to evoke participation and creativity. Facilitated discussions are the important work of a committee we will discuss how to lead them appropriately
- Touring: Virtual and Otherwise Conducting an in-district, out-of-district or virtual peer school tour and why it's important
- A War Chest of Session Exercises: We will demonstrate a variety of innovative session exercises we regularly utilize and how these are used to produce different committee interactions
- Presentations and How to Make the Most of Them: How to utilize presentations to inform and intrigue your committee
- Virtual Interaction and Committee Information: Facilitators will discuss how to use web-based blogs, wikispaces, on-line polling, live interactive audience participation via texts, and other on-line resources
- What to do if you Get Derailed: Techniques for dealing with nay-sayers, NIMBYs, hecklers, and subversives.

- This program will discuss the benefits and implications of intentional consensus building.
- This program will discuss blended learning or flipping the presentation and how to use it in committee work.
- As a group, we will demonstrate and practice a variety of planning exercises and techniques.
- Our group will include an open and frank discussion about how to save a derailed process.

(RE) Constructing Community by (RE) Imagining School as an Opportunity Center Salon 7 Michael Maloney Davenport Community Schools / Kalyssa Worden, Legat Architects /Robin Randall ,AIA, LEED AP, Legat Architects

This presentation/discussion and series of workshops will address declining school enrollment in urban school districts as an opportunity to bring community services to neighborhoods in need. Examples from Chicago Public Schools, IL, Portland Public Schools, OR, and Davenport Community School District, IA, will show success stories of adaptive reuse. Declining enrollment is a fact of life in many school districts and planning ahead with appropriate community involvement can ease the pain of building closures. Workshop #1 will brainstorm community engagement strategies that demonstrate good planning that is open minded to creative and unusual suggestions. The focus of the discussion post workshop will be on our primary precedent of adaptive use of JB Young School. A history of the school's namesake, John B Young, who embodied the philosophy of seizing opportunities showing how determination and perseverance can lead to the longest tenure superintendent in IA and the US. The historic three-story brick school located in the hilltop neighborhood of Davenport, IA was built in 1918 closed in 2016 due to declining enrollment. In 2018 the building will reopen as the JB Young Opportunity Center housing 9 nonprofits service organizations including a prekindergarten center, museum, boys and girls club, food pantry, art legacy league, program of adjudicated adolescents, quad city youth sports foundation, boxing club, and a culinary educational kitchen. Addition program elements include the administration of the district, classrooms, and board room available for community use and a park with a walking path and interactive art. Workshop #2 will (RE) imagine a vacant CPS school near the Englewood Neighborhood on Chicago's south side. Attendees will participate in small group design sessions and report out findings in the large group. Take-a-ways include strategies for (RE) purposing buildings and preparing for the future of urban districts with declining enrollments and turning them into opportunities for the community.

#### Learning Objectives:

- REJUVENATE Identify how enrollment, economics and demographics affect a school district.
- RESTORE Verify how confidence was restored in a community shaken by the closing of a school.
- REVAMP Compare ADA standards of the past and how upgrades can be achieved.
- RETHINK Explore how a vacant school building structure and materials become an opportunity.

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### FRIDAY, NOVEMBER 2 10:30 am - 12:00 pm

#### Resilience Strategies for Communities, Facilities, Learners Salon 3

Nick Salmon, REFP, Collaborative Learning Network / Katherine Moore, AICP, Georgia Conservancy / Mary Kay Entsminger, Master of Educational Administration, Chicago Heights School District #170

The resilient school of the future is likely to be a facility we already own, staffed with people we already employ, dramatically transformed with limited resources for teaching and learning in a dynamic century. This session will share resilience strategies at the scale of the community, facilities and learner demonstrating how learning environments can be resilient to changing communities, pedagogy and learning styles. A series of brief presentations of case studies and best practices will conclude with essential questions intended to provoke small group conversations including: Why do we default to 10Acres+? How are you engaging the community in the site selection process? What internship opportunities are you taking advantage of? Why do we accept standardization of classroom sizes and 35% non-assignable? How are you addressing the needs of introverts? What are the range of learning needs we should be accommodating? Why go to school? How does 'project based learning, 'learning from failure' and 'learning at your own pace' impact facilities? What are you doing to build meaningful relationships with learners and the community? The session will conclude with a team challenge testing existing schools for future flexibility including: Departmental Model Grade Level Teams (MA SC LA SS) Project Based Learning Learn at your own pace Learning linked to theme (STEM, Arts, Environment, World Language) Career Clusters Career Academies Half-day, whole-day, twice-weekly Internships Flex labs belong to pod & shared w/ school Teach alone, pairs, teams Teams loop with kids 9-10 or 9-12 Community use during school day Community use after school day Community center/health clinic Year-round school.

#### Learning Objectives:

- Learn why resilience is important to communities, facilities and learners.
- Learn how resilience is best achieved in your community.
- Identify barriers to resilience typically encountered in school design.
- Learn resilience strategies that can be integrated in your future practices.

#### **BrainSensing: Understanding the Brain's Activity in the Immersive Learningscape Salon 10** Tomas Jimenez-Eliaeson, AIA, LEED AP, LITTLE

What if we could better understand what goes inside students' heads, literally, while they experience learning environments? What if we could "see" what they are sensing and feeling? And what if we could use that information to design better and more sensible learning environments? This session will focus on the link between Neuroscience and Space. It will delve into latest research about the Learning Brain. It will also show primary research the describes how The Immersive Learningscape, a concept now implemented in various schools, is being tested through Whole Brain Sensing via Brainwear Wireless EEG Technology. We will show data that visualizes what students are sensing in each of the 5 typologies of learning spaces that make up the Immersive Learningscape. It will also show the data that we've gathered describing what aspects of the learning environments trigger various emotions in students such as anxiety, stress, frustration, focus, and excitement This session is designed to be interactive where questions and answers will be welcomed. We will also use Poll-Everywhere to get a sense of the audience's understanding of the topic, and to get feedback on the content.

#### Learning Objectives:

- Neuroscience & Learning The Science of Learning and the Impact of Environment on the Learning Brain. We will share and discuss latest research on the interaction between Neuroscience & the Learning Brain and how that information can inform the design of curriculum and environments to support optimized learning for all learners.
- We will briefly present the Immersive Learningscape concept and its 5 learning-scape typologies, and how lessons from Neuroscience and Wellness Best practices are impacting the way we design Learning Environments.
- We will demonstrate how we are using a New Brainware Wireless EET (Electro-Encephalographic) Technology to research the link between Neuroscience and Learning Spaces, and the Methodology of Research we are using to collect the data with 3 Partner Schools.
- We will share the interesting data we are Gathering with Whole Brain Sensing via Brainwear Wireless EEG Technology to help the audience better understand what is happening in the minds of students as they experience learning and the learning environment.

### Real World, Hands-on and Integrated: Exploring facilities for STEAM and Career Technical Education Salon 12

Laura Knauss, AIA, ALEP, LEED AP, Lionakis / Bill Heinicke, ALEP, LEED AP, Elk Grove Unified School District / Kathleen Moore, ALEP, School Facilities & Education Consultant

Call it STEM, STEAM or STREAM, but it's no longer just the 'next best thing' in education. The response to this educational model has inspired school transformation; proper planning of facilities to effectively deliver the curriculum is paramount. Join us as we look through the lens of the educators, architects and facilities pros to see how an integrated approach to learning influences facilities planning to meet the demands of a rigorous STEM, STEAM or STREAM curriculum. We'll review real world examples of districts who are moving forward with these programs and rethinking their facilities to better support hands-on, integrated learning activities. In one example, educators came together at their existing campus to envision and create a STEAM curriculum that would be supported by their new and renovated facilities. What worked? What didn't? And why? Career Technical Education has long been the trailblazer of STEAM education - well before the acronym appeared with a focus on problem and project based learning, integrated curriculum and college/career readiness. The lessons learned from modern day career technical education facilities can influence the way we look at STEAM education, but also how we look at education in general. Our panelists will discuss Career Technical Education from Agricultural sciences to the Culinary Arts - and supporting STEAM education with Maker Spaces and Science Spaces, Arts Spaces and Outdoor Learning with an approach to building flexibility into existing learning environments with technology, furnishings and fun! Participants will engage in a hands-on learning activity, rolling up their sleeves to explore the facilities impacts of working in CTE and STEAM.

- Explore the 'hands-on' pedagogy of STEAM curriculum in order to understand facilities requirements.
- Review case studies and lessons learned from development of STEAM and CTE facilities.
- Understand CTE pathways and California's facilities response and impact.
- Collaborate on possible responses to a real world facilities problem.

### FRIDAY, NOVEMBER 2 10:30 am - 11:30 am

#### **Re-Imagining the Studio Art Classroom: From Tired to Inspired Salon 5** Angela Allmond, Ed.D, IDIA Spaces

Invite! Delight! Inspire! Is it surprising to find out that few studio art classrooms are invoking these responses from students and teachers today? It sounds impossible for a place in which art is made to be tired and uninspiring, but a picture is worth a thousand words and the photographs presented in this session will say what needs to be said. Art classrooms, new and old, have not been re-imagined for years, if ever, and it is time to consider a complete change in the way that these classrooms are designed and equipped. This session will use the data from a freshly completed dissertation research project that found design problems in studio art classrooms located in schools opened as recently as Spring 2017. The conclusion of this research is not that educators, architects and school facilities planners do not intend to design great facilities in which students and their teachers can enjoy painting, sculpting, gluing, and drawing, among so many other creative activities, in a delightful space. This is, without a doubt, the hope. The findings of this study will demonstrate, rather, that the designs, furnishing options, and practical day to day operations in a studio art classroom often do not work well and are in dire need of revamping. Specific examples of design issues will be presented on topics such as builtin cabinetry, sinks, storage rooms, technology, a variety of furnishings, outdoor studio spaces, and classroom footprint. Other examples will include site-specific design decisions that have had unintentional, but lasting negative impacts on students and teachers. This session will offer ideas for both renovation and new construction projects and seeks to invite, delight, and inspire educators, architects and school facilities planners on ways to reimagine the studio art classroom.

#### Learning Objectives:

- The National Art Education Association's Design Standards for School Art Facilities will be examined and discussed in order to understand how the field of art educators views the needs of the studio art classroom.
- Attendees will learn about specific design issues found in current studio art classrooms in the U.S. and how they effect students and teachers.
- Ideas will be offered for re-imagining studio art classrooms and changing perceptions about the design and arrangement of these spaces.
- The call to Invite! Delight! Inspire! art students will be shared and experienced by all.

### ACES OF SPACE // How innovative design transforms classrooms into safe NextGen learning spaces for students with elevated ACE scores Salon 4

Aaron Buehring, HMC Architects / Anna Iverse, MS, LMFT, University of California, Santa Cruz / Gema Godina-Martinez, Principal, Washington STEAM Academy

An ACE (Adverse Childhood Experience) score is a tally of different types of abuse, neglect and other hallmarks of a rough childhood. Almost HALF the nation's children have experienced at least one or more types of serious childhood trauma which can negatively affect their ability to engage in group learning. While collaboration and group learning is central to NextGen learning environments, it's also part of the problem for kids with an ACE score. This presents a challenge and opportunity to the AEC industry to make students feel safe, connected and ready to learn with technology and innovative design solutions. This presentation first delves into evidenced-based research that explains the physical effects on the brain, statistics, and outcomes of students with an ACE

score. We'll present the sobering statistics that divulge how students with a score of 3 or more are three times more likely to have academic failure, four times more to have poor health, and six times more likely to have behavioral problems. We'll discuss how the AEC industry can rise to this challenge by incorporating technology and innovative design and collaborate with school districts to create supportive learning environments that benefit all students. Lastly, we'll discuss how we re-imagined, re-designed, and re-opened Sacramento Unified School District's Washington Elementary School from being shut down due to declining inner-city enrollment and district-wide budget cuts to a thriving new STEAM (Science, Technology, Engineering, Art, and Mathematics) school that offers all students a safe sense of place. We'll highlight specific features such as built in 'cubbies' that give students a place to nestle quietly and recalibrate. School staff will share how they incorporate the 'cubbies' into their lesson plans and talk about the positive behavioral impact they are making. Attendees will leave with a solid understand of how changing these environments can help increase attendance, retain staff, and ultimately provide a financial boost to the district. In closing, we'll hear some valuable post occupancy suggestions from Washington school staff on what could have been done better, and how the design could be changed to further help students with an ACE score.

#### Learning Objectives:

- Recognize the important role the built environment plays in supporting -or aggravating students with elevated ACA scores.
- Learn from educators who work with students with high ACE scores about specific building design elements, such as small build-in cubbies or furniture, that can help minimize student anxiety levels.
- Gain tools and strategies to use during the programming and early design phases to help uncover when/ determine which strategies might be relevant for the student population being served.
- Demonstrate how to design appropriate safety elements seamlessly, such as decorative metal screens, green walls, or art, into the project to avoid the results appearing as a correctional facility, often a trigger for students with an elevated ACE score.

### How Buildings Teach Kindness; inspiring social emotional learning in an Illinois School District that chooses kindness as their mission Salon 2

Susan Redell, Dr of Education, Medinah School District 11 / Robin Randall, AIA, LEED AP, Legat Architects / John Butts, Dr. of Education, Medinah School District 11 / Loren Johnson, AIA, LEED AP, Project Architect, Legat Architect

Social emotional learning is key to a healthy and happy life. Medinah School District 11 in Illinois 'Chooses Kindness' as their mission and priority to emphasize the importance of social emotional learning. Medinah is implementing the Castle curriculum and programs within their school year to support this mission. To further this initiative, very grade level chooses a charity or community cause that they sponsor and work towards each semester including raising moneys for the local food bank and collecting coats for families in need. These efforts embody a purpose and ethic that represent kindness in actions. Legat Architects believes buildings can teach and be part of the curriculum inspiring learning, that the environment can influence the way we feel, think, and learn. So how do buildings teach kindness? This is the question we would like to explore through this presentation/workshop. Our team will first identify the precepts of social emotional learning and identify challenges and success in supporting teaching kindness. Our educators will use Medinah School District 11 outside of Chicago as our precedent. We will then break into small groups to reflect and discuss tools for teaching, personal experience with social emotional learning, ways to support this important educational

program. What does kindness look like in architectural space? Our team will present examples that support social emotional learning including:

- Space of Self Reflection
- Sensory space for calm and quiet
- Flexible space for small group connection
- Adjustable seating for standing and fidgeting
- Community space for volunteerism
- Shared space for diverse group gathering

After sharing these examples, we will break into small groups to brainstorm other ways to support social emotional learning through design. By using an under utilized library, computer lab, and patio as our precedent, we will design an environment centered around kindness. Small groups will report back to the large group and the session will end with a list of goals and objectives to implement in their own projects.

#### Learning Objectives:

- Define social emotional learning, strategies for implementation, sharing challenges and successes at Medinah School District 11 in Medinah, IL.
- Identify vehicles for community outreach and demonstrate how helping others in school neighborhoods can help students learn the importance of being kind.
- Explore opportunities to improve learning environments to support social emotional learning activities both in existing schools and new learning environments.
- Design a new community learning lab centered around teaching kindness and community outreach with areas for interior and exterior learning.

#### Transforming from the ground up with technology Salon 7

Leigh Creswell, Business Strategy Leader, Microsoft / Jacqueline Russell, Principal Program Manager, MakeCode /Jason Wilmot, Business Strategy Leader, Worldwide Education

At Microsoft, our vision is to empower every student on the planet to achieve more. We are excited to collaborate more deeply on new projects to create amazing new places to learn, collaborating with architects, designers, project teams and partners around the world. This session will touch on learning from global projects to create environments conducive to 1:1 learning environments and challenge the way we think about spaces to create, code and make.

- Learn about latest ideas on device procurement to support 1:1 learning environments, including student and educator devices and smart devices, and when to use what for different learning styles.
- Learn perspectives on STEM and curriculum for physical computing to support environments to make and create.
- Learn about Microsoft's approach to creating places to learn using the Education Transformation Framework and School Tenets.
- Learn from examples of schools around the world who are in the process of building a new school.

### FRIDAY, NOVEMBER 2 12:30 pm - 4:30 pm

#### School Safety and Security Symposium Grand Ballroom

Public education is being scrutinized today. Safety for schoolchildren has the nation's attention. Every aspect of educational safety and security is under review and school districts are contemplating best practices to employ to safeguard both students and staff.

The above statement is included in the preface of the document Safe Schools – A Best Practices Guide which was the outcome of a 2013 Summit Conducted by the Association. This problem statement is still at the forefront of our industry. Though we have made some impact in the design of safer schools since 2013, everyone would agree that we need to do more to ensure the safety of our students and educators. The Safe Schools Symposium at the 2018 A4LE LearningSCAPES will be a venue to present sub-committee research, vet resources and knowledge gathered, share information and solicit Association Members' input for the production of the updated Safe Schools Guide. The guide is envisioned to be a core knowledge, "gateway" resource to be available to the public through the A4LE Knowledge Center. To date, the Task Force has been formed to include over 60 participants from the school planning and design industry including:

- School planning and design professionals
- Law enforcement (federal, state and/or local)
- Departments of Education
- Teachers working in the Classroom
- School Administrators
- Parents and Community
- Behavioral/ Psychologists
- School Policy Experts
- Emergency Management/ Disaster Preparedness
- State Public School Facilities Commissions

#### AGENDA 12:30-12:35 pm Welcome / Introduction:

#### A4LE/ SS&S Task Force Goals:

Establish an on-line reference system that collects resources that cover a wide range of websites, articles, opinions and more that can serve our members as well as anyone who seeks information on school safety and security. Provide our public-sector education members with resources to have a meaningful dialogue with their communities and expect the needed expertise from their consultants Provide a range of tools, opinions and best practices to educational planners and architects.

#### Symposium Purpose:

To share information regarding School Safety and Security gathered through a variety of perspectives: school facility design, procedures and policies, preparedness and response, and education: educators, student and community. Additionally, to garner feedback on web-based tools and resources being developed by our committees for use by schools and community as a gateway to credible, well-researched information.

#### 12:35-1:05 pm Guest Speaker:

Julia McFadden, Project Manager for New Sandy Hook Elementary / Svigals Architects Sandy Hook Architect describes background and process of decisions leading to new Sandy Hook Elementary

#### 1:05 – 1:25 pm AIA/CAE:

Karina Ruiz, AIA Report on Design of Safe, Secure & Welcoming Learning Environments Summit

#### 1:25 – 2:25 pm School Safety and Security Sub Committees Report Out

Introduction of A4LE Web Gateway Site: Molly Smith School Facilities: Diego Barrera Preparedness and Response: Vijay Ramnarain or other Procedures and Policy: Gary Armbruster or other Education: Educators, Students and Community: committee member Survey of school superintendents: Phil Poinelli

#### 2:25- 3:25 pm

RE Thinking School Safety and Security in the School Environment Presentation + Panel Discussion Paul Timm/Robin Randall

#### 3:25 – 4:25 pm

Community Voices Panel Discussion Amy Yurko and Phil Poinelli, Facilitators Teacher, student, community, school administrators' perspectives on the balance of hard security and the desire for open (but securable) environments – Nicole Snedden et al.

#### 4:25 - 4:30 Wrap up/ Next Steps

### **FRIDAY, NOVEMBER 2** 1:00 pm - 2:00 pm

#### Can Virtual Reality Revolutionize the process for Designing Schools Salon 4

Sandra Kate, REFP, LEED AP, HMC Architects / Julia Hawkinson, AIA, ALEP, LEED AP BD+C, O+M Los Angeles Unified School District / Christopher Grant, HMC Architects /

Virtual reality has gone from speculative to ubiquitous and our schools are even integrating it into their curriculum. Yet it is not as prevalently utilized as a design communication tool in K-12 Educational Facility projects as in other project types. Why? Funny-looking headsets aside, VR tools are no longer in an experimental phase and can be a cost-effective way for K-12 School Districts to better understand a campus or building design and identify potential concerns or issues before users move into a completed facility. Nothing is more frustrating for both the design team and the users when a client says "Wow, I didn't realize this all was going to be here" or, "I thought for sure there was a door here!" These VR tools allow school and community stakeholders who may not be able to understand typical architectural drawings to virtually walk through a building and provide more meaningful feedback while the design in still being developed. In this workshop we will share examples of different VR tools including Augmentation, Ipanos, Housecraft, and Google Cardboard, as well as others that can be used for design communication and collaboration. We will look at pros and cons of each tool, as well as costs to use each tool, through the lens of both the architect and a school district. We will share a case study of how different VR tools were used to collaborate in the development of the design on a major redevelopment of a historical high school campus in the Los Angeles Unified School District. The District will share how they were able to better understand security sight lines, building heights, and circulation on the campus providing critical feedback in the development of the design early in the process, and what tools worked best for what they wanted to see. The workshop format will provide an initial overview of VR tools and the LAUSD project case study, and then allow smaller groups to experiment with the different VR tools at tables and discuss reactions, concerns, and workshop participants' experiences with VR in educational facility design. These groups will explore how they see VR impacting the design of learning environments, how they could positively or negatively impact the cost of a project, and if this new way of communicating a design could provide more input and involvement from students and community members. They will discuss potential consequences of VR tools in the design process including any potential pitfalls and how the tools may impact the design process schedule. After the small group discussion, each group will share out their insights with the entire workshop to expand everyone's knowledge base, understanding, and comfort level of how VR might provide opportunities to improve school design.

- Provide a general knowledge base with examples of VR tools and how they can be developed and used on a project as well as where VR may be going in the future.
- Learn about how VR can provide a District and Stakeholders with a much better understanding of a building and campus to allow for improved design collaboration and input.
- Develop an understanding of how and when to use VR in the design process.
- Develop an understanding of cost and time implications of using VR in the design process and cost savings during construction and post construction occupancy.

#### Re-imagining the Media Center: From Central Hub to Distributed Creation Labs Salon 7

Judith Hoskens, REFP, LEED AP, LE Fellow, Cuningham Group Architecture, Inc. / Kay Nelson Sartell, St. Stephen Schools / Brenda Steve, Sartell High School

Schools across the country are seeing a dramatic transformation in their approach to traditional media centers. Originally meant to be a central hub of learning and activity, Sartell took the radical approach of redistributing this space into three labs around their new High School: Visual (video production and recording studio); Cloud (computer programming, graphic design and cartography); and Design (prototyping, laser cutters, 3D printers, and robotics). Learn how Sartell – St. Stephen Schools involved students and staff in reimagining and rethinking their 'Media Center' making it a place where students want to be igniting their passion for learning and positioning them to achieve their best!

#### Learning Objectives:

- Obtain a greater understanding on ways to rethink spaces that support NEXT Century Learning.
- Sartell High School is creating a new model for collaboration and innovation that exposes students to various occupational opportunities.
- Obtain a greater understanding of the student-driven education model that empowers students to create their own path and graduate with career readiness.
- Understand the shifting context of media spaces and how to achieve a strong balance between current needs and future needs, both in terms of learning needs and evolution of technology.

#### A Giraffe Ate My Homework! Designing for Adventure Education in Omaha's Zoo School Salon 2

Vanessa Schutte AIA, DLR Group / Elizabeth Mulkerrin Ed.D. Omaha's Henry Doorly Zoo and Aquarium / Mark Brim AIA, DLR Group

In a world filled with technology, Omaha's Henry Doorly Zoo and Aquarium Education Center offers a space for students to connect with the natural world, providing opportunities for 'adventure education' that enhance their understanding of and relationship with the animals and ecosystems around them. Offering full-time high school, preschool and kindergarten classes for up to 220 students, the Education Building exemplifies the Zoo's education mission to enhance the public knowledge in all areas relating to the natural world. Distractions are encouraged, and come not from smart phones, but from the sounds and movements of nearby animals. Panelists will discuss how the school at the zoo was created through district, community, and business partnerships, and what active learning looks like on zoo grounds.

- Learn what active learning looks like in nature. Review design of spaces that allow themselves to integrate in the natural world.
- Hear the definition of "Nature Deficiency" and how to address it.
- Review successful examples of flexible spaces that can be opened to nature and maintain a contact with it through glass doors and walls.
- Discover Learning Environments that are sensitive to Nature.

### FRIDAY, NOVEMBER 2 1:00 pm - 2:00 pm (cont'd)

#### **Reimagining Spaces for Tomorrow's Thinkers Salon 5**

Stefee Knudsen, AIA, LEED AP BD+C, Hacker / Jon von Behren, Director of Facilities, Oregon Episcopal School / David Lowell, Head of Lower School. Oregon Episcopal School

How does our current teaching process need to change to give our youngest students the educational foundation to be resilient global citizens? How can we meaningfully connect students to the natural environment and inspire them to be stewards of our communities? Oregon Episcopal School's (OES) Lower School Head and faculty started by asking these questions, and then were inspired to evolve their pedagogy and building a new lower school that would enhance their growing vision and its evolution. What it means to be a leader in our society is changing as communities are placing less emphasis and value on hierarchical structures and more importance on critical thinking and collaborative problem solving. In parallel, understanding of brain development and effective teaching methods have pointed to less hierarchical approaches to learning, and more towards effectively enabling students to become directors of their own education and reimagining how teachers can collaborate. Inquirybased, student-centered learning empowers students to make education relevant to their interests, engage in ways most compatible to their learning modalities, and grow into adaptable thinkers who will be able to respond to a changing world. Active and experiential learning requires a different look at the design of the classroom. OES is an example of an institution embracing experiential learning, and identifying a need of a different type of spaces to support and flourish the new pedagogy. OES's campus and Lower School are surrounded by a natural beauty that inspire sustainability and resiliency as core values. As OES embraced a change in pedagogy toward nature-inspired inquiry-based learning, they found their existing facilities limited or prevented teachers and students. The teacher's new role as a guide and the students individual learning modalities begged for a different type of physical space. As a result, OES embarked on reimagining a New Lower School, whose mission was to foster collaboration between teachers, create spaces connected to nature to inspire student curiosity and exploration, and enable their faculty to nurture tomorrow's diverse and thoughtful thinkers who are moved by their connection to the natural world to be stewards of the environment and leaders of resilient communities.

- Understand how spatial requirements for active- or inquiry-based learning differ from traditional teaching spaces.
- Understand how non-classroom spaces can foster informal learning between teacher-teacher, teacherstudent and student-student.
- Describe the academic and developmental benefits active- and inquiry-based learning offer students.
- Describe the energy efficiency features that allowed the project to be considered "net zero ready" and participate in the "Path to Net Zero" program.

### FRIDAY, NOVEMBER 2 1:00 pm - 2:00 pm (cont'd)

### A Day at the Museum: Creating engaging PK-12 learning environments through emulating children's museum design Salon 12

Mike Corb, AIA, CannonDesign /Anne Fullenkamp, MBA March from Morgan State University BFA from The Maryland Institute College of Art Children's Museum of Pittsburgh

Few memories stand out that help define the elementary school experience like that of the class field trip day at the children's museum. Why? Children's museums provide an environment rich in immersive activities (rather than objects) that trigger active learning. Students get to choose what to engage with while forgetting they are in an educational environment. Though students may think otherwise, there's a commonality between children's museums and schools the design goal of both environments is to engage and inspire and educate. Museum/ school partnerships are becoming more relevant in today's evolving PK-12 environment as they are a way of connecting formal education to the best of informal learning practices. Moreover, museums are constantly researching and testing best practices in project-based learning, which schools could use to inform future policy. This presentation and learning activity will demonstrate why design teams should look to children's museums when trying to reimagine the PK-12 learning environment. Speakers will offer insights based on previous projects, work and industry expertise. Audience members will walk away with tips to creating a design process that engages key stakeholders, places student experiences first, and creates flexible and adaptive 21st century learning environments.

#### Learning Objectives:

- Audience members will be able to employ new methods of design influenced by children's museums within learning environments.
- Audience members will be able to construct a design process that successfully addresses key stakeholders needs while placing the student experience first.
- Audience members will be able to support and educate clients on properly utilizing their new learning environments.
- Audience members will be able to demonstrate how these new national educational environments will have a growing global impact.

#### Making the rhetoric of learning spaces a realityDesignEverywhere Salon 10

Vicky Leighton, Head of Visual Art at Churchie and PhD researcher in the Innovative Learning Environment and Teacher Change project and The University of Melbourne

For the past eight years, the Anglican Church Grammar School (Churchie) in partnership with the University of Melbourne's Learning Environments Applied Research Network (LEaRN) and Brand and Slater Architects have utilized the design and evaluation of different learning spaces to drive school-wide pedagogical improvement. The partnership supported the development of an approach and evaluative methods and tools able to isolate the impact of traditional and innovative learning environments (ILEs) on teaching and learning. This work underpinned the pivotal Australian Research Council Linkage Projects "Evaluating 21st Century Learning Environments" (E21LE) and "Innovative Learning Environments and Teacher Change" (ILETC) that brings together the expertise of leading researchers and partner organizations in education, learning environment design and technology. In this workshop, discover how the evidence base and corporate understanding

developed from the partnership informed strategic building projects that drove sustained improvements in teacher practice and student learning experiences and outcomes. It will share the findings of a longitudinal empirical study that tracked the practice of a large group (n > 70) of teachers in their occupation of different Secondary years spatial layouts.

A novel real-time observational metric and in-situ professional development approach illuminated how teachers of diverse beliefs, experience and subject backgrounds used (or not) the spatial affordances of traditional classrooms and ILEs for pedagogical gain. Statistical analysis of student academic outcomes correlated gain to those teachers that exploited the affordances of both digital and spatial technologies with a responsive pedagogical approach in various settings. Collectively, this presentation will provide empirical evidence to test the often postulated claim in the literature that different learning environments can either facilitate or inhibit particular student and teacher activities and behaviors.

#### Learning Objectives:

- Build upon or expand on current knowledge or skills around how different physical learning environments can shape teacher pedagogical practice.
- Learn about tested key stakeholder consultative practices and processes that inform the educational brief and aid the collective design process.
- Build upon or expand on current knowledge or skills around how different learning environment types can shape the nature of student learning experiences.
- Acquire new knowledge or skills in contemporary methods and measures in the post-occupancy of learning spaces.

#### STOP The Threat - 21st Century Safe School Best Practices Salon 3

Michael A. Yorio

In order to change the learning environment, you need more than a well developed design. Our methodology outlines the process we take in order to bring the team along, manage the resistance to change and create effective environments that promote the desired learning behaviors.

#### Learning Objectives:

- Learn about various Code compliant classroom lock-down devices
- Review DHS Primer recom-menda-tions for school safety
- Examine social, psychological and logistical adjustments that can help avoid violent situa-tions.
- Review specific solutions for 21st Century Safe Classroom

### **FRIDAY, NOVEMBER 2** 2:15 pm - 3:15 pm

#### Empowering Students with Special Needs through Flexible Learning Environments Salon 4

Julie Jilek, Northwest Suburban Special Education Organization / Brian Weems, Timber Ridge School / Doug Liszka, Steelcase Education / Steve Slifka

The Northwest Suburban Special Education Organization (NSSEO) embarked on a vision to redesign learning environments that both accommodate the unique needs of students with special needs and inspire students to

attain the knowledge and skills that the 21st Century demands. As a part of this journey, a grant assisted NSSEO in realizing this vision. The grant also supported NSSEO in collecting data and measure the impact of flexible learning environments on student engagement, social-emotional regulation, and positive interaction with peers. This session will highlight our process, outcomes, and the positive impacts of flexible learning environments on students with special needs. NSSEO will share with participants its research approach, implementation, outcomes, along with strategies and tips on how to successfully transition classroom space from passive, teacher-centered learning environments to active, student-centered learning environments.

#### Learning Objectives:

- Participants will gain an understanding of the positive impacts of flexible learning environments on students with special needs.
- Participants will expand their knowledge of useful strategies and tips to use in transitioning classroom space into flexible learning environments with a focus on 21st Century learning, integration of technology, accessibility, safety and security.
- Participants will learn how flexible learning environments can lead to a shift from teacher-centered to student-centered learning environments enabling students becoming more active learners.
- Participants will learn how flexible learning environments led to an increase in on-task behavior, a decrease in disruptive behavior, an increase in social-emotional regulation, and an increase in positive interactions with peers.

#### Get Academic ROI on Your Facilities Salon 5

Scott Layne, Dallas ISD / Jill Galloway, engage2learn / Irene Nigaglioni, LEED AP, ALEP, IN2 Architecture / Shannon Buerk, CEO, engage2learn

Educators, learners, parents, and communities are continually chasing the dream of an ideal learning experience; an experience in which learners realize potential and emerge from school fully prepared to accomplish their highest hopes. Dallas ISD is working to make this dream a reality for their learners. The district partnered with engage2learn and PBK architects to reimagine the learning experience in Dallas ISD and actualize their vision through a long range technology and facilities plan. The project, aptly named by the district as 'Envision Dallas ISD', focused on encouraging community wide participation and communication to define a clear, shared belief about learning, developing a mission informed by new contexts for learning, creating a culture of student-centered learning, focusing on the highest effective use of technology to enhance teaching and learning, and ultimately connecting learning to the real world to better prepare learners for success. When districts commit to a large investment in their learning environments, they want to make sure their dollars are in the right place. To achieve the goal of an intentional, specific and strategic plan for the district and guarantee a return on investment in the district's technology and facilities upgrades, e2L facilitated a three-phase process known as Learning Environment Design (LED<sup>©</sup>). The process began with a community engagement phase to develop a collaboratively-determined local vision for learning. This was accomplished through a variety of community outreach opportunities, where members from all district stakeholder groups came together to define the desired learning experience for the Dallas ISD community. The community engagement phase provided a critical foundation for all future decisions to be filtered through in order to maintain alignment to the central vision for learning. In phase two, a design team of Dallas ISD internal and external stakeholders analyzed the community input from phase one to develop a framework of the learning experience. A Dallas ISD student participating on the design team named this

learning framework Dallas ISD Learning by Design. Next, the team used the engage2learn Learning Environment Assessment of Readiness & Needs (LEARN©) rubric to identify design principles for the classrooms. The framework and design principles were used to create the long range technology plan and informed the development of the long range facilities plan. During the last phase of work, members of an assessment team, comprised of an e2L facilitator and both district and campus administrators, utilized the LEARN© rubric to assess each campus' ability to effectively support the behaviors defined in the learning framework. Specific needs were identified and aggregated to determine the most common needs by campus. All of the information gathered was consolidated into a master list of opportunities to improve the campus over the long term. The LEARN© rubric became the standard moving forward for decisions related to the learning environment to ensure all district initiatives and decisions were aligned to this framework for maximum impact. As the facilities assessment was completed, PBK architects led campus administration through a design process where new programming and facility modifications based on programming changes were designed into the current facility. This collaborative process allowed the campus leaders to understand and contribute to the possibilities for the long-range plan for that particular campus. All of these program modifications, LEARN© rubric assessment recommendations and life-cycle needs have been compiled into a master list of opportunities for the district to consider to improve each campus over the long-term. Several school districts have already benefited from the LED© process. In Fort Worth ISD, the community focused heavily on college and career readiness and as a result, the learning environment and learning framework were designed to cater to preparing students according to local job projections. The district has an 85.2% graduation rate and the goal is to increase that number significantly. They are continuing to work to increase certifications and career opportunities for graduates. In Alamo Heights the district has increased teacher retention, providing greater stability for students in the district. The design solution in El Paso ISD increased student engagement and standardized test scores. Mesquite ISD saw an improvement in readers on grade level from 78% to 87%. The process in Corpus Christi ISD resulted in 2 chronically under performing campuses increasing significantly in rank in the state. The LED© process increases student engagement by providing an innovative, active learning environment that supports the learning experience needed to keep students both interested and successful in school. The local, collaborative vision and design addresses the needs of each individual district. The learning experience drives the design of the learning environment and the result is a collaboratively-designed, focused, and aligned structure for teaching and learning that is completely unique to each district. Through innovative furniture, careful technology planning, and thorough analysis of current facilities, every space is put to its highest effective use and every district dollar is a dollar towards the vision for ideal learning. Using this proven design process, educators are able to see reduced behavioral referrals as a result of aligned learning environments and instruction, along with an increase in standardized test scores and an overall improvement in critical skills. These results correlate to having a collaborative and student-oriented learning experience for the modern learning environment. Educators are able to differentiate student learning more effectively for better student outcomes as well. The process ensures that each district's learner outcomes are achieved and that each community is growing learners exactly as envisioned.

- Learn the process to create a learning environment based on student-centered learning experience to maximize academic ROI.
- Discover impact on teacher/learner growth utilizing the LEARN© Rubric and Design Principles.
- Summarize the community engagement process that leads to a collaborative, locally designed learning environment.
- Identify ways to utilize existing resources and initiatives during design and implementation of an innovative learning environment.

### FRIDAY, NOVEMBER 2 2:15 pm - 3:15 pm (cont'd)

#### **Environmental STEM in an Urban Context Salon 2**

Boris Srdar, FAIA, LEED AP, NAC Architecture / Christine Benita, Seattle Public Schools / Jenni Lachner

Real challenges are associated with teaching environmental STEM in an urban condition. In particular, how can an urban school site effectively bring science to life for students and teachers? A case study of Hazel Wolf K-8 in Seattle can serve as an example of a school that's much more than its site. Located on only 3.14 acres in a mixed commercial/residential neighborhood, the school pursues an environmental-based curriculum without any compromises. Teachers at Hazel Wolf have practiced multiple modes of indoor and outdoor learning. Students' enthusiasm for outdoor learning on their site has resulted in a wide choice of self-initiated science based projects, increasing relevant interdisciplinary learning across the curriculum. Accommodating such an experientially rich educational program resulted in design that has interpreted biophilic principles towards blurring the lines of spatially separate activities, enriching the intertwining of learning, play and socializing. We will discuss how Hazel Wolf can serve as a model for urban STEM programs that desire to expand their reach and use STEM as a tool to stimulate students' directed inquiries. During this session you will hear from the Elementary Science Specialist for Seattle Public Schools on how:

- The building and site are designed like an indoor/outdoor lab. Classrooms are organized in a three story building surrounded by different outdoor learning spaces. Because of the proximity between the indoor and outdoor learning environments, there's little barrier in time, cost, or planning to move between indoors and outdoors to best suit learning.
- The outdoor learning spaces are designed for educational accessibility. They are used by all curricular programs at the school, not just STEM subjects. They are used by all grades at the school, including the childcare that's operated by an outside agency. The outdoor spaces support use by individuals, small groups, and entire classes.
- The development of an environmental STEM program engages teachers in the practice of using the natural environment as a way to reinforce and expand the activities of the classroom for all disciplines.

Additionally, the project architect will walk you through a comparison of environmental schools on urban sites with examples from other urban areas around the world opening the realm of innovative educational and design possibilities.

- At the end of the program participants will be able to analyze, and differentiate between, urban school sites with a strong STEM focus in the United States and interesting environmental programs in an urban context around the world.
- At the end of the program participants will be able to define ways in which an environmental-STEM program can serve as a catalyst for student initiated inquiries and student directed learning.
- At the end of the program participants will be able to express the benefits and opportunities afforded by an engaging outdoor school site.
- At the end of the program participants will be able to test opportunities for outdoor learning on their own school site.

How Design Thinking, Project Based Learning and Innovation focused STEM Curriculum initiatives are informing our contemporary learning environments Salon 3 Mark Freeman, Architect & Education Facility Planner

- Our world is more globalized, automated and connected than ever before
- Our students need a wide range of knowledge & skills to deal with this change and complexity.

With this emphasis on preparing students for an ever changing world, what are our newest learning facilities able to achieve to support more contemporary, future focused learning models?

Through exploration of three new, innovative education projects, we will demonstrate how each provides spaces to support immersive, student centered, design and technology activities, capable of supporting multiple pedagogical approaches, STEM focused curriculums and Project Based Learning experiences. The Centre for Advanced Design in Engineering Training has become an exemplar model for higher education engineering training, where multidisciplinary interaction, collaboration and innovation is integral to a design focused curriculum. An A4LE Australasia 2017 award winning project, CADET has been planned collaboratively with Deakin University's School of Engineering, and evidences a high tech learning environment focusing on establishing pathways for secondary students into fields of Science & Engineering, responsive to future focused industry requirements and research opportunities. Alongside this, Wyndham Tech School represents one of several new generation High Tech campus facilities being planned across bVictoria, where learning is characterized by student centered active investigation and inquiry. Students will participate in a unique learning program linked to Victorian Curriculum and pursue immersive, project based work to solve real world problems using the latest technology.

Finally, Prahran High School represents the latest in inner city Australian public secondary education, where the next generation of learning spaces forms an integral part of the interwoven vertical functionality of this new multi-level inner urban school. As a vertical learning community, this new school model evidences a research informed approach to the integration of STEM, Creative Arts, Health & bWell being Activities. These new facilities present the next evolution of contemporary learning spaces, planned to support multiple pedagogical approaches, across transdisciplinary activities and investigations.

- How true engagement with educators and specialists through co-authoring educational and functional briefs can enhance planning and design outcomes for innovative learning environments.
- Collaboration, Connectivity and Community How vertical learning environments promote opportunity for enhanced interdisciplinary collaborations.
- Prahran High School Developing a new model for multi-level educational facilities in higher density urban environments, outlining how connectivity, community and curriculum are supported and enhanced in a vertical campus.
- Wyndham Tech School Developing a new model for an immersive, engaging and student centered learning environment where Design Thinking, Technology and Challenge Based Learning promote connectivity, collaboration and community.

**Captured Space: Reimagining unused space as a Learning Environment Salon 10** Paul May, AIA, Miller Dunwiddie / Dr. Steve Pohlen, Benilde-St. Margaret's School

How do you make older schools more efficient and more learner focused without expanding your school footprint? Many of our existing schools have unused and under utilized space that is prime for 'reimagining' into vibrant new learning environments. Light wells, basements, gravel courtyards and inefficient hallways are some examples of these spaces. This program will show how a school searched for solutions through a process of educational and facility planning, and found a multitude of areas that could be redesigned and re purposed to increase their usable educational space, provide new options for learning and transform the identity of their school. The educational planning team of Benilde-St. Margaret's School and architect Miller Dunwiddie will guide you through the process, it's highs and lows, and the exciting results from a multi-year planning effort to re imagine this 60-year-old facility into a vibrant learning community. Additional examples from Saint Paul Public Schools will reinforce many of these concepts.

#### Learning Objectives:

- Encourage and enable school administrators to analyze and evaluate under utilized spaces such as exterior courtyards for educational learning activities.
- Creative analysis and application of reuse strategies for a variety of under utilized spaces, including exterior courtyard, interior hallways, and 'traditional' classroom spaces.
- Understand and evaluate codes and regulations related to new uses within existing exterior & interior spaces.
- Provide case study examples of best practices in merging formerly single use spaces into multi-use, flexible learning environments.

#### Architecture Lessons from Crow Island: A Modern Masterpiece of Design for Children Salon12

Beth Hebert, Former Principal, Crow Island / Julie Pfeffer , Principal, Crow Island / Dina Sorensen, K-12 Education Design Leader, DLR Group

Join us for an intimate discussion with current Crow Island Principal Dr. Julie Pfeffer and members of the Stewardship Group and former Crow Island Principal Dr. Beth Hebert, about the special and unique experience of teaching and learning at "the most functional and beautiful school in the world" [Carleton Washburne] Designed by Eliel and Eero Saarinen in collaboration with educational planner and architect Larry Perkins in 1938-39; the legacy of innovation and progressive education at Crow Island continues to inspire architects, educators, and historians from all over the world. After almost 80 years, the original school furniture designed by Charles Eames and Eero Saarinen had been compromised by time. Join us to discover how the process of reimagining new furniture for Crow Island uncovered one of greatest modern design stories about "crystallizing in architecture the best of our educational thought and to house appropriately the best educational practices we can evolve." [Carleton Washburne]. Moderated by Dina Sorensen [K-12 Education Design Leader, DLR Group]

- To understand the significance of Crow Island School in the history of school design.
- To appreciate the concept of stewardship as relevant to all school buildings.
- To understand the importance of the collaborative conversation between architects and educators
- To understand how a stewardship program has been successfully implemented at Crow Island School in Winnetka, IL.

**Resiliency in remote communities: How to listen when your ears are frozen Salon 7** Jeffrey Moroz, MAA, Stantec Architecture Ltd. / Dora Batista, M.Arch, Stantec Architecture Ltd.

First Nation Communities in Canada have a unique requirement to be resilient. Typically, they are physically remote yet digitally connected, challenged by social, economic, and emotional realities, and plagued by infrastructure deficits within harsh climatic and topographic conditions. Education is a critical and valued commitment to a growing young population which far exceeds the capacity of overpopulated and outdated schools. The Manitoba Schools Initiative (MSI) is a Federal Construction Program developed to bundle the design and construction of a new school in four different, but geographically linked, First Nations communities in Northern Manitoba. These fly-in communities have winter road access for delivery of materials, fuel, and equipment limited to a 6-8 week period on temporary ice-roads in the heart of Winter. Temperatures can range from 30 C in Summer to -30 C in Winter, and topographic and soil conditions affect design and maintenance protocols depending on the season. In these remote communities, resiliency means survival, and the building of a new school can become a catalyst for regeneration. The presentation will explore how the multi-disciplinary design team engaged with four unique and remote First Nation Communities with a mandate to design and agree upon on a Common Core despite diverse architectural program requirements. What we learned was how visiting these communities redefined our understanding and definition of resiliency; how important it was to listen to what was not said, as much as what was said. Communications and presentation techniques and tools were adapted and tailored to better communicate and listen, and resulted in a rewarding journey of trust, partnership and hope.

#### Learning Objectives:

- Learn how the logistics of building in remote, ice-road access communities, influences design decisions.
- Learn how listening to what is said as well as what is not, informs the design response and workshop communications techniques.
- Learn what 'resiliency' means in remote, isolated First Nation Communities in Canada and how it affected the school's planning and building envelope design.
- Learn how schools in remote communities are catalysts for regeneration and serve as learning, social, and supportive hubs communities, influences design decisions.

### FRIDAY, NOVEMBER 2 3:30 pm - 4:30 pm

**Elevating All Students: Planning and Design Strategies to Maximize Equity and Opportunity Salon 5** Steve Herr, AIA, LEED AP, Fanning Howey / Donald Adams, Granite School District

Two new high schools, two very different communities and one Big Hairy Audacious Goal -to elevate 5,300 high school students toward college and career success. Join us to learn how Granite School District in Salt Lake City, Utah, is planning to create equitable and innovative high schools in two distinct neighborhoods -one an affluent, white collar community and the other a blue collar mining community. You will learn about the visioning strategies and stakeholder engagement processes used to create a shared vision between the communities. We will also examine long life/loose fit principles and kit of parts planning and design strategies that are promoting equity between the schools. And the best part is that we will be sharing these ideas at a critical point in the design process -so come with your big ideas and help us maximize equity and opportunity for all Granite students!

#### Learning Objectives:

- Explain the equity-based strategies needed to build consensus among stakeholders from multiple communities.
- Develop a kit of parts strategy for building design to maximize equity among multiple educational facilities.
- Translate visioning goals into design guidelines for the client and design team.
- Implement long life, loose fit building design strategies to create sustainable equity for decades.

#### **Impactful Learning Transformations Salon 7**

Daniel Smith, Director, Leaf Architecture

In order to change the learning environment, you need more than a well developed design. Our methodology outlines the process we take in order to bring the team along, manage the resistance to change and create effective environments that promote the desired learning behaviors.

#### Learning Objectives:

- Review the design process to ensure all important issues are being addressed.
- Examine the design of different learning settings to understand how different solutions can support the learning ways of different students and which features are not conducive to learning.
- Learn about the effects of management changes and how to be prepared to "train" a new set of managers.
- Learn how to base decisions on research obtain successful outcomes.

### Space Matters. And Research That Begins to Prove It: Piloting Student Engagement in Grades 9-12 Salon 2

Jim French, FAIA, DLR Group /Lennie Scott-Webber, Ed.D. INSYNC, Education Research + Design

"Can we demonstrate that the design of the built environment for grades 9-12 impacts student academic engagement levels?" – DLR Group and Lennie Scott-Webber, a nationally recognized researcher developed a survey instrument for post-occupancy that queries both educators and students, to understand how the physical environment impacts student engagement levels. This tool does not measure if students just like the space, or if students' grades achievement went up, but truly if the academic engagement levels increased based on the built environment. A sample was designed and tested with goals including 1) answer the research question, 2) build a reliable and valid instrument, and 3) hopefully research significance. Respondents saw a real effect of the physical environment on student engagement in both their teaching and learning. Come hear how research efforts are used to develop a survey instrument, gain an understanding of why our firm believes in generating an empirical research platform using academic scientific standards, and discuss the survey outcomes through an interactive Q&A session to more fully understand the process, and the possibilities of incorporating a tool like this.

#### Learning Objectives:

- Become aware of the research efforts used to develop a survey instrument looking at the impact of the design of the built environment on student engagement.
- Recognize the significance of this type of research on reducing anxiety for developing the macro and micro environments for schools for decision makers.
- Develop an in-depth understanding of why one architectural firm believes in generating an empirical research platform using academic scientific standards.
- Discuss the details shared in the presentation through an interactive Q&A session to more fully understand the (a) process, and (b) possibilities of incorporating a tool such as the one developed.

### FRIDAY, NOVEMBER 2 3:30 pm - 5:00 pm

### **UDL: How can the Science Behind Learning Inform More Effective Instruction & Space Design? Salon 3** James Basham Ph.D.,University of Kansas & UDL-IRN / David Reid, AIA, Gould Evans / Stacy Roth, LEED AP, NCIDQ / Scott Rice, Education Solutions

Universal Design for Learning (UDL) is an internationally recognized framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. Developed by neuro psychologists at Harvard, UDL takes advantage of both innovative instructional methodologies as well as flexible technologies to support highly diverse learners. This session will introduce attendees to the proven practices and benefits of UDL, how to go about implementing UDL, and how to think differently about learning spaces to optimize UDL principles. A carefully facilitated brainstorming exercise among attendees will help vet out challenges and opportunities experienced among the schools that attendees represent, and the session hosts will conduct a follow-up Q&A to offer insights and practical tips on advancing the application of the time-tested strategies of Universal Design for Learning.

#### Learning Objectives:

- Attendees will be able to better deliver personalized learning using the proven principles of UDL presented in the session and available through UDL-IRN sources.
- District/school representatives will be able to benefit from examples and lessons learned during the session, and create a roadmap for the adoption of UDL principles throughout their institutions.
- Using their newfound understanding of the neuroscience behind UDL, attendees will be able to better assess and affect learning environments, identifying sometimes invisible obstructions, in support of providing equitable learning to every student.
- Using the UDL framework, attendees will be able to improve their sensitivities toward the variabilities across different learners and design new instructional methods and learning settings accordingly.

#### **Greening of Schoolyards – Expanding Learning Opportunities Across the Campus Salon 10** Jane Tesner Kleiner, RLA, Nature+play designs

According to the Children and Nature Network, "Green Schoolyards" are multi-functional school grounds, designed by and for the entire school community, that include places for students, teachers, parents and community members to play, learn, explore and grow. Green schoolyards provide numerous benefits to school

communities, including expanded learning opportunities through hands-on spaces, health & wellness in natural settings, environmental improvements for water/air and wildlife, and strong community building. In Vancouver, WA and cities across the country, schools are examining their entire campuses as opportunities to expand learning and play. Updating old features, maximizing under-utilized spaces and repurposing unused areas can provide a wealth of acreage to schools where funding is tight. Schools are starting conversations, taking a hard look at risk and liability while expanding how students can explore and create hands-on project areas right out the back door of their school. New and updated features in Green Schoolyards support learning goals for a variety of curriculum, such as the Next Generation Science Standards and STEM learning, to music, art, reading, writing, math as well as physical health, mental well-being and social development. Creating spaces throughout the campus allow students to explore in a safe environment, whether in structured curriculum studies or passive recess time, including imagination play and skills building. Numerous research studies support that children are calmer, increase test scores and have general improvement when they are able to access green and natural settings on a daily basis, such as their green schoolyard. As design professionals, Green Schoolyards looks beyond one profession to include multiple disciplines to determine a variety of features to support passive and active learning, play and respite on the school grounds.

#### Learning Objectives:

- How the design of a play-ground can en-courage children to move and en-gage in healthy activities
- Examine the choice of mate-rials that will not affect negatively the health of the users
- Examine the importance of integrating natural features in the design of a play-ground to pro-mote health and learning
- Observe how the play-ground space can be used for more "academic" types of activities

### SATURDAY, NOVEMBER 3 10:15 am- 11:15 am

#### Thinking Inside the Box – The Case for Transformation Salon 5

Regan Shields Ives, AIA, LEED AP, MCCPO, Finegold Alexander Architects / David Stephen, President | M.Ed., Architect New Vista Design / Traci Walker-Griffith, Principal | M.Ed., Eliot K-8 innovation School, Boston Public Schools

21st Century education has gone global, but no amount of technology can replace the school building as the heart of the community. However, many districts, especially in urban areas, are faced with antiquated school buildings in desperate need of renovation. These same districts are often challenged by increased enrollments but are left with limited options for expansion, further putting pressure on their existing school facilities. In suburban settings, a neighborhood school building may be critically important to the community fabric, so a renovation may be more advantageous than a new facility. Alternatively, a district might identify an educational void in their current community and determine that a new school must be created. By working within the confines of existing buildings and sites, three distinctly different school districts at opposite ends of the country from Boston, MA to Los Angeles, CA were able to creatively think inside the box to transform three different building types into 21st century learning environments. Hear from the perspective of an architect, educator, and educational planner.

#### Learning Objectives:

- To explore ways to advance curriculum through design: within the building, the larger community, and its place in the global lens of education.
- To gain a better understanding of the strategies used to unite 21st century educational program needs with existing building limitations and opportunities.
- To understand how to analyze an existing building to determine if it is conducive for educational use, including existing site, building systems, and indoor environmental qualities.
- To explore strategies for swing space and phasing during renovations to ensure minimal impact to the educational experience.

### Material Transparency and Healthier Choices: Building Local Advocacy with Global Impact Salon 7 Stacey Crumbaker, IIDA, Associate AIA, Mahlum Architects /Jay Hindmarsh, AIA, NCARB, LEED AP, CSI CCS, Mahlum Architects

Humans spend over 90% of their time indoors – their daily interactions with the materials that comprise these spaces have a significant impact on their health and well-being. As global construction demands have surged with population growth, consumption of raw material has increased by 60% since 1980 and mineral extraction has increased 8-fold since the early 1900s. The health of the communities and environments where these raw materials are found around the world can be significantly damaged by extraction processes, but the development and manufacturing of raw materials into building components can also cause considerable damage. Increasingly, evidence-based studies demonstrate a tangible and direct effect of specific building materials on human health. With more information, project teams can better assess products to choose those which are healthier and better able to withstand the rigorous demands of a school environment. Tracking materials from their source allows districts to better understand the global ramifications of local decisions. With increased awareness during the design process, project teams can advocate healthier material choices not only for students and building staff, but also fenceline communities adjacent to industrial development and manufacturers. Presenters will summarize technical, nuanced research in plain language and share tips on how districts can apply this learning to individual projects, maintenance and operations. With a working knowledge of the healthy materials movement, districts will be able to facilitate conversations among design teams, building management, and educators to tackle the challenges and opportunities of specifying healthier materials for education environments. By advocating for healthier materials and utilizing evidence-based research on environmental health, local districts can help shift approaches to material selection, ensuring health as a right for all, not a privilege for some.

- Working knowledge of the healthy materials movement, its relationship to the design and construction of schools, and impacts on communities.
- Understanding how material selection may impact human and environmental health for building occupants like students and educators, as well as the people who build our schools and manufacture the materials we specify.
- Knowledge of how to advocate for product transparency to improve human health and why it is critical to shift our approach to material selection to improve the health of our global communities.
- Exposure to engagement tools used to facilitate conversations among design teams, building management and educators to better understand the challenges and opportunities of specifying healthier materials in education environments.

#### Making Room- customizing the classroom planning process Salon 2

Nicola Springer, AIA LEED AP, Kirksey Architecture / Michael La Nasa, Associate, Kirksey Architecture / Michelle Old, AIA LEED AP, Kirksey Architecture

This session will explore how a playful and collaborative programming process, can allow for the creation of unique and engaging learning spaces. By addressing the issue of furniture early in the design process, educators should think about not just having the right number of seats but the types of spatial arrangements and the quality of environments that engage all types of learners. This session will be in a work shop format where participants get to test an analog version of an interactive process that we hope to reproduce as an APP. Participants will learn about the value of considering the design and layout of furniture as part of their process, and some of the strategies for optimizing the spatial experience where educational design is concerned.

#### Learning Objectives:

- Understand how to layout furniture with universal design and accessibility in mind.
- Understand how to engage the user in creating and utilizing flexible learning spaces that will promote healthy movements and posture in the students.
- How to specify furniture for specialty spaces, libraries, maker spaces, examine the ergonomic effects on safety and accessibility.
- Provide strategies for planning furniture layouts that work with the building design.

#### Learning Landscapes Increase Physical and Mental Wellbeing of Students Salon 4

Michelle Mathis, RLA, Principal Designer, Learning Landscapes Design

The course will review research and design examples that demonstrate how student's wellbeing increases in well-designed outdoor spaces.

- Acquire an understanding of recent data and research on the physical, social, and mental health benefits of well-designed outdoor spaces for students and be able to use this data to support their projects.
- Understand three common playground safety issues and identify these when reviewing nature play or custom playground projects.
- Review before and after data on bullying and playground incidents in an elementary school playscape redesign project and understand the main design features that brought about the improved social interactions in lunch recess.
- Construct an argument to support funding and development of school gardens for increased learning outcomes and improved student health.

### SATURDAY, NOVEMBER 3 10:15 am- 12:15 pm

#### Shifting the Paradigm: Reimagining School Design for the Future Salon 3

Bill Gould, AIA, ALEP, Artik Art & Architecture / Kevin Kemner, Associate AIA, TSK Architects / Mark Davenport, AIA, LEED AP, BD+C, SPS+ Architects

While dramatic changes are happening in school architecture, many of us were struck by the keynote remarks of futurist David Houle at the A4LE International Conference in Atlanta last spring. Looking forward, arguing for dramatic holistic transformation in education — and hence also in school design, he told us that most of "current reform efforts are reactionary and based on playing catch-up," that the moveable walls and furniture, the emphasis on STEAM, and even the thrill of teaching kids to code, is quickly becoming obsolete. With a connected world, VR, AI, and individually-directed learning, we can see that change is already happening. Houle writes,"A transformation of the magnitude suggested here will not come easily or without pain, but it will likely come faster than any of us imagine," and, therefore, we must think about school design in a completely different way. But how? Like teachers who have been trained in an old paradigm, seasoned school planners and architects may also be limited by old assumptions – and as we know from history, it is hard to rethink old ideas. Wanting to rejuvenate and reimagine our task, we are asking the youngest designers at 3 firms (Tate Snyder Kimsey Architects, SPS+ Architecture, and Artik Art and Architecture) to explore, in a charrette format, possible ways that learning spaces might evolve over the next 20 years. The design teams at each firm will work within a limited but defined program that delineates schedule, resources, process and presentation format. Each team will share the work with their firms for discussion, followed by a specified number of hours for independent revision (not to be constricted by principal designers). At the beginning of the conference session, the work of the three teams will be presented; the rest of the time will be spent in conversation. In order to stimulate the discussion with the A4LE attendees, we will choose a moderator who can get the most out of their experience, expertise, and various perspectives. The larger goal is to inspire new ideas and ways of thinking.

#### Learning Objectives:

- To consider different ways to imagine education taking place in a post-classroom environment.
- To explore the trends that will affect the evolution of the educational environment.
- To ask new questions about the transformation of future school design and where its heading.
- To stimulate discussion between people from different professions, geographical locations, and perspectives.

#### **#AISDFuture – Building it Together Salon 10**

Beth Wilson, Austin Independent School District /Beth Penfield, ALEP, LEED AP, Brailsford & Dunlavey / Ty Taylor, Brailsford & Dunlavey

In November 2017, Austin voters approved the most ambitious bond in Central Texas history: \$1.1B for Austin Independent School District to bring 21st century learning spaces to its students. The bond passed with overwhelming support from the community -72% voter approval - the result of thoughtful collaboration and deliberate engagement with the community. With a portfolio of aging schools and deferred maintenance issues, a changing demographic landscape, and two of four previous bond propositions being disapproved by voters, AISD determined that change was needed and set out on an ambitious path to "Re-invent the Urban School Experience." The effort began with a long-range facilities master plan (FMP). This living planning document set

the vision and outlined strategies and actions for AISD to take over the next 25 years to transform the district and modernize schools. Realizing the magnitude of such an undertaking, AISD carefully deliberated and planned how the community would be actively involved in the effort. This presentation and active discussion will cover the specific strategies taken to develop the FMP, the 21st century means and methods of communicating with a large body of diverse community members, how to implement a collaborative process that is authentic but grounded in objective data, and other specific details that made this community engagement process successful. The session and room will be set up to replicate meeting methods utilized during the FMP process so that attendees can learn new best practices directly from participating and be able to apply to your next projects. Session format: 15 to 20 minute Gallery Walk, 20 minute presentation, three 20 minute rotating round table focused discussions, and 20 to 25 closing discussion and audience Q&A.

#### Learning Objectives:

- Participants will learn about the development and use of master planning guiding principles and strategies.
- Participants will obtain lessons learned on collaborating together on a new transformational vision for school facilities.
- Participants will understand new formats and structure for collaborating with the community and receiving feedback during a master planning process.
- Participants will learn case study examples of arriving at master planning project recommendations and closing the feedback loop with stakeholders.

#### **Unconference for Organizational Resilience Salon 12**

Derek Labrecque, JK Architecture Engineering / Aaron Jobson, AIA, ALEP, Quattrocchi Kwok Architects / Frank Locker, ALEP, Frank Locker Educational Planning / Nick Salmon

Knowledge with schools around the world. We are fortunate to work with schools focused on breaking from traditional models of learning environments, pedagogies and daily bell schedules and aspire to bring that energy to this workshop. This session provides flexibility for participants to share their greatest challenges in a setting where they can be supported by their peers, develop creative solutions and meaningful connections that will carry the power of the conference well beyond the time together in Chicago. Harnessing the Power of A4LE through 15 Genius Bars

- Bring your real-world challenge to the session with adequate materials (plans, photos, videos, budgets) to share with 5-6 others at your table
- Pitch your situation to your table mates in 30-seconds or less. Each table team picks the project it wants to address
- Each table team will dive deeper into understanding of the nature of the challenge and explore conceptual responses to the challenge utilizing facilitation techniques and design thinking tools provided by the workshop organizers
- Adjacent tables will share their approaches and will chose one from each pair to share with the whole group
- Awards will be given for team diversity (educators, learners, designers) out of the box solutions, greatest number of iterations, and solutions which capture the collective power of the team (bonus award for working virtually with an off-site, at home team)

Challenges are likely to include:

- Reimaging 90-year old schools as 21st century learning spaces
- Integrating community partners into our facilities
- Creating long-term flexibility with space, time, furniture and technology
- Workshop organizers will facilitate table-team discussions, share recent pilot projects, educational strategies and divergent thinking focused on current real-world experience. The majority of the workshop will be conducted in a design studio competition format with an emphasis on numerous iterations, time for reflection and feedback. Participants will head home not only with a better understanding or their challenges they bring, but a thoughtful critique of potential solutions developed by their peers and a network of A4LE members ready to offer follow-up support. This session captures the spirit of A4LE and makes our collective learning visible to each another. 2 Hours desired

#### Learning Objectives:

- Learn why reimaging existing facilities has become a necessity in the 21st century.
- Practice conveying the essence of your challenge in 30 seconds and convince your peers to explore your challenge.
- Identify barriers common to creating future-flexible learning environments.
- Forge relationships with other A4LE members who can support you upon your return to your community.

### SATURDAY, NOVEMBER 3 11:30 am- 12:30 pm

Monarch School "Launch Pointe" – hands-on education for homeless teens Salon 4 Tammy Miller, NCIDQ, WELL AP, LPA, Inc. / Ali Johnston, LPA, Inc.

The Monarch School's mission is to educate students impacted by homelessness, giving them hope for a future with necessary skills and experiences for personal success. The newly-added Launch Pointe engages students in hands-on, project-based learning that ignites passion to explore creative ideas, discover new strengths and visualize future success in college and careers. The Launch Pointe is an interior improvement project that supports a multitude of learning and teaching styles and is the hub for internship and career building, created from an existing space on a minimal budget with a multitude of architectural constraints. This session explores the elements of space that make for a successful classroom & maker-space, as well as detailing the planning aspects that engaged community, faculty, and students, resulting in a well-used, future-ready space that supports hand-on, personalized learning for these students, getting them ready for future careers.

- Become familiar with the maker movement, how hands-on problem-solving is helping to build skills within our communities, including soft skills.
- Recognize design features that support flexibility and make a space future-ready.
- Discover how space can support not only academic growth but social growth, emotional support, and life skills.
- Identify creative solutions to existing building challenges to create user-friendly features including lighting, power, and views.

#### **Closet to Classroom Salon 5**

Brenton Hite, RA SO Architects / Dr. Sherry Grate, Westfield Washington Schools / Rosemary Rehack, Ed, LEED AP, CSO Architects

Rapidly Increasing enrollment or enrollment bubbles create unique challenges for school districts across the country. Ask any administrator of a growing school and you will quickly hear examples of unique places they have turned into classrooms, practice areas, and offices. Central Indiana's Westfield High School is one such example, growing from 750 students in 1997 to a projected enrollment of 3,100 in 2026. Fortunately, in 2017 the Westfield Washington School District was able to pass a capital bond referendum to provide much needed relief to their crowded facilities. The high school leadership seized this opportunity to not only add additional square footage, but also find efficiencies in their existing building by shifting their culture and instructional delivery method. With an eye on what high school education may become in the future, a design concept was developed to gain teaching space, increase collaboration among students and teachers, and accommodate some of their fastest growing programs. By gaining efficiencies throughout their existing building, Westfield was able to maximize the impact of their bond dollars across their entire campus.

#### Learning Objectives:

- Review how building efficiency is determined.
- Discuss examples of ways to increase building efficiency.
- Understanding unintended consequences of increasing efficiency.
- Discuss potential further and future innovations.

#### Reimagining the Student Experience Salon 7

Lowell Tacker, Principal, LPA Inc. / Cecilia Gutierrez, RID, IID, LPA, Inc.

This session will highlight the process and outcome of a research based design process. Attendees will virtually participate in an observational research dive to understand how the student voice can influence the redesign of any space on campus. In the heart of San Antonio, Alamo Heights High School is a historic campus that is treasured by so much of the community; the addition of a new Student Commons comes with an opportunity to reimagine the student experience & redefine life on campus. Throughout the master planning process, the District's work in creating a Learner Profile was put to use as it helped inform and prioritize strategies for improving campus life. Additionally, the learner profile work informed the design of the student commons – as spaces that support social and global engagement and help students develop a healthy sense of self as they engage with peers in the Student Commons. Participants will understand how programmatic challenges can become opportunities by doing a deeper dive and designing with the student in mind.

- Through a participatory activity, participants will understand how observational research can influence a design outcome.
- Understand how to create open space in an existing campus, particularly in an urban context with a tight campus site.
- Understand the work of creating a learner profile to enhance student experience & how that context translates to an educational design response.
- Recognize the influence of community use of the student commons, and how this programmatic priority informed design decisions.

### SATURDAY, NOVEMBER 3 2:15 pm - 3:15 pm

#### Harnessing History: Restoration though Modern Technology and Traditional Techniques Salon 5 Jody Henry, AIA LEED AP, Kirksey Architecture /Bill Dwyer, AIA NCARB, Kirksey Architecture /Nicola Springer

One might say that there is nothing more sustainable than expanding the lifespan of an already-existing building. This involves taking advantage of its embodied energy, recognizing its significance within its context, and learning from its construction techniques and past performance. Houston is known for demolishing its historic buildings, but our team had the rare opportunity to explore the restoration of one of Houston's oldest high schools while integrating it with new facilities on the same campus. Developing the documents for the old and new buildings allowed us to both utilize the latest cutting-edge technologies as well as return to some fundamental design and construction strategies to ensure the optimal performance of the structures. This presentation will showcase a myriad of tools of design and the merging of a century's worth of construction techniques. The tools of design and building performance used in this project show the evolution of traditional solutions for a hot humid climate to our modern 21st century ones. From hand drawings to energy models and CFD simulations, this case study represents a journey across a century's worth of design and construction technologies, as we begin to peel back the layers of architecture and design in Houston.

#### Learning Objectives:

- Sustainable / energy efficient design and strategies of the early 20th century.
- Tools for assessing envelope, and structural conditions of historic buildings.
- Energy modeling and building simulation tools (WUFI, solar and CFDs).
- The power of drawings as a communication tool, finding the best way to communicate.

#### Inclusive Environments for Teaching and Learning Salon 4

Molly Smith, AICP, thinkSMART Planning Inc. / Kimberly Johns, Principal, Rio Rancho Public Schools

"Inclusion" does not simply mean the placement of students with disabilities in general education classes. This process must incorporate fundamental change in the way a school community supports and addresses the individual needs of each child. As such, effective models of inclusive education not only benefit students with disabilities, but also create an environment in which every student, including those who do not have disabilities, has the opportunity to flourish. Some of the key ideas for inclusion are: differentiated instruction; academic supports (flexible pacing and grouping, reading and literacy specialists, tutoring, etc.); behavioral supports; respect for diversity; and maximizing school resources. The Rio Rancho Public Schools Early Childhood Center Shining Stars is an inclusive preschool that consists of several programs for children with developmental disabilities and their typically developing peers on a lottery basis. RRPS offers special education preschool at Shining Stars Preschool to provide early intervention services to children ages 3 to 5 who qualify for special education services. Services are rendered in developmentally-appropriate settings with intense instruction coordinated with speech and motor therapists. The goal of this unique center is to meet the educational needs of all students within the least restrictive environment in order to help students achieve academic and developmental success. Whether that means providing consultation to the general education teacher or providing a highly specialized teaching environment for a student, RRPS programs are as diversified as the students. Students receive special services such as speech, phonological cycling, autism services and vision services for sight-impaired youngsters, within a Pre-School and Pre-K environment - right along with their non-disabled peers. Children at Shining Stars learn
that each student is unique and able to learn at their own pace. Most students at Shining Stars leave the program at age 5 on grade level and ready to tackle Kindergarten!! This program will explore the unique programmatic and design parameters needed for inclusive learning environments – such as a community gardening and kitchen, parent and community multiuse areas, a little gym, autism, vision and phono programs, STEAM lab and art areas for preschool/preK, outdoor learning areas for disabilities, and supportive areas for associated staff and specialists.

#### Learning Objectives:

- Participants will be able to describe the physical, behavioral, and academic concerns that may be associated with a variety of common sensory, motor, cognitive, or learning disabilities, mental health or behavioral issues, and differences in native language, culture, and background knowledge.
- Participants will be able to assess the appropriateness of various design and construction strategies in improving access to learning for all students by reducing barriers to learning.
- Participants will be able to communicate how design strategies (including color and shapes) have been found to help improve student performance and attention, reduce disruptive behavior, and enhance learning for all students.
- Participants will be able to apply design strategies drawn from universal design principles, WELL building principles, and specialized education spaces to inform the design of learning environments to support differentiated instruction and improve communication, engagement, and learning for all students.

#### Why Play is Key to Resilience and Re(Imagined) Learning Environments Salon 7

Fiona Young, Architect, Hayball Architects / Natalia Krysiak, Architect, Hayball Architects

As famously said by Albert Einstein 'play is the highest form of research'. Through play, we are instinctively challenging and testing the limits of our physical abilities, emotional behaviors and social relationships with others. Play provides us with a safety net for taking risks and exploring radical ideas through a highly creative process. Studies in neurological science have shown that a brain that is provided with plenty of play opportunities, is one which can adapt in unknown environments and unexpected situations. A skill which is a vital component in building resilience. When used as a learning tool, play has been found to foster creativity, problem solving, social skills and improved physical and mental health. At a time when mental health and obesity problems are on the rise in many western countries - the enormous benefits of play have never been more relevant and vital to consider. This presentation will delve into the critical question of reimagining learning environments which promote playfulness – not just in the classroom but throughout entire cities. The presenters will question the notion of a learning environment bound by the classroom and propose ideas of playful learning which naturally weave into the design and planning of cities. Offering insights for designers, educators, administrators and landscape architects, the content will synthesize the importance of learning, environment, activity and landscape in encouraging Playful learners for life. Through the lens of various built and unbuilt projects, the session will offer a new perspective on play as the key to re-imagined learning environments, fostering resilient communities which are constantly adapting and learning.

### SATURDAY, NOVEMBER 3 2:15 pm- 3:15 pm (cont'd)

#### Learning Objectives:

- At the end of the presentation, participants will be able to identify the key benefits of play to positive learning outcomes and health.
- Acquire new knowledge relating to the social and economic benefits to communities where playful learning interventions are instigated.
- Develop new ideas relating to the design of learning environments which enable playful learning, including the layout of spaces, furniture settings and interactive elements.
- Learn about best practices relating to play interventions within the built environment and acquire a set of exemplars which showcase current industry developments in this field.

#### It's Like Google for Kids": How a Tech Icon's Principles Inspire Learning Salon 3

Leanne Meyer-Smith, AIA, LEED AP BD+C, Wight & Company / Dr. Edward Stange, Sunset Ridge School District 29 / Amy Yurko, AIA, BrainSpaces

In the words of one Sunset Ridge parent, "It's like Google for kids." When the opportunity arose to replace an aging, 85-year old school building with a new facility, Sunset Ridge School District in Northfield, Illinois, chose to completely reimagine how a school building can function and the way in which it can actively support the unique developmental needs of its 4th-8th grade students. While, contrary to the quoted parent's comment, Google's headquarters was not the model for Sunset Ridge, the design of the school aligns well with a number of Google's Principles of Innovation. Aim to Be Ten Times Better Sunset Ridge's mission of "Cultivating a learning community that engages the hearts and minds of students, one child at a time" was just the beginning. The District aspired to go beyond this in terms of the design of their new building. Seeking to be the best school in the area, this project would enable them to attract new families through the integration of world-class education and innovative design. Have a Mission That Matters Seeking to inspire students' environmental consciousness led the District to pursue becoming the first Net-Zero energy school in Illinois, targeting LEED Platinum. And, like many new schools today, the building itself also serves as a learning tool. The school is a living laboratory that includes photovoltaic roof panels, rain harvesting mechanisms, a 300-gallon fish tank, and an outdoor nature area with a bird sanctuary and butterfly garden. Focus on the User The new school is designed around the concept of communities that support each child as they journey from self-awareness to global awareness. The guiding principle of "me-we-community" shaped the design approach for each learning community, informing choices about scale, transparency, teaming, independent study, multi-age groups, support services, and personalized Innovation Comes from Anywhere Learning can happen anywhere, at any time. The new school learning. creates opportunities outside of the traditional classroom for peer-to-peer learning, knowledge sharing, individual exploration, and discovery. Unique connections between library, maker labs, STEM, arts and an outdoor habitat serve multiple modalities of learning. The organizing element of the school is a unique "village square" that blends library, dining, and performance spaces, to nurture the creative spirit of the child and provide opportunities to engage the local community. The result is an atmosphere that is extremely non-school-like in its organizational structure and appearance. Like Google's headquarters, the new Sunset Ridge School is a unique place to learn, explore, play, grow, and connect.

#### Learning Objectives:

- Understand what inspired a public school district to leverage building design as a means to attract families to its community.
- Explore the opportunities and challenges of designing for a unique range of ages and developmental stages.
- Understand how space can impact both the academic and social/emotional development of students.
- Discover what it takes to achieve a Net-Zero building in northern Illinois' challenging climate.

**Innovative higher education learning spaces, can they curate 'the employability skills gap'? Salon 10** Leanne Rose-Munro, Director, STEMM Hub and Life Science Research development, The University of Melbourne

This session is an interactive case study of a newly built \$200M University Learning and Teaching building. Commentators report that transformational change in Universities are driven in part by an employability skills gap, with critics reporting that higher education institutions have failed to impart the necessary business and soft skills for graduate employment in economies that are increasingly complex and competitive (Collet, Hine, du Plessis 2014). It is imperative that all universities stakeholders respond to transformational change and the development of innovative learning spaces with a clear vision of the expected return on investment, and build campus infrastructure with confidence that the physical design affordances will have a great impact upon enabling student success. This session explores the prototyping and delivery of a newly built \$200M University Learning and Teaching building. The methodology is grounded in an emerging higher education learning space evaluation model that is underpinned by a desire to build innovative spaces that inspire creative learning and teaching in learning spaces that spark 'student agency', defined as the power to act and take control of their own learning journey. Intentional design attributes in the new building aim to curate the employability skills gap through the delivery of a platform that is a safe place for students to explore the skills of collaboration, communication, empathy and curiosity. In this session you will be asked to follow a design thinking process and debate the return on investment of the prototype process that occurred from ideation to manifestation of the building.

Critical questions and prompts include:

- What is the value-proposition for a student of coming to campus to learn?
- Is the 'employability skills gap' a perception or reality?
- Can learning spaces mediate learning and teaching behavior, and if so what evidence is valued in design decision-making?
- Is 'student voice' informed voice?
- What is the role of 'teaching behaviors' and pedagogy in innovative learning spaces, and collectively are these the make-or-break of a students' on-campus experience?
- Is prototyping innovative learning spaces at University worthy of the investment?
- Very little research exists on next-generation higher education learning environments, this session offers a methodological approach and concept model that grounds the development of learning space evaluation tools that primarily aim to ensure learning principles can be met in fit-for-purpose spaces.

### SATURDAY, NOVEMBER 3 2:15 pm- 3:15 pm (cont'd)

#### Learning Objectives:

- Learning how to develop a set of innovative learning principles that align to future ready employability skills.
- Learn how to develop a set of design principles that align to innovative learning principles.
- Formulate a prototype project programme that aligns learning space design attributes to learning principles.
- Learn new methods of evaluating higher education learning spaces.

### Strengthening Neighborhoods through their Schools: Lessons Learned from DC for Urban School Revitalization Programs Salon 12

Ann Neeriemer, AIA, LEED AP, Perkins Eastman DC. /Peter James, AIA, LEED AP BD+C, Perkins Eastman DC

Throughout the past decade, the District of Columbia has invested over \$250 million each year in school modernization and replacement projects. These investments have supported and contributed to population growth and vibrant renewal of neighborhoods throughout the city, contributing to a more resilient DC. This interactive, collaborative workshop session will present the overarching themes and lessons of the DC school renewal program, through the lens of the resilience framework created by 100 Resilient Cities. Through public engagement in the process, communities become more deeply invested in the outcomes and can transform neighborhoods. The session will kick off with an in-depth look at two projects to analyze the design processes and strategies that engaged citizens, increased community pride, and created sustainable projects for the future. Attendees will then break into small workgroups to evaluate resilience strategies and explore how their own current and future projects can contribute in the areas of Leadership & Strategy, Health & Wellbeing, Infrastructure & Environment, and Economy & Society. The workgroups will synthesize their findings and report back to the larger group. Attendees will leave this session not only inspired to make a difference in their school communities but also empowered with specific, actionable strategies for community engagement and resilient school design.

#### Learning Objectives:

- Describe the DC school renewal program.
- Analyze how the process and design of school facilities and campuses can impact community involvement and educational outcomes.
- Apply concepts of essential systems of resilience to future projects.
- Summarize design and program concepts of sustainable education facilities that build community resiliency.

### When Great Isn't Good Enough: How Two Nationally Recognized High Schools Are Evolving to Keep Their Edge Salon 2

Kevin Havens, AIA, Executive Vice President, Director of Design, Wight & Company/ Dr. Paul Sally, New Trier Township High School District 203 / Dr. Eric Twadell, Adlai E. Stevenson High School District 125

Institutions that successfully become, and then remain visionary across decades and through multiple generations of leadership are rare. How do they accomplish it? Explore how two nationally recognized, consistently high-achieving high schools have responded to the challenge of Upping their game in order to continue to position their students for success in a rapidly evolving world. Join leaders from New Trier High School and Adlai E.

Stevenson High School to discover what they're focused on today to ensure that their students are prepared for tomorrow, and how they've recently aligned their facilities from core classrooms, fine arts, and library areas to social spaces and dining facilities to support their vision. Explore how traditional STEM thinking is being reinvented, how interdisciplinary instruction is evolving, how dining and learning are converging, and much more. Then, learn how these concepts can be applied in different kinds of school environments.

#### Learning Objectives:

- Understand why established high-achieving school districts need to evolve to remain successful.
- Explore approaches high-performing schools are using to prepare their students to thrive.
- Understand how these facilities can support their educational objectives.
- Learn how facility improvements can shape educational program changes, and vice versa.

### SATURDAY, NOVEMBER 3 3:30 pm- 4:30 pm

Ace the Space: Designing Effective Learning Environments without thinking about furniture Salon 4 Jon Moroney, IDSA, Kendall College of Art and Design / Alan Rheault, Fleetwood

Why should we begin designing classrooms by first discussing issues like risk management or the school's relationship with the community? Why should an Architect or Designer care about what's keeping a Superintendent up at night? We will demonstrate how starting with high level educational system concerns can lead to insights that will inform design decisions within specific educational spaces. We will share a design thinking approach from an Industrial Designer's perspective, showing how our frameworks of Understanding Key Concerns and Needs of the Learning Environment, plus a set of specific design principles called ACE, have lead us to discover new insights into creating effective learning environments. We will share a design exploration case study that will demonstrate how beginning with high level concerns of the school (concerns that may seem to have nothing to do with space or furniture) can actually be tied directly to solutions that affect an individual student and the classroom environment. We will share how we "ACE the Space".

#### Learning Objectives:

- Discover why you should start a learning environment design project by understanding key concerns of a school that may appear to have nothing to do with space or furniture.
- Learn how to discover all the needs of an educational environment.
- Learn about a specific set of design principles to activate key learnings and insights.
- Learn how a recent design exploration leveraged frameworks and design principles to create a more effective learning environment.

#### Student Innovation Teams: Developing A Culture of Innovation To Drive 21st Century Change Salon 5

Nicole Snedden, Minnetonka Public Schools / Jeff Erickson, Minnetonka High School Principal, Minnetonka Public Schools

Over the past ten years, crowd-based innovation programs have become the new normal for industry-leading companies. Tapping into the cognitive surplus of front-line employees has proven to not only deliver valuable

small, medium, and big ideas that improve internal practices or stimulate new market opportunities, these innovation programs also help improve workplace culture and staff morale as all members of the organization have equal access to the future design and direction of the organization. At Minnetonka (MN) High School, innovation has transformed the learning environment based on a structured, school-based innovation program that has the potential to be customized and implemented in a variety of school environments. Much like the way that the PLC movement addressed an important need for organized collaboration around student achievement data, the emerging innovation movement has the potential to spark new ways of thinking about classroom environments, learning experiences, and programming that inspires 21st century learning. Innovation programming elevates the role of the classroom teacher to that of a key designer for the transformed school cultures that will emerge, simultaneously improving the morale of front-line staff while also reassuring employers, politicians, and parents that their educators are responding with agility and confidence to the changing dynamics of the 21st century. School leaders in Minnetonka have not only engaged staff in the new innovation program, they have also engaged the students as partners and co-learners in our Design Thinking journey. Join us for a discussion about how innovation programming has transformed a high school staff, a school community, and all 3,200 students in a way that has uniquely positioned the students, the school, and the district for 21st century success.

#### Learning Objectives:

- Learn how innovative programming can elevate the role of the classroom teacher to that of a designer.
- Explore how to empower students to be co-designers in the school culture by embracing innovation and Human Centered Design.
- Learn systems and processes for teaching students the skills involved in innovation.
- Learn how to make existing schools future ready.

#### Growth Mindset Incubator: A Case Study Salon 7

Liz Katz, AIA, NAC Architecture /Faith Eakin, Lead Program Manager, Greater Seattle Bureau of Fearless Ideas

Imagine the possibility of literally being transported into a new type of learning environment where there are endless possibilities. Growth Mindset is an idea developed by Stanford researcher Carrol Dweck – opposing the idea of the Fixed Mindset which asserts that people are born with certain characteristics (i.e. - being smart, strong, kind, adventuresome, or not), and they don't really change. Growth Mindset allows a person to believe in the possibility of changing their pre-conceived characteristics. It allows students to recognize and see through stereotypes. "A growth mindset is the belief that you can develop your abilities through hard work; good strategies; and input, help, and mentoring from others." - Carol Dweck The concept of Growth Mindset is becoming more widely used in education among teachers and students, and is consistently being improved and applied in both educational theory and practice. Challenges exist in transferring the language and strategies taught through a growth-mindset approach to everyday interactions with teachers, parents, and others outside the classroom. The Greater Seattle Bureau of Fearless Ideas (BFI), an educational non-profit in Seattle, fosters an environment that gives students the confidence to take Growth Mindset into the real world. They are also striving to bridge this disconnect by building a Growth Mindset environment outside of school that reinforces these core concepts for students, families, and community volunteers, encouraging students to apply Growth Mindset even more broadly. Our presentation will outline the concept of Growth Mindset v. Fixed Mindset and allow participants to identify their own personal mindsets. We will explore the unique variety of flexible and adaptable spaces that

hide behind the storefront of Greenwood Space and Travel Supply shop, and how they promote Growth Mindset. The audience will hear from the Lead Program Manager at BFI, Faith Eakin, on how they are creating writing based programs that motivate and inspire kids to learn and want to return again and again. The audience will also hear from students how they use the space, and what they learn at BFI at their school and home. Liz Katz with NAC Architecture will explore in depth how the design and spaces of BFI's unique learning environment promotes social and emotional learning. She will share strategies on how existing 21st century design ideas can be incorporated, in both new and existing schools, to create similar spaces that promote Growth Mindset incubators.

#### Learning Objectives:

- Participants will be able to distinguish similarities and differences between growth mindset and fixed mindset as they relate to the design of the learning environment.
- Participants will be able to give examples of different design solutions they can incorporate into educational architecture that promote Growth Mindset.
- Participants will be able to compare and describe how both Growth Mindset and Social and Emotional Learning are being used by teachers and students and the spaces needed to facilitate these learning strategies.
- Participants will be able to distinguish how Growth Mindset incubators—spaces that support social and emotional learning—can be incorporated in both new and existing school design.

#### Ohio: A State-Sponsored School Building Transformation Story Salon 10

Frank Locker, PhD, ALEP, Frank Locker Educational Planning / Glenn Rowell, Architect, OFCC / Melanie Drerup, ALEP, OFCC

A state-wide school facilities transformation to next-generation education, quality of life, sustainability, health, safety and welfare is underway in Ohio. This presentation outlines why, how, who, when, and what, featuring images of many of the exciting solutions resulting from this State/Local School District cooperative program. And there are many more to come! AMBITIOUS TRADITIONAL PLANNING In 1997, underpinned by the conclusion that the state's public K-12 school buildings were in need of significant overhaul, Ohio state government leaders decided to implement a program that would offer planning, design, construction, and funding assistance to all public K-12 school districts to make wholesale improvements to their classroom facilities. In the 20 years hence, many of the 610 school districts have availed themselves of the state's offer, with \$19.2 billion of new and renovated school buildings in place. To manage the monumental effort, the General Assembly established the Ohio School Facilities Commission, a state Agency that would be responsible for ensuring state funds were spent in pursuit of proper school building improvements. Right out of the gate, the Agency unveiled the Ohio School Design Manual (OSDM), a 2000-page volume that provides guidance on spaces, materials, building systems, components, etc. that would be acceptable for incorporating into classroom building renovation and new construction. For nearly 10 years the OSDM guided school design, relying on time-tested but traditional planning concepts. SCHOOL DESIGN TRANSFORMATION INITIATIVE; THE 'NEXT GENERATION' While the OSDM was never intended to produce specifically traditional-style school buildings, by-and-large that was the result. Consequently, in 2009, the Agency leaders directed staff to actively pursue '21st-Century' thinking in the development of new and renovated school buildings. From these newly-adopted values rose a massive transformation in both the planning process and, consequently, the final building product. In this session, you will hear Agency staff, a world-renowned Educational Planner, and Winton Woods City School District representatives discuss how the Ohio K-12 school building renaissance has transformed from 20th-century school thinking to being leaders in next-generation educational thinking and the development of associated educational places where students and staff:

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- Have the flexibility to tailor education to their diverse needs
- Experience built and natural environments that provide options for their daily individual needs
- Exist in healthy, sustainable, LEED certified environments
- Feel safe
- Feel happy
- Feel valued
- Have the tools they need to pursue their education goals/needs In short, hear how this state is guiding public K-12 school districts and their constituencies to ensure all the right questions are asked and answered when they make the huge decision to tackle large-scale facilities improvements.

In a sister presentation, SHP Leading Design Architects and Winton Woods City School District representatives will take a deep dive into the exciting Winton Woods/OFCC new building project where the district will employee the 'New Tech Network' approach to education across grades K-12.

#### Learning Objectives:

- Understand large-scale application of 21st-Century thinking for education space reform.
- Understand the value of Educational Visioning in developing proper education space.
- Understand how the commitment to LEED standards can have a large-scale effect on health, safety, and welfare.
- Understand how the commitment to "quality of life" results in places people want to be and healthier lifestyles.

#### mâmawêyatitân centre: (re)defining shared Salon 12

James Youck, SAA, RAIC, AIA, P3 Architecture Partnership / Chris Roszell, SAA RAIC, P3 Architecture Partnership / Greg Enion, B.Ed, Regina Public Schools

How do you define shared? The mâmawêyatitân centre is a departure from a conventional shared facility. This presentation will explore the history, evolution, governance, programming, and architecture of this groundbreaking project located in the inner city of Regina, Saskatchewan. The centre is the first of its kind in Canada to offer integrated services across the community, and demonstrates how those services can build and enhance communities. The mâmawêyatitân centre, a Cree work meaning "let's be all together" is a journey that began in 2003 in one of the most challenged neighborhoods in Canada – Regina's North Central. The journey culminated with the opening of the state-of-the-art building in September of 2017. The \$41 million facility includes a grade 9-12 public high school, a community centre, a community policing centre, a public library, and daycare centre. The project is based on four critical determinants for the success of a community: education, health services, information, and cultural and recreational opportunities. The mâmawêyatitân centre is a partnership between Regina Public Schools (with the support of the Government of Saskatchewan), the City of Regina, and Regina Public Library. The centre, in which 70% of spaces are shared, represents an operational and facility model that synthesizes and reinterprets educational activities, cultural and informational resources, and community programs and services in order to educate, inform, involve, and empower individuals in the community. The building is accessed by up to 500 high school students (the majority are Indigenous or newcomers to Canada), 30 infants and toddlers, over 250 Regina Public Library users and 250 users of community programming. The

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innovative physical space supports the integration and collaborative goals of the Partners, and engages the broader community. The presentation will explore not only the architectural expression of the building, but how the goals of the project were achieved and how it continues to provide services that focus on youth and families within a vibrant neighborhood, building partnerships between community, schools and service providers, and working collaboratively to improve outcomes of health and social well-being.

#### Learning Objectives:

- The Process of bringing together multiple government agencies, stakeholders, and users groups to determine the vision and mission of an integrated facility and the value of a developing a Master Agreement.
- Developing the Program: defining integration and establishing how the van facility move beyond co-location and engage integrated programming.
- How do you determine an appropriate Architectural Response to an ambitious integrated program.
- Lessons learned from the project development process, post occupancy, and what the future holds for facilities of this nature.

### Capture the elephant in the room: Learn what best ball golf, project-based learning, and successful projects have in common... Salon 3

Khary Knowels, LEED AP, Executive Director - Education, Vanir / Brandon Ross, Associate Principal and Client Executive, PBK Architects

Have you ever wished that you could use your best-ball golf score for your golf handicap? Don't you love seeing the advanced results of students using Project-based Learning? How can we get those same astounding results on every design and construction project? The answer is obvious and typically in the room standing right next to you. Hint: It's one of the 4 C's! Together, let's use brain-based learning to explore the psychological and innovative ways that best-ball golf and Project-based Learning are successful, and apply that to our project planning process.

#### Learning Objectives:

- Create a planning and design environment for success based on educational pedagogy.
- Develop pro-social tools to enhance best management practices.
- Understand the exponential power of diversity within an organization.
- Generate reliable outcomes through enhanced problem-solving skills.

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600 NW Gilman Blvd, Suite E Issaquah, Washington 98027 (425) 677-7511 http://www.2dfloorplans.com Booth 101

Experienced - Measuring real estate since 1983. 2-D has become the leading national as-built company by combining cutting edge laser technology and excellent customer service. We have measured millions of square feet accurately and cost-effectively, from single-family dwellings, condos and apartment complexes to marine bases, schools and medical facilities.

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Cutting Edge Technology - Extremely high level of accuracy regardless of the building type. We developed our own proprietary software, Building Surveyor, that draws the plan onsite instantly via Bluetooth as we measure the walls. This technique allows us to use a survey closure process to insure detailed floor plans with close tolerance levels.

Flexible - Complete lease area analysis for building owners, managers, and agents using the latest BOMA standard. Our color-coded lease plans and spreadsheets clearly indicate tenant areas and common areas - the easiest to read in the industry. Our reports include full floor plans in black and white, color-coded lease plans, suite drawings if requested, and a CD with all of the files in both PDF and CAD format. Our in-house CAD department has the flexibility to meet your time requirements and unique needs. And once your building is in CAD format, tenant areas can change and be recalculated in a snap.

Accurate - Architects: with 2-D you have the capability to produce as-builts to any set of standards. This includes locations with all required details - floor plans, full ceiling details, site characteristics - the works. Closure technology in our software provides the assurance that the measurements are within a small tolerance, which is much smaller than typical hand measurements.

#### A2S Inc.

400 Oser Ave Suite 1650 Hauppauge, New York 11788 (631) 501-1057 <u>http://www.a2s.com</u> <u>https://www.linkedin.com/company/a2susa/</u> Booth 302

WELCOME TO THE WORLD OF A2S. We have been setting standards in the field of school furniture for 80 years. A success story that began when Adam Stegner established a sawmill in Germany's Upper Franconia with 15 staff members all those years ago. But even if the times have changed: our pieces have become real classics over the years – all while continuing to reinvent ourselves. Over the past 80 years, we have developed many new materials – such as the practically indestructible PAGHOLZ<sup>®</sup>. We have also made concepts like the all-round PU edging a standard for durable school furniture. Because we know: the successful combination of selected materials and intelligent details guarantees that our furniture is welcomed in any educational institute – by teachers just as much as by students.

#### Academia Furniture Industries

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#### **AmTab Manufacturing Corporation In Process**

652 N, Highland Ave. Aurora, Illinois 60506 (630) 301-7600 http://www.amtab.com https://www.facebook.com/AmTab-Manufacturing-772031132865747/ https://www.linkedin.com/company/amtab-manufacturing-corporation/ https://twitter.com/AmTab\_Mfg Booth 207

AmTab creates inspiring and engaging learning environments with our innovative products. We are a premier manufacturer of mobile cafeteria tables, mobile booths, markerboard tables, folding tables, classroom tables, technology tables, conference tables, portable stages and risers, activity tables, and custom logo tables. Please contact us with your next project. We look forward to working together and creating inspiring spaces.

#### **Artcobell Corporation**

1302 Industrial Boulevard Temple, Texas 76504 (245) 778-1811 <u>http://www.artcobell.com</u> <u>https://www.facebook.com/artcobell</u> <u>https://www.linkedin.com/company/artcobell</u> <u>https://twitter.com/artcobell/</u> Booth 1005

Artcobell designs and builds classroom furniture that makes learning environments more productive. For more than 60 years, we've worked with school officials, educators, members of the design community and students to develop products that facilitate learning. It's our only focus.

#### **ATS Automation**

450 Shattuck Ave. Renton, Washington 98057 (425) 251-9680 <u>http://www.atsinc.org</u> Booth 113

#### **Certwood Limited**

11 Technology Way Wintersville, Ohio 43952 (706) 621-0046 <u>http://www.storsystem.com</u> <u>http://www.facebook.com/StorSystemUSA</u> <u>https://twitter.com/StorSystemUSA</u> Booth 107

Certwood is the leading manufacture of award-winning innovative storage solutions. Our product line, StorSystem<sup>™</sup>, is the only complete "system" for storage in the industry. This 3-Tier modular system consists of a wide variety of high-capacity Wall Units, Mobile Carts, Trays and Tray Inserts – perfect for organizing all aspects of a Classroom, Maker Space and STEM environments.

#### Colbi Technologies Inc.

12821 Newport Ave. Tustin, California 92780 (714) 505-9544 <u>http://www.colbitech.com</u> <u>https://www.facebook.com/colbitechnologies/</u> <u>https://www.linkedin.com/company/colbi-technologies/</u> Booth 309

Colbi Technologies provides software and support solutions that help districts manage their building programs well. Our team focuses on supporting you with internal controls and informed decision- making. Over the past 16 years, Colbi Technologies continues to develop software tools that aid both the facilities and fiscal services teams in effectively and efficiently managing their capital building programs. Our flagship program - Account-Ability - is a software designed by school district people to work the way you do. The program is designed to track and manage Multi-year, Multi-fund, Multi-project as a whole program. Account-Ability produces amazing reports that integrate both accounting and facilities spreadsheets into one reporting system - they work together

rather than having multiple spreadsheets! Other highly effective programs include: ColbiDocs which is a cloudbased document processing and storage program that manages all the activities that occur in the construction trailer, such as: Automated routing, Document history, and Storage & retrieval. Quality Bidders provides a quick and easy web-based tool that scores and pre-qualifies contractors to work on public works construction projects. The services are free to contractor — attracts largest pool of qualified contractors for district projects. Highlights include: Districts view questionnaires, required documentation, and automated scoring on-line to quickly qualify or disqualify bidders; Dashboards provide quick review of qualified contractor pools by license — easily notify pre-qualified bidders of upcoming projects Automated e-mail notifications keep prequalifications current; Augmented staff services to review financials, review submitted documents, and conduct reference checks Colbi employees love to get stuff done. They are humble, gracious, resourceful problem solvers, and highly motivated to walk in the shoes of our clients to not only gain their perspective, but to continuously learn how to improve the process and tools for each member of the client's team and Colbi user teams. Colbi employees are always helpful as they focus on finding solutions and aid our clients in using their genius. Our employees are active listeners that have disciplined thoughts and actions that allow clarity to surface in order to identify the real issues. Colbi retains highly competent people that quickly learn, take direction, and have the ability to clearly think through a challenger before offering solutions. Colbi has created a culture for people who thrive in finding value through being helpful and possess a deep sense of humility. All Colbi employees share the deep-rooted principle that we treat our client's money as our own. Colbi employees are stewards of both time and talents to increase the value of the services we provide to our clients.

#### **Design Materials Inc.**

241 S 55th Street Kansas City, Kansas 66106 (800) 654-6451 <u>http://www.dmifloors.com</u> Booth 110

A national distributor of interior finishes for the wall and floor. Product line is carried by large network in U.S. and Canada of flooring dealers.

#### **E&I Cooperative Services**

2 Jericho Plaza, Suite 309 Jericho, New York 11753 <u>https://www.eandi.org/</u> <u>https://www.facebook.com/eandicooperative</u> <u>https://www.linkedin.com/company/e&i-cooperative-services</u> <u>https://twitter.com/eandicoop</u> <u>Booth 408</u>

E&I Cooperative Services is the member-owned, non-profit sourcing cooperative delivering expertise, solutions, and services to the educational community and related institutions. Members have access to a diverse portfolio of competitively awarded contracts and electronic procurement solutions. By leveraging the knowledge and

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(714-491-1500) Booth 1003

Extron Electronics is the leading manufacturer of classroom audio and video solutions for the K-12 market, including PoleVault Digital Classroom AV Systems, PoleVault, WallVault, and PlenumVault mounting systems, VoiceLift<sup>®</sup> Microphone Systems, and GlobalViewer Campus Communication Suite for network based AV resource management and campus communications.

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485 Alberto Way, Suite 220 Los Gatos, California 95032 (800) 272-2962 http://www.facilitron.com https://www.facebook.com/facilitron/ https://www.linkedin.com/company/facilitron/ https://twitter.com/FacilitronInc Booth 310

FACILITRON is a leading provider of facility management and data solutions for public schools and colleges. Through a unique partnership strategy which provides software and support at no cost, Facilitron and its one-of-a-kind scheduling and reservation platform help districts maximize internal facility use, consolidate facility scheduling and manage community use requests – saving administrative time while giving districts full control over how and when they want to use their facilities.

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Feel Good, Inc. provides portable TENS (transcutaneous electrical nerve stimulation) units offering wide variety of benefits, including alleviating back, nerve and diabetic pain and migraines. Our units can also improve circulation, sleep patterns and have been shown to decrease the use of pain relievers that can cause negative side effects.

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77 N. Washington St 6th Floor Boston, Massachusetts 02114 (617) 367-3970 <u>http://flansburgh.com</u> <u>http://www.linkedin.com/company/flansburgh-architects/</u> Booth 212

Flansburgh Architects is a nationally recognized leader in the planning and design of educational and cultural facilities. Our innovative designs have won over 125 national and regional design awards, from industry peers and educators. Our work continues to be published in professional books and journals. Our architecture is driven by a belief that the quality of our surroundings has a direct influence on the quality of our lives, whether, on campus, in the workplace, at a show, or in the public realm. In that sense, design is all encompassing, ranging from the functional and environmental performance of a building to a concern for its physical and cultural context, not least of which is the 'poetic' dimension, particularly how spaces are sculpted by natural light.

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#### **Global Furniture Group**

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Global Furniture Group originated in 1966, when the company was founded with the vision of manufacturing well-made office furniture at affordable prices. That promise continues today through a network of vertically integrated suppliers, manufacturers and distributors who bring our products to market around the world. Global offers a comprehensive portfolio of solutions that are designed and engineered to meet the changing needs of the Workplace, Education and Healthcare markets. Our success over the past half-century owes much to our diverse team, who take pride in creating quality products and providing the highest level of service to our clients. Above all, Global is a good partner. We are committed to our customers' needs by working together to develop lasting and valued solutions.

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#### **School Speciality**

W6316 Design Dr Greenville, Wisconsin 54942 800.772.7573 x2256 http://www.schools.com Joel.Eros@schoolspecialty.com Booth 413

#### **Shaw Contract**

410 Old Mill Road Cartersville, Georgia 30120 (770) 773-6536 <u>https://www.shawcontract.com/</u> <u>https://www.facebook.com/shawcontract/</u> <u>https://twitter.com/shawcontract</u> Booth 109

Shaw Contract is a global design leader, manufacturing high performance cradle-to-cradle flooring products ideal for any learning environment. We believe design goes beyond aesthetics. Our education studio focuses on the needs of students, teachers and maintenance experts, designing flooring solutions for maximum comfort, ease of maintenance, durability and performance. We create carpet that's safe and sustainable, for people and the planet that will improve learning environments. Shaw Contract's EcoWorx carpet tiles are completely recyclable and PVC-free, making product reclamation and recycling easy and allowing customers to reduce their environmental impact.

#### **Sheldon Laboratory Systems**

102 Kirk Street Crystal Springs, Massachusetts 39059 (601) 892-7166 http://www.sheldonlabs.com https://www.facebook.com/sheldonlabs/ https://www.linkedin.com/sheldonlaboratorysystems https://twitter.com/sheldonlabs Booth 104

Sheldon Laboratory Systems is the world's premier manufacturer and innovator in the science casework industry. Sheldon offers thousands of teacher designed products specifically for school laboratories and STEM/ STEAM/STREAM classrooms. We work with our customers from initial planning through installation. We may manufacture products, but we never forget that we are in the education business.

#### **SKYFOLD**

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#### **Steelcase Education**

901 44th Street, SE Grand Rapids, Michigan 49508 (616) 260-7691 http://steelcasehealth.com https://www.facebook.com/SteelcaseEducation https://www.linkedin.com/company/steelcase https://twitter.com/steelcaseedu Booth 200

ACTIVE LEARNING. ACTIVE MINDS. ACTIVE SPACES. Steelcase Education is focused on helping schools, colleges and universities create the most effective, rewarding and inspiring active learning environments to meet the evolving needs of students and educators. Using an insight-led approach, we design solutions for the many spaces learning happens, from classrooms and libraries to in-between spaces and cafes. We have a passion for understanding how learning best takes place and how smarter, active learning spaces can help.

#### Tarkett

30000 Aurora Rd Solon, Ohio 44139 (800) 241-3248 https://www.tarkett.com/ https://www.facebook.com/tarkett.official?ref=hl https://www.linkedin.com/company/tarkett https://twitter.com/grouptarkett https://twitter.com/grouptarkett http://www.youtube.com/user/TarkettOfficial Booth 201

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Tarkett knows that quiet flooring in the right color can positively impact learning.

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Indoor air quality and well-being are key for both students and teachers. It is achieved with the low VOC(1) emissions below regulation and non-phthalate plasticizer(2) technology flooring offered in Tarkett's iQ, Tapiflex, Acczent, iD Inspiration, and Safetred ranges.

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As America's leading manufacturer and supplier of furniture and equipment for K-12 schools, Virco employs approximately 700 people nationwide. Our 560,000 square-foot Torrance, California headquarters features a state-of-the-art manufacturing facility, as does our Conway, Arkansas location, which has approximately 1,750,000 square feet of operational space. Large distribution centers in Torrance and Conway facilitate the quick, efficient shipment of Virco products.

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At VS, we believe successful learning should balance the needs of the body, mind, and soul. We always encourage mobility and natural curiosity. From our fully-adjustable chairs to modular tables that encourage collaboration, we believe that learning is an active process. When students engage their senses while learning, the long-term benefits include a heightened focus, stronger motivation, and a sense of well-being. For more information, please visit www.vsamerica.com.

## **SCHOOL TOURS**

# **KI Tour and Workshop**



#### **Presenter:**

Bryan Ballegeer, VP of Education Markets for KI

Learning is a byproduct of culture, context, and activity, which makes designing for authentic change all the more challenging. In this session, we will use design thinking to sprint through an experiential immersion in designing for change. Designing intentional drivers that support a culture inspires human-centered innovation that has a transformative impact on learning. By way of democratizing creative confidence, you can solve complex problems at your institution in meaningful, specific ways.

**Tour Leader:** Jeff Bott, Division Head, Career and Technical Education

Buffalo Grove High School



## **SCHOOL TOURS**

# **Tour One**



### **Mundelein High School**

A three-story addition establishes Mundelein High School (MHS) as a regional leader in STEM education and career preparation. Classrooms and labs can quickly adjust to support everything from group work to selfdirected study. The expansion has allowed MHS to create business mentoring programs, university and corporate partnerships, and community outreach opportunities.

Evidence of active learning appears throughout the facility: students collaborate in college-level labs twice the size of the old ones, conduct nanotechnology research or build robots in specialty labs, pitch ideas to business leaders in a corporate-style conference room, or work with renewable energy on the third floor "experiment balcony." The addition, sited within a large courtyard, straddles the existing facility and avoids imposing on the site. Courtyards outside the STEM labs encourage outdoor experiments, while the roof deck enables third-floor science labs to step outside and test projects involving solar energy and wind speed. Second floor classrooms open up to a light-filled breakout space that expands to accommodate multi-class or community events.

# **Tour One**



### Haskins Library at Deer Path Middle School

The renovation of Haskins Library, the 7th-8th grade media center at Deer Path Middle School, is a colorful response to today's learning needs. Transforming a traditional school library space into an active and flexible learning environment, Perkins+Will worked with the client to create a warm, inviting space that prioritizes transparency and collaboration. The tour will focus on design strategies that promote projectbased learning and flexible class activities, along with accommodating independent study and quiet reading spaces typical of traditional library spaces. Deer Path students use moveable furniture, a structure with stadium-style seating that accommodates different group configurations, a gathering space called "The Campfire", and flexible classrooms to take charge of their learning experience. Generous natural light boosts wellness and helps maintain energy reduction standards.

# **Tour One**



### Adlai E. Stevenson High School

This tours ties into the the presentation by the schools superintendent, Dr Eric Twadell "When great isn't Good enough: How Two nationally ranked High Schools are evolving to keep their edge." Stevenson is a 4500 student school in north suburban Chicago and has dealt with tremendous growth since the late 1980's while becoming one of the top ranked schools in the nation. Physical growth has allowed the school to continually explore better ways of delivering teaching and learning, and we will explore the evolution of Stevenson's learning spaces. Collaboration and student interaction are drivers for many of the public areas of the school, and classrooms are continually improved to respond to developing ways of teaching and learning. While touring the school, participants will explore how student and teacher interaction is facilitated in multi-disciplined teachers offices, and see student help options for different learning styles. A new "net- zero" addition is under construction that will support multidisciplined science, culinary and foreign language programs

## **SCHOOL TOURS**

# **Tour Two**



### Jane L. Westerhold Early Learning Center

Following passage of an education rate referendum and prudent fiscal management over an eight year span, Des Plaines CCSD 62 built its fund balances to make substantial building improvements throughout the District. Following an extensive two-year building assessment, master planning, and community engagement process the Board of Education approved the issuance of non-referendum bonds totaling \$109 million for a three-phase capital improvement program. In addition to supporting educational program enhancements, the capital improvement funding was assigned to update, enhance, and expand educational environments throughout the District. In combination with major additions/renovation projects at three of its most aged and overcrowded facilities, the District elected to maximize its resources and consolidate under one roof, alongside the most centrally located elementary school, all of its early childhood education programs that had been scattered throughout the District.

The primary instructional spaces in the schools are positioned around two, secured courtyards. In both cases, a combination of fixed/operable windows and stackable glass doors allow an abundance of natural light to permeate from these outdoor instructional venues into the core of the building. The first courtyard is formed by constructing the ELC addition along the east side of the elementary school. It is intended to accommodate shared-use, garden plots. The second courtyard is the organizing feature of the ELC.

# **Tour Two**



#### **Kennedy Elementary School**

When kids leave their grand opening tour asking if they can come back the next day, you know that a school design resonates. From top to bottom, the addition at Kennedy Elementary is student-focused and designed to support all types of learning. Participants will see how existing schools can be transformed into learning environments that align with today's educational goals. You will tour flexible classrooms and small group spaces that encourage communication and peer-to-peer learning. You'll see the innovative learning corridor that opens the LRC to the school community. The classrooms encourage active learning with easy-to-rearrange, flexible furniture. Students collaborate in small (breakout rooms), research in an introspective space (window seat), or engage as a large group. Color defines the cohorts and special areas within the school (e.g., third-grade spaces are teal; pre-K blue; reading rooms green). Transparent walls enhance security and inspire wonder by putting learning on display. They function as writing surfaces in spaces such as the breakout rooms and excite students with their novelty. Students and staff connect to the world of living things through natural light, views, and the selection of materials (e.g., "grass" Flotex flooring and wood-look ceilings). This is especially evident in the presentation space, where an amphitheater becomes a "hill." The "learning corridor" is a mash-up of circulation and media center that welcomes students to linger with a book or technology.

# **Tour Two**



### CCSD 59 Early Learning Center

The CCSD59 Early Learning Center was designed to inspire curiosity, encourage interaction, and optimize indoor/outdoor connections. The facility, driven by community workshops, offers a setting customized to early learners: colorful curving patterns, tactile materials, and places to gather and explore. The entry even has a child-sizeblue door that welcomes students.Tour highlights include a large, nature-based motor courtyard and three themed learning gardens that create secure play areas and maximize natural light and views. Other features include integrated therapy rooms between classrooms, lightfilled corridors with a culinary arts space and break.out areas, an indoor motor skills area, and a family support center. This facility was constructed as an addition to the existing Holmes Junior High School. It was constructed to consolidate the district's early learner population in one centralized location. This consolidation freed up space at other district schools to allow for the implementation of full-day kindergarten district-wide. The 58,000-square-foot addition provides a secure connection point to the Junior High School to allow program access between facilities. It also houses dual-use training space for district staff and parents.

## **SCHOOL TOURS**

# **Tour Three**



### GEMS World Academy Chicago, Lower School

Learn how a dense urban location influenced the design of GEMS World Academy Chicago. GEMS Education is global company that owns and operates a network of schools serving students across four continents. In planning to establish their first school in the United States, it was important to create an exceptional architectural standard to support GEMS educational and marketing objectives as they built both their facility and enrollment. The new high-rise Chicago campus integrates unique strategies for site access, traffic control, life safety, vertical adjacencies, outdoor space, sport facilities, and district cooling. The campus marries GEMS' programmatic needs with local requirements and provides a new model for high-rise K-12 school construction in an arena of limited precedents. GEMS' network of schools enables a broad cultural interface and their use of state-of-the-art technology facilitates collaboration between classrooms around the world, providing students with an international perspective on education and nurturing global citizenship.

# **Tour Three**



### Idea Realization Lab @ DePaul University

Participants will have the opportunity to use the IRL's fabrication tools and experience the ecosystem of a university makerspace. Visitors will also tour the space and see the resources available to students, alumni and faculty, and the projects produced from the DePaul Community. The Idea Realization Lab is a student-driven initiative to promote the pursuit of thinking through making within the DePaul community. By providing tools and the space in which to use them, the IRL creates opportunity for people to practice their crafts, to share their knowledge, and to explore new interests from 3D printing to sewing to woodworking.

The IRL's mission is to foster collaboration and an attitude of learning through doing. The IRL encourages people to build confidence in their problem-solving skills, while working in an environment that they can engage with and make their own. By providing machines and materials at no charge to students, we at the IRL hope to cultivate a student-led environment of experimentation and creation not seen anywhere else on campus. The interior design of the space was initially done in coordination with Wendy Jeanes of KI.

# **Tour Three**



#### **Bennett Day School**

Bennett Day is a progressive Pre-K-12 school in downtown Chicago with a Reggio Emiliainspired curriculum centered on project-based and collaborative learning. Its flagship campus is housed in a renovated Settlement House built at the turn of the 20th century to help immigrants assimilate into American culture. It also housed an early kindergarten. The building served several purposes over its lifetime but had sat vacant for decades before Bennett Day and the current owner began renovations in 2015. The current building retains the historic facade but has an entirely new structure within, built from the ground up within the old walls. A secure welcome lobby featuring a wood accent wall made from reclaimed wood rescued from the building during demolition. -A dynamic color scheme by floor incorporating brand colors in varying shades. – Eye-catching botanical signage elements throughout the building relevant to the school's mission and logo. - Neutral color scheme classrooms emphasizing a Reggio Emilia/project-based, collaborative pedagogy. - TESLab (Tinkering, Engineering and Science), Music, and Art rooms – A fourth floor indoor playspace with a stunning view of downtown Chicago - A rooftop play area and a street level playground. Bennett Day has become, in 4 years of operations, a premier independent school in downtown Chicago. Families consider Bennett alongside industry institutions with demonstrated legacies due to its commitment to innovation, diversity, and progressive education.

## **SCHOOL TOURS**

## **Tour Four**



### Sunset Ridge School

The new Sunset Ridge School is a story of connectedness – a school for students with unique developmental stages spanning grades 4 – 8. The new 73,000 square foot school was built next to the original school – which included the community's original 1930's two room school house – creating a complexity that had to be resolved without compromising the vision. The solution's guiding theme: from me, to we, to community helped shape the solution. Feature elements of the school include a multi-functional performance and dining space known as the Village Square and unique learning neighborhoods with gradelevel living rooms appropriate to students ages 9 – 13. Furniture was a major design element to support all types of learning and ages. Sustainability was also a major goal – the project has achieved LEED Platinum while continuing to work on a Net-Zero designation. Sustainability is also deeply embedded as learning elements into the school. And that old 1930's two room school house has been carried forward and celebrated in the new school in unique ways.

# **Tour Four**



### New Trier High School – Winnetka Campus

The addition at the Winnetka Campus of New Trier High School was the result of a belief that being one of the top public high schools in the country was not good enough. The high school knew it had to evolve to keep its edge and to meet the high expectations of its community and alumni. The school sought to modernize a portion of its aging campus that had become a major impediment to learning and inconsistent with their stature. Constructed in two phases by carving out a significant portion of the building footprint, the 275,000 square foot, \$103M building program replaced three adjacent buildings from 1912, 1931, and 1950 that were among the most inefficient, inaccessible, and obsolete on the campus. Key design elements include a series of interconnected Applied Arts suites including a Fabrication Lab, Transportation Studio, Innovation Engineering Center, and a Project Playground. A new Library and Cafeteria, connected through an internal learning stair and Library Commons, provide an integrated environment for student dining, group work and social learning. A new central, 4-story atrium transitions the existing and new buildings while providing opportunities for community gathering and group learning opportunities. On the exterior, a new north entrance provides a modern interpretation of the iconic Tower Building at the school's historic main entrance. The result is collegiate like learning experience for students.

## **Tour Four**



### **Chiaravalle Montessori School, New Wing Addition**

Winner of the 2017 John N. Shaw Award, Chiaravalle Montessori School's North Wing Addition transitions 21st century Montessori learning into action, embodying Maria Montessori's concept of free activity within a "prepared environment" tailored to specific characteristics of children. Tour participants will see how a 60-year-old gymnasium wing was transformed into a new 19,000 sf addition that now serves as a central hub connecting spaces within the school. The North Wing features a spacious and welcoming main entrance, parent cafe and adjacent central gathering space (The Hub) that strengthen school/community sense by providing comfortable spaces for parents and students to linger. A drama studio and another movement and music studio expand the school's creative and performing arts offerings. The gymnasium accommodates multiple functions simultaneously. The library, Think Thank, a Global Learning Lab and a Da Vinci Workshop integrate art and design with the study of science, technology, engineering and mathematics. The facility also features sustainable and costeffective design that make it one of the notable projects recognized in USGBC's 2016 Top 10 States for LEED (and LEED Platinum certified). These include roof-mounted photovoltaic panels, a geothermal heating and cooling system, low-VOC materials and abundant natural lighting.

# **Tour Four**



#### **Crow Island**

Crow Island School in Winnetka, IL has been widely recognized as the first modern school house. In the years leading up to the design of Crow Island, the architects and educators engaged in a series of conversations that changed how we imagine schools. This internationally renowned school has succeeded in responding to the educational needs of successive generations of children through all the many changes that have occurred since 1940 because the fundamental design philosophy of attending to the realities of child development has remained valid over time. Designated a national historic landmark in 1990, and recently equipped with custom made furnishings by VS America, Crow Island School still has plenty of lessons to teach us as we explore the important connections between the design of space and learning. Additional parking is available on Berkley Ave and Glendale Ave. Do not park in the drop off circle.

Explore a national landmark school that continues to operate as a public school after almost 80 years.




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