Urban Land Institute (ULI) Austin
Local Climate Impacts Strategic Council

The ULI Austin Local Climate Impacts Strategic Council was established in May 2023 to address the issue of climate change impacts in the Central Texas region.

Strategic Council Mission Statement:
Explore local climate change adaptation and resilience opportunities that impact the built environment in Central Texas with the goal to improve people's lives and communities.

ULI AUSTIN MEMBERSHIP CONVENINGS

What:

Understand how local impacts due to climate change are affecting the work of our membership.

Why:

Distill, distribute and maintain a local climate change impact clearinghouse for ULI Austin members. The council has identified and is analyzing several climate impact evaluation and response resources but first wants to determine the resource needs of local membership.

Groups of ULI Austin members identified and interviewed:

- Developers
- Brokers
- Asset managers
- General Contractors
- Designers and Engineers
- Public Entities
- Capital Sources

When:

April - May, 2024

Format:

- Four questions. Seven minutes to discuss each. Eight minutes to report out.
- Open discussion as time allows.

Questions presented to attendees:

1. *How do the extreme events - heat/freeze, drought/flood, blackouts, etc. – affect your projects?*
2. *How are you responding to the impact these extreme events are having on your work and why?*
3. *Given the last four years of weather events, what changes (if any) are you considering to your investment strategy?*
4. *What are your obstacles in terms of decision-making?*

SUMMARY OF RESPONSES – COMMON THEMES AND KEY TAKEAWAYS

1. Impact of Extreme Weather Events

Common Effects

- **Increased Costs:** Extreme heat, freeze, drought, and floods lead to increased scheduling costs, budget overruns, and insurance premiums, which are up by 40-50%.
- **Safety and Property Damage:** Events result in safety incidents, including fatalities, and significant property damage, affecting individual properties and entire portfolios.
- **Operational Disruptions:** Blackouts and other disruptions necessitate costly infrastructure improvements, especially in retail and multifamily housing.
- **Resiliency Demand:** Rising interest in resilient construction and products due to extreme weather events.

Specific Incidents

- **Storms:** Cause deaths and regulatory changes for high-rise buildings, adding significant costs.
- **Multifamily Property Challenges:** Emergency management difficulties with untrained tenants.

Project Disruptions and Adaptations

- **Freeze Events:** Necessitate backup generators, disrupt utilities, and require projects to defend against flooding.
- **Droughts:** Encourage native landscaping and create water scarcity issues.
- **General Weather Impacts:** Lead to project shutdowns, impacting schedules and costs, and require design adaptations for weather impacts (e.g., tornado-resistant designs).

Regulatory and Financial Challenges

- **Flood Map Changes:** Alter zoning and flood plains, affecting property development and increasing insurance costs.
- **Building Codes and Municipal Delays:** Weather events necessitate updates to building codes and cause delays in municipal processes, impacting project timelines.

Operational Adjustments

- **Redundant Systems and Backup Power:** Increased need for designing redundancies like backup power systems to mitigate power losses.
- **Supply Chain Impacts:** Weather events disrupt supply chains, causing delays and loss of products, impacting project timelines and costs.

Liability and Risk Management

- **Insurance and Liability:** Rising insurance costs and the need for discussions with clients about climate impacts and liabilities.
- **Contract Adjustments:** Contractors building in climate days (e.g., rain days) to extend construction schedules and adapting designs for new weather patterns.

Project Delays and Costs

- **Climate Impact Delays:** Extreme weather events delay projects, increase costs, and necessitate strategies to leverage grants and funding.
- **Heat and Cold Impacts:** Affect ridership, delivery of services, and increase operational costs.

Community and Infrastructure

- **Municipal Challenges:** Higher costs and challenges in determining the cause of repairs, and the need for community amenities to support resilience.

Infrastructure and Operational Costs

- **Damage to Infrastructure:** Freezes and other climate events cause significant damage, increasing repair costs and operational disruptions.
- **Insurance and Utilities:** Rising insurance and utility costs due to increased frequency of extreme events.

Development Constraints and Mental Health

- **Atlas 14 Restrictions:** Stricter flood risk assessments limit development opportunities.
- **Climate Anxiety:** Extreme events contribute to climate anxiety and mental health issues.

2. Responses to Extreme Events

Proactive Measures

- **Staff Training and Adjustments:** Training tenants and staff for emergency responses and adjusting staffing schedules for extreme weather conditions.
- **Resiliency in Design:** Moving vulnerable elements like water heaters indoors, weatherizing equipment, and planning for backup power systems.
- **Federal Funding:** Seeking IRA money and other federal funds to support resilience and decarbonization efforts.
- **Contract Revisions:** Updating contract language to include weather-related delays for extreme heat and other conditions.

Operational Changes

- **Establishing Resilience Hubs:** Ensuring emergency supplies and staff are on-site during extreme events.
- **Resiliency in Bidding Processes:** Incorporating resiliency into bidding and project planning despite higher costs.

Proactive Measures and Research

- **Hazard Research:** Conducting upfront research about hazards and using changing data to adapt schedules and designs.
- **Sustainability Integration:** Incorporating sustainability practices in proposals and processes, forming sustainability sectors within firms, and seeing growth in renewable energy.

Design and Process Changes

- **Backup Energy and Resilient Designs:** Implementing backup energy solutions, water storage, and designing for human comfort and weatherproofing.
- **Community and Resilience Planning:** Creating resilience hubs in public projects, designing multifunctional community rooms, and integrating criteria for resilience planning.

Cost and Supply Chain Management

- **Cost Increases and Supply Chain Adjustments:** Managing increased costs due to added scope and supply chain impacts, and driving design components based on supply chain availability.

Documentation and Compliance

- **Documentation Requirements:** Meeting significant documentation requirements for some projects (e.g., ICC500, FEMA), adding to the scope of work.

Standards and Grants

- **Resilience Standards:** Integrating resilience into design standards and utilizing funding grants.
- **Focus on Outcomes:** Refocusing on assets and emergency planning, emphasizing the importance of schools and community hubs.

Educational Programs

- **Client Education:** Developing programs to educate clients about resilience and the importance of designing for climate impacts.
- **Infrastructure Improvements:** Investing in infrastructure to mitigate risks and improve community resilience.

Green Technology and Resilience Hubs

- **Solar Investments:** Adopting solar power and other green technologies to meet climate goals.
- **Resilience Hubs:** Establishing hubs in public spaces to provide essential services during extreme weather events.

Design Process Changes

- **Climate Resilient Design:** Modifying designs to include features that provide relief from extreme weather conditions and enhance community resilience.

3. Changes in Investment Strategies

Investment Shifts

- **Resiliency Focus:** Clients and investors are more interested in resilient products and practices, driven by regulation and financial incentives.
- **Educational Efforts:** Educating clients on the importance of resilience and sustainable practices.
- **Insurance and Financing:** Insurance costs are driving some investors away from high-risk areas, and there's a need for better access to IRA funds and other financial resources.

Challenges

- **High Costs and Regulatory Frameworks:** Financing and implementing resilience measures can be difficult due to high costs and lack of supportive regulatory frameworks.
- **Developer Resistance:** Some developers avoid spending on resilience unless required by regulation.

Sustainability and Decarbonization

- **Divesting from Fossil Fuels:** Reducing investments in fossil fuel sectors and focusing on internal decarbonization.
- **Sustainability Teams:** Establishing sustainability teams within firms to lead initiatives.

Research and Development

- **Investing in R&D:** Allocating funds for research on materials, technologies, and environmental product declarations.
- **Training and Tools:** Investing in training and digital tools for comprehensive building analysis and resilience planning.

Policy and Regulatory Engagement

- **Policy Analysis:** Analyzing policies in other cities to improve local policies and communicate with jurisdictions for better alignment.
- **New Services:** Offering new services to fill gaps, including policy advocacy and providing continuity in projects.

Best Practices and Technologies

- **Showcasing Innovations:** Using best practices to highlight new technologies and encouraging broader participation in resilience efforts.
- **Home Environment Resilience:** Adapting strategies for remote work and comfort design, and investing in R&D for resilience measures.

Accelerated Adaptation

- **Speeding Up Responses:** Acknowledging the need to accelerate adaptation and mitigation strategies.
- **Design Standards:** Incorporating shade and cooling measures into design standards to enhance thermal safety.

Federal Grants and Urban Canopy

- **Federal Funding:** Securing grants for solar and resilience projects.
- **Urban Tree Canopy:** Increasing tree planting to reduce heat island effects and achieve canopy coverage targets.

4. Decision-Making Obstacles

Regulatory and Financial Hurdles

- **Funding and Financing:** The biggest challenge is funding for regulatory compliance and resilience improvements. The gap between policy requirements and available financing is significant.
- **Insurance Industry Practices:** Insurance companies need better data management to provide incentives for resilient practices rather than raising rates uniformly.
- **Decision-Making Inclusion:** Builders often come in late in the decision process, missing opportunities to influence cost-effective resilience measures.

Operational and Market Challenges

- **Market Readiness:** Reluctance to adopt new technologies due to past issues and operational fatigue. Need for reliable and efficient technology integration.
- **Public Sector Collaboration:** Limited cooperation from the city and other public entities in facilitating resilience-focused projects.

Client and Owner Challenges

- **Lack of Demand and Awareness:** Low demand from clients, lack of awareness or education about climate impacts, and resistance to changes.
- **Investment and ROI Concerns:** Difficulty in justifying investments due to perceived or actual lack of ROI, and challenges in securing funding.

Regulatory and Resource Barriers

- **Building Codes and Regulations:** Understanding and applying building codes, and facing jurisdictional challenges in adapting policies across different areas.
- **Resource Constraints:** Limited tools and resources to track and measure impacts, and scalability issues with new products and methods.

Project Management Issues

- **Timelines and Budgets:** Balancing short-term needs with long-term planning, managing costs and timelines, and dealing with staff turnover.

- **Specialty Contractors:** Availability of specialized contractors and their impact on project schedules.

Client Understanding

- **Value Quantification:** Difficulty in conveying the value of resilience measures to clients and quantifying their benefits.
- **Political and Shareholder Risks:** Navigating political risks and shareholder concerns related to climate impacts.

Budget and Relationships

- **Budget Reallocation:** Challenges in reallocating budgets due to political constraints and ensuring continuous funding for resilience projects.
- **Community Engagement:** Building and maintaining relationships with community entities to support resilience initiatives.

Technological and Financial Gaps

- **Tech Limitations:** Challenges in adopting new technologies like EV charging infrastructure.
- **Financial Constraints:** Limited financial resources and difficulties in quantifying health and climate risks.

Public Perception and Policy Support

- **Public Resistance:** Pushback against changes necessary for resilience, especially in updating codes.
- **Leadership Support:** Need for strong leadership and alignment of city policies to support

SUMMARY (Paragraph Form)

Impact of Extreme Weather Events

Extreme weather events such as heat, freeze, drought, and floods significantly impact construction and real estate management. These events lead to increased scheduling costs, budget overruns, and higher insurance premiums, which have risen by 40-50%. Safety incidents, including fatalities, and substantial property damage affect both individual properties and entire portfolios. Operational disruptions, including blackouts, necessitate costly infrastructure investments, especially in retail and multifamily housing. There is a growing demand for resilient construction and products to counter these challenges.

Specific Incidents and Adaptations

Storms have caused fatalities and prompted regulatory changes for high-rise buildings, resulting in increased costs. Managing multifamily properties during emergencies is challenging due to untrained tenants. Freeze events require backup generators and system defenses against flooding, while droughts encourage native landscaping and highlight water scarcity issues. General weather impacts lead to project shutdowns, necessitating design adaptations like tornado-resistant designs in prone areas.

Regulatory and Financial Challenges

Flood map changes alter zoning and flood plains, affecting property development and increasing insurance costs. Weather events necessitate updates to building codes and cause delays in municipal processes, impacting project timelines. Redundant systems and backup power solutions are increasingly necessary to mitigate power loss impacts. Supply chain disruptions due to weather events cause delays and cost increases.

Liability and Risk Management

Rising insurance costs and climate impact liabilities necessitate conversations with clients. Contractors are adjusting schedules to account for climate days and adapting designs for new weather patterns. Extreme weather events delay projects, increase costs, and require strategies to leverage grants and funding.

Community and Infrastructure

Municipalities face higher repair costs and challenges in determining repair causes. There is a need for community amenities to support resilience. Infrastructure damage from extreme events increases repair costs and operational disruptions. Atlas 14 restrictions limit development opportunities, while extreme events contribute to climate anxiety and mental health issues.

Responses to Extreme Events

Proactive measures include training staff and tenants for emergency responses, adjusting staffing schedules, and incorporating resilient designs, such as moving vulnerable elements indoors and weatherizing equipment. Federal funding is sought to support resilience and decarbonization efforts. Contracts are being updated to include weather-related delays.

Operational changes involve establishing resilience hubs, ensuring emergency supplies, and incorporating resiliency into bidding processes despite higher costs. Hazard research and sustainability integration are crucial, with firms forming sustainability sectors and investing in renewable energy. Design changes include implementing backup energy solutions and creating resilience hubs in public projects.

Changes in Investment Strategies

Clients and investors are increasingly focused on resilient products and practices, driven by regulation and financial incentives. However, financing resilience measures can be challenging due to high costs and lack of supportive regulatory frameworks. Some developers avoid resilience investments unless mandated.

Investments are shifting away from fossil fuels towards decarbonization efforts. Firms are establishing sustainability teams and investing in research and development for resilient materials and technologies. Policy analysis and engagement with jurisdictions aim to improve local policies and support resilience initiatives.

Decision-Making Obstacles

Funding and financing for regulatory compliance and resilience improvements are major challenges. Insurance companies need better data management to incentivize resilient practices. Builders often enter

decision processes late, missing cost-effective resilience opportunities. Market readiness for new technologies is hindered by past issues and operational fatigue.

Public sector collaboration is limited, and client demand for resilience measures is low due to lack of awareness and education. Building codes and regulations pose barriers, with resource constraints and scalability issues complicating new product and method adoption. Project management faces challenges in balancing short-term needs with long-term planning, managing costs and timelines, and dealing with staff turnover.