Overview

- Climate Equity and Mobile Home Parks
- Vulnerability and Value and the Ponderosa Case Study
- An Evolving Land Use: Mobile Home Parks and the Denver Meadows Case Study
- The Zero Energy Modular (ZEM) Market Analysis for Colorado
- City-Habitat-School District Partnership for a ZEM Factory
Climate Equity and Mobile Home Parks

CAROLYN ELAM, ENERGY MANAGER
DEPARTMENT OF CLIMATE INITIATIVES, CITY OF BOULDER
“Incremental linear changes to the present socioeconomic systems are not enough to stabilize the Earth System.

Widespread, rapid and fundamental transformations will likely be required to reduce the risk of crossing the threshold and locking in the Hothouse Earth pathway…”

Local Context - Boulder

- Population: 110,000
- Home to CU Boulder, a thriving science and tech industry
- Median Home Price: >$700,000
- In-commuters: ~60,000
- Highest Flood Risk in State
- 2 degrees hotter than historical averages and continuing to rise
- High fire risk and extended fire season
- Reclassified as a serious non-attainment area for ozone
Guiding Principles of Climate Action

ECONOMIC VITALITY

Social Equity & Justice

RESILIENCE
Climate and Mobile Home Communities

Mobile Homes...

- Inefficient and perform poorly in weather extremes
  - 1994 HUD Codes govern construction
  - Not conducive to solar or deep energy retrofits
- Often located in higher hazard areas
  - Natural Disasters (flood, wind, fire)
  - Air Quality (transit corridors, industrial areas)
- Served by aged and decrepit infrastructure
Climate and Mobile Home Communities

Mobile Home Communities...

▶ Critical affordable housing
  ▶ Home ownership
  ▶ Sense of community and identity

▶ House experts in conservation and resilience

Those who have contributed the least to the problem are the most at risk for suffering the consequences of climate change. They are also invaluable resources to us as society seeks to mitigate and adapt to climate change.
An Evolving Land Use: Mobile Home Parks and the Denver Meadows Case Study

DANIEL L. MONEY, ASSISTANT CITY ATTORNEY
CITY ATTORNEY’S OFFICE, CITY OF AURORA
Local Context – Aurora, City in Transition

- Population: 374,000
- Home of Buckley Airforce Base, Anschutz Medical Campus, University of Colorado Hospital, and Children's Hospital, Gaylord Hotel and Stanley Marketplace.
- Median Home Price: $350,000.
- Diverse Population: Over 160 languages spoken in the Aurora Public School System.
Light Rail Comes to Aurora – New Development Opportunities

- In 2016 and 2017 Aurora increased the number of light rail routes throughout the City.
- This allowed new opportunity for Transit-Oriented Development (TOD).
- Owners of land looked to increase the value of their land through rezoning.
Denver Meadows: Request to Rezone

- A mobile home park owner looked to rezone from Mobile Home District and Residential Agriculture District to TOD-Core Sub-District.
- TOD Zoning Districts were designed to provide sustainable areas by including places to live, work, shop, and recreate within close walking distance of each other and transit stations.
- The purpose for the rezone was to close the park and to sell the land for redevelopment.
Proposed Development Plan
Planning Commission and City Council

- Planning and Zoning Commission: May 11, 2016
  - 5+ hour meeting.
  - Numerous speakers re: displacement of mobile home owners.
  - Commission forwarded the rezone to City Council as “no recommendation.”

- City Council: July 11, 2016
  - Testimony that 100+ families might be displaced with the sale and redevelopment of the mobile home park.
  - City Council tabled the rezone decision.
Private Property Rights v. Resident Displacement

- Private property rights are protected under the 5th and 14th Amendments of the U.S. Constitution and the Colorado Constitution Art. 2, § 15.
- Displacement is a municipal concern because it affects the health, safety and welfare of residents.
- How does the municipality protect the property rights of both park owner and home owner?
- How does the municipality ease the ramifications of displacement or dislocation?
Possible Solutions

- Mobile home owners buy land
- City buys land & creates land trust
- Park owner pays relocation costs
- City pays relocation costs
- City enactment of moratorium
The general assembly hereby finds and declares that mobile homes, manufactured housing, and factory-built housing are important and effective ways to meet Colorado's affordable housing needs. . . . The general assembly encourages local governments to allow and protect mobile home parks in their jurisdictions and to enact plans to increase the number of mobile home parks in their jurisdictions. The general assembly further encourages local governments to provide incentives to mobile home park owners to attract additional mobile home parks and to increase the viability of current parks. C.R.S. § 38-12-201.3
Moratorium on Development

- Local governments are granted broad authority to plan for and regulate the use of land within their respective jurisdictions. See, C.R.S. § 29-20-102(a). See also, Board of County Comm’rs of Douglas County, Colo. V. Bainbridge, Inc., 929 P.2d 691, 698 (Colo. 1996)

- Local governments have the power to enact a moratorium of limited duration on zoning plan adoptions when done for the purpose of promoting long-term plans for development and well-planned growth. Droste v. Bd. Of County Comm’rs of the County of Pitkin, 159 P.3d 601, 606 (Colo. 2007); See also, Williams v. City of Central, 907 P.2d 701 (Colo. App. 1995) (10-month moratorium deemed reasonable)

- However, a moratorium cannot create an “operational conflict” with state law, and cannot “impede the effectuation of the state’s interest,” in matters of statewide concern or mixed state and local concern. See, City of Fort Collins v. Colo. Oil and Gas Ass’n, 369 P.3d 586, 589 (Colo. 2016) (5-year moratorium was too long)
In 2018, the City passed by Ordinance a 10-month moratorium on the acceptance or approval of development applications for the redevelopment of mobile home parks within the City.

Along with this Ordinance, the City created a mobile home task force to study displacement as a result of redevelopment, and to present solutions to city staff and City Council beneficial in addressing the need for affordable housing as it relates to mobile home parks.

The task force consisted of eleven members consisting of five mobile home park residents, two mobile home owners, a representative of a non-profit affordable housing advocacy group, one staff member of the Aurora Housing Authority, one representative with expertise in affordable housing and real estate, and one interested resident of the City.
The Aurora Mayor and the owner of Denver Meadows met over a period of several months to work out a relocation plan for the residents of the park.

- Park owner would relocate or buy back mobile homes that could not be moved due to statute or condition of the mobile home.
- Both the owner of the park and the City would pay relocation costs to the owners of the mobile homes still at the park by the expiration of the moratorium.
Rezone request moved from the table on April 1, 2019.

Rezone heard and voted on by City Council June 3 and June 27, 2019.

City Council voted to approve the rezone.
MH Park Act Recent Updates

- **HB19-1309: Signed into law May 23, 2019**
  - Created C.R.S. § 30-11-128 and C.R.S. § 31-15-1101: Greater regulation of mobile home parks by counties and municipalities.
  - Increased time period for termination of lease by landlord, for non-payment of rent, from 5 days to 10 days.
  - Increased time for home owner to vacate, and remove/sell their mobile home, from 48 hours to 30 days from time of court order to vacate. (exceptions for law enforcement and violations of C.R.S.)
  - Created the Mobile Home Park Act Dispute Resolution and Enforcement Program:
    - Educational materials, with rights and responsibilities, to be posted in the park.
    - Create and maintain registration database (May 1, 2020).
    - Receive complaints and perform dispute resolution (May 1, 2020).
    - Prepare annual reports.
MH Park Pending Legislation

- **HB20-1196**: Mobile Home Park Act Updates. Amends definitions, notice (expands notice to change use of park from not less than 6 months, to not less than 12 months), establishes gender-neutral language, enhanced protections for home owners, and enhanced regulations on park owners.

- **HB20-1201**: Mobile Home Park Residents Opportunity to Purchase. Requires that in the event that the park owner chooses to sell the park, that the park owner give notice of pending sale to the home owners, municipality/county, division of housing of the department of local affairs, home owner’s associations (or similar established groups). The home owners are then afforded 90 days to make an offer to purchase. Park owners must provide adequate information and documentation and must negotiate in good faith.

- Exemptions would include a sale, transfer or conveyance of the park to spouse/partner/family member, trust, cotenant or pursuant to eminent domain.
Vulnerability and Value of Mobile Home Parks and the Ponderosa Case Study

CRYSTAL LAUNDER, HOUSING PLANNER
DEPT. OF HOUSING AND HUMAN SERVICES, CITY OF BOULDER
Valuable

- Pockets of Diversity
- Low-to-moderate Income Homeownership
- Entry to Homeownership
- Workforce Housing
- Aging in Place
- Downsizing
7.08 Preservation and Development of Manufactured Housing

“...the city and county will encourage the preservation of existing mobile home parks ... Whenever an existing mobile home park is found to have health and safety issues, every reasonable effort will be made to reduce or eliminate the hazard.”

**Preservation Zoning**

Mobile Home (MH) Zone
Case Study: Ponderosa Mobile Home Park
Ponderosa Residents

- Roughly 180 residents
- 92% owner-occupied homes
- 67% below 30% AMI
- DIVERSITY in language, ethnicity, age, household composition, ability
2014: CDBG-DR Resilience Planning Grant

Community Engagement

Infrastructure Cost Estimate
City Purchase (2017)
CDBG-Disaster Recovery Funds

Ponderosa Resolution
• Minimize Displacement
• Work with the Community
Fire Separations

- $\leq$ 6 feet
- 6 to $\less than$ 10 feet
Existing Conditions

- 6 Houses
- 59% Open Space
- Average Home Size = 900 SF
Path Forward

- 7 Houses
- 68% Open Space
- Average Home Size = 1,200 SF (two-story)
- Maximum 73 homes

Duplexes, single-family homes, common parcel

Path to Compliance

Medium-density Residential Zoning
Home Replacement Options

- Medium-density zoning
- Modular (less disruption)
- Similar footprint
- Fixed foundation
Existing Mobile Homes

- May remain
- Nonconforming use
Phase I Housing

- Phase I: Unimproved western edge
- As home sites open up, there will be more room to build.
Community-driven Phasing

13 Vacant Home Sites Currently

August 2019 Survey Participation: 98%

- 85% desire to stay in Ponderosa
- 60% of households desire a new home
- 22% of households need more information/unsure
- 75% want the option to stay in their mobile home
Eventual Site Plan
Flood Protection

LEGEND
- 100 year floodplain
- 500 year floodplain
- High hazard zone
- Conveyance zone

Existing homes above FPE
New homes above FPE
Flood easements
Water quality and detention
Closure of entrance in high hazard

Site Drainage patterns:
- high point at northwest
- site slopes downhill to southeast
- stormwater currently leaves site uncontrolled
- detention needed at low point of site (south side)

Fourmile Creek
- Flooding and infrastructure improvements to the Creek are part of larger regional plans
- Future Homes to be elevated to ensure they are 2.1’ above the 100 year flood elevation
Infrastructure

- Water and sewer in streets
- Undergrounded electric
- Water quality and detention
- Paved streets
- Landscaping, tree canopy
- NO natural gas
Deep, Lasting Affordability

CONSTRUCTION COSTS
- Sweat equity
- Volunteer labor
- Donated materials

REDUCED HOUSING COSTS
- Energy-efficient design
- Solar garden subscriptions
- Nonprofit ownership of land

LOWER MAINTENANCE COSTS
- Private streets w/ public maintenance
- New, publicly maintained infrastructure
- Home repair reserve
Common House

- Welcoming
- Gathering
- DIY workshop and creative space
- Laundry
- Exercise
- Kids space
- Education
- Internet
- Porches and patios
- Mail and recycling kiosk
- Resilience center
The Zero Energy Modular (ZEM) Market Analysis for Colorado

KRISTIN HYSER, DEPUTY DIRECTOR
HOUSING AND HUMAN SERVICES DEPARTMENT, CITY OF BOULDER
Zero Energy Modular (ZEM) Market Analysis

Lead Agencies:
Colorado Housing Finance Authority
Energy Outreach Colorado
City of Boulder
Colorado Habitat for Humanity

Purpose:
Assess demand for ZEM Homes in multiple scenarios

- Mobile home replacement
- SF, MF and Infill
- Production Facility

What is ZEM?

- All-Electric
  - Heating and Cooling
  - Ultra Efficient Appliances, Lighting and Mechanical
- Thermal Envelope and Air Sealing
- Fair Air Ventilation
- Quality Materials and Construction Practices
- Permanent Foundation
- Modular Construction
Findings

► Potential for ZEM housing development is strong in Colorado

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<tr>
<th>Home Type</th>
<th>Count</th>
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<tbody>
<tr>
<td>Mobile and Manufactured</td>
<td>95,000 existing and aging</td>
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<tr>
<td></td>
<td>+900 new/annually</td>
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<tr>
<td>Single Family</td>
<td>+24,000/annually</td>
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# Development Opportunities

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<tr>
<th>Scenario</th>
<th>Consideration</th>
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<tr>
<td>Owned Unit, Owned Land - Replacement</td>
<td>New foundation, site prep, use existing infrastructure</td>
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<tr>
<td>Owned Unit, Leased Land - Replacement</td>
<td>Option of long-term lease, financed through traditional mortgage</td>
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<tr>
<td>Owned Unit, NPO/Housing Authority/Cooperatively Owned Land - Replacement</td>
<td>Lenders view as more stable, traditional mortgages</td>
</tr>
<tr>
<td>Rented Unit, Rented Land - Replacement</td>
<td>Rental option = healthy and efficient Upfront cost a deterrent</td>
</tr>
<tr>
<td>Single Family, Ownership - New Unit</td>
<td>Upfront costs may be prohibitive; partner with affordable developer</td>
</tr>
</tbody>
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Findings

- ZEM homes are affordable for low- and moderate-income Coloradans.
Findings

- There is will to increase modular capacity in Colorado
How is ZEM Affordable?

**Benefits of Zero Energy Homes**
- All-electric, healthy homes built to the highest level of efficiency
- Solar PV system produces as much energy as is used annually
- Suitable for single family homes, urban infill, mobile/manufactured home replacements

**Benefits of Modular Construction**
- Reduced costs by optimizing factory with specialized labor, bulk purchases and less waste
- Indoor construction enables highest quality and reduces material exposure to weather
- Reduced construction time on site can save costs

**Affordable for Homeowner**
- When upfront costs are rolled into mortgage, ZEM is cost effective option
- Total cost includes housing costs plus energy
- Increasing modular capacity can help solve affordable housing crisis
## Achievable Potential in Colorado

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<th>Metric</th>
<th>Value</th>
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<tr>
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<tr>
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City-Habitat-School District Partnership for a ZEM Factory

JAY SUGNET, SENIOR HOUSING PLANNER
HOUSING AND HUMAN SERVICES DEPARTMENT, CITY OF BOULDER
Purpose of the Partnership

- Produce much needed affordable housing
  - Serve both Boulder Valley residents and workers

- Provide workforce training for BVSD students
  - Emphasis on Process of Construction
  - Hands on experience with evolving construction industry
PROPOSED ROLES of Partnership

- **City** — provide funding to construct the factory and the tools to equip
- **Flatirons Habitat for Humanity** — manage the facility, procure materials, and provide logistical support of organizing volunteers, homeowners, professional staff and integration of TEC students
- **School District** — provide land on the Educational Resource campus for the construction of the factory at no cost for a period of at least 10 years and use the operation as a teaching facility for the TEC Construction class
Why modular?

- Higher production - capacity to build 100 homes / year
- Lower cost / higher quality
- Less exposure to weather
- Worker safety
- Less material waste
- Minimizes disruption to the community
The Future

- Modular construction gaining momentum
- Wood or steel
- Multifamily / student housing / modular classrooms
- Prepare students for a changing industry

Image Courtesy
Jason Carter, The Mod Coach
www.themodcoach.com

What can modular be?

Images Courtesy
Jason Carter,
The Mod Coach
www.themodcoach.com
Considerations

- Building and Zoning Codes: is modular allowed?
- Who inspects (state, local, 3rd party or combo)?
- When inspected (at factory, at the site)?