



mayors
innovation
project

INNOVATION SHOWCASE

Mayor Katjana Ballantyne
Somerville, MA

WINTER
2025

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Innovation Showcase



Katjana Ballantyne
Mayor
City of Somerville, MA





Getting to carbon net-negative by 2050

Our [Climate Forward](#) plan identifies goals and actions in 5 key focus areas

- Building & Energy
- Community Health & Resiliency
- Natural Resources & Waste
- Transportation & Mobility
- Leadership





Networked geothermal

- **Expandable** neighborhood-scale heat pump system
- Interconnect individual ground-source heat pump systems to span entire neighborhoods – **replacing natural gas pipes with geothermal**
- Leverage Somerville's density to provide **local, affordable, renewable, and non-combusting** heating and cooling energy



3 potential neighborhood networked geothermal systems were identified in Somerville

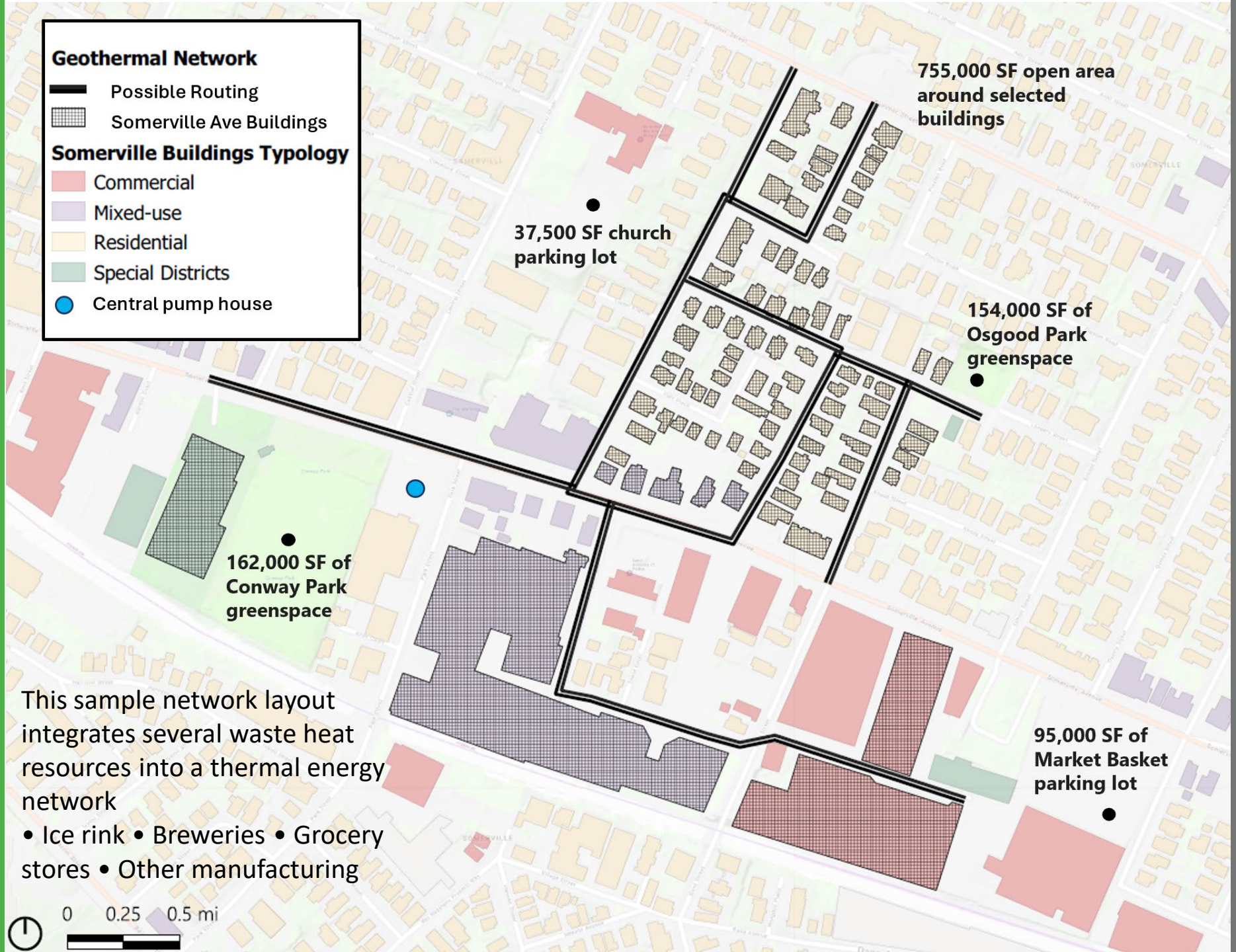


Geothermal Network

- Possible Routing
- Somerville Ave Buildings

Somerville Buildings Typology

- Commercial
- Mixed-use
- Residential
- Special Districts
- Central pump house



This sample network layout integrates several waste heat resources into a thermal energy network

- Ice rink
- Breweries
- Grocery stores
- Other manufacturing



What is next?

- Engage the community
- Publish our reports at somervillema.gov/sustainaville
- Advocate to regional, state and federal partners
- Explore zoning incentives for transformer capacity
- Seek funding for networked geothermal design for 3 sites and transformer upgrades



Let's talk soon!



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