

Transforming Transportation: What's Needed, What's Possible?



Richard Amore, PLA/AICP

Programs Director
Local Motion

November 1, 2025

VECAN Conference
Fairlee, VT



**Local Motion's mission is to make it safe,
accessible, and fun for everyone to bike, walk,
and roll in Vermont.**



Streets as Places



VT Department of Housing and Community Development

About Us



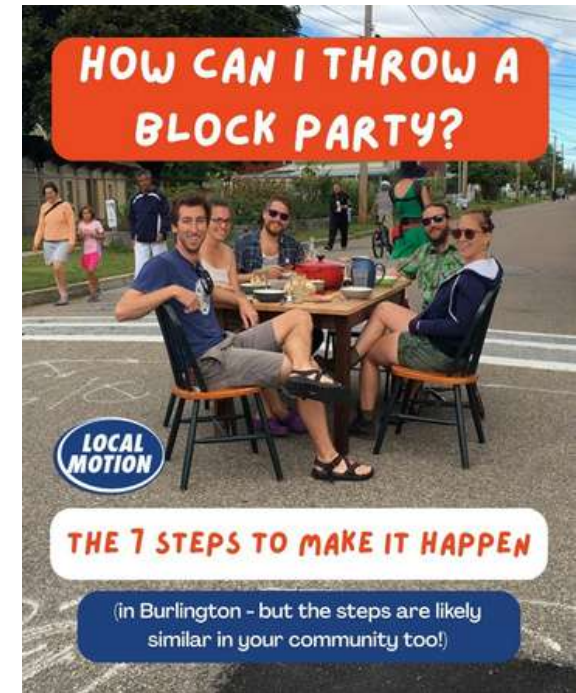
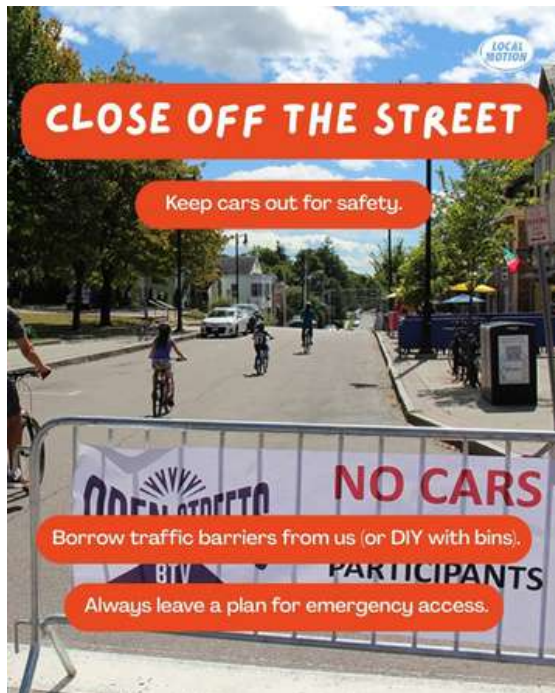
Local Motion's work is roughly divided into three categories: Education, Advocacy, and Services.

- Our multi-age **education programs** include Bike Smart & Walk Smart; general workshops on commuting; group rides, and more.
- **Our advocacy and technical assistance** is focused on improving on-street infrastructure and policy at both the state and local level with the goal of making Vermont streets safe and comfortable for all users.
- **Our services** include the world-class Bike Ferry at the Colchester Causeway, free secure Valet Bike Parking at events around the state, and our Trailside Bicycle Rental Center at the Burlington waterfront. We also host a fleet of e-bikes for demo events around the state and offer an interactive map with suggested routes.

Pop-up Demonstration Projects



Leading Resource





One of our Fundamental Beliefs:



Streets and roads are for all Vermonters

Everyone should be able to get to where they need to go without risking their lives, and should have freedom of movement by their preferred mode of transportation.

- People walking
- People using wheelchairs and assistive devices
- People driving
- People using transit
- People biking

Volunteer Opportunities



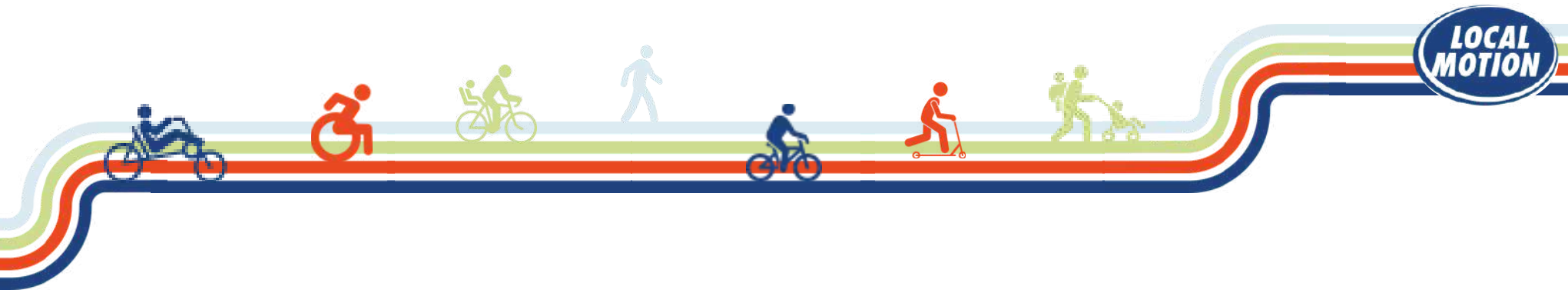
Volunteers make our work possible!

Every year, hundreds of volunteers donate thousands of hours to support Local Motion's mission... with:

- Valet Bike Parking
- Group Rides
- Ferry Dockside Ambassadors
- Bike Smart bike cleaning/tuning
- See www.localmotion.org/volunteer for current options



Your support can take us there.



Local Motion offers programs and services to communities across Vermont. Most of these are free or by donation, to encourage the choice for active transportation and recreation without financial barriers.

Your support helps to offset the significant costs of running these programs and services and helps their impact continue to grow.

We are a 1% for the Planet Environmental Partner. Learn more about giving to Local Motion through 1% for the Planet [here](#).





WHY?

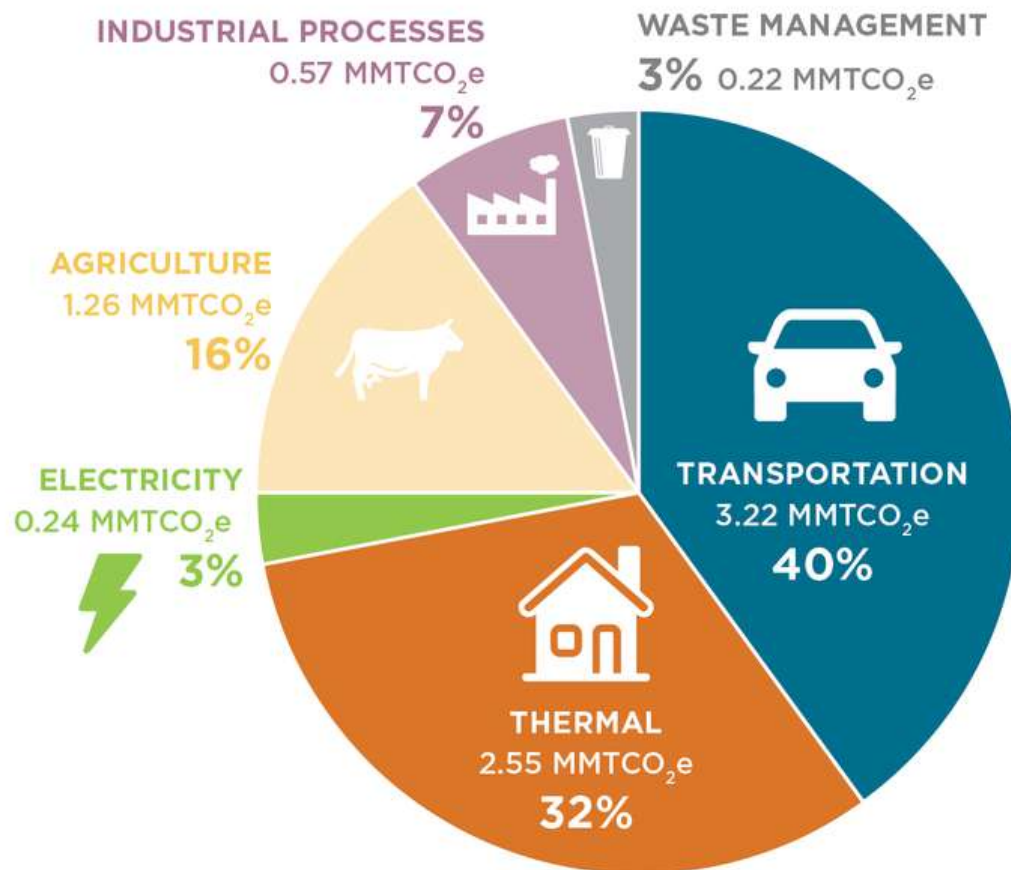
The **best trip** is the trip
not taken.

Vermont's GHG emissions by sector

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(2022)

Total emissions: 8.09 MMTCO₂e



Source: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. **Note:** A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2022, is not visible on this graph.

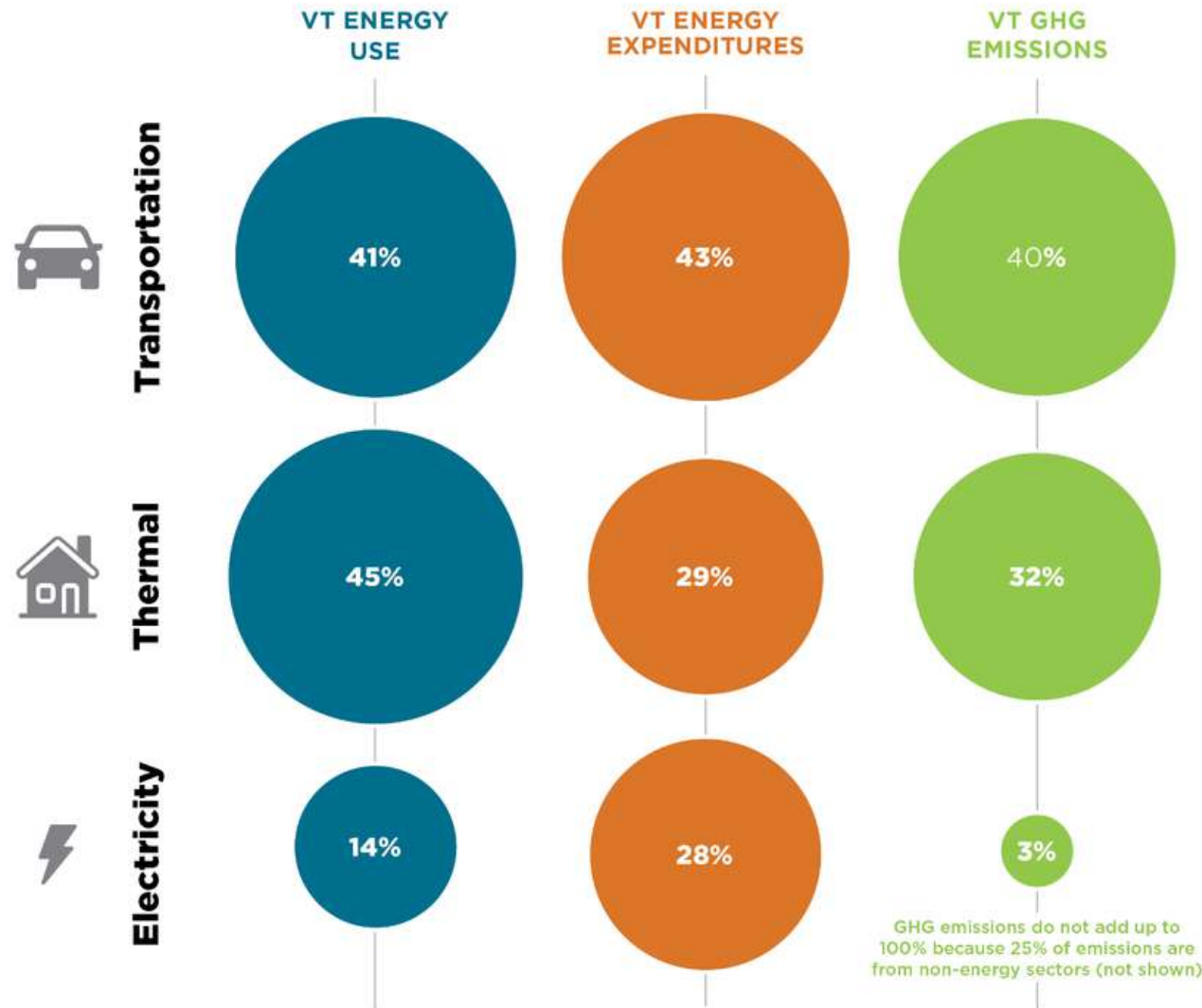


ENERGY ACTION NETWORK

Energy Use, Expenditures, and GHG

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Emissions



Sources: For 2023 energy use: Vermont Department of Taxes, 2025; EIA State Energy Data System, 2025; Vermont Department of Public Service, 2025. For 2023 energy expenditures: Vermont Department of Taxes; VGS; Vermont Department of Public Service; and EIA State Energy Data System, 2025. For 2022 GHG emissions: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. **Note:** This graph reflects the share of statewide total energy expenditures by sector. Previous versions of this graph showed only household energy expenditures by sector.

The Hidden Environmental Impacts of Driving

*“Electrifying the fleet will indeed bring numerous benefits, but simple changes to allow more people to live in places where they can drive less and take shorter trips will be vital for making up the difference. **With nearly half of all car trips just three miles or less, these VMT reductions could easily be met by switching more trips to other modes of travel such as walking, biking, or transit.**”*



AOT's Carbon Reduction Strategy



Transportation Carbon Reduction Strategy

Completed in November 2023 for the Agency of Transportation, the Carbon Reduction Strategy provides direction for spending certain federal funds to reduce transportation sector emissions.

While federal funding is insufficient to implement all elements, the Strategy will be used to shape the Capital Program for Vermont's transportation infrastructure and inform other policies.

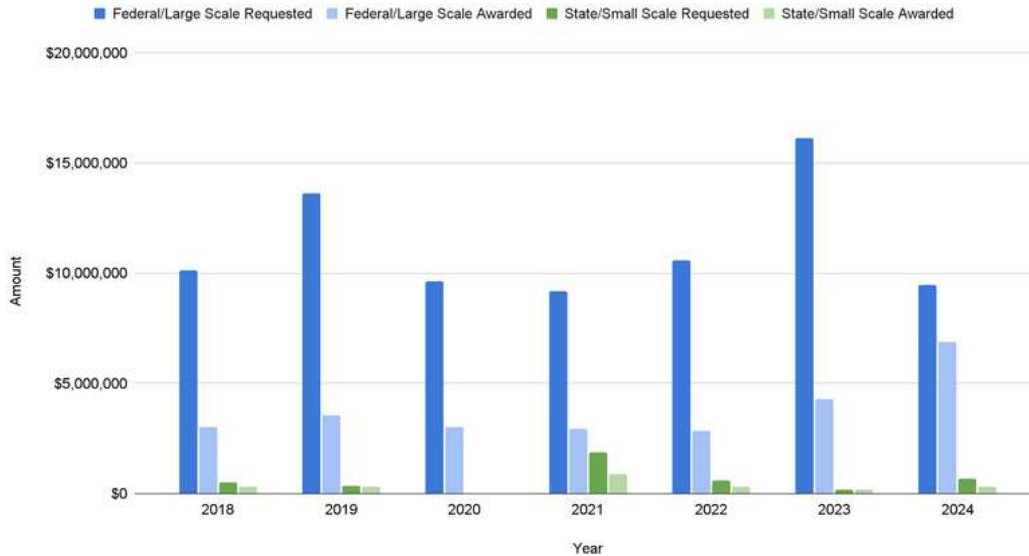
Carbon Reduction Program Funding Priorities for State-Directed Funds

Project Type		Examples	Implementation to Date
	Bicycle & Pedestrian Projects	Shared-use paths, bike lanes, and sidewalks	\$4.0 million
	Mobility & Transportation Innovation	Microtransit, shuttles, carshare	\$3.0 million
	Fleet Conversion	Public transit and fleet electrification	\$5.4 million
	Agency of Transportation	Light-and heavy-duty equipment electrification and charging infrastructure	\$1.1 million

AOT and FHWA are not meeting the demand...



Bike and Pedestrian Grant Requests to Awards Comparison



Percentages			
State Fiscal Year	Large Scale % Funded		Small Scale % Funded
2018	29.64%		56.71%
2019	26.21%		87.21%
2020	31.11%		Not offered.
2021	32.07%		46.44%
2022	26.80%		50.17%
2023	26.48%		95.02%
2024	72.58%		48.21%
Average	28.72%		67.11%

Pathways

1. Electrify cars
2. Electrify trucks
3. **Drive less**
4. Lower carbon intensity of fuels

Emissions continue to grow higher

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and higher...



State
Smart Transportation
Initiative

Innovative DOT ▾

Work with Us ▾

Resources ▾

Blog

About Us ▾

Despite efficiency gains, rising travel demand pushes emissions higher

Posted on October 7, 2025

Emissions continue to grow higher



and higher...

*These gains have not been sufficient to offset the growing demand for transport. Historical energy transitions in the transport sector have consistently resulted in increased final energy consumption, regardless of improvements in final-to-useful efficiency.... For future policies to succeed in reducing CO2 emissions, either technological improvements should increase drastically to match the demand growth, or **policies should start prioritizing demand-side factors, namely in reducing individual transport demand.***

How do we drive less?



We can do this by:

- Getting onerous government regulations out of the way of providing more homes where people naturally drive less;
- Making safety the top priority for street design to encourage more short trips;
- Instituting GHG reduction and less driving as goals of the transportation system;
- Investing heavily in other options for getting around; and
- Prioritizing access to destinations.



Sprawling development requires drivers to take more trips—and longer trips.

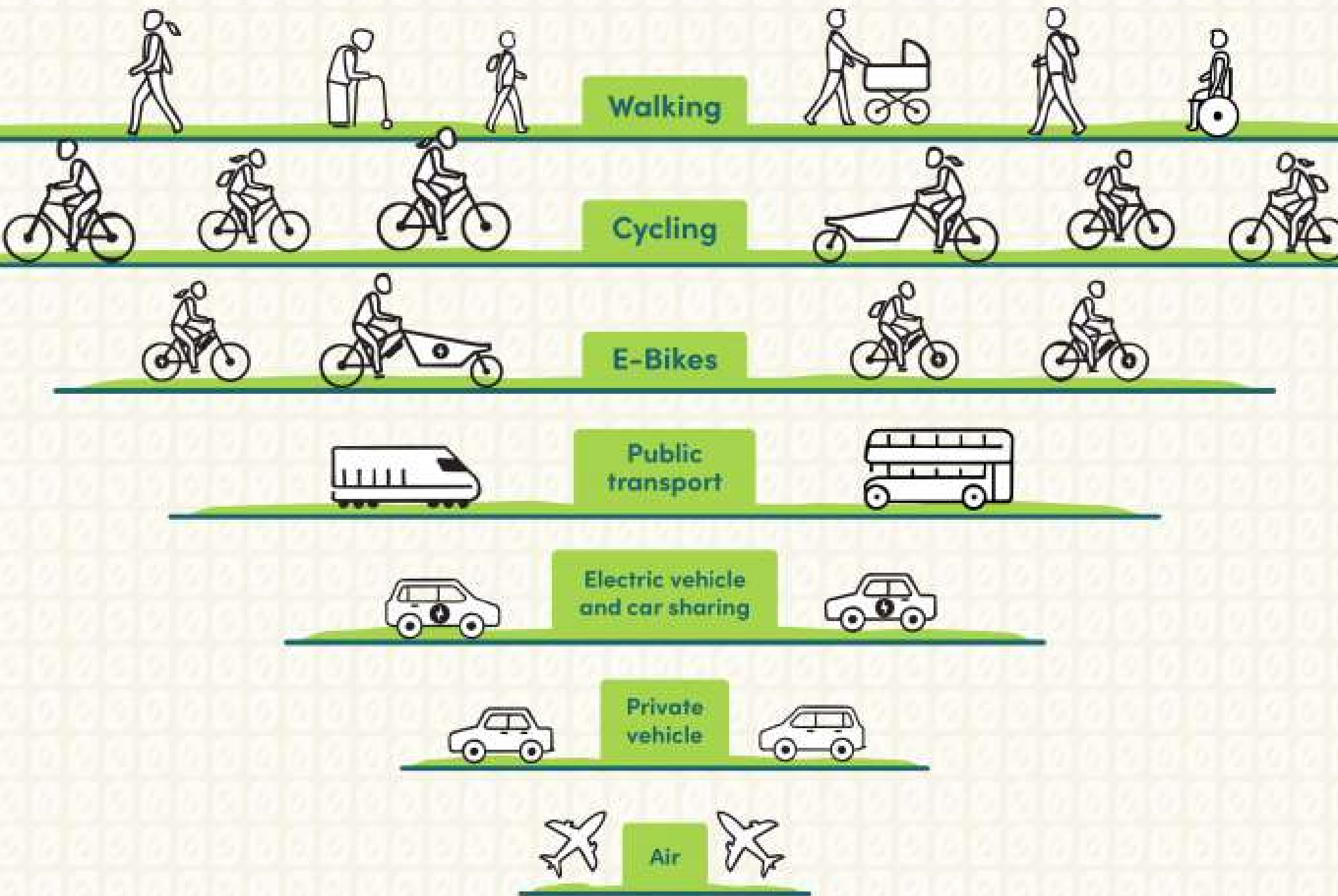
Like Jane, every day Jeremy drops his daughter off at school, drives to work downtown, and picks up groceries on the way home. Walking, biking, rolling, and transit are not safe or realistic options.





Clustered development allows drivers to take fewer, shorter trips

Every day Jane drops her granddaughter off at daycare, drives to work, and picks up groceries on the way home. Walking, biking, rolling, or transit are usually safe and convenient options.



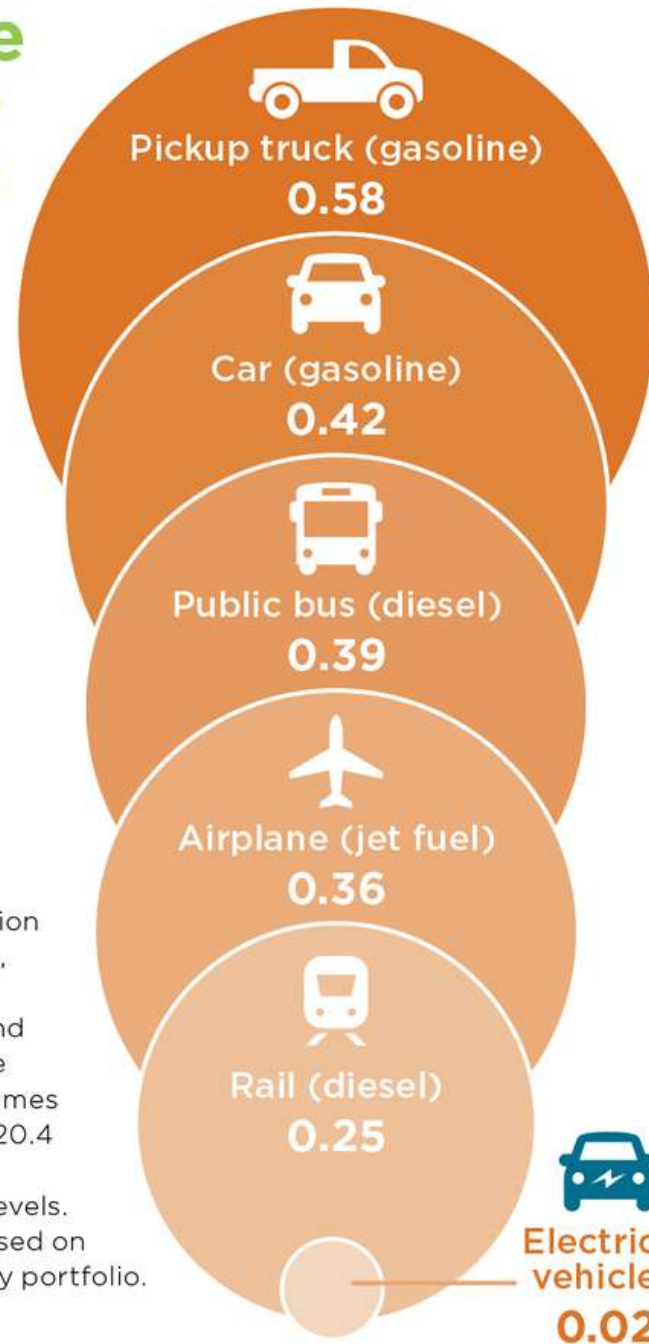
Pounds of CO₂e per passenger-mile by vehicle type (fuel emissions only)



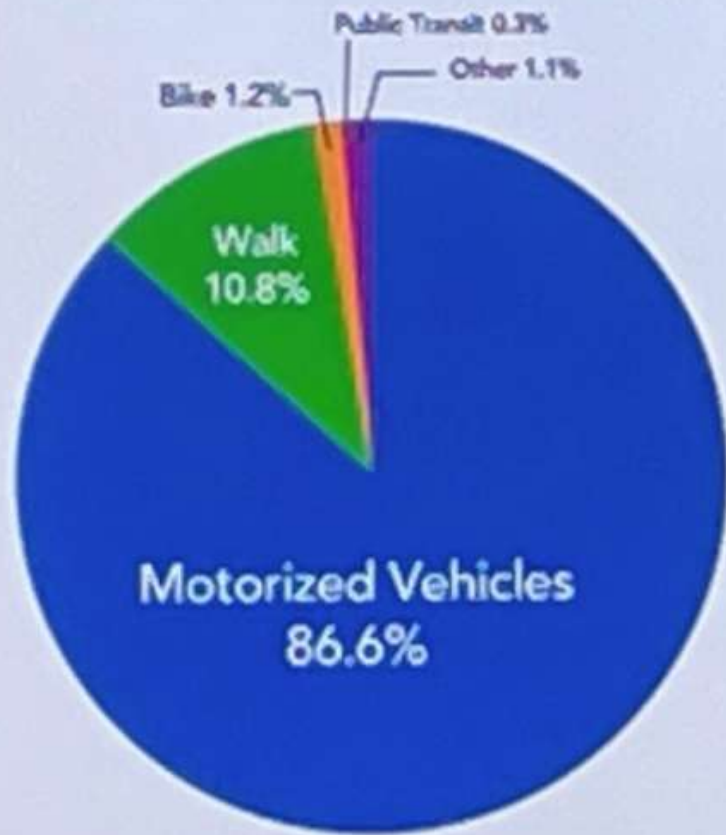
Sources: U.S. Department of Energy, "Transportation Energy Data Book: Edition 40," 2022; Congressional Budget Office, 2022. Fuel emissions factors from EIA. Estimates for pickup trucks, gas cars, and EVs calculated using VT average vehicle occupancy of 1.58. Estimate for rail assumes 23.2 passengers, for airplane assumes 120.4 passengers. **Notes:** Emissions can vary significantly depending on occupancy levels. Electric vehicle emissions calculated based on the emissions intensity of VT's electricity portfolio.



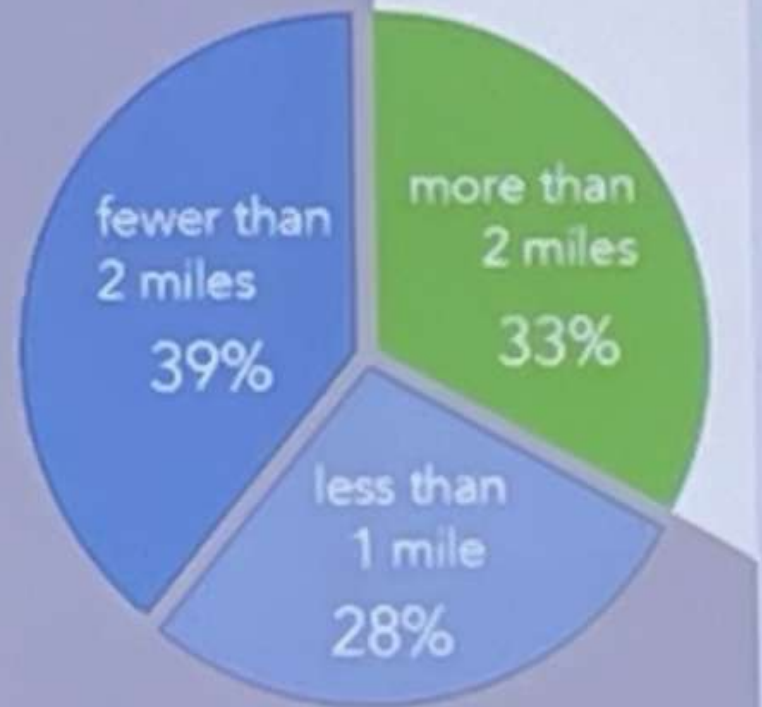
ENERGY ACTION NETWORK



The potential ...



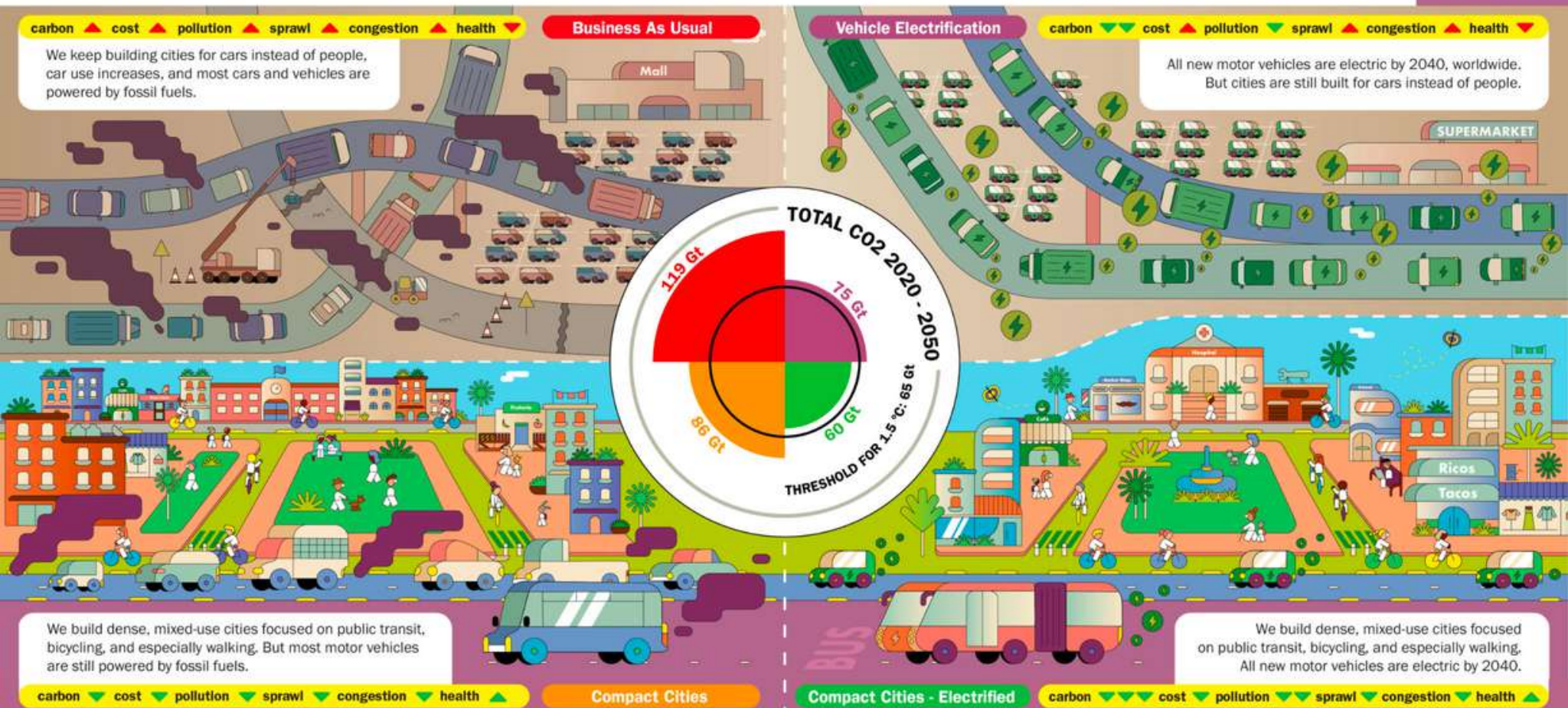
Trips Under 2 miles



The Compact City Scenario Electrified

The Only Way to 1.5°C

As we recover from COVID-19, we must choose how our cities will grow. Recent research studied four possible scenarios for the future. Only one scenario is consistent with limiting global warming to less than 1.5°C and avoiding the worst effects of climate change.

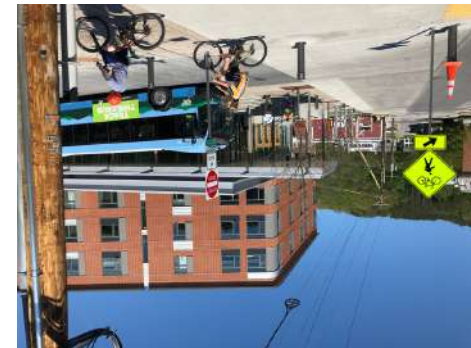




Montpelier, Vermont
population: 8,074

**A small, vibrant, capital
city that has endured
for over 200 years and
remains vibrant and
walkable.**

This is my life....in a rural and walkable community



**What if our greatest
transportation solution isn't a
technology... but a shift **in how
we live, move, and connect?****





Statewide Planning Goal #1

To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.



rutlanddowntown.com

Investing in Place



Bristol, VT

photo credit: NPS National Register of Historic Places Nomination

Place-based, People-focused Development



Bristol, VT





BRISTOL  CORE

Town Green Playground - Bristol, VT



Bristol, Vermont
population: 3,782

There's no better marketing,
tourism draw, or talent
recruitment strategy than
investing in vibrant places
where people want to live,
work, and visit.



Bristol, VT



Bristol, Vermont

population: 3,782

Smart growth is climate
action. Compact, connected
communities reduce emissions
and create the vibrant, low-
carbon Vermont we all want
to live in and love to call
home.

Bristol, VT

An aerial photograph of a bustling street festival in Bristol, Vermont. The street is filled with a large crowd of people, many of whom are walking or standing near several large, colorful tents (white, yellow, blue, and red) that are set up along the sidewalks. The buildings lining the street are multi-story, historic-style structures with various facades, including brick and painted wood. A sign on one of the buildings reads "MUSIC FOOD WINE BREWS". In the background, a dense, green forested hill rises behind the town. The sky is overcast with grey clouds.

Bristol, Vermont
population: 3,782

It's the right
thing to do!

Bristol, VT

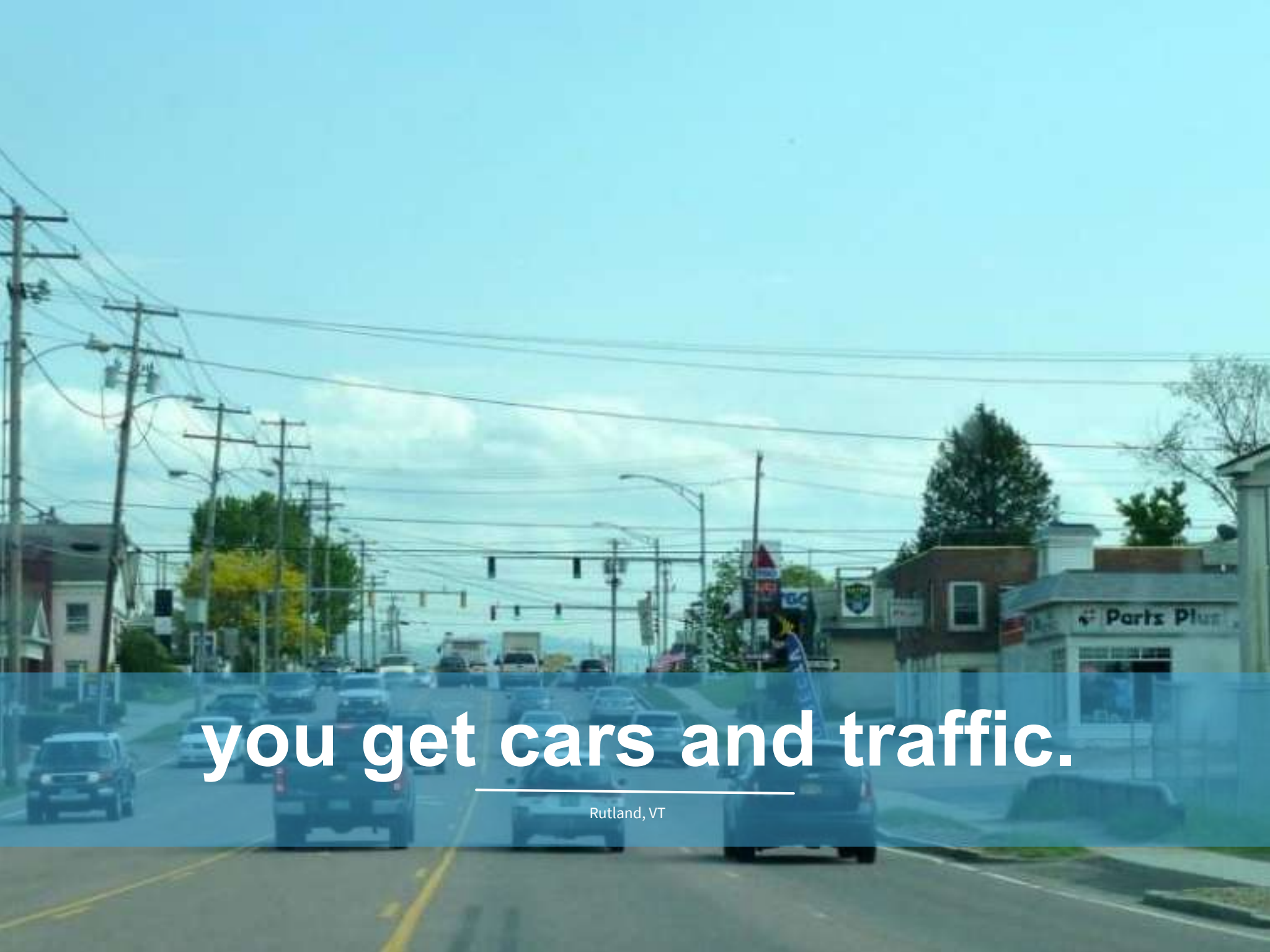


Social Resilience

Streets as Places



If you design streets and places
for cars, **what do you get?**

A wide-angle photograph of a busy multi-lane street in Rutland, Vermont. The street is filled with cars in both directions. On the right side, there's a 'Parts Plus' store and other commercial buildings. On the left, there are utility poles with many power lines. The sky is blue with some clouds. A semi-transparent blue banner is overlaid across the middle of the image, containing white text.

you get cars and traffic.

Rutland, VT

If you design streets and places
for people, **what do you get?**



you get **people** and **places.**

Montpelier, VT

“I truly believe
that if you can
**change the
street,** you can
change the
world.”

.....
Janette Sadik-Khan, Commissioner of the New York City



Credit: VPR



Ann Markusen



Where you can dance, share the love, and reduce the emissions!



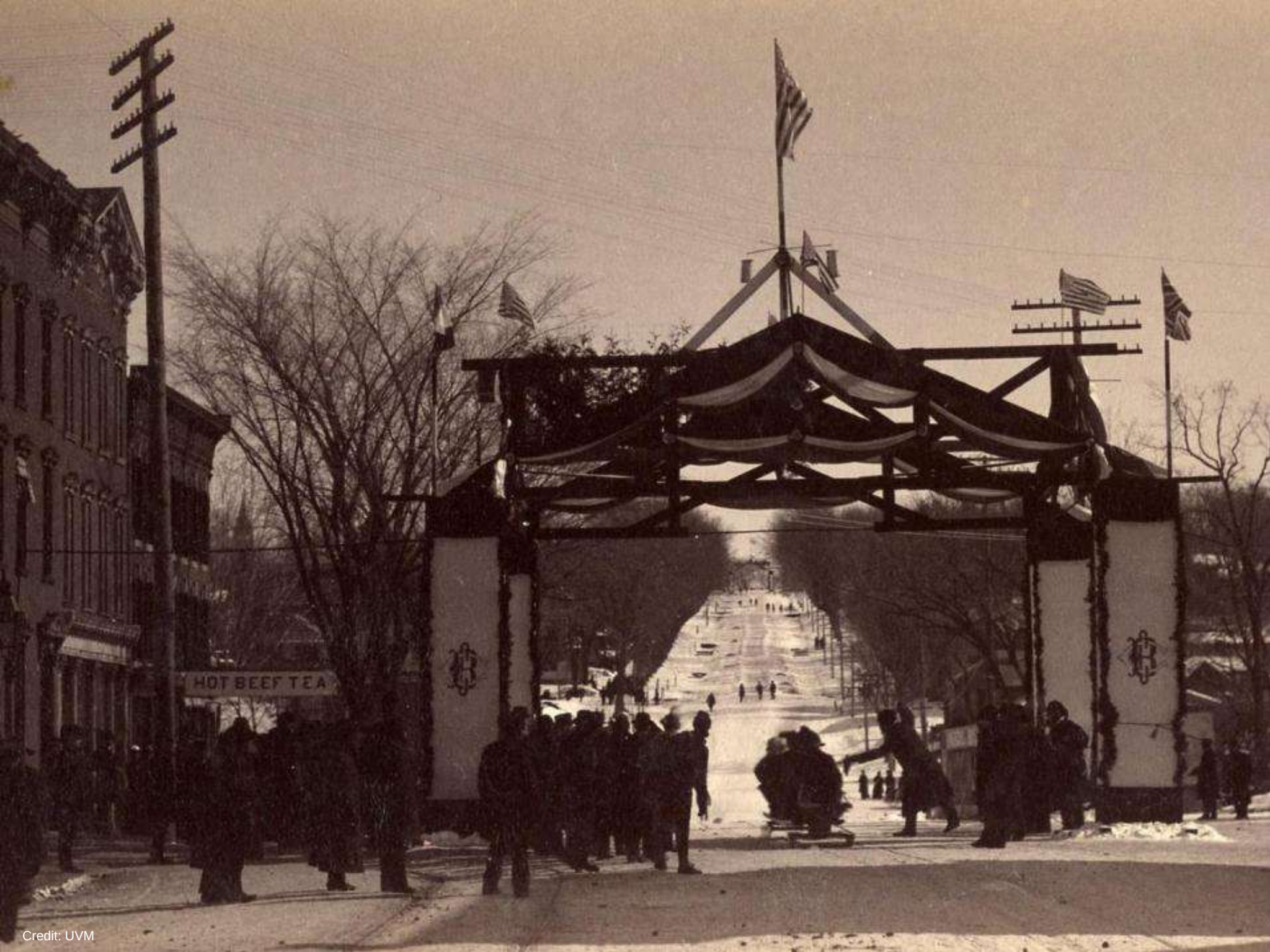




Photo Credit: Bill Truex

<#> Church Street in Burlington, Vermont in 1979. . .



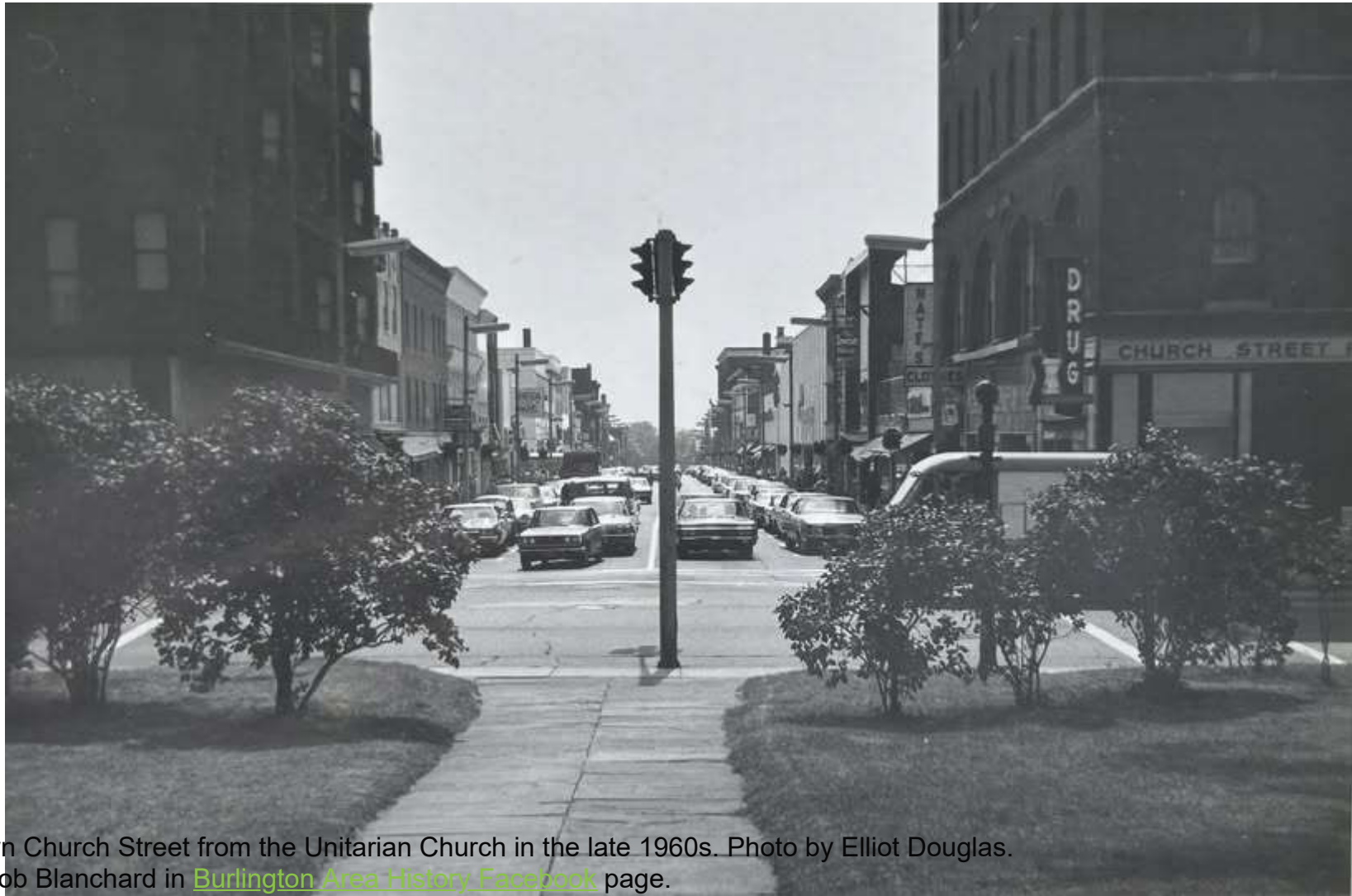
KEN'S
PIZZA
AND PUB

KEN'S
PIZZA
AND
PUB

• Famous Since 1973 •

PIZZA BY
THE SLICE

Soup - Salad - Sandwiches
Pub Fare - Appetizers
Italian Dinners
Full Bar & Craft Beers



Looking down Church Street from the Unitarian Church in the late 1960s. Photo by Elliot Douglas.
Shared by Bob Blanchard in [Burlington Area History Facebook](#) page.



Exploring a Vision | Streetscape Improvements





OUR TOWNS

Green Mountain Meetups: Vermonters Break Bread, Dance and Forge Communities in ‘Third Spaces’

By **RACHEL HELLMAN**



Published June 28, 2023 at 10:00 a.m. | Updated July 5, 2023 at 11:33 a.m.





Credit: Google Maps



**the best trip is the trip not
taken: every step, every
bike ride, every choice to
walk is a vote for a lower-
carbon, connected, and
thriving community.**

Let's Build our Future – Show Me The Money



VTrans Bike/Ped
Grants

VTrans
Transportation
Alternative Grants

Downtown
Transportation Fund
– ACCD/VTrans

Better Connections
VTrans/ACCD

Vermont Community
Development
Program (CDBG)

Caring for
Canopy Grants
ANR – FP&R

EVSE grants –
ACCD/VTrans

Municipal Planning
Grants - ACCD



The Power of E-bikes and Everyday



Mobility



<#>

Streets as P

<https://www.vbikesolutions.org/families--households.html>

can take you farther and faster than a conventional bike, while still providing exercise. Now offering incentives to help offset the cost.



VBikeSolutions.org

VBike Solutions Free Consultation



KE REBATE

LOCALLY FOR AN INSTANT REBATE

rent Burlington resident (or purchasing on behalf of a Burlington business), bring your ID along with a piece of mail w address to receive up to \$600 in a point-of-sale rebate on an e-bike. The rebate may be redeemed at a participating d customers may receive up to an additional \$250.



Electric Bike Rebate

Looking to clean up your daily commute? GMP customers can save \$200 when you buy a new ebike for your commute!



Photo credit: Northfield Energy Committee



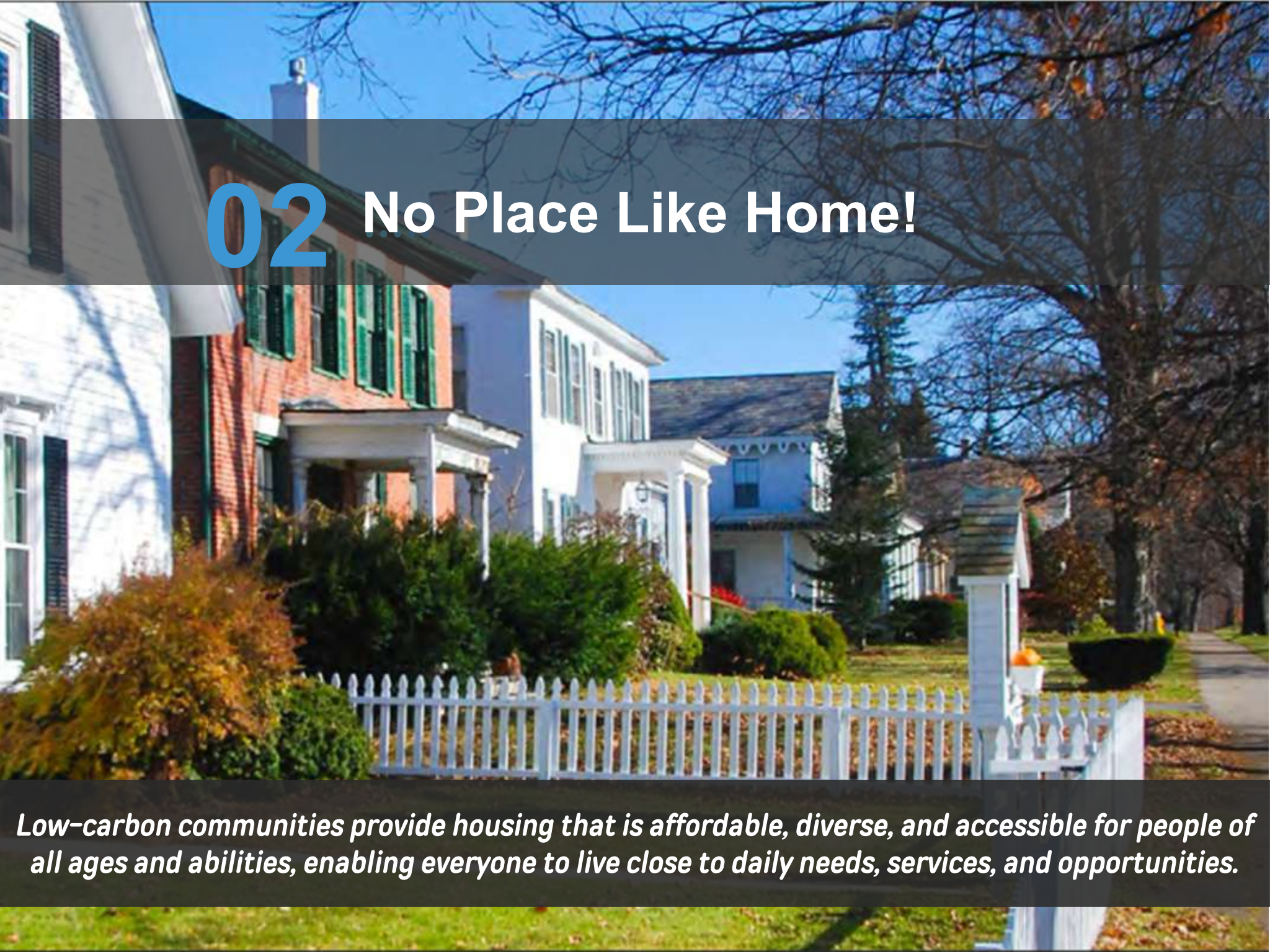
7 Ways to Create Resilient, Connected, and Low Carbon Communities



01 Walkable, Bikeable and Accessible!



In low carbon and resilient communities, places are walkable and accessible to all, and include sidewalks, bike paths, parks, and green spaces near housing and businesses.

A photograph of a suburban neighborhood featuring a row of houses. In the foreground, a white picket fence runs across the frame. Behind the fence, there are several houses: a white house on the left, a red brick house with green shutters in the middle, and a white house with a porch on the right. The houses are surrounded by green lawns and some autumn-colored bushes. Bare trees are visible in the background under a clear blue sky.

02 No Place Like Home!

Low-carbon communities provide housing that is affordable, diverse, and accessible for people of all ages and abilities, enabling everyone to live close to daily needs, services, and opportunities.



03

Mix of Local Shops, Services, and Community Anchors

Low-carbon communities are vibrant places where life unfolds close to home—local shops, cafes, parks, and essential services all connected by safe, walkable streets. These compact, mixed-use places reduce emissions, build connection, and make everyday living more joyful and sustainable.

04 Create and Activate Gathering Spaces!



Accessible parks and third places are vital infrastructure for low-carbon living. They support social connection, reduce travel demand, and strengthen the civic and emotional fabric of our communities—key ingredients of a truly sustainable future.

05 Transit, electrification, and EVs



Investing in transit, electrification, and EVs plays an essential role in building a low-carbon future but these solutions work best when paired with communities designed for people. To truly reduce emissions, we need places where walking, biking, and transit are easy, everyday choices.

06 Know When to Get out of the Way!

COMMUNITY-LED DEMONSTRATION PROJECT POLICY + GUIDE

City of Burlington, VT | April 2016



Make it easy and get out of the way for local folks to create resilient and low carbon communities. This one's for you local and state governments!

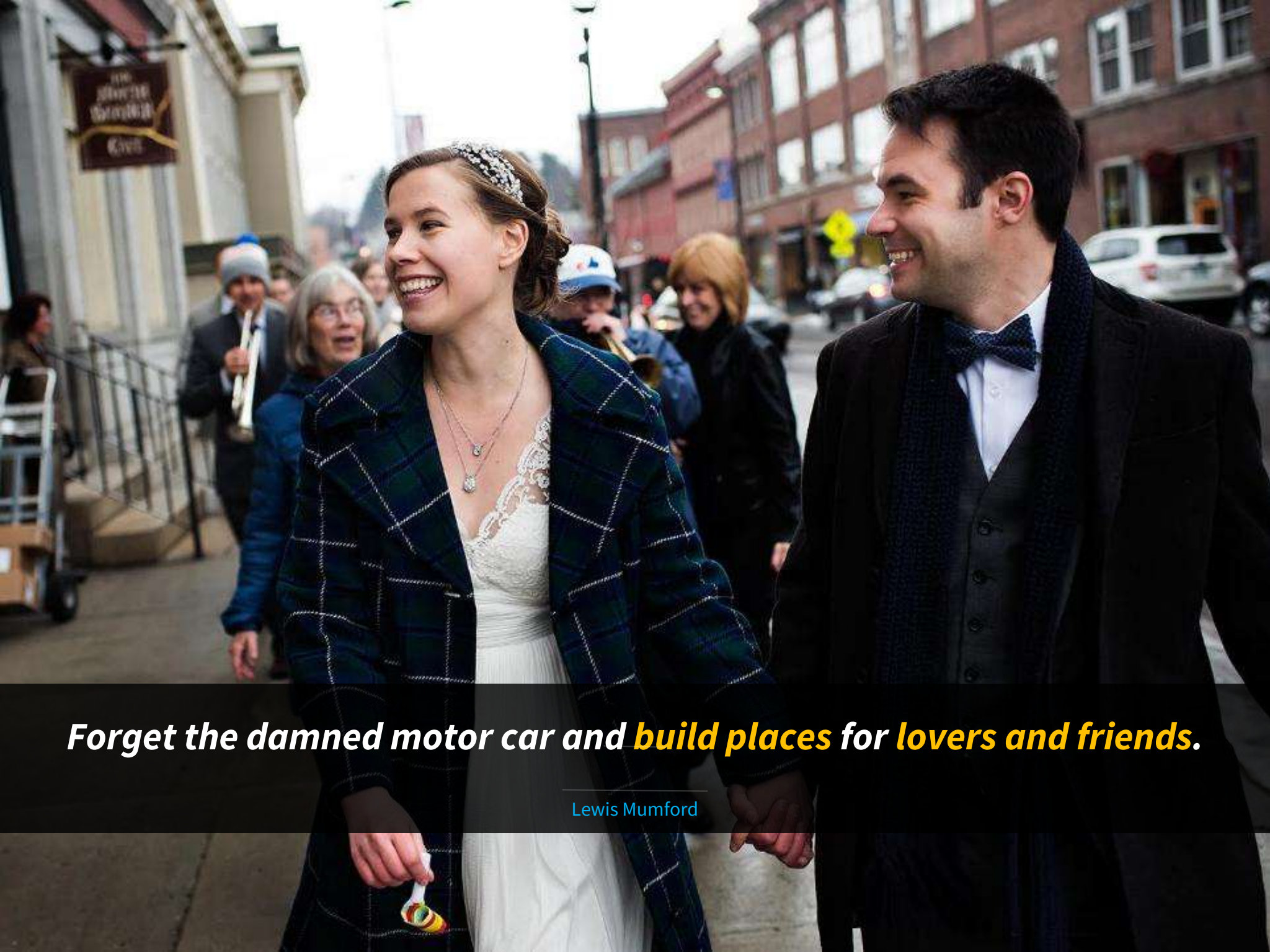
A photograph of a community painting project on a street. In the foreground, a woman in a white t-shirt and light blue jeans is painting a yellow stripe on the pavement. A can of paint sits on the ground next to her. In the background, other people are also painting, and a white pickup truck is parked on the street. The scene is outdoors with trees and buildings in the background.

07 Inspire and Empower

Building a vibrant, low-carbon community is as much about changing hearts and minds as it is about changing streets and buildings

A vibrant street scene during a parade. In the foreground, a black and yellow cargo bike with a child inside is moving along the street. To the right, a crowd of people, including children and adults, are watching the parade. Some are sitting on the curb, while others are standing. A large American flag is flying from a pole on the right side of the street. The background shows brick buildings and a clear blue sky with some clouds. A large, semi-transparent red heart is overlaid in the center of the image, containing the text.

*The places we live
determine our wealth,
health and happiness
more than
anything else.*



*Forget the damned motor car and **build places for lovers and friends.***

Lewis Mumford

Thank You.



Richard Amore

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