

Cut Carbon Emissions in Your City **Before It's Too Late**

Susan Engelking

Presentation to Community Technology and Telecommunications Commission City of Austin

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Author and Founding Director Institute for Community MicroMobility October 9, 2019

Please contact me at 512/413-7750 for a free copy of my book or to schedule a call to discusss this disruptive approach to mobility

By 2026

\$1 Billion Infrastructure

Cut 500,000 metric tons of carbon emissions

Compare Carbon Emissions

Neighborhood Electric Vehicle Conventional vehicle emits 4.6 metric tons of CO2/year, shrinking ice cover by 147 feet/year

> Institute for Community MicroMobility

Develop \$1 Billion LEAN Infrastructure by 2026

Cut Carbon Emissions by 500,000 Metric Tons in Austin / Central Texas

Disruptive Financial Scenario Conventional Bond Scenario

| Year | Value of Infrastructure | CO2 Cut (Metric Tons) | Value of infrastructure | CO2 Cut (Metric Tons) |
|------|----------------------------|--------------------------|----------------------------|--------------------------|
| 2020 | \$100 M | 11,500 | 0 | 0 |
| 2021 | \$200 M | 35,000 | 0 | 0 |
| 2022 | \$350 M | 80,000 | 0 | 0 |
| 2023 | \$500 M | 150,000 | 0 | 0 |
| 2024 | \$700 M | 240,000 | 0 | 0 |
| 2025 | \$900 M | 356,000 | 0 | 0 |
| 2026 | \$1 Billion | 506,000 | 0 | 0 |











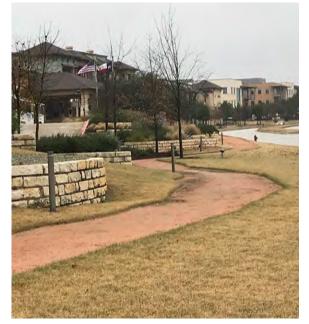


¹ Off road paths

- 2 Moveable barriers
- 3 Ordinary bollards
- 4 Retractable bollards
- 5 Planters
- 6 Small tunnels
- 7 Bridges
- 8 Existing bike/ped bridges, adapted
- 9 Metal guardrails
- 10 Barrier arms
- 11 Placemaking art, trees and more







Photos: Susan Engelking

1 Off road paths

² Moveable barriers

- 3 Ordinary bollards
- 4 Retractable bollards
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- 11 Placemaking art, trees and more







1 Off road paths

2 Moveable barriers

³ Ordinary bollards

4 Retractable bollards

5 Planters

6 Small tunnels

7 Bridges

10 Long aerial extensions

- 9 Metal guardrails
- 10 Barrier arms
- 11 Placemaking art, trees and more





Photos L to R: Susan Engelking

- 1 Off road paths
- 2 Moveable barriers
- 3 Ordinary Bollards

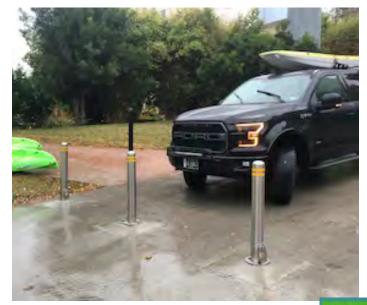
4 Retractable bollards

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Institute for Community MicroMobility

Photos: Susan Engelking

- 1 Off road paths
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⁵ Planters

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Photos L to R: Susan Engelking

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⁶ Small tunnels

- 8 Bridges
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7 <mark>Bridges</mark>

- 8 Existing bike/ped bridges, adapted
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Photos L to R: Susan Engelking, Polaris GEM







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Over Hwy 183 at Springdale F ਟ. Austin, TX





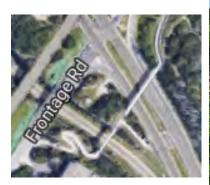
Photos: Susan Engelking

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Leverage \$16 million bicycle bridge over Loop 360 at MoPac, Austin, TX, to also accommodate NEVs and other low speed vehicles





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Over 1-45 South Houston on way to Galveston , TX









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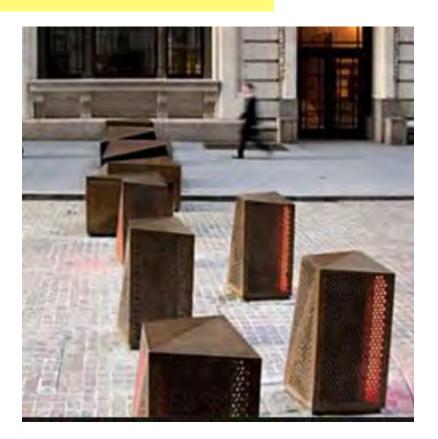
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Develop \$1 Billion LEAN Infrastructure by 2026

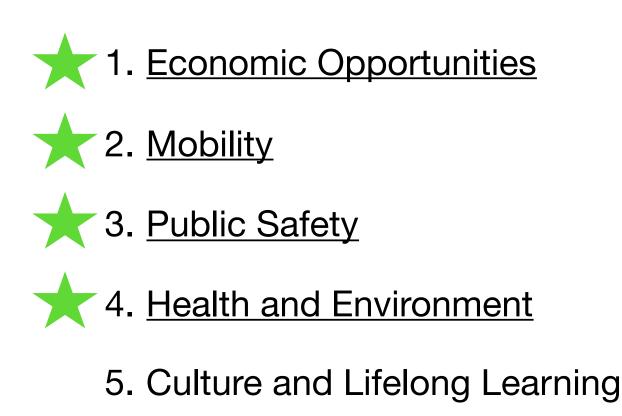
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- \$1.3 Billion infrastructure
- Leverage existing assets and investments
- Contain property taxes
- Cut CO2 emissions while enhancing mobility, public health, public safety, affordability, equity, access to opportunities, economic resilience
- Lost opportunities
- Property tax increase to pay for bond issue that's too little, too late

City of Austin Strategic Priorities



6. Government That Works for All



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Early Adopters & Innovators



We choose to go to the moon in this decade and do the other things **not because they are easy, but because they are hard**, because that goal will serve to organize and measure the **best of our energies and skills**, because that challenge is one that we are willing to accept, one we are **unwilling to postpone**, and one which we intend to win.

> John F. Kennedy Rice University September 12, 1962