How many cars outside your window do you think are stopping in your neighborhood?

It’s less than you think!

Neighborhood streets become highways

GRID LAYOUT

Due to the grid layout in most of the city, non-local commuters and trucks can use what would otherwise be quiet local neighborhood streets to avoid congestion.

APPS

Google Maps and Waze have exacerbated the problem.

THIS RESULTS IN CUT-THROUGH TRAFFIC!

What if a single approach can deliver all of these outcomes?

Exploring a Neighborhood Approach to Reduce Cut-Through Traffic

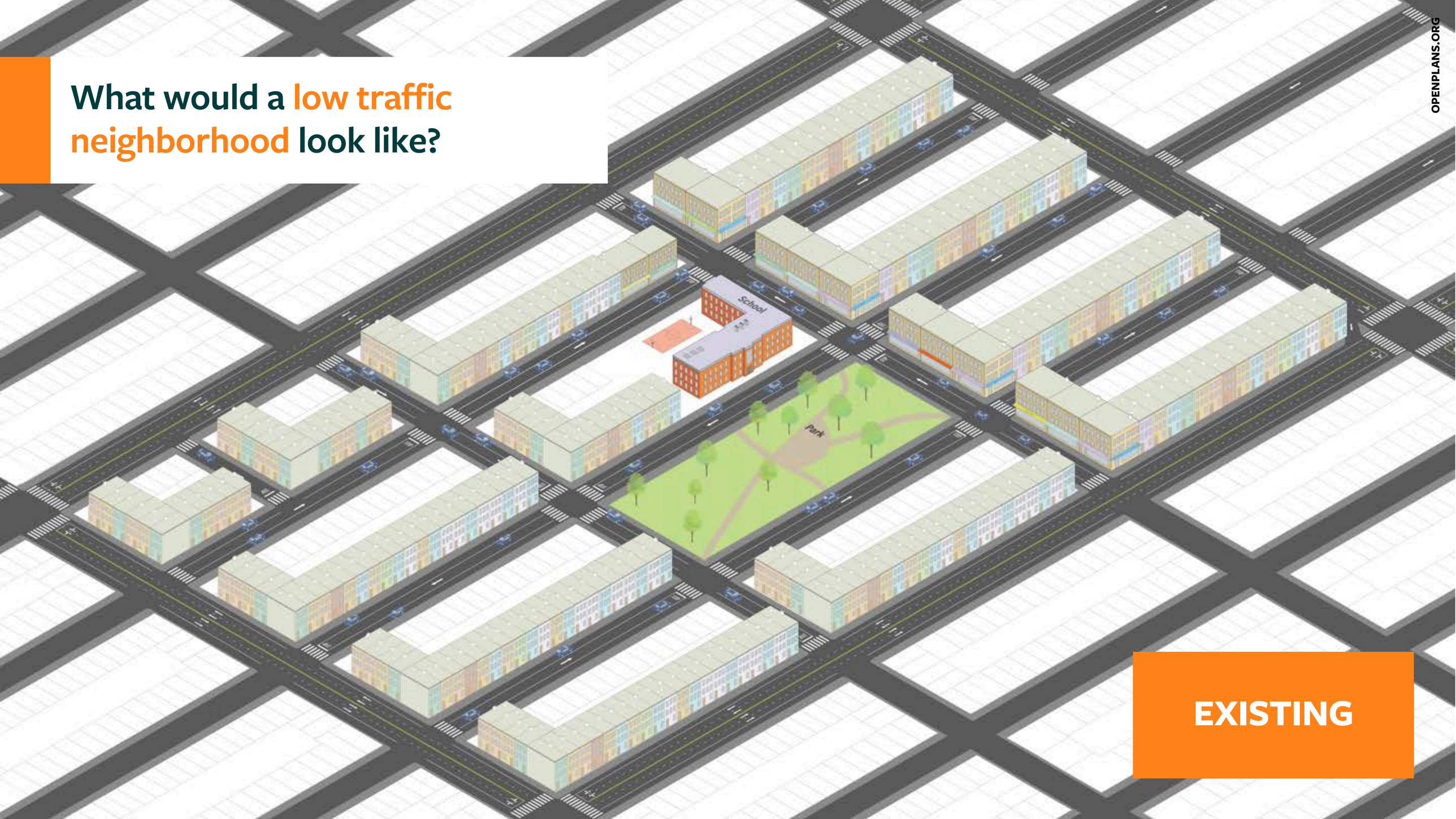
OpenPlans

What is a Low Traffic Neighborhood (LTN)?

A neighborhood approach to managing traffic in a way that redirects through-traffic away from residential areas. The primary aim is to **enhance safety for everyone who uses the street.**

LTNs promote walking, cycling, and socializing, creating a healthier, more welcoming environment for all.

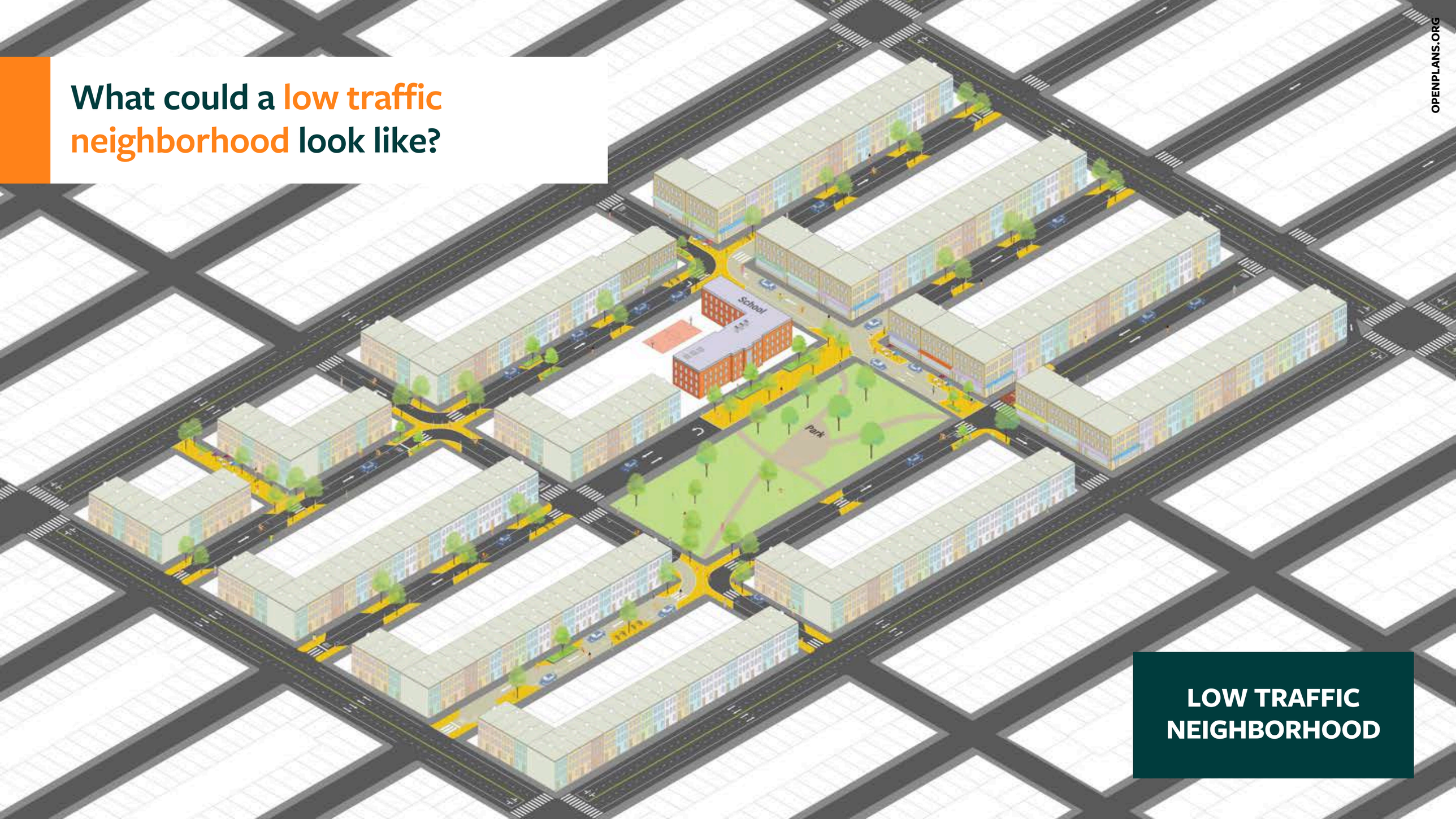
What would a low traffic neighborhood look like?



EXISTING

OPENPLANS.ORG

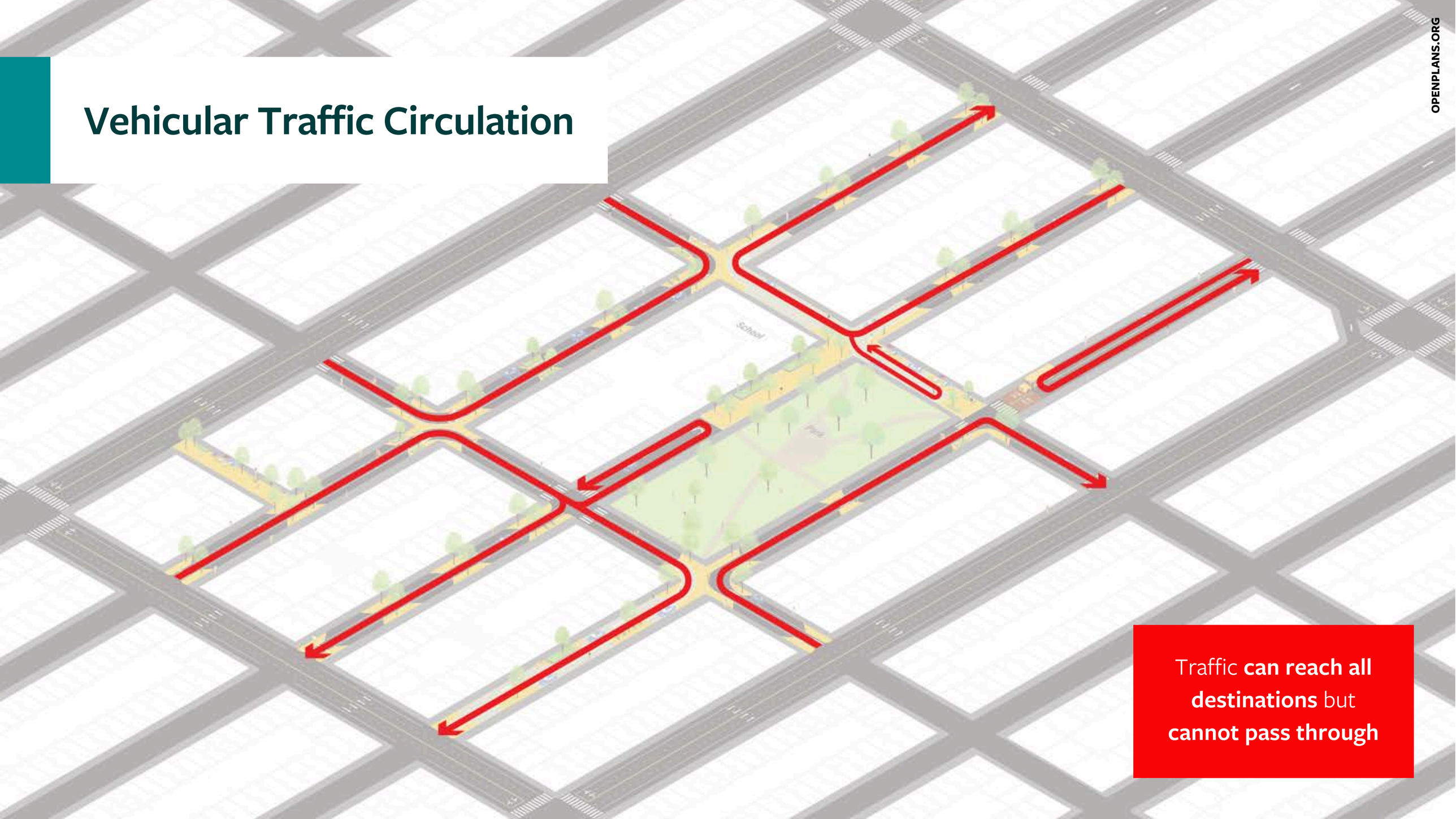
What could a low traffic neighborhood look like?



LOW TRAFFIC NEIGHBORHOOD

OPENPLANS.ORG

Vehicular Traffic Circulation



Traffic **can reach all destinations** but **cannot pass through**

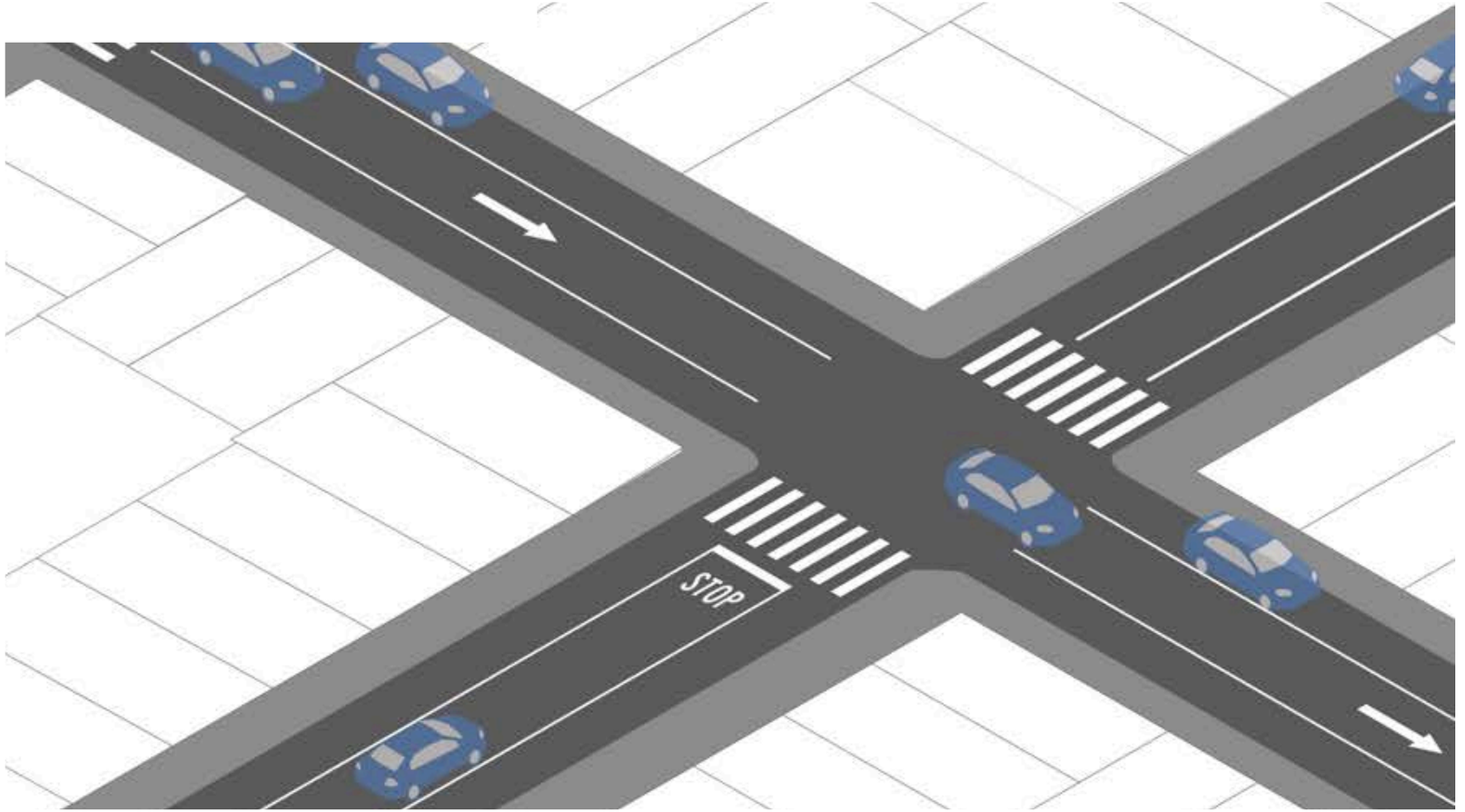
OPENPLANS.ORG

Bikes and Pedestrians

Bikes and pedestrians have **full access**

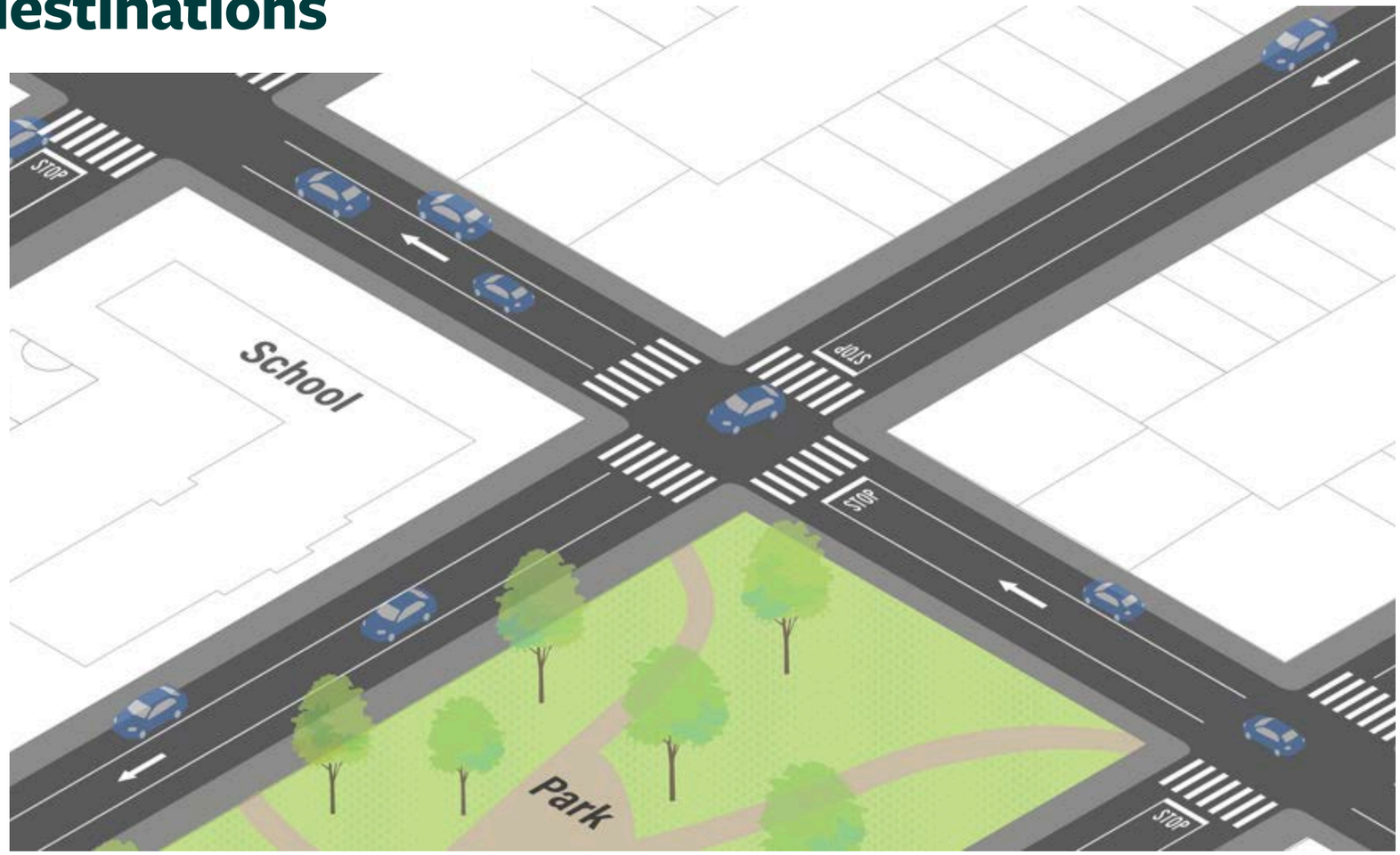
OPENPLANS.ORG

Diagonal diverters

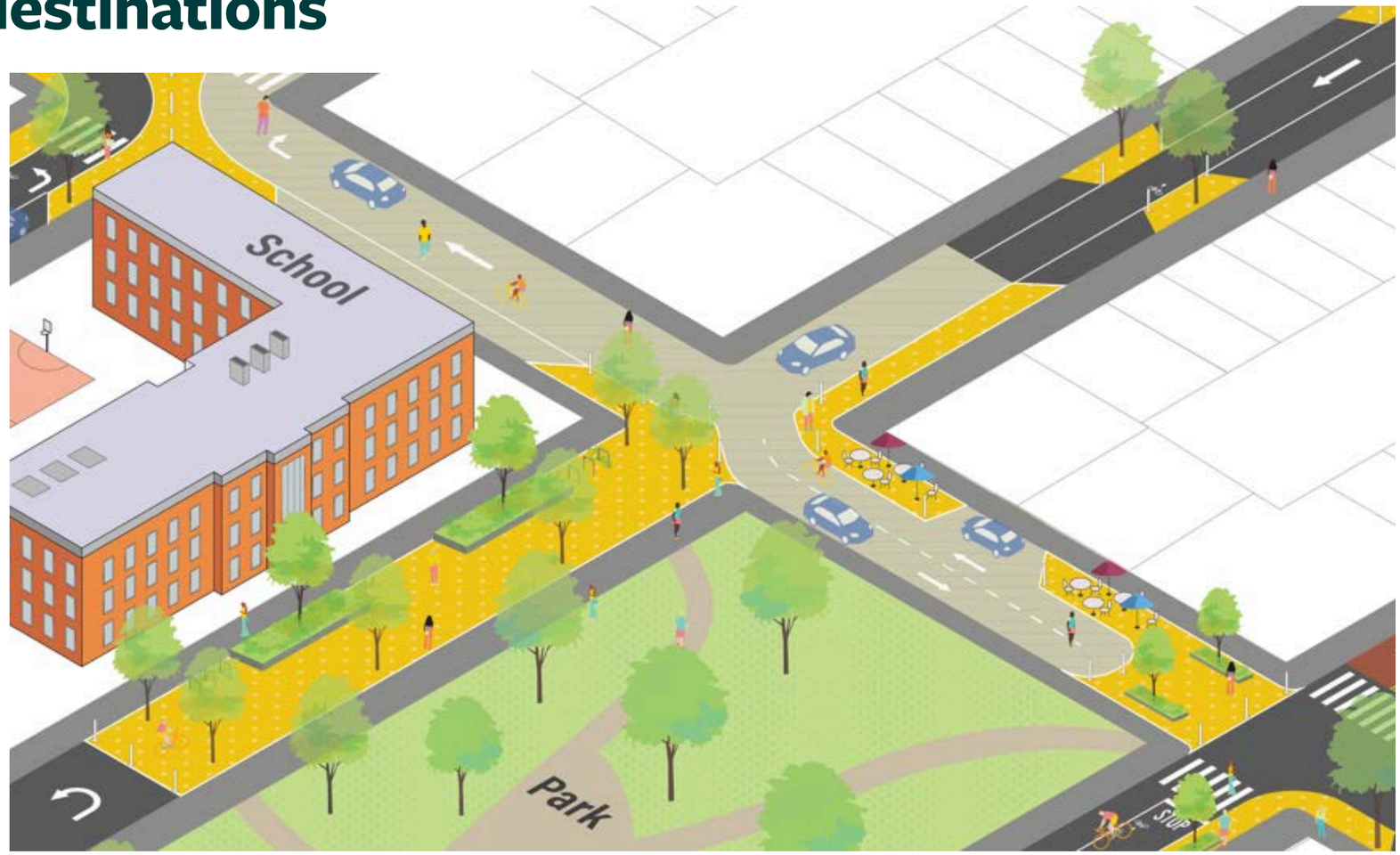


Diagonal diverters

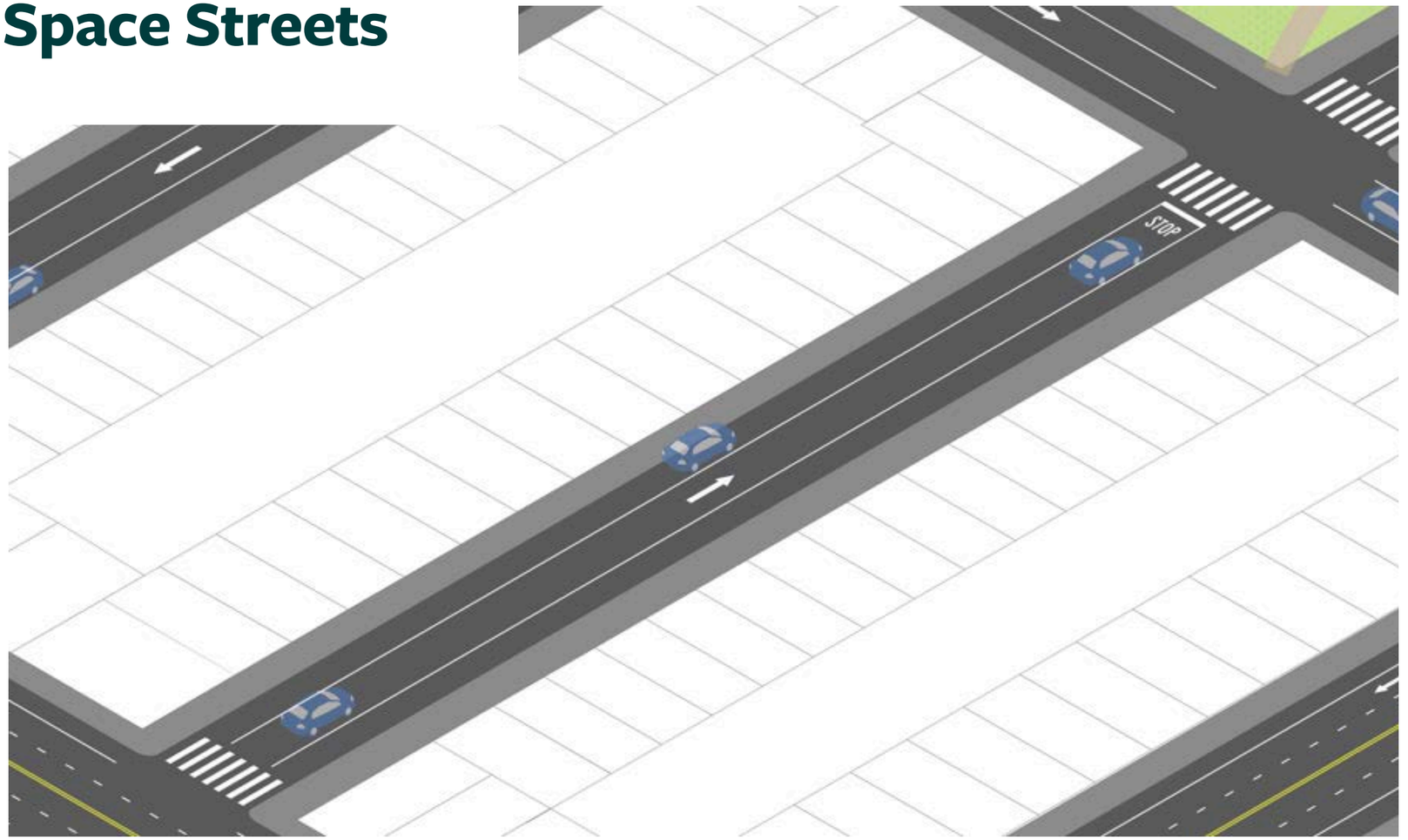
Plaza blocks near key destinations



Plaza blocks near key destinations



Shared Space Streets



Shared Space Streets

This neighborhood approach is gaining ground worldwide

Benefits for the neighborhood

01

Through driving is redirected as cars move to perimeter roads for necessary car trips.[2]

46.9%

reduction in traffic volume

Traffic on **boundary roads** stayed **largely consistent**, with a slight average decrease of

1.6%

02

They make streets safer, by **reducing crime**[3] and **slowing down cars**[4] in residential neighborhoods.

50%

reduction in car-related casualties

In LTNs, there is a **10-18% reduction in crime**

Benefits for the neighborhood

03

Air quality is improved with less emissions in the neighborhood.[4]

concentration of nitrogen dioxide fell

5.7% within LTNs

9% on boundary roads

04

Boosts active travel, leading to **health benefits** that include increased life expectancy, reduced mortality, and fewer sick days.[5]

25%

more active travel

- increases life expectancy by 200 days
- **In London:** prevented 37 deaths and half a million sick days annually

Benefits for the city

01

LTNs are self-enforcing and don't require programming or other daily maintenance (like moving barricades)

02

Extra space is allocated to the community: trees can be planted, public seating areas or playgrounds can be added

03

With lower traffic volumes and speeds, LTN streets **naturally integrate into the bike network without needing further investment** and separate infrastructure.

04

LTNs are **inexpensive to implement** and over time, saves the city a lot of money with the health benefits.

Benefits for the city

LTNs are self-enforcing and don't require programming or other daily maintenance (like moving barricades)

01

Extra space is allocated to the community: trees can be planted, public seating areas or playgrounds can be added

02

With lower traffic volumes and speeds, LTN streets **naturally integrate into the bike network without needing further investment** and separate infrastructure.

03

LTNs are **inexpensive to implement** and over time, saves the city a lot of money with the health benefits.

BARCELONA, SPAIN

Benefits for the city

LTNs are self-enforcing and don't require programming or other daily maintenance (like moving barricades)

Extra space is allocated to the community: trees can be planted, public seating areas or playgrounds can be added

With lower traffic volumes and speeds, LTN streets **naturally integrate into the bike network without needing further investment** and separate infrastructure.

03

LTNs are **inexpensive to implement** and over time, saves the city a lot of money with the health benefits.[6]

LONDON, UNITED KINGDOM

Benefits for the city

LTNs are self-enforcing and don't require programming or other daily maintenance (like moving barricades)

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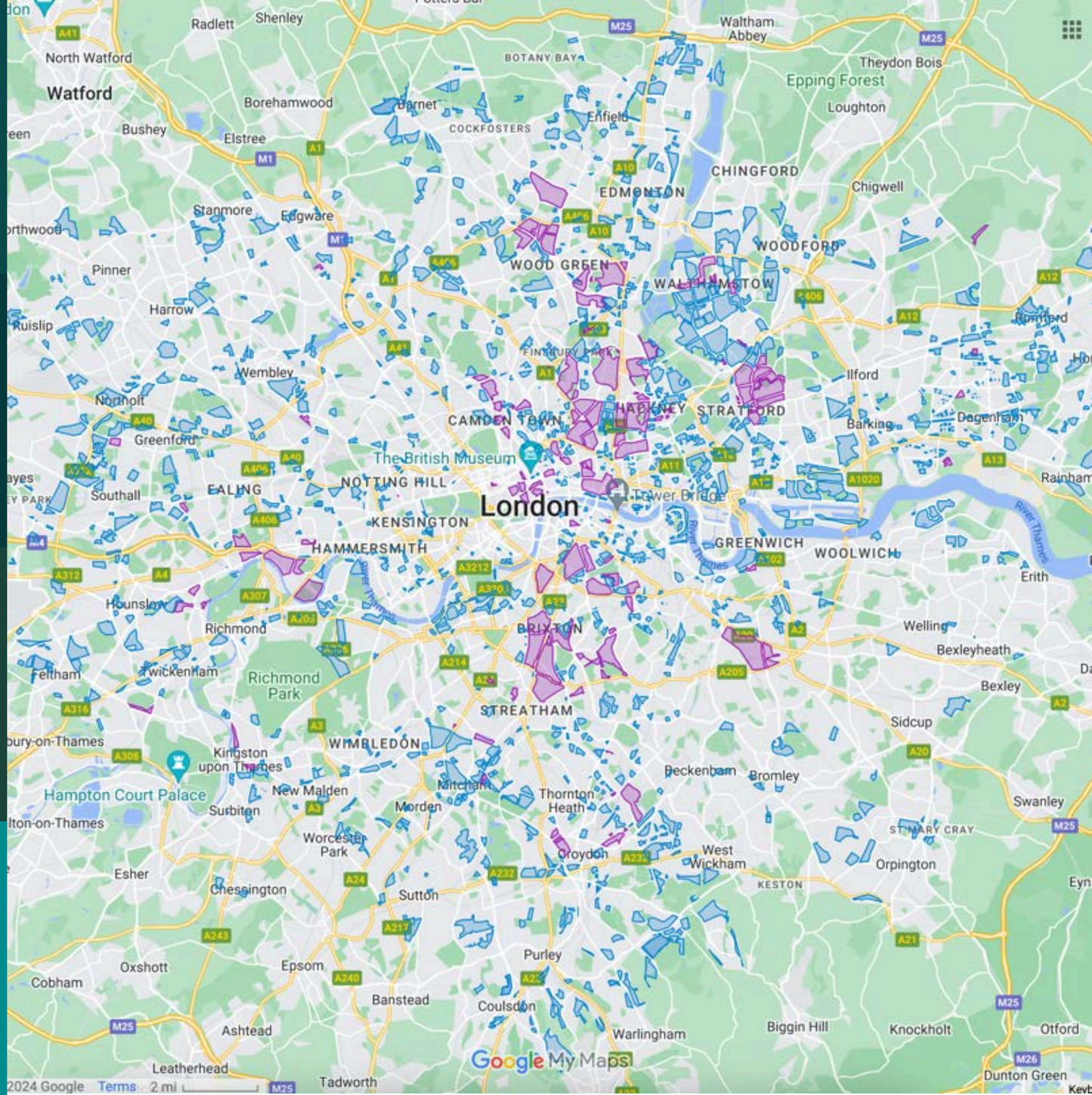


04

What LTNs are NOT

LTNs are NOT pedestrianization

Unlike Open Streets, LTNs are self-enforcing and don't require programming or other daily maintenance (like moving barricades).

Do not require removing parking

Do not prohibit vehicle access

Do not reduce emergency response times

What LTNs are NOT

Not pedestrianization

LTNs do NOT require removing parking

Additional improvements can be made by removing parking, but an LTN can be created without removing any parking.

Do not prohibit vehicle access

Do not reduce emergency response times

What LTNs are NOT

Not pedestrianization

Do not require removing parking

LTNs do NOT prohibit vehicle access

LTNs maintain full access for all essential vehicles including emergency services, garbage trucks, deliveries, and local traffic

Do not reduce emergency response times

What LTNs are NOT

Not pedestrianization

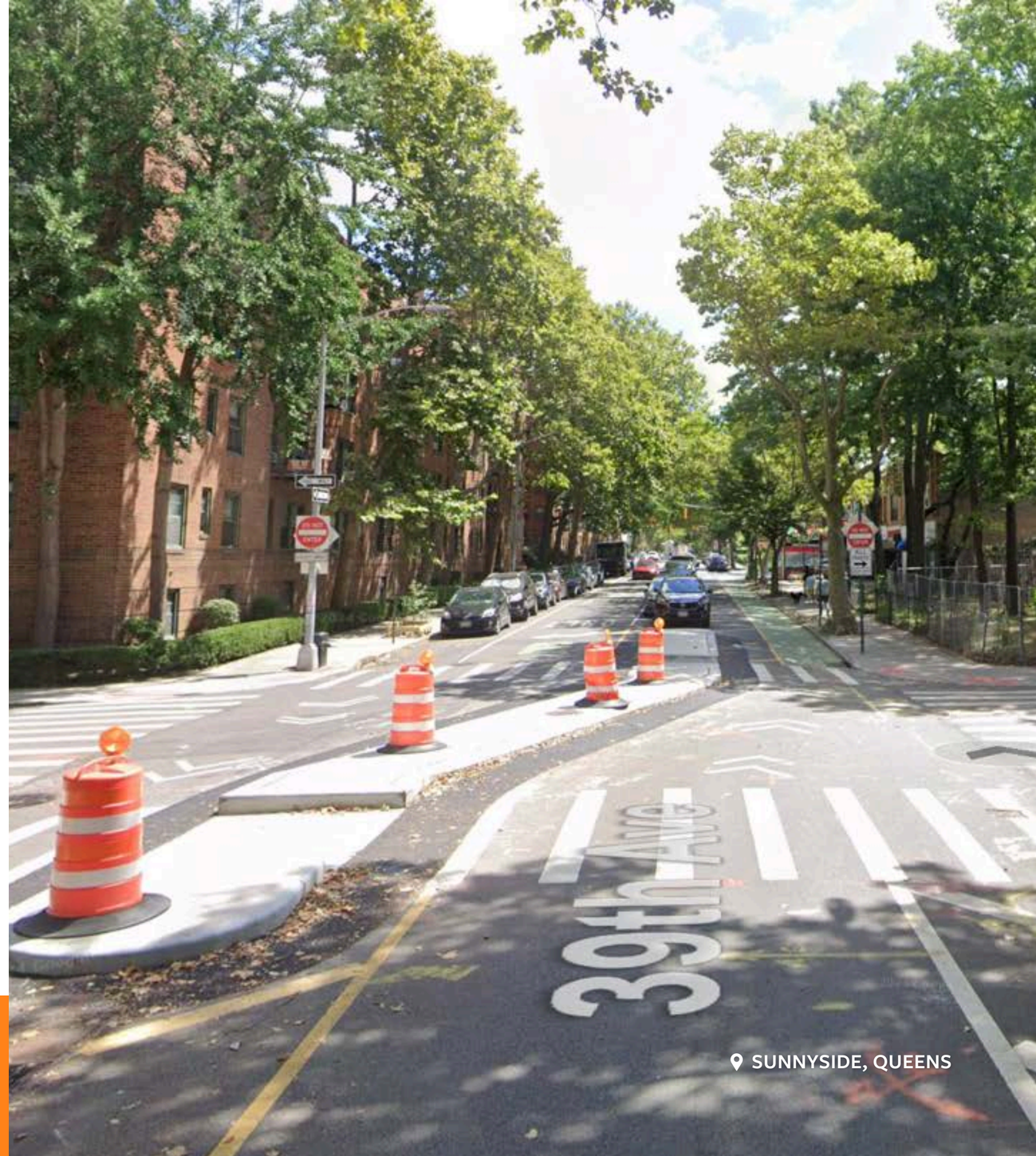
Do not require removing parking

Do not prohibit vehicle access

LTNs do NOT reduce emergency response times

According to several studies in London, because LTN's reduce traffic, emergency vehicles are able to more easily access their destination without the obstruction of obstacles like double parked vehicles or congestion.

What about New York City?



SUNNYSIDE, QUEENS

NYC already applies these elements successfully in various neighborhoods

NYC's current toolbox includes...

1 Pedestrian Friendly Spaces

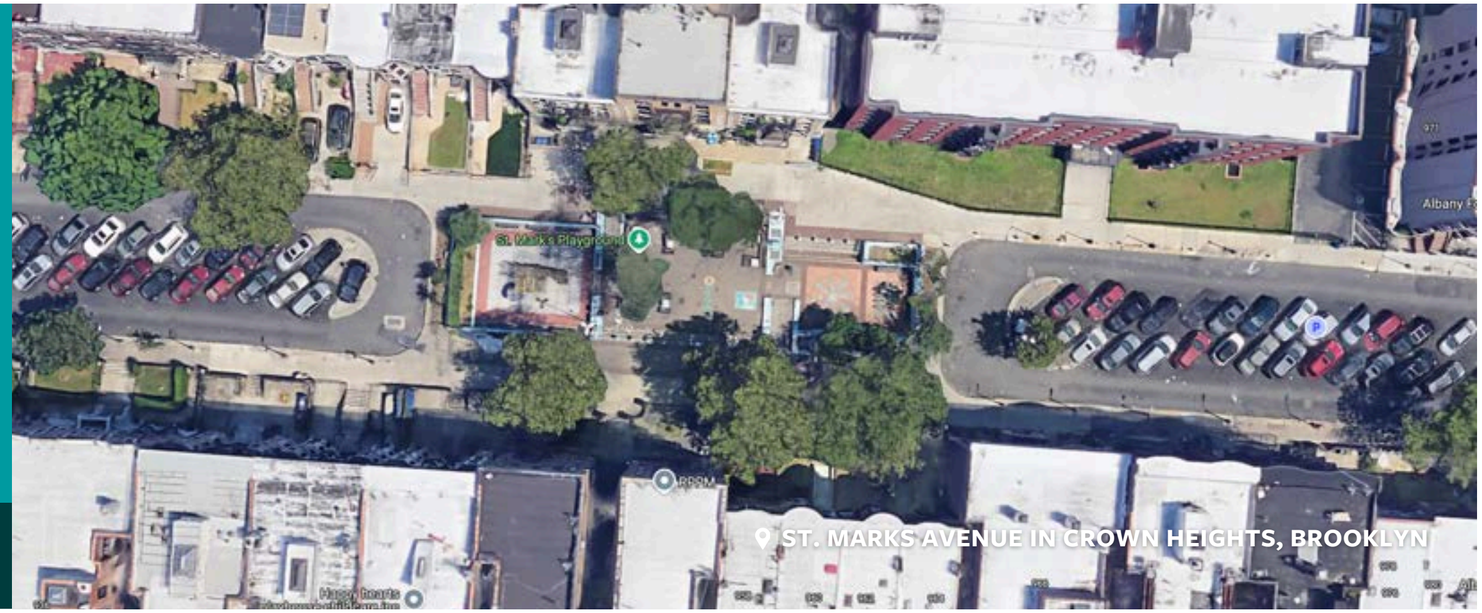
2 Bike Boulevards

3 Slow Streets

4 Redirecting flow

BOND ST / LIVINGSTON IN BROOKLYN

5 Diverters



ST. MARKS AVENUE IN CROWN HEIGHTS, BROOKLYN

6 Chicanes

71ST AVENUE IN QUEENS

7 Contraflow Bike Lanes

TECH PL / ADAMS ST IN BROOKLYN

LTNs bring all these together in one area to amplify their collective impact.

areas with safety issues

areas with speeding and evident cut-through driving

DISCUSSION

How could your neighborhood benefit from an LTN treatment?

community centers, schools, parks that should have slower quieter streets

Thank you!

If you have any questions, or need further information, please let us know!

Talya Schwartz
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OpenPlans

openplans.org

Suggest a Low Traffic Neighborhood!

Do you have a neighborhood in mind that you think might be a good fit for a Low Traffic Neighborhood (LTN)? Scan below.

Interested in taking action? Get Involved!!

Acknowledgments

We would like to thank our interviewees for generously sharing their expertise and time with us. Each conversation introduced new ideas and concepts, many of which we have shared in this presentation.

We would like to thank our 2024 summer intern, Emily Padilla-Chicas who did so much of the initial research and outreach to experts on Low Traffic Neighborhoods.

We would also like to thank Solomon Green-Eames for his expertise, creativity, and inspiration as he created the illustrations and applied examples presented in this document.

Interviewees

Sam Balto
Founder of the Bike Bus movement in USA
Physical Education Teacher at a local public school in Portland, Oregon

Giulio Ferrini
Head of Built Environment at Institute for Human Rights & Business
Previously designed and implemented LTNs in London

Sílvia Casorrán Martos
Former Deputy Chief Architect at Barcelona City Council

Rachel Aldred
Professor at the University of Westminster, England

Ragnhild Sørensen
Head of Communication at Changing Cities, Berlin

Ebru Gencer
Adjunct Associate Professor at GSAPP at Columbia University

Florian Lorenz and Georg Wieser
Designers and Architects co-founders of LAUT Studio which implemented Superblocks in Vienna

Endnotes

1 A survey conducted by Data for Progress and commissioned by Open Plans, NY Statewide Housing Survey, 2023.

2 Thomas, Asa, and Rachel Aldred. "Changes in Motor Traffic Inside London's LTNs and on Boundary Roads." London: Possible, 2023.

3 Transport for London. "The Impacts of Low Traffic Neighbourhoods in London: A Summary of Evidence." London: Transport for London, 2024.

4 Mueller, Natalie, David Rojas-Rueda, Haneen Khreis, Mark Nieuwenhuijsen, David Rojas-Rueda, and Mueller Natalie. "Changing the Urban Design of Cities for Health: The Superblock Model." Environment International 134 (2020): 105132.

5 Aldred, Rachel, Anna Goodman, and James Woodcock. "Impacts of Active Travel Interventions on Travel Behaviour and Health: Results from a Five-Year Longitudinal Travel Survey in Outer London." Journal of Transport & Health 35 (March 2024): 101771.

6 Aldred, Rachel, Anna Goodman, and James Woodcock. "Impacts of Active Travel Interventions on Travel Behaviour and Health: Results from a Five-Year Longitudinal Travel Survey in Outer London." Journal of Transport & Health 35 (March 2024): 101771.; Postaria, R. "Superblock (Superilla) Barcelona—a City Redefined." World Cities Forum, 2021.

7 Goodman, Anna, Anthony Laverty, and Rachel Aldred. "The Impact of Introducing a Low Traffic Neighbourhood on Fire Service Emergency Response Times, in Waltham Forest, London." Center for Open Science, 2020.; Goodman, Anna, Anthony A. Laverty, Asa Thomas, and Rachel Aldred. "The Impact of 2020 Low Traffic Neighbourhoods on Fire Service Emergency Response Times, in London, UK." Findings (May 2021). https://doi.org/10.32866/001c.23568.

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Screenshot from Strong Towns Video (LONDON: A glimpse into the evolution of Low Traffic Neighborhood (LTN) installations)
Jackson Heights, Queens | Photo by Clarence Eckerson Jr., Streetfilms
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University City, Philadelphia | Photo by Tim Barnes, Shiftspace Design
Middlefield, Leith Walk, Edinburgh | Photo by Not for Profit Planning
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Illustrations by Solomon Green-Eames

Slide 34
Canonbury East | Map by Islington Council

Slide 37
Map by Healthy Streets Scorecard Coalition based on data provided by SafeCycleLDN

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Photo by Matt Seymour for Centre for London

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Bogotá, Colombia | Photo by Secretaría Distrital de Movilidad

Slide 44
Screenshot from Strong Towns Video (LONDON: A glimpse into the evolution of Low Traffic Neighborhood (LTN) installations)

Slide 45
Photo by Transport for London

Slide 46
Jackson Heights, Queens | Photo by New York City Department of Transportation
39th Avenue Bike Boulevard in Sunnyside, Queens | Photo by New York City Department of Transportation
Slow Zone in Claremont, The Bronx | Photo by New York City Department of Transportation

Slide 47
Replacing street signs for redirection in Bond St and Livingston St in Brooklyn | Photo by New York City Department of Transportation
St. Marks Avenue in Crown Heights, Brooklyn | Screenshot from Google Maps
Chicanes in 71st Avenue, Queens | Photo by New York City Department of Transportation
Tech Pl and Adams St in Brooklyn | Screenshot from Google Maps

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Photo by Carl Mahaney, Open Plans
Photo by Emily Chinay, Open Plans

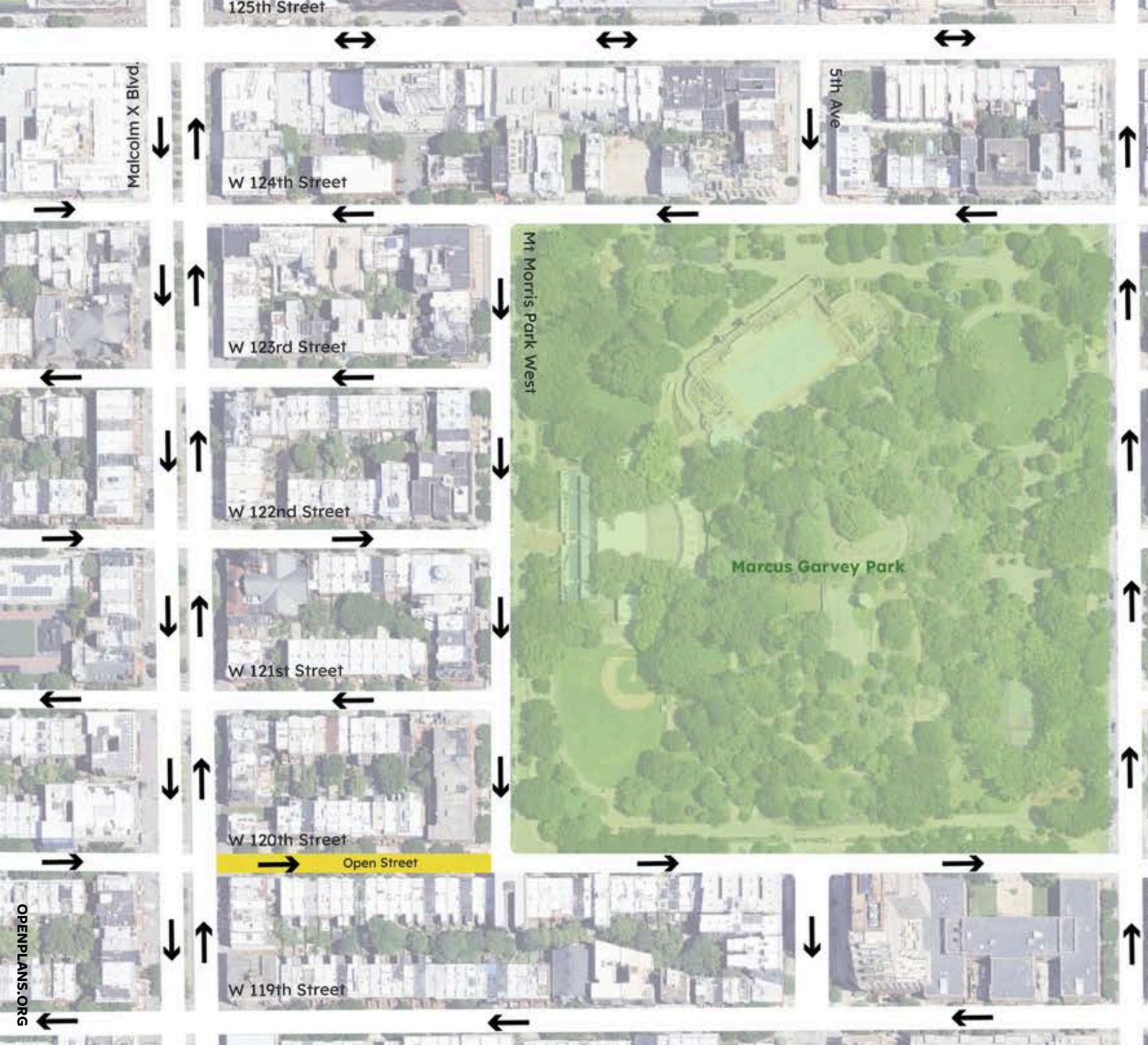
Slide 71
Bogotá, Colombia | Video by Secretaría Distrital de Movilidad

Appendix

APPLIED EXAMPLES

Harlem, Manhattan

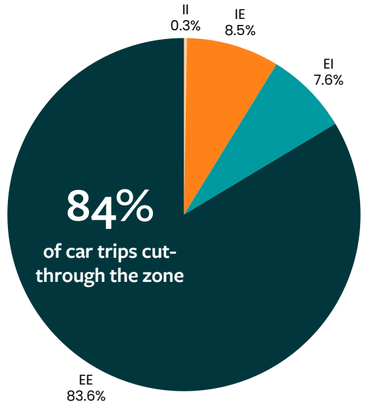
EXISTING



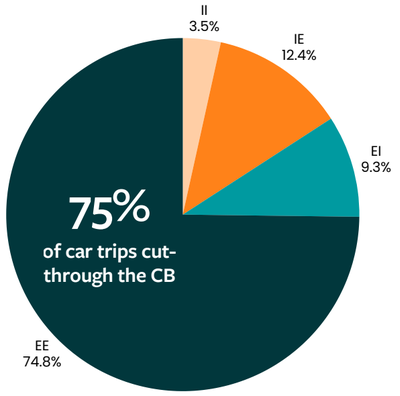
Vehicular traffic patterns

Harlem, Manhattan

In the selected zone



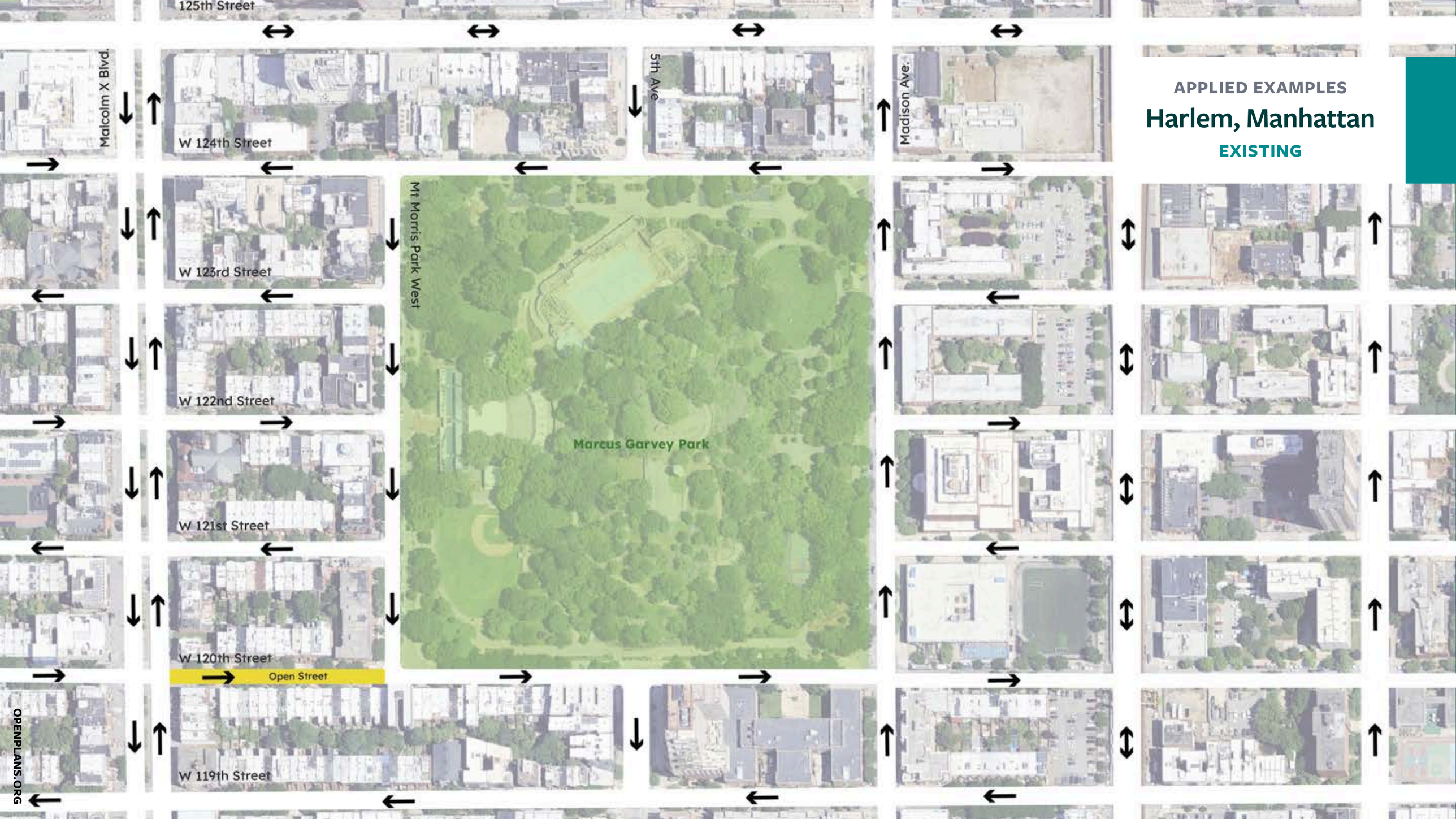
Entire community board 10



In reference to where car trips started and ended in/out of the zone:

II (Internal-Internal) IE (Internal-External) EI (External-Internal) **EE (External-External)**

Source: Replica, Data from a random Thursday from Spring 2024



APPLIED EXAMPLES

Harlem, Manhattan

EXISTING

APPLIED EXAMPLES

Harlem, Manhattan

PROPOSED (VEHICLES ONLY)

APPLIED EXAMPLES

Lower East Side, Manhattan

EXISTING

Vehicular Traffic Patterns

Lower East Side, Manhattan

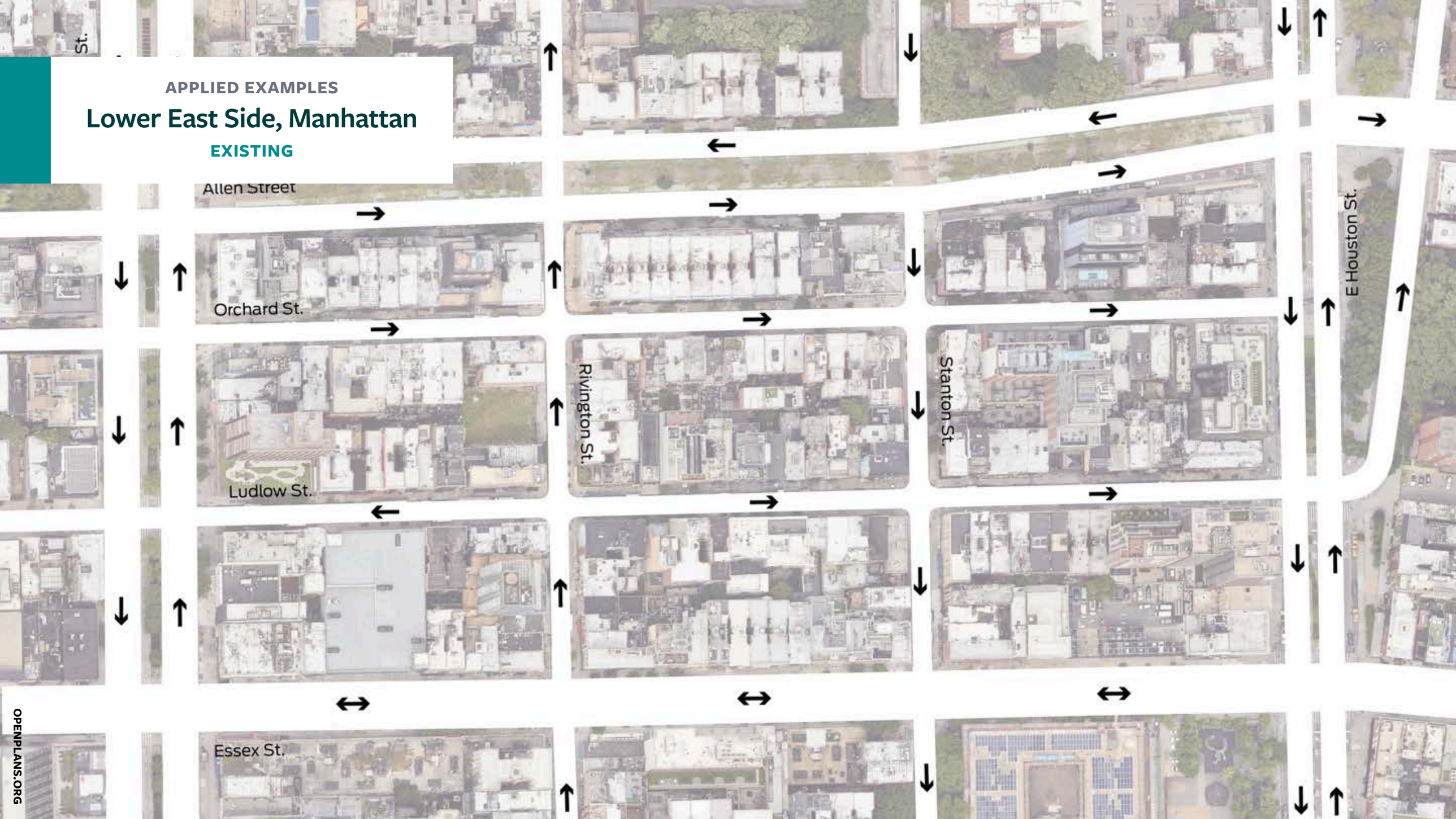
In the selected zone

Entire community board 3

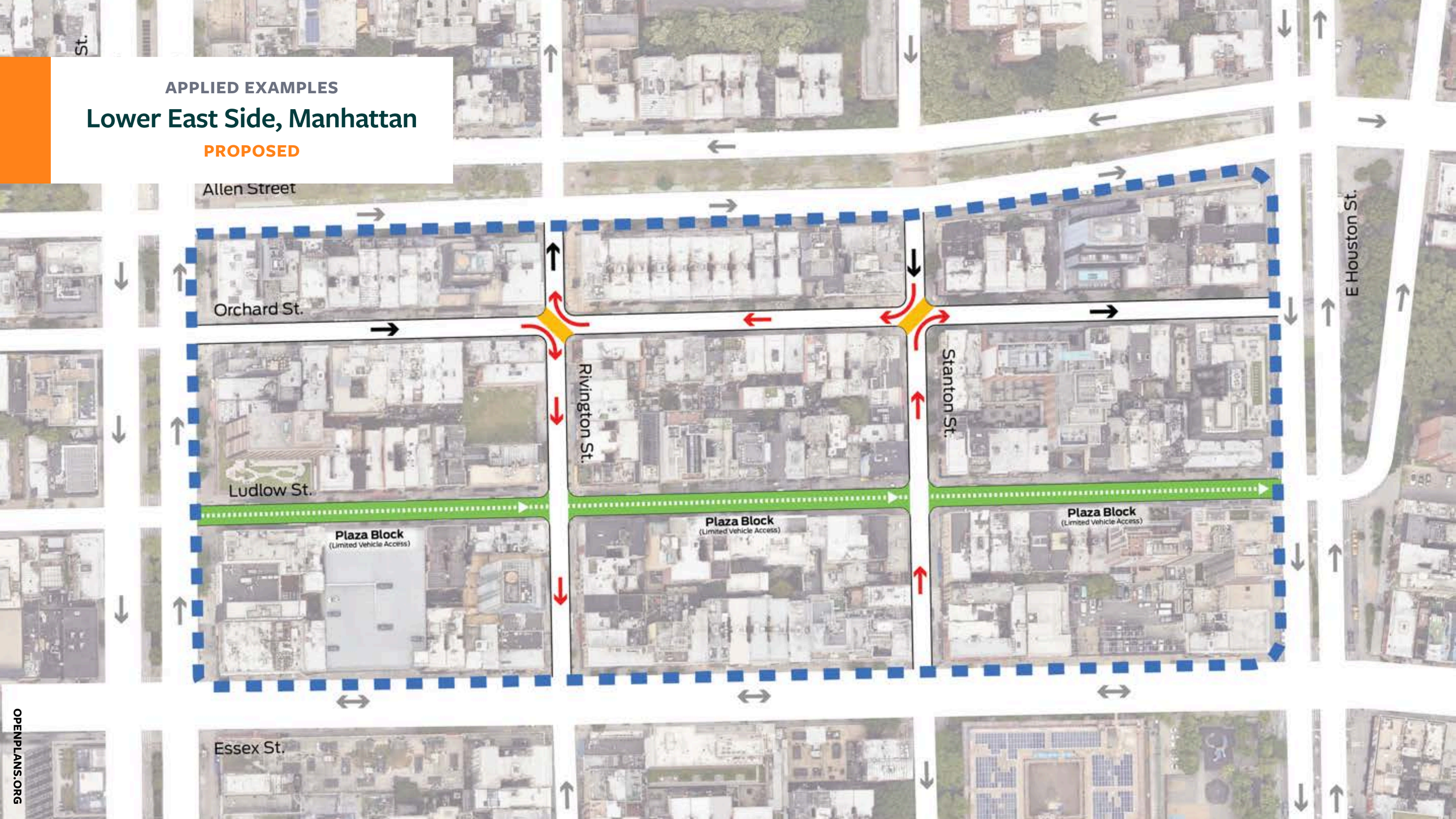
APPLIED EXAMPLES

Lower East Side, Manhattan

EXISTING



APPLIED EXAMPLES

Lower East Side, Manhattan

PROPOSED