



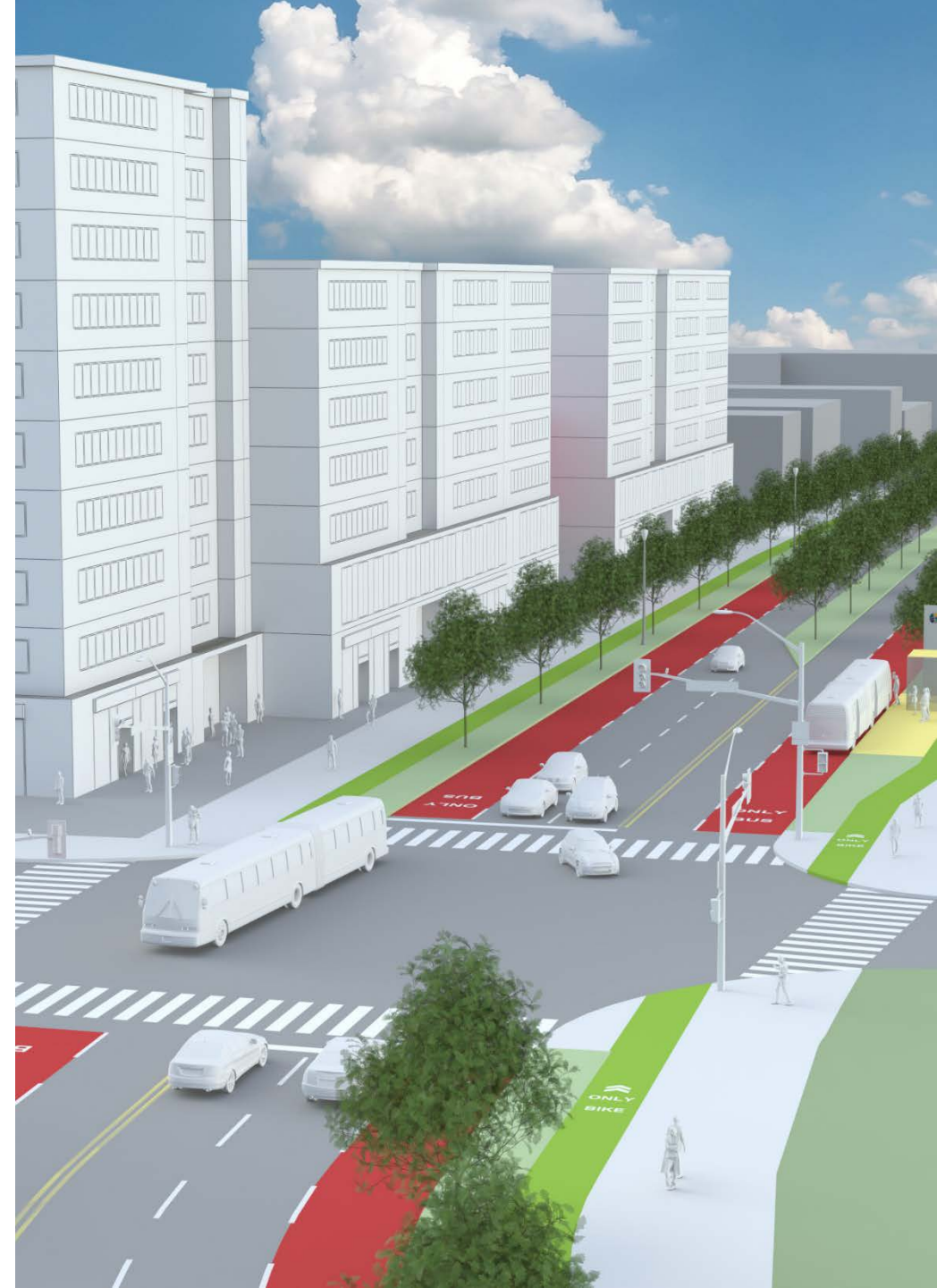
# Developing Transit Oriented Communities

with Regional Transit Corridor Planning

*Stantec's Urban Places Group*

# Agenda

- Introductions
- TOC 101
- Transit Planning Guide
- Mobility Hubs
- Q&A





# Introductions



**Adam Catherine**

Mount Laurel, NJ

Principal  
Transportation Planner  
Smart(ER) Mobility Group



**Ralph DeNisco**

Boston, MA

Senior Principal  
Transportation Planner  
Urban Places Group



**Craig D. Sklenar**

Montreal, Quebec, Canada

Principal  
Urban Designer  
Urban Places Group

# TOC 101

**WHY?**

**THE WORLD HAS CHANGED.**

# A TREND TOWARDS TRANSIT-ORIENTED COMMUNITIES

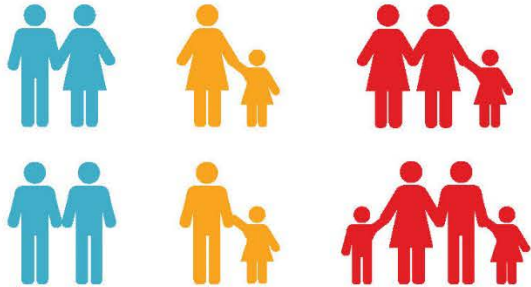
- DEMOGRAPHIC SHIFTS CONTINUE
- SHIFTS IN CONSUMER PREFERENCE IN HOUSING, JOB AND AMENITY - EVEN POST COVID-19
- GROWING GOVERNMENT COMMITMENT TO RESILIENT INFRASTRUCTURE - TRANSIT AT THE CENTER
- INCREASED POLITICAL, COMMUNITY AND DEVELOPMENT DEMAND FOR RETURN ON INVESTMENT OF TRANSIT



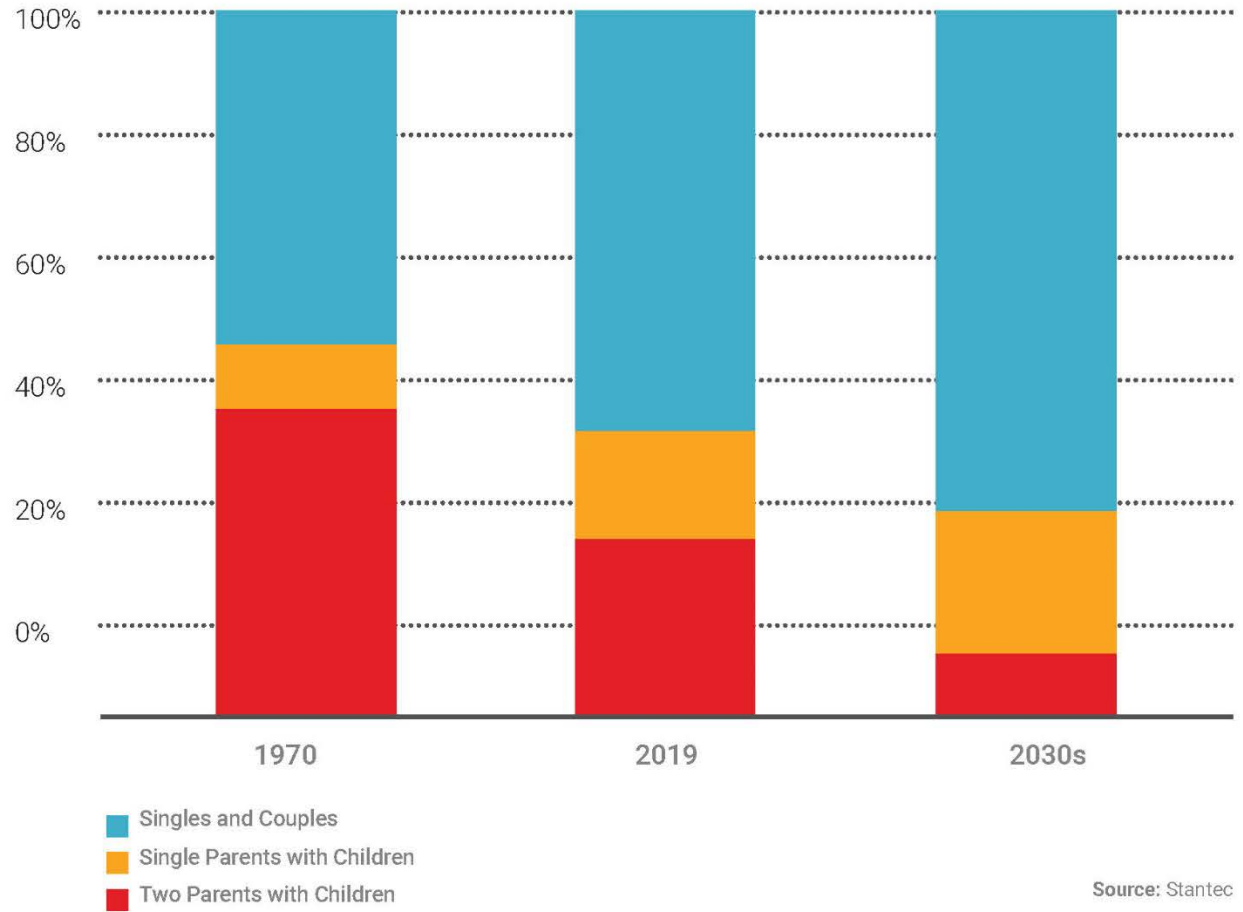


# HOUSING NEEDS ARE CHANGING

+ Traditional market for single-family houses is **shrinking** (two parents with kids)



SHARE OF TOTAL US HOUSEHOLDS:

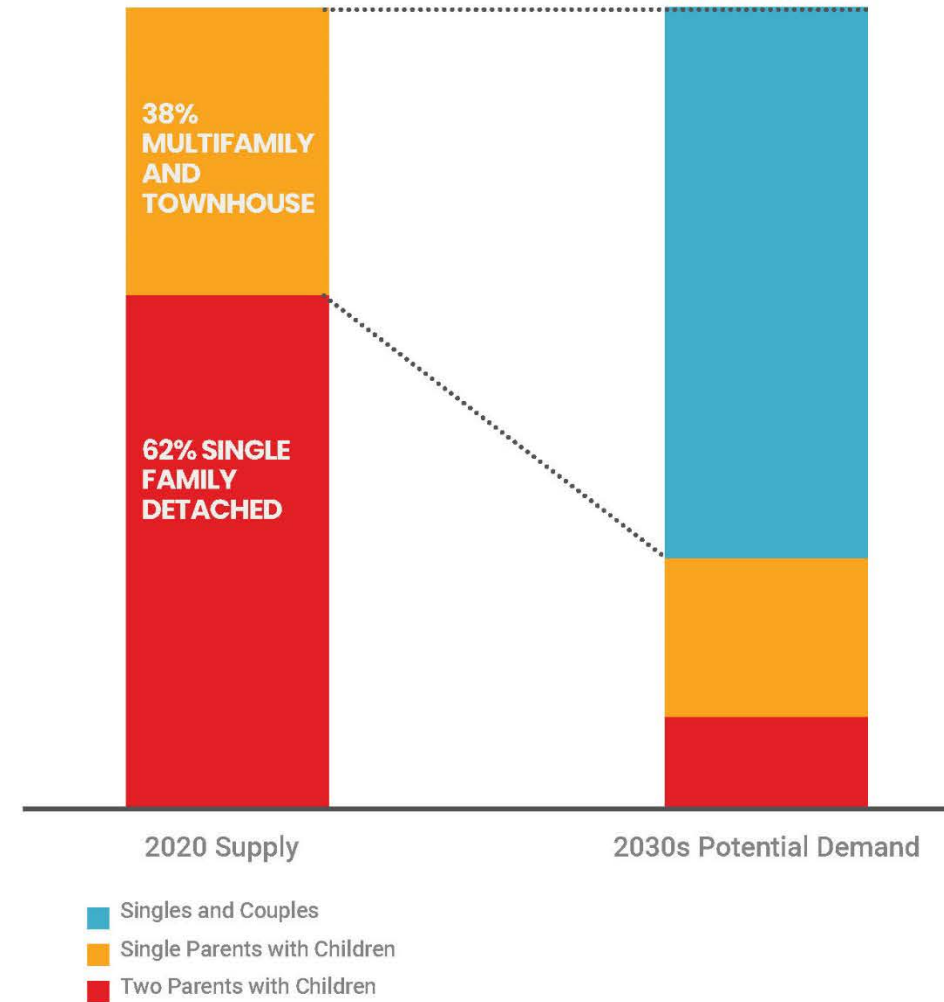
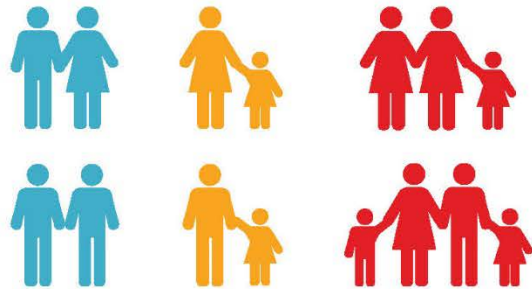


Source: Stantec



# AFFORDABILITY REMAINS A PROBLEM

+ Less than **40%** of US housing stock today matches the housing most new households are searching for/ can afford





# LESSONS FROM THE PANDEMIC

## WHAT HAS CHANGED?

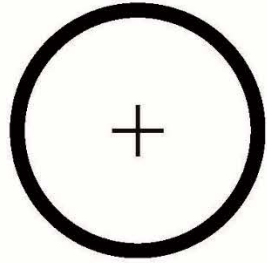
- + Greater interest in:
  - + Access to nature and public spaces
  - + Adapting streets for outdoor dining
  - + Remote work
  - + Accelerated challenges facing many retailers and small businesses

## WHAT HAS NOT CHANGED?

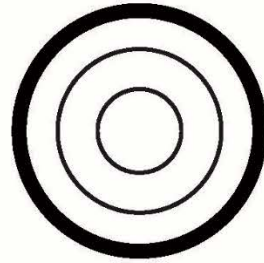
- + Fundamental demographic, economic, mobility, and environmental trends that favor walkable, amenitized, socially-rich places
- + The value of planning for our community's future



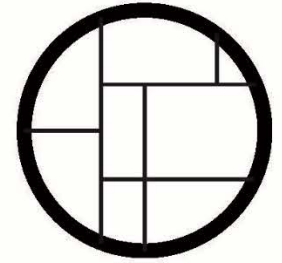
# TOC IS **3D**...



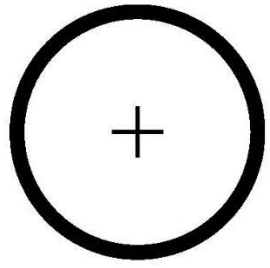
**DENSITY**



**DIVERSITY**

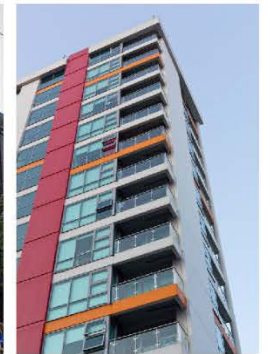
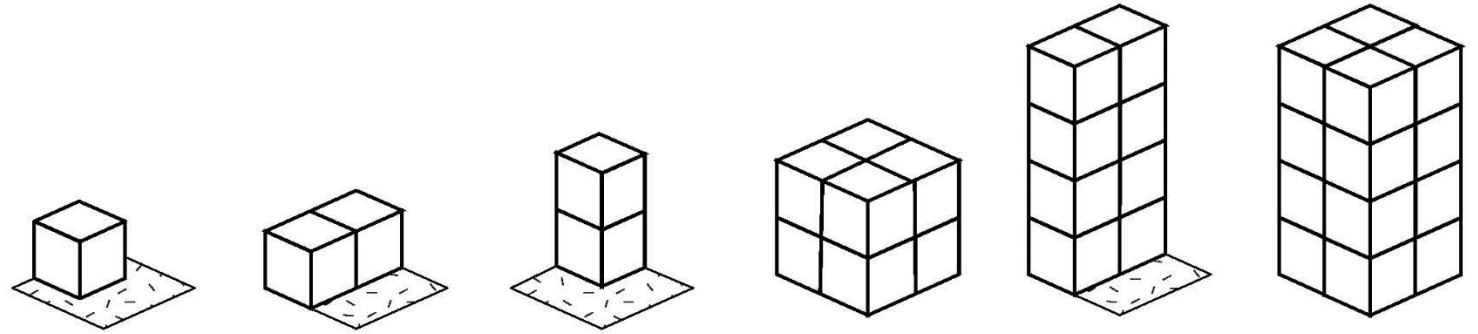


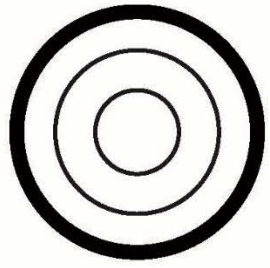
**DESIGN**



# DENSITY

DUPLEXES TO TOWNHOMES TO MID-RISE AND HIGH-RISE - DENSITY IS IMPORTANT TO MAXIMIZE RETURN ON INVESTMENT OF TRANSIT. RIGHT SIZING DENSITY WILL BE ESSENTIAL.

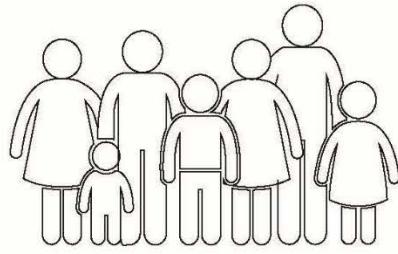




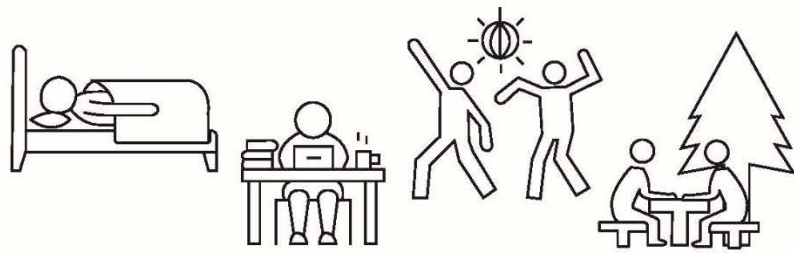
# DIVERSITY

DIVERSITY IS MORE THAN PEOPLE - THINK OF THE "WHO, WHAT WHEN AND WHERE" OF A TOD SITE.

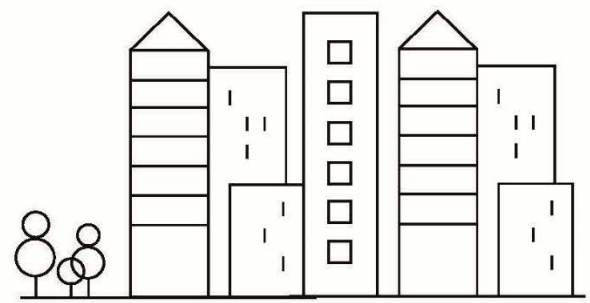
## POPULATION

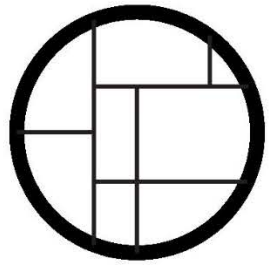


## ACTIVITY



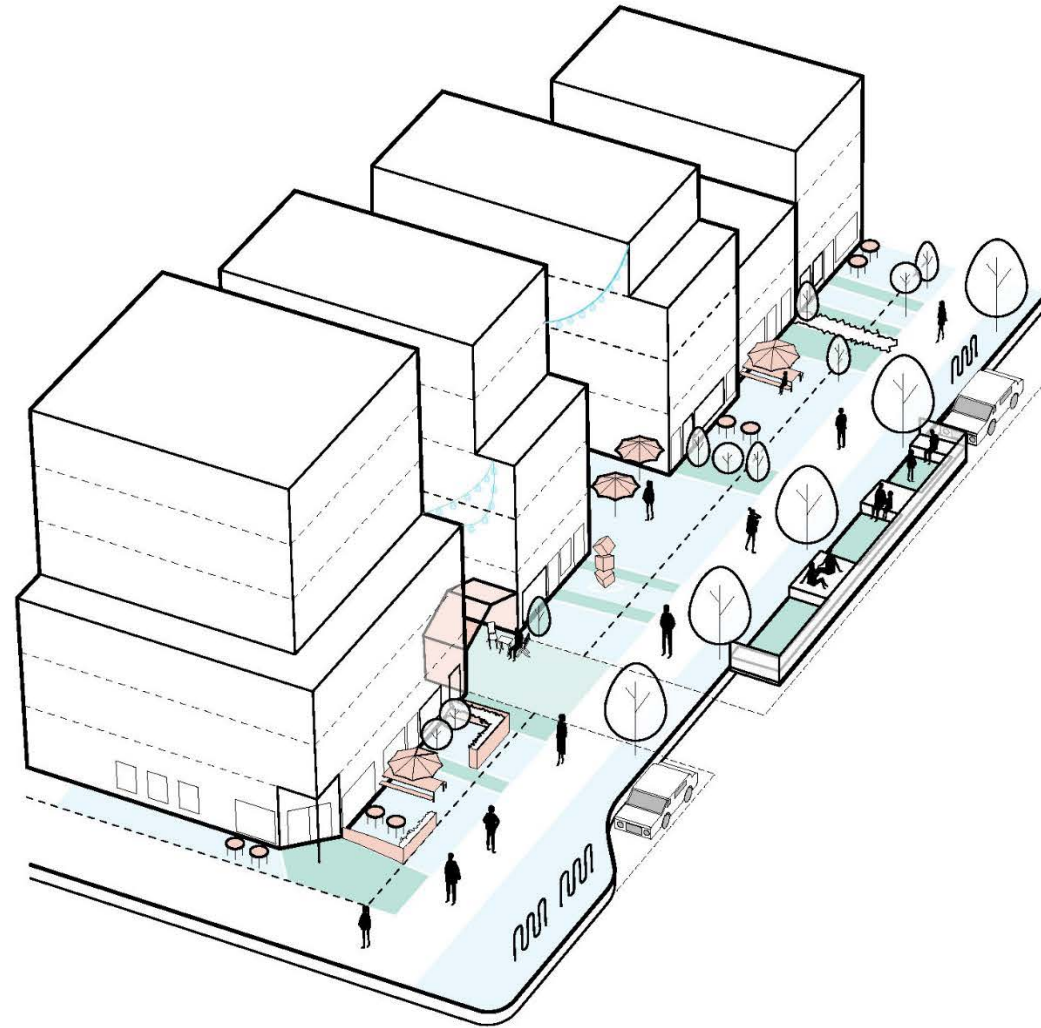
## BUILDING TYPOLOGY





# DESIGN

THE DEVIL IS IN THE DETAILS  
- DESIGN CONSIDERS THE  
BUILT FORM IN A HOLISTIC  
MANNER - INCLUDING  
TRANSIT.



Source : Bimarch. 2008. Wyspa Spichrzów, Gdańsk, Pologne.



Source : Stantec. 2018. Southpark on Whyte, Edmonton, Canada.

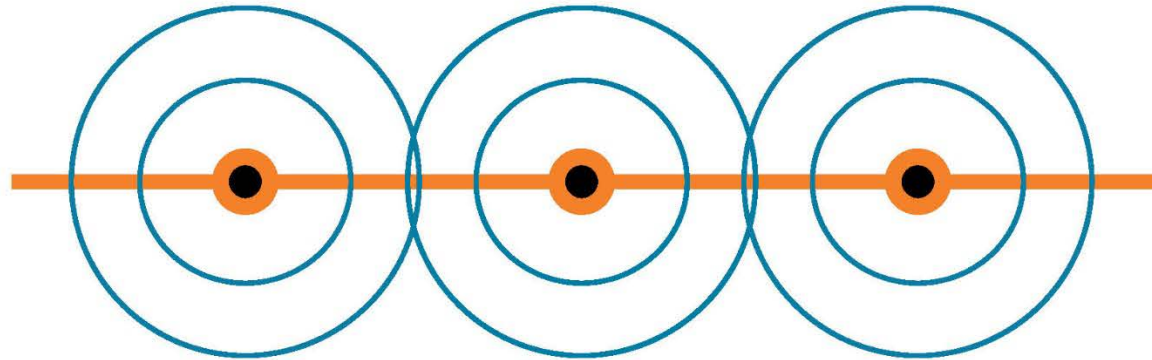


Source : Subarquitectura. 2006. Tram stop and plaza, Alicante, Espagne.

# HOW DO WE BEGIN?

## POLICY IS NOT A ONE-SIZE-FITS-ALL APPROACH.

*TYPICAL POLICY APPROACH*



*HOW POLICY SHOULD LOOK*





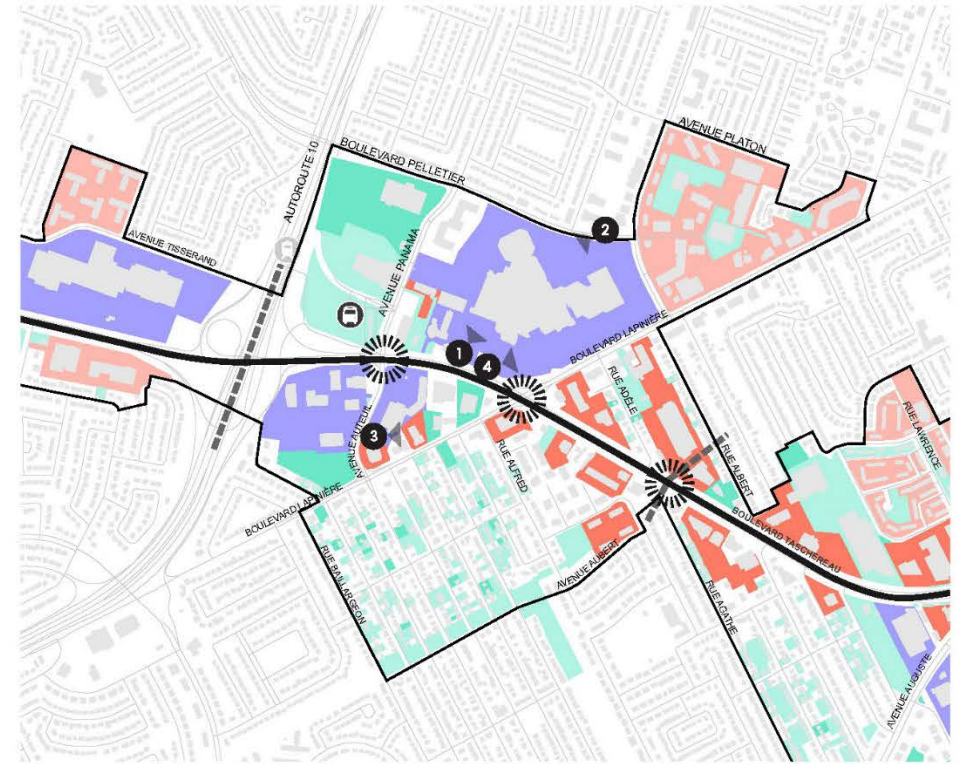
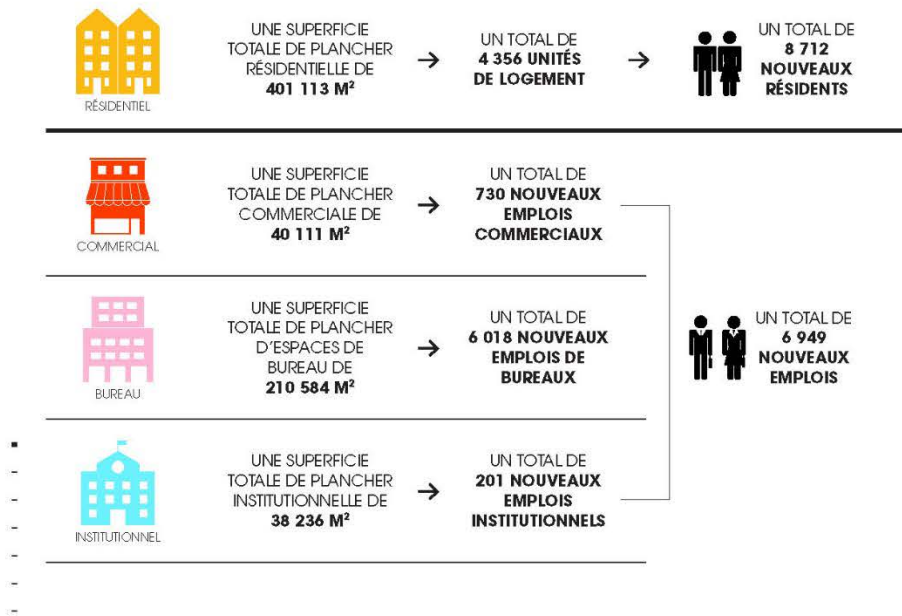
# WHAT DOES THIS MEAN FOR CLIENTS AND COMMUNITIES?

## UNDERSTAND THE LOCAL MARKET

WHAT WORKS FOR LARGE CITIES MIGHT NOT BEST SUIT SMALLER MARKETS - PLAN AND DESIGN TO MEET COMMUNITY NEED AND OPPORTUNITY.



EN 2041, LE TRONÇON 6 ACCUEILLERA...



PLAN 19 : POTENTIEL DE REDÉVELOPPEMENT - TRONÇON 6

1 : 15 000

- LIMITE DU SECTEUR À L'ÉTUDE
- LIMITE DE TRONÇON
- BOULEVARD TASCHEREAU
- ⊙ NOEUD DE TRANSPORT
- ⊙ TERMINUS D'AUTOBUS
- ⊙ FUTURE STATION REM
- TERRAIN OU BÂTIMENT VACANT
- VALEUR DU TERRAIN > VALEUR DU BÂTIMENT
- POTENTIEL À COURT/MOYEN TERME
- CENTRE COMMERCIAL
- POTENTIEL À LONG TERME



# WHAT DOES THIS MEAN FOR CLIENTS AND COMMUNITIES?

## OPERATIONS MATTER

*WHERE DO PEOPLE WANT TO GO? WHY? WHAT WILL GET THEM TO USE THE SERVICE?*  
**PATRON EXPERIENCE + RELIABLE OPERATIONS = MODAL SHIFT**



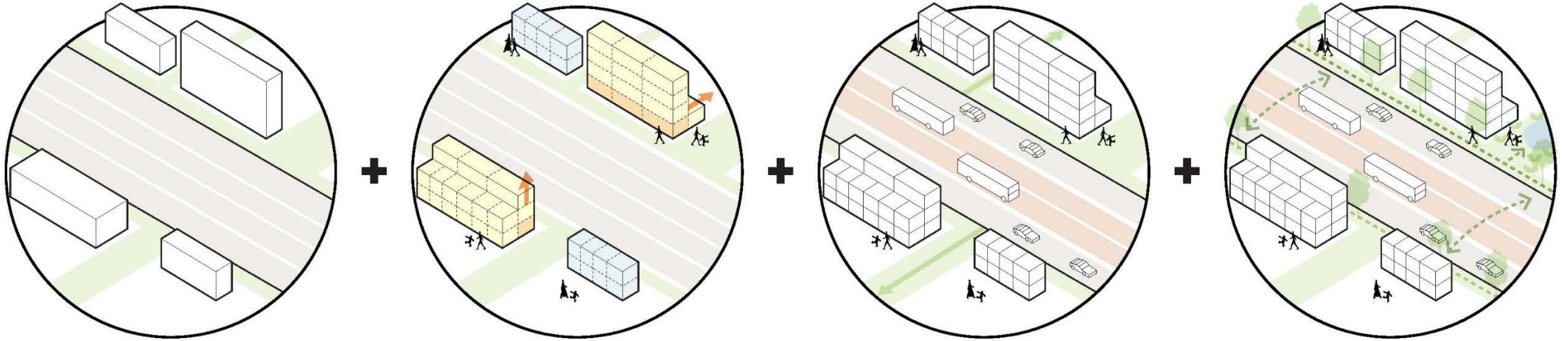




# WHAT DOES THIS MEAN FOR CLIENTS AND COMMUNITIES?

## PUBLIC REALM MATTERS

*USE THE TRANSIT INVESTMENT AS AN OPPORTUNITY TO INVEST IN THE CORRIDOR BUILDING TO BUILDING*

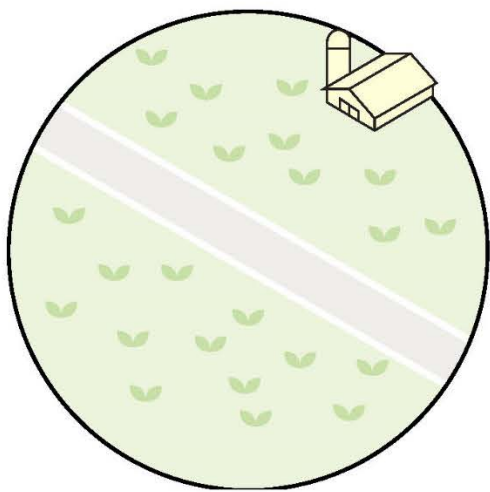




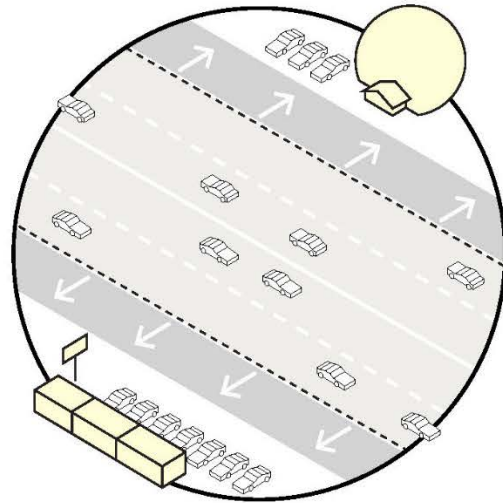
# WHAT DOES THIS MEAN FOR CLIENTS AND COMMUNITIES?

## COMMUNITY PLANNING MATTERS

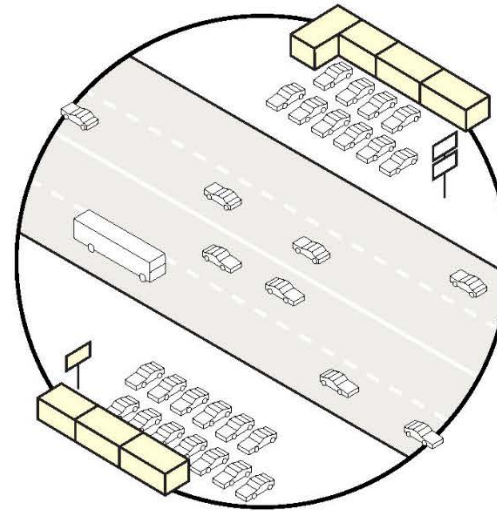
*WE FOCUS ON COMMUNITY OUTCOMES - THIS IS NOT ABOUT ONE BUILDING, BUT THE BROADER COMMUNITY, THEIR NEEDS/CHALLENGES/OPPORTUNITIES/DESIRES*



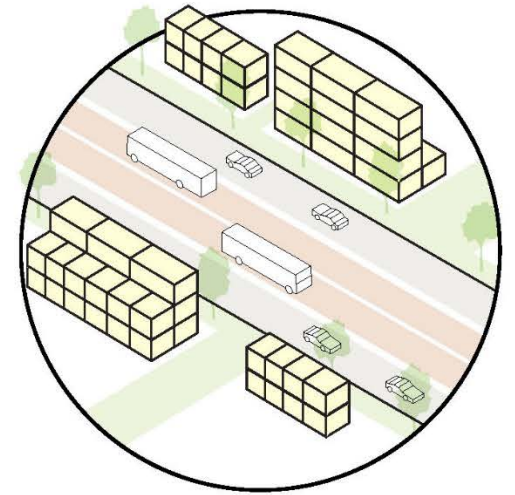
**PAST**



**PRESENT**



**FUTURE**



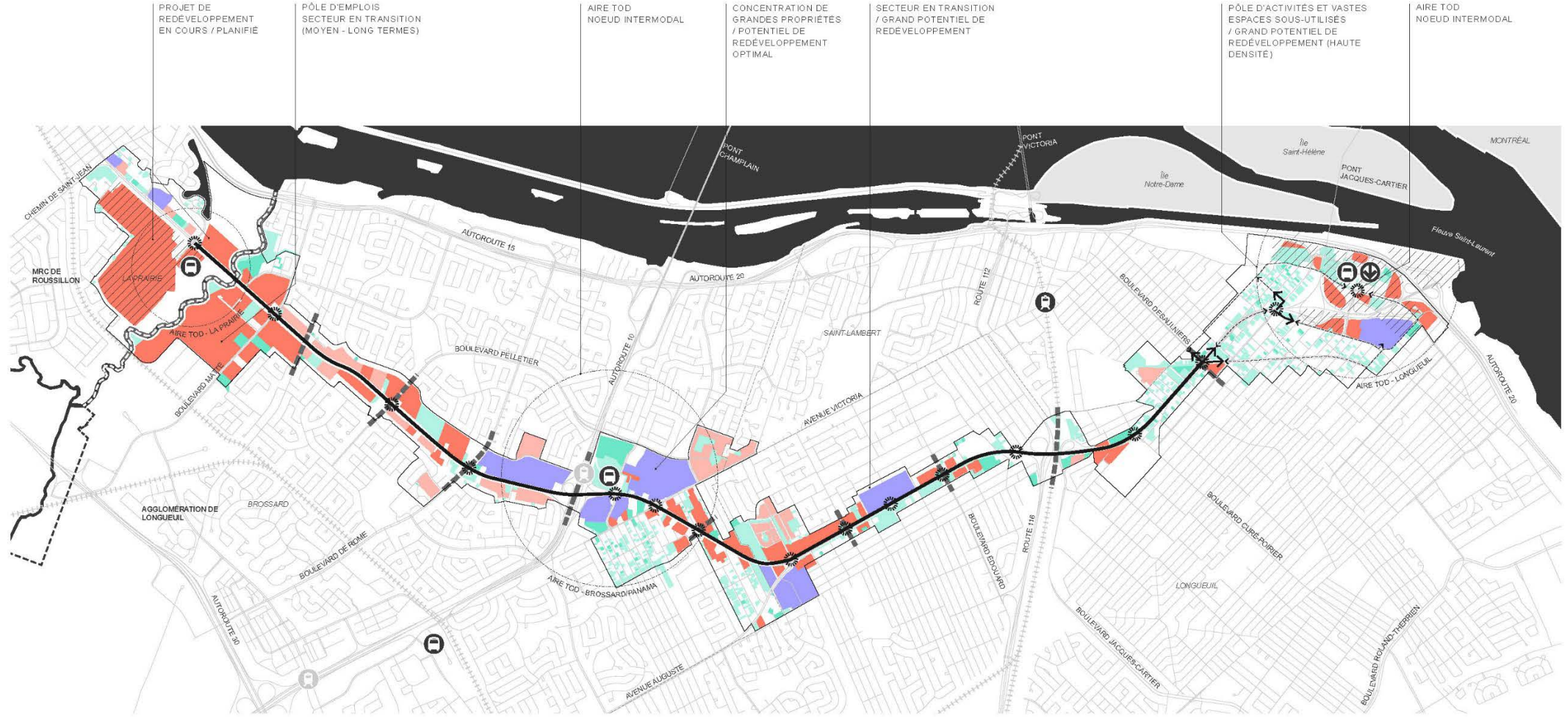


# What Does This Look Like?

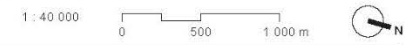


# TASCHEREAU BOULEVARD TRANSIT PLAN

## LONGUEUIL, QUEBEC, CANADA



**PLAN 13 : POTENTIEL DE REDÉVELOPPEMENT - SECTEUR À L'ÉTUDE**



- |                               |                    |  |                               |
|-------------------------------|--------------------|--|-------------------------------|
| — LIMITE DU SECTEUR À L'ÉTUDE | TERMINUS D'AUTOBUS | /// SECTEUR PLANIFIÉ                   | POTENTIEL À COURT/MOYEN TERME |
| — LIMITE DE TRONÇON           | GARE DE TRAIN      | TERRAIN OU BÂTIMENT VACANT             | CENTRE COMMERCIAL             |
| — BOULEVARD TASCHEREAU        | MÉTRO              | VALEUR DU TERRAIN > VALEUR DU BÂTIMENT | POTENTIEL À LONG TERME        |
| NOEUD DE TRANSPORT            | FUTURE STATION REM |  |                               |

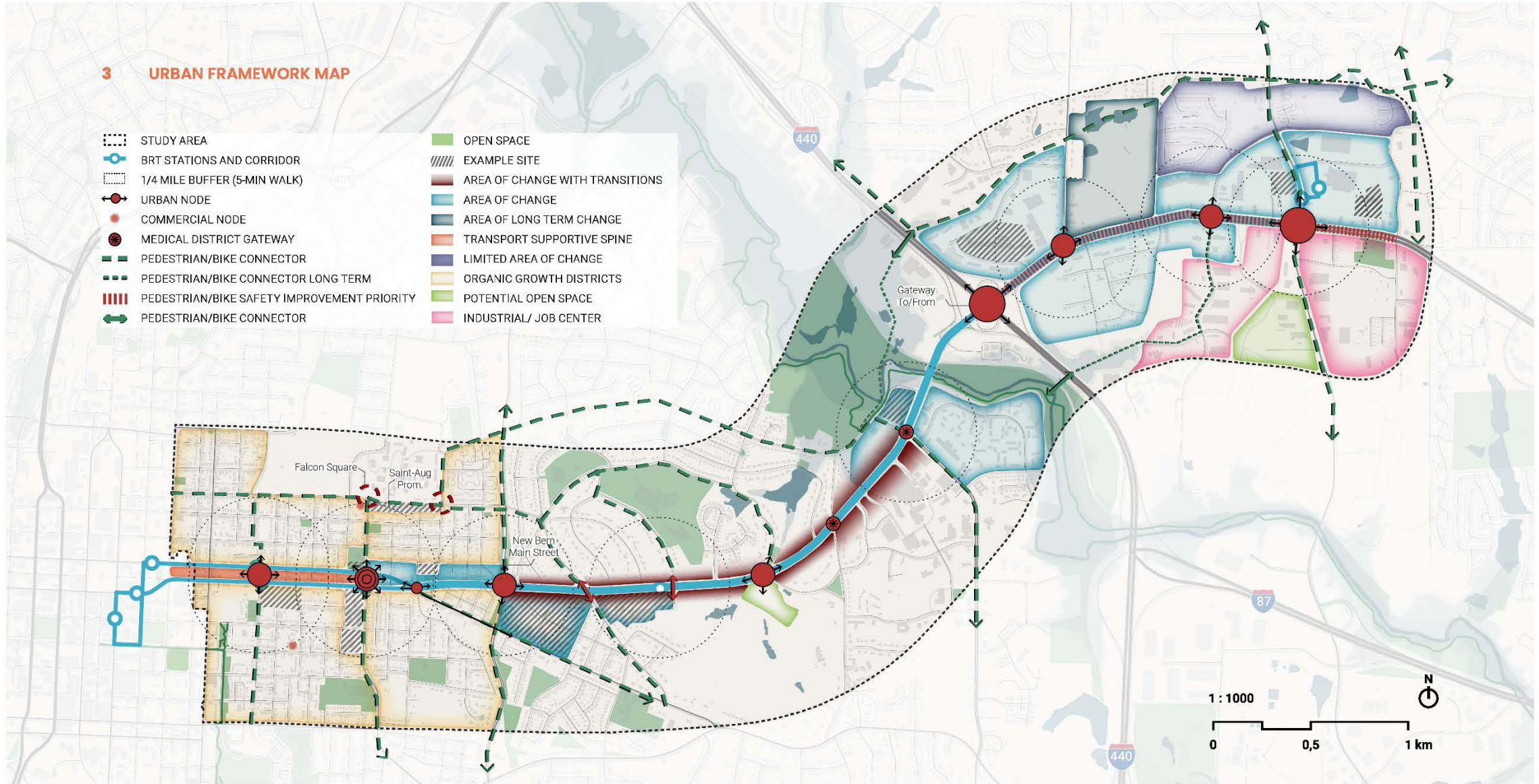


# NEW BERN STATION AREA PLANNING

RALEIGH, NC, USA

### 3 URBAN FRAMEWORK MAP

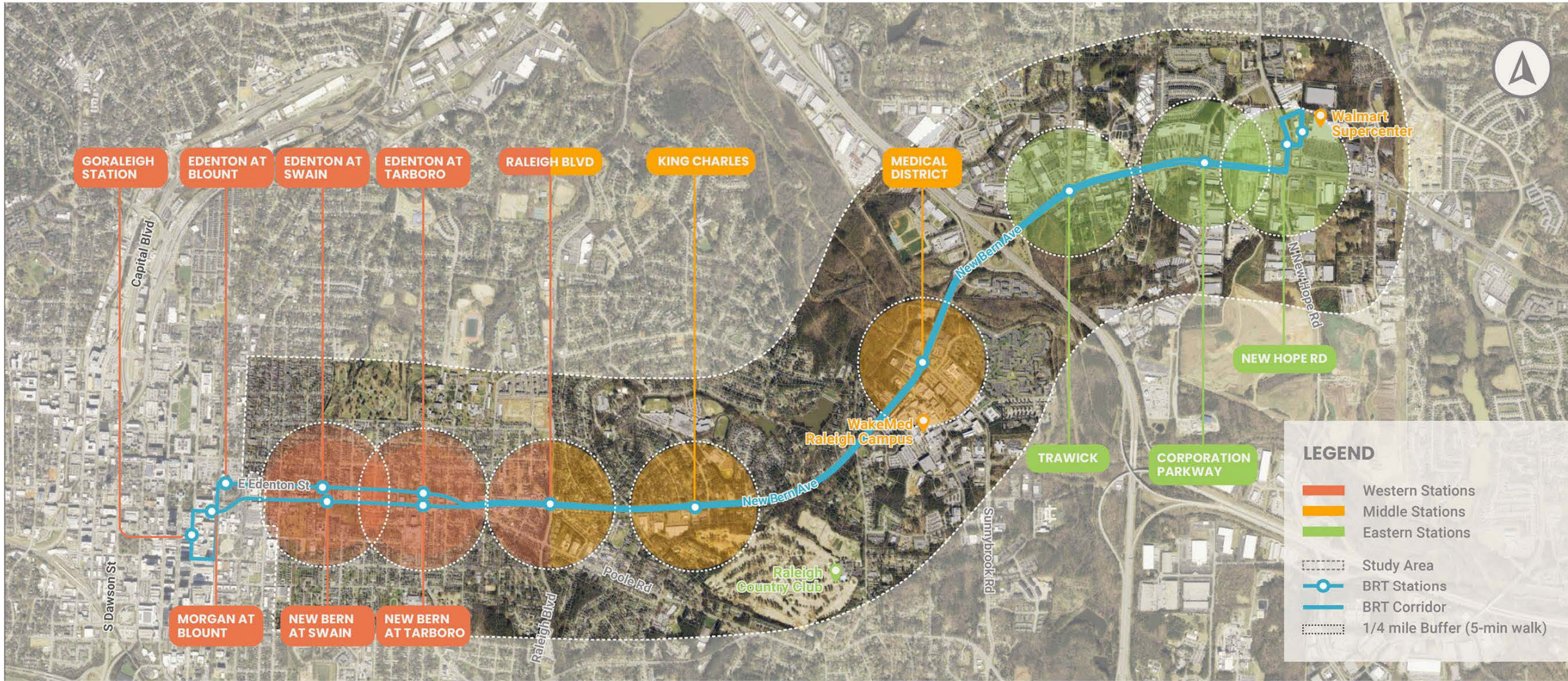
- STUDY AREA
- BRT STATIONS AND CORRIDOR
- 1/4 MILE BUFFER (5-MIN WALK)
- URBAN NODE
- COMMERCIAL NODE
- MEDICAL DISTRICT GATEWAY
- PEDESTRIAN/BIKE CONNECTOR
- PEDESTRIAN/BIKE CONNECTOR LONG TERM
- PEDESTRIAN/BIKE SAFETY IMPROVEMENT PRIORITY
- PEDESTRIAN/BIKE CONNECTOR
- OPEN SPACE
- EXAMPLE SITE
- AREA OF CHANGE WITH TRANSITIONS
- AREA OF CHANGE
- AREA OF LONG TERM CHANGE
- TRANSPORT SUPPORTIVE SPINE
- LIMITED AREA OF CHANGE
- ORGANIC GROWTH DISTRICTS
- POTENTIAL OPEN SPACE
- INDUSTRIAL/ JOB CENTER





# NEW BERN STATION AREA PLANNING

RALEIGH, NC, USA





# 25CONNECTS - A TOD PLAN FOR W. 25TH STREET

CLEVELAND, OHIO, USA

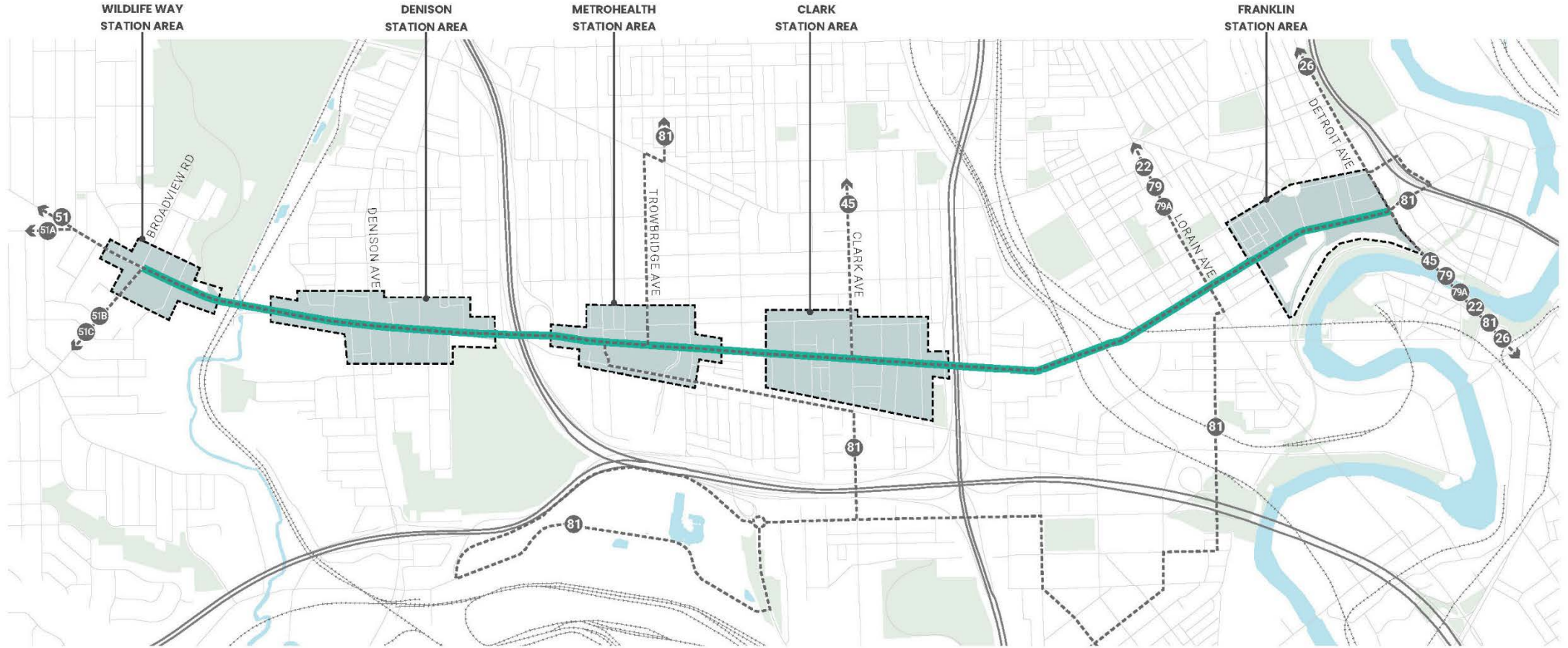


FIGURE 1: W. 25TH CORRIDOR STUDY AREA

- BRT LINE**
- BRT LINE
  - OTHER LINES
  - CROSSING BUS LINE NUMBER
  - PRIORITY STATION AREAS





SECTION 6

# TOD STUDY

## TOD CONCEPTS

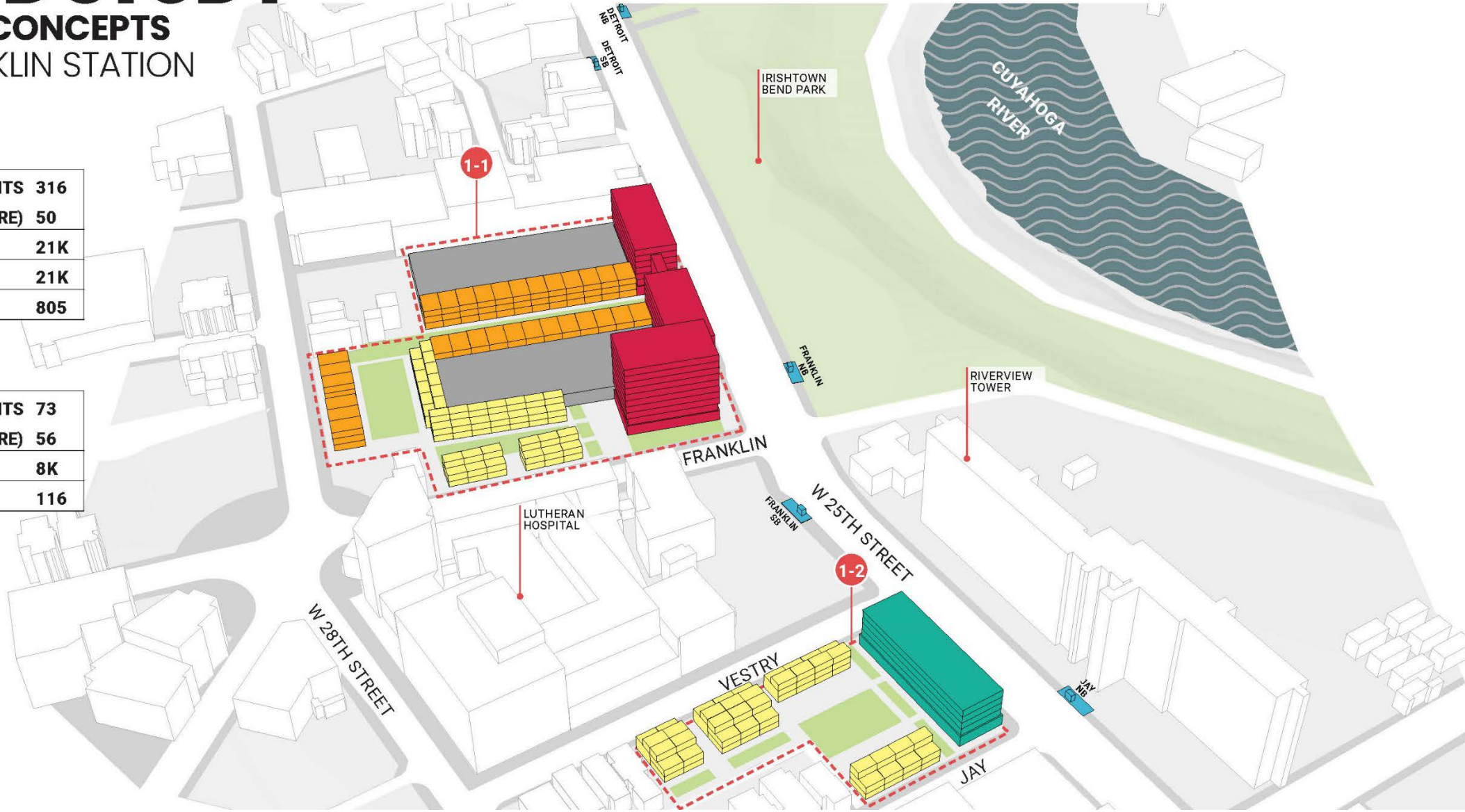
### FRANKLIN STATION

1-1

	<b>TOTAL HOUSING UNITS</b>	<b>316</b>
	<b>DENSITY (UNITS/ACRE)</b>	<b>50</b>
	<b>RETAIL (SQFT)</b>	<b>21K</b>
	<b>OFFICE (SQFT)</b>	<b>21K</b>
	<b>PARKING STALLS</b>	<b>805</b>

1-2

	<b>TOTAL HOUSING UNITS</b>	<b>73</b>
	<b>DENSITY (UNITS/ACRE)</b>	<b>56</b>
	<b>RETAIL (SQFT)</b>	<b>8K</b>
	<b>PARKING STALLS</b>	<b>116</b>







# 25CONNECTS - A TOD PLAN FOR W. 25TH STREET

CLEVELAND, OHIO, USA

## DESIGN GUIDELINES





# Transit Service Considerations



# Transit is Part of an Integrated Complete Street

Good transit doesn't function alone. Instead, transit is a key component of an integrated Complete Street, along with other components like...

## On-Street Parking



Columbus Avenue, Boston, MA (Stantec)

## Pedestrian-Friendly Sidewalks



Queen's Quay, Toronto, CA (NACTO Transit Streets Design Guide)

## Protected Bike Lanes



Chicago, IL (CDOT)

Nathan Roseberry (CDOT)



# Transit Follows (and Demands) Density

TRANSIT SERVICE OVERVIEW






# Transit Planning Factors

 **Reliability-** Do vehicles **arrive** on time?

 **Speed-** How **quickly** can you get from here to there?

 **Coverage-** How many **destinations** are accessible by transit?

 **Capacity-** How many **people** can fit in one vehicle?

 **Frequency-** How **often** does a vehicle arrive at your stop?

Research has found that people will **walk farther** for **better transit (citation)**. Improvements in these factors is shown to generate more ridership.



# Transit Types



Charlotte, NC (Charlotte Observer)

## Light Rail (LRT)



New York, New York (NYDOT)

## Key Bus Service



Yichang, China BRT (ITDP)

## Bus Rapid Transit (BRT)



San Francisco, CA (Stantec)

## Local Bus Service



# Light Rail

Rail Transit service using tram or streetcar vehicles typically operating at-grade

Typical Density: **30+** Dwelling Units/Acre\*

Stop Spacing: Every **0.75-1** mile†

Peak Frequency: **10 mins** or less\*

\*Southern Nevada High Capacity Transit Study, 2019

† Valley Transit Authority Light Rail Guidelines, NACTO



Tacoma Link LRT (Travel Tacoma)



# Bus Rapid Transit

Bus transit service that shares features like level-platform boarding, off-board fare collection, and separated right-of-way with rapid transit services

Typical Density: **20-30** Dwelling Units/Acre\*

Stop Spacing: Every **0.25-0.5** miles†

Peak Frequency: **10 mins** or less\*

\*Southern Nevada High Capacity Transit Study, 2019

† Bus Rapid Transit Standard, ITDP



Johannesburg SA BRT,  
ITDP





# Key Bus Service

High-ridership, high-frequency bus service complemented by elements like transit signal priority, bus lanes, and high capacity buses

Typical Density: **15-25** Dwelling Units/Acre\*

Stop Spacing: Every **0.13-0.25** mile†

Peak Frequency: **10-20 mins** or less\*

\*Southern Nevada High Capacity Transit Study, 2019

† Transit Planning Best Practices, USF Center for Urban Transportation Research, 2009



Bus Lane, Chicago, IL (CTA)



# Local Bus Service

Typical urban bus service providing access to destinations and further transit connections, accessible and comfortable for all users

Typical Density: **5-20** Dwelling Units/Acre\*

Stop Spacing: Every **0.13-0.25** mile†

Peak Frequency: **30 mins** or less\*

\*Southern Nevada High Capacity Transit Study, 2019

† Transit Planning Best Practices, USF Center for Urban Transportation Research, 2009



MBTA Route 77 (Stantec)

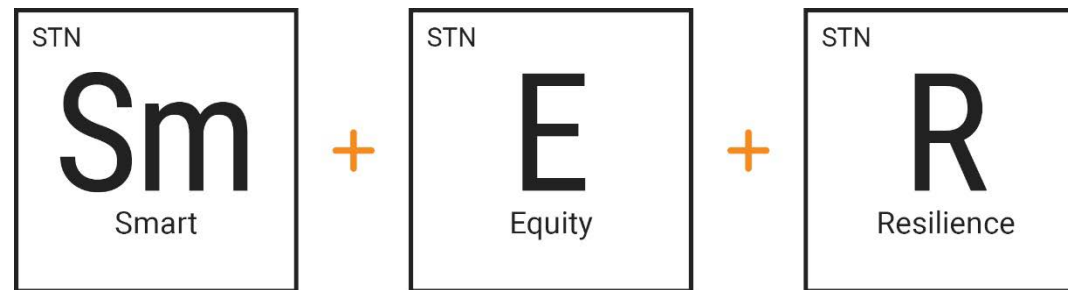


# Mobility Hubs: Extending the Reach of Transit





Much more than a transit stop, **mobility hubs** are networks of alternative mobility options critical to a sustainable and equitable transportation future.



**Smart(ER) Mobility**



# Three levers of design

## What mobility hubs offer

### 1 Choice

Offer multiple transportation options such as public transit, cycling, scooters, and car share.

### 2 Accessibility

Makes travel more convenient, reduces interruptions, and minimizes transition time.

### 3 Scale

Demand-responsive, mobility hubs can be scaled up or down to fit market demand.



# Choice: Offer a range of options



Scooter and e-scooter rental/share



Bike and e-bike rental/share



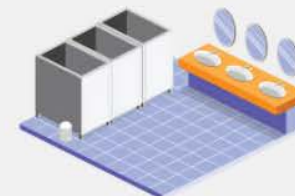
Transit card kiosk



Rideshare



EV rental /charging



Comfort station



Delivery lockers



Food outlets /kiosks



Public gathering places/plaza



Pop-up business/ market

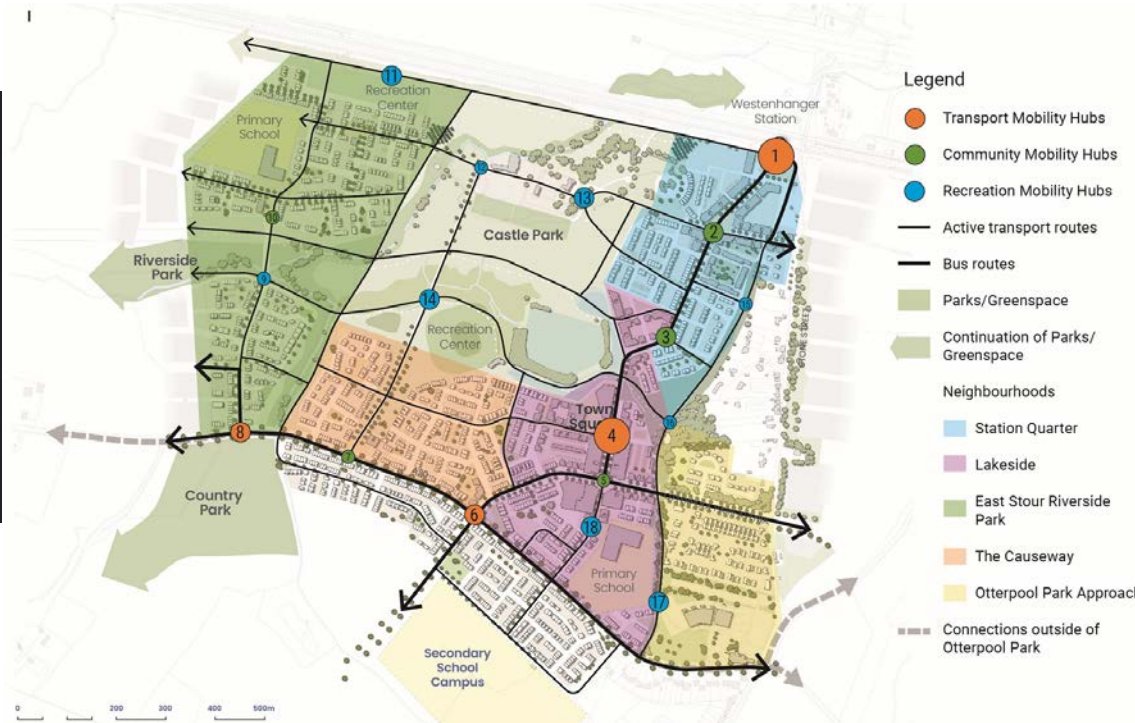


Coworking spaces



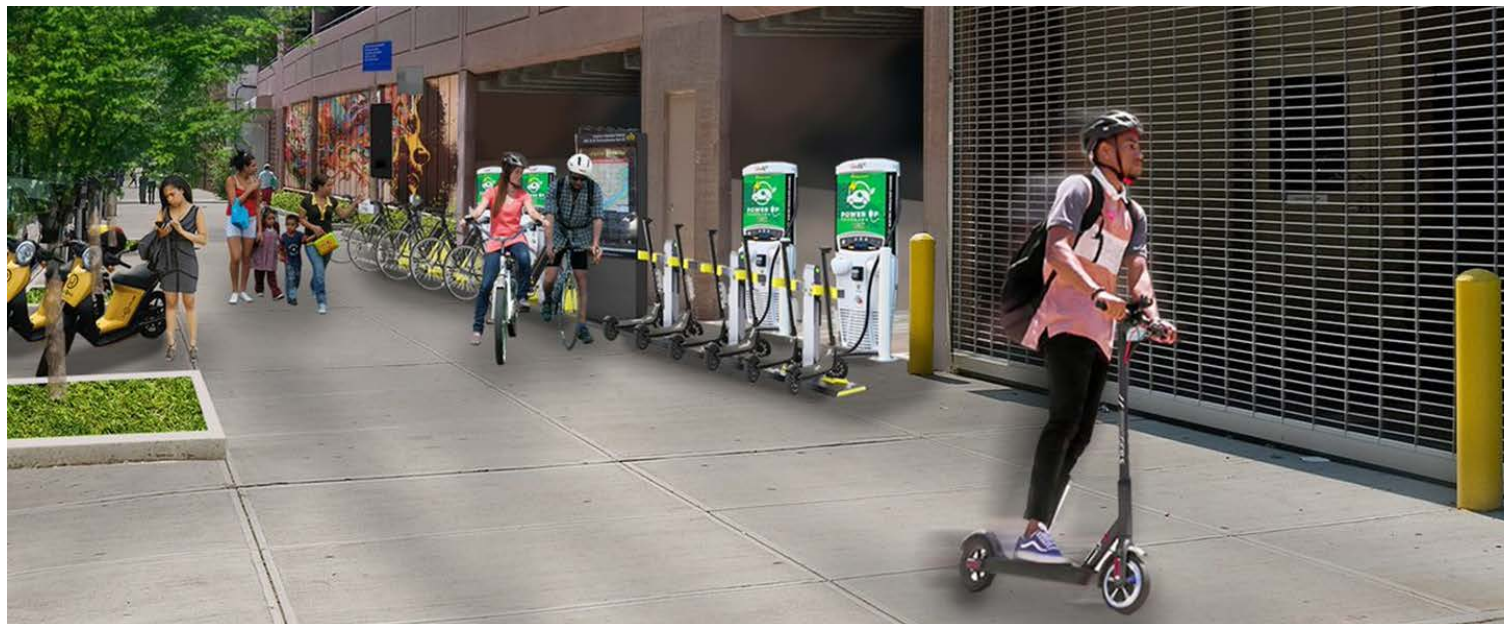
Retail outlets

# Access: Placemaking meets transportation





**Scale:**  
They can fit  
almost  
anywhere







# What do **mobility hubs** mean for upstate New York?

- **Extend the reach of transit** by providing facilities and amenities for first mile/last mile modes.
- **Address barriers to mobility** for vulnerable populations by providing a range of affordable and accessible options.
- **Preparing communities** for the future of mobility by establishing infrastructure to support mobility as a service (MaaS).
- **Improving the integration of land-use and transportation** by seamlessly integrating community space with mobility options.

# **FINAL CONSIDERATIONS**

# DESIGN FOR TOMORROW.

MAX PURPLE BRT, CALGARY, AB, CANADA



# DON'T BE AFRAID TO EXPERIMENT

EVERETT, MA, USA



# LASTLY - REMEMBER WHO THIS WORK IS FOR...

25CONNECTS, CLEVELAND, OHIO, USA

1.0 CLARK AVE - METROHEALTH DR



2.0 DETROIT AVE - LORAIN AVE



3.0 MAPLEDALE DR - WILDLIFE WAY

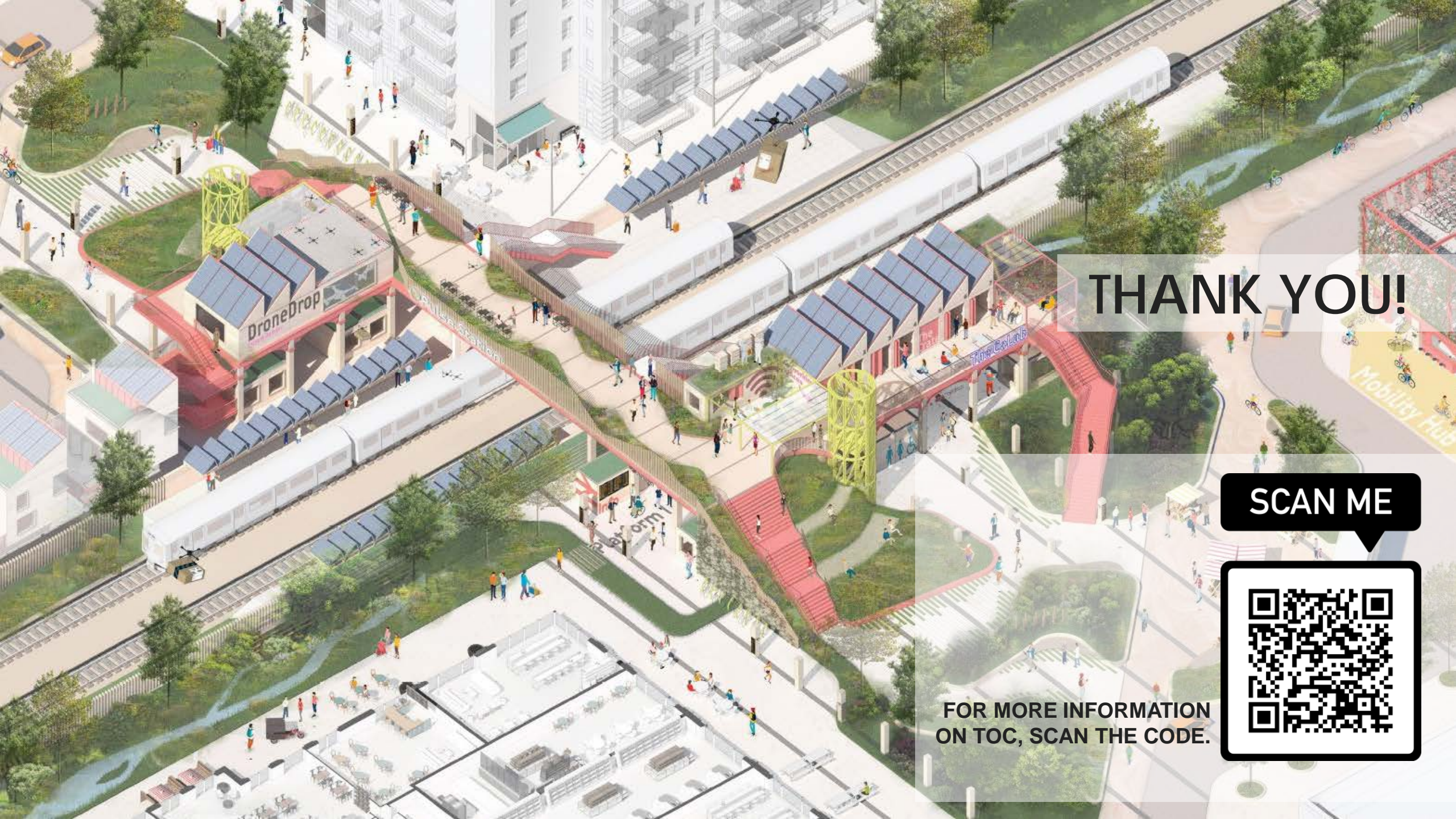


4.0 COLUMBUS RD - CLARK AVE



5.0 BROADVIEW RD - DETROIT AVE





**THANK YOU!**

**SCAN ME**



**FOR MORE INFORMATION  
ON TOC, SCAN THE CODE.**

# **Route 31 Transit Corridor Assessment: A context for the session**

James D'Agostino

Director

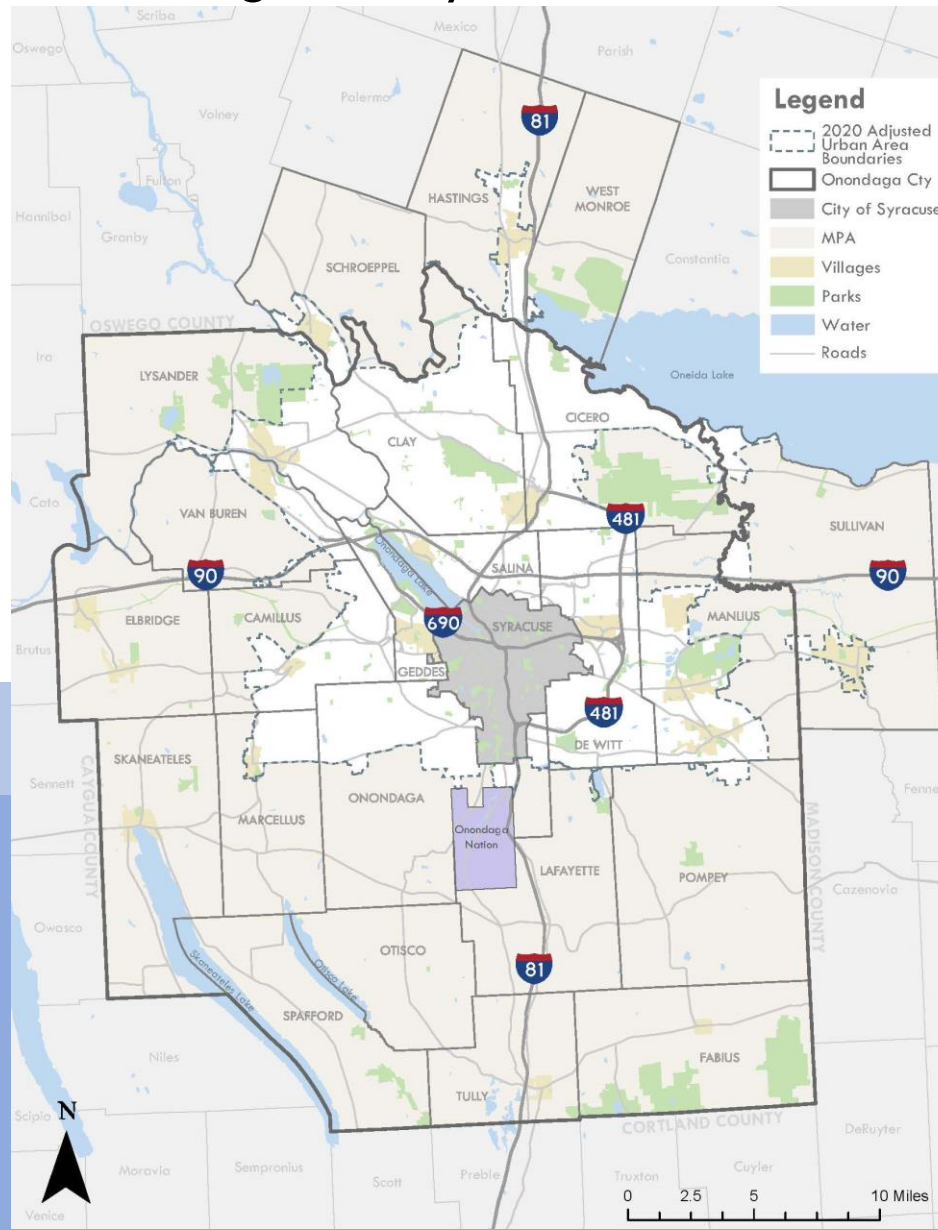
Syracuse Metropolitan Transportation Council ( SMTC)



# Who is the SMTC?

The Syracuse Metropolitan Transportation Council (SMTC) is the Metropolitan Planning Organization for the Syracuse region.

Transportation planning efforts focused within Onondaga County, the towns of Hastings, Schroepfel, and West Monroe in Oswego County, and the Town of Sullivan in Madison County.



For more information, see our website:  
[www.smtcmpo.org](http://www.smtcmpo.org)



## Member Agency:

- CNY Regional Planning and Development Board (CNY RPDB)
- CNY Regional Transportation Authority (CNYRTA)
- CenterState Corporation for Economic Opportunity (Centerstate CEO)
- City of Syracuse
  - Office of the Mayor
  - Common Council
  - Planning Commission
- New York State
  - Department of Environmental Conservation (NYSDEC)
  - Department of Transportation (NYSDOT)
  - Thruway Authority (NYSTA)
  - Empire State Development
- Onondaga County
  - Office of the County Executive
  - Legislature
  - Planning Board

## Non - Voting Members:

- Onondaga Nation
- Federal Aviation Administration (FAA)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- Madison County Board of Supervisors – Chair
- Oswego County Legislature - Chair

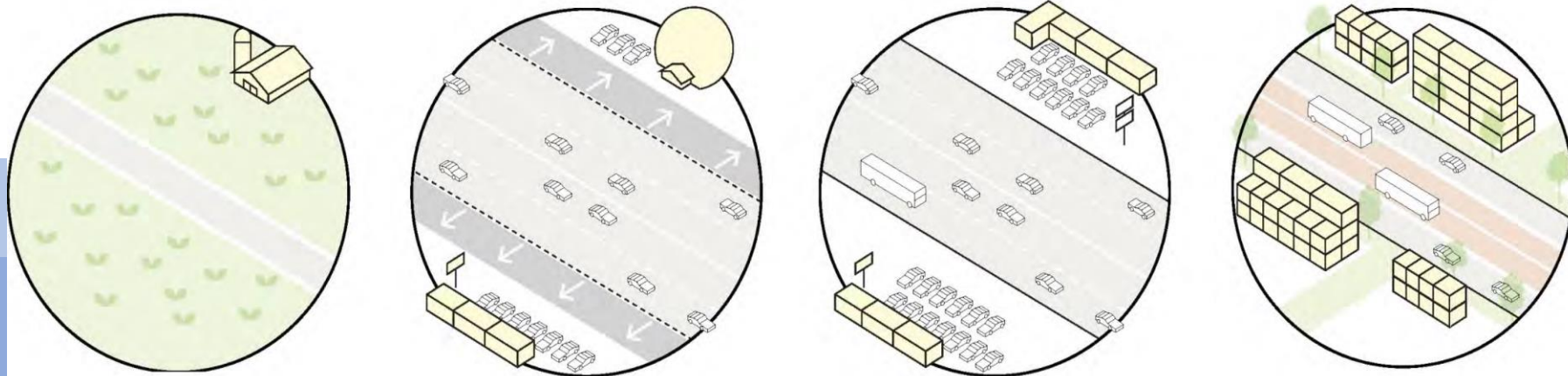
# What is a Metropolitan Planning Organization (MPO)?

- A Metropolitan Planning Organization, or MPO, is a transportation policy-making and planning body made up of representatives of local, state, and federal government and transportation authorities.
- The Policy Committee is the designated MPO.
- The MPO is charged with the comprehensive, cooperative, and continuous transportation planning process for a metropolitan area.



# Planning for Growth:

- Real expected growth spurred by Micron and anticipated spinoff development
  - Previous planning was for little to no growth (sprawl without growth)
  - Now planning for many thousands of jobs and tens of thousands of new households
- Land Use decisions matter in a different way then before
  - Each new development matters and they can set the stage for a new vision
- Community members have been requesting “New” and/or “Enhanced” Transit Options (as a related factor to deal with new housing growth particularly in northern parts of Onondaga County)



**PAST**



**PRESENT**



**FUTURE**

# New or Enhanced Transit:

- **Route 31 Transit Corridor Assessment:**

A planning study that examines what land use development would likely have to look like to “work” with various transit options.

- Rail, Streetcar, Bus Rapid Transit, or simply enhanced transit service



# New or Enhanced Transit:

- Once land is developed and housing is built, changes are often too difficult – so we have one shot to plan this right.
  - But what does right mean? **Up to the local land use decision makers.**
- The SMTC's transit corridor assessment will help visualize the intensity and the mix/type of housing and commercial development necessary to support transit options
- If we build like we have been building for past 30+ years – enhanced transit in northern suburbs is unlikely to work successfully

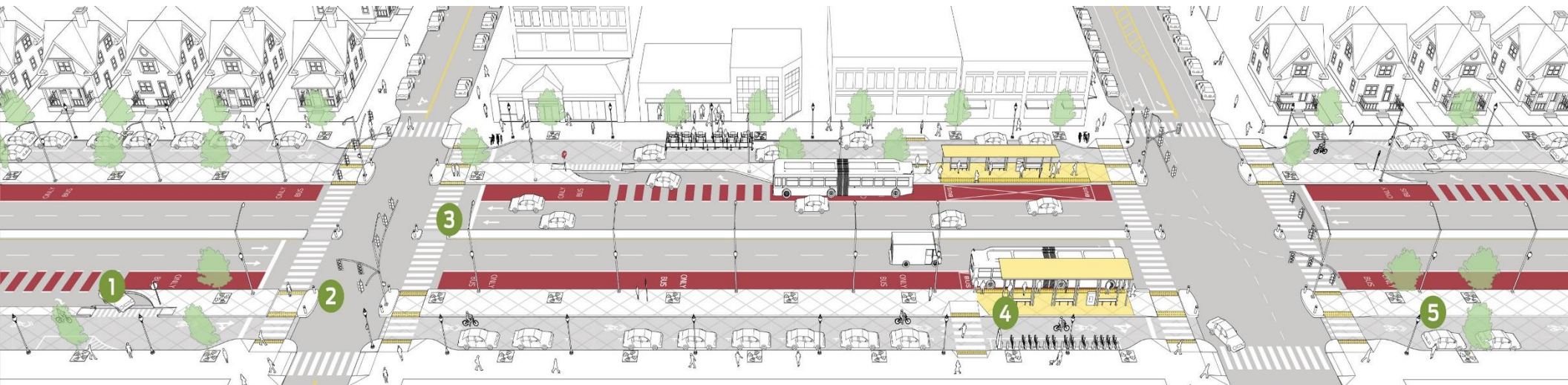


Image source: Transit Street Design Guide, NACTO

# SMTC Transit Assessment:

- Stantec is leading our study – which is just beginning.
- Their follow up presentation will highlight what transit corridor planning can look like and what it can result in (not for the Route 31 corridor specifically – but in general)
- Please keep in mind we have the opportunity to plan and do something different that will live on for decades – or we can keep doing the same thing.
- NYS = Local Land Use Control = It's up to You!
  - Local decision makers to decide and encourage the type of development they want to get the corresponding type of transportation system a community wants – **different** will not happen by accident

