

# THE SPACE, TIME, AND ARCHITECTURE OF A FUTURE PARKING REALITY

UT System Real Estate Conference  
January 23 | 1:00PM to 2:00PM

# SHAPING THE FUTURE OF MOBILITY

Moving into the future we must reallocate and redesign legacy paths, and vision new paths that support a rapidly evolving spectrum of new transportation modes.

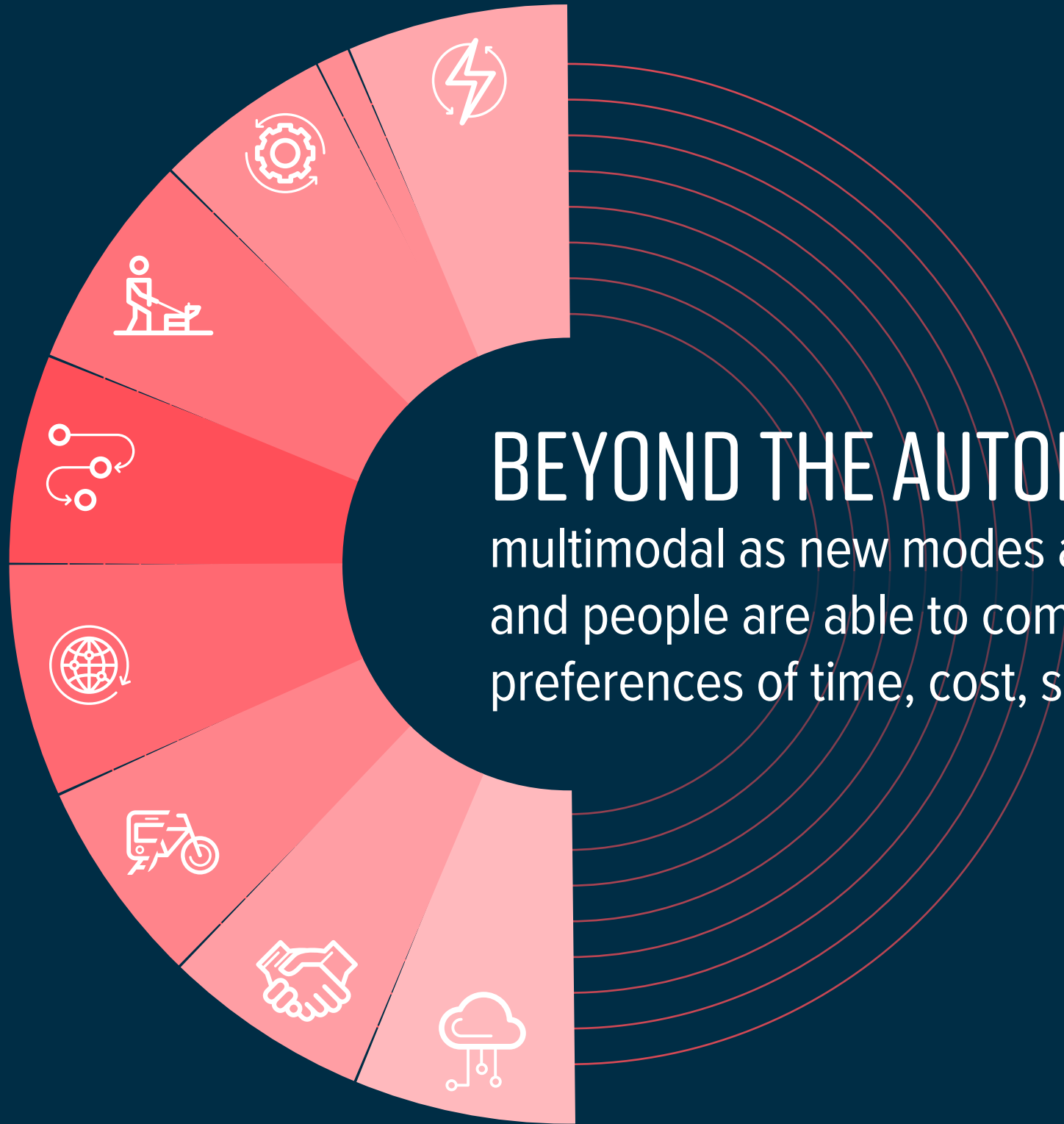




PERSONAL VEHICLE OWNERSHIP BY PEOPLE  
AGES 16-49 YEARS OLD HAS FALLEN  
**24% SINCE 2000**

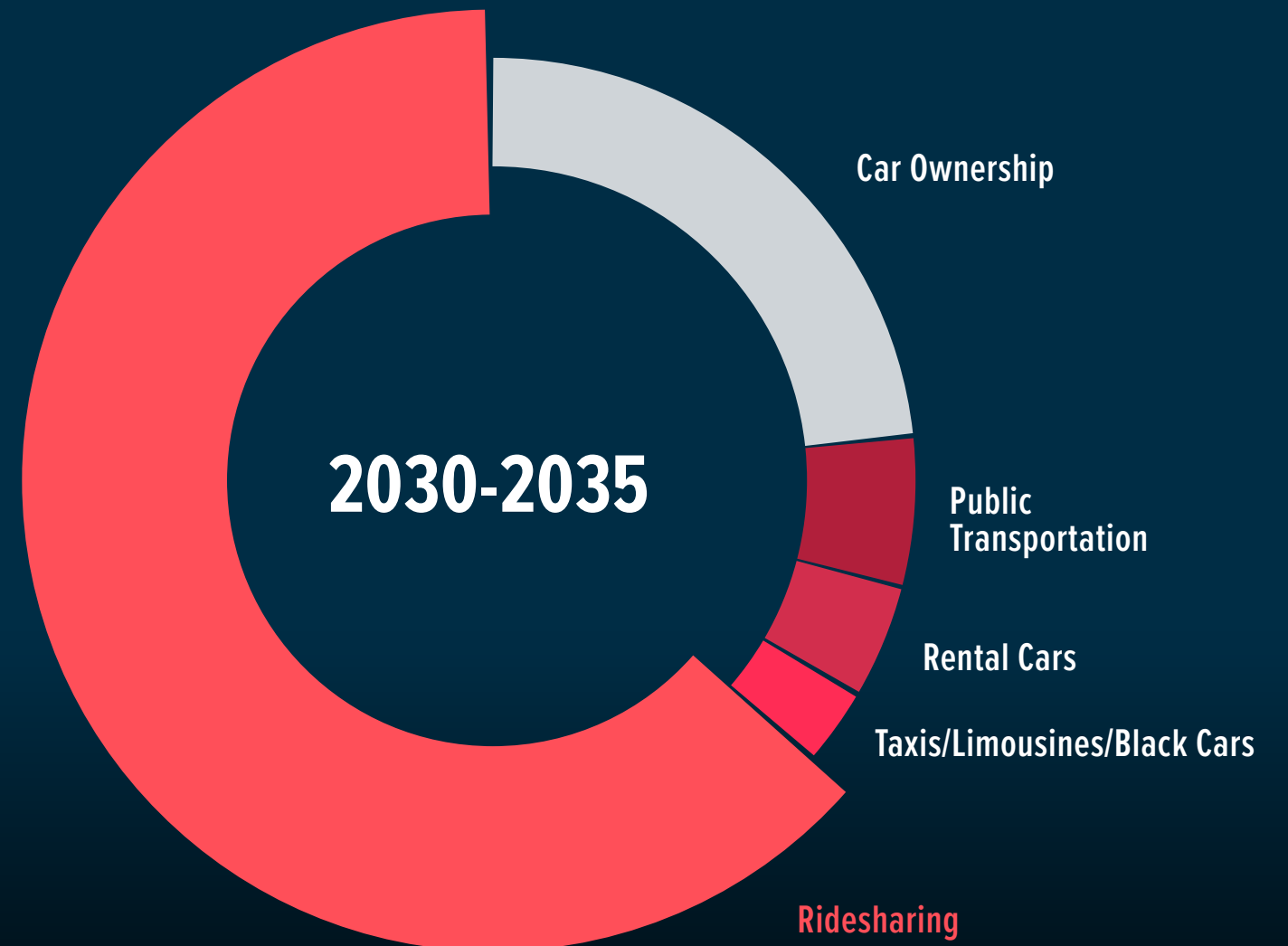
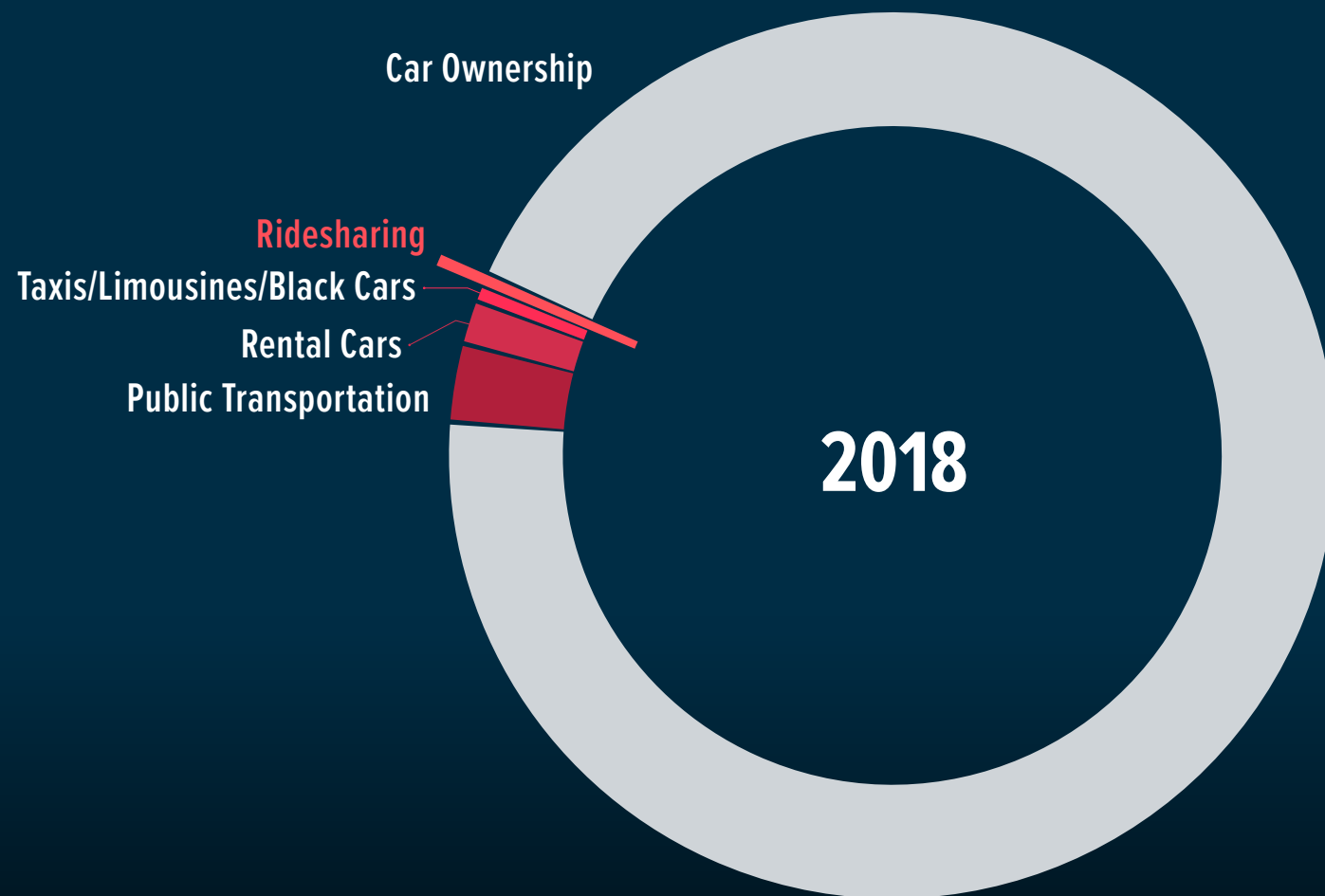
---





**BEYOND THE AUTOMOBILE.** Our experience is becoming multimodal as new modes and choices replace transit dependency and people are able to compose infinite trip combinations to fit preferences of time, cost, sociability, and performance.

## DRIVERS OF CHANGE

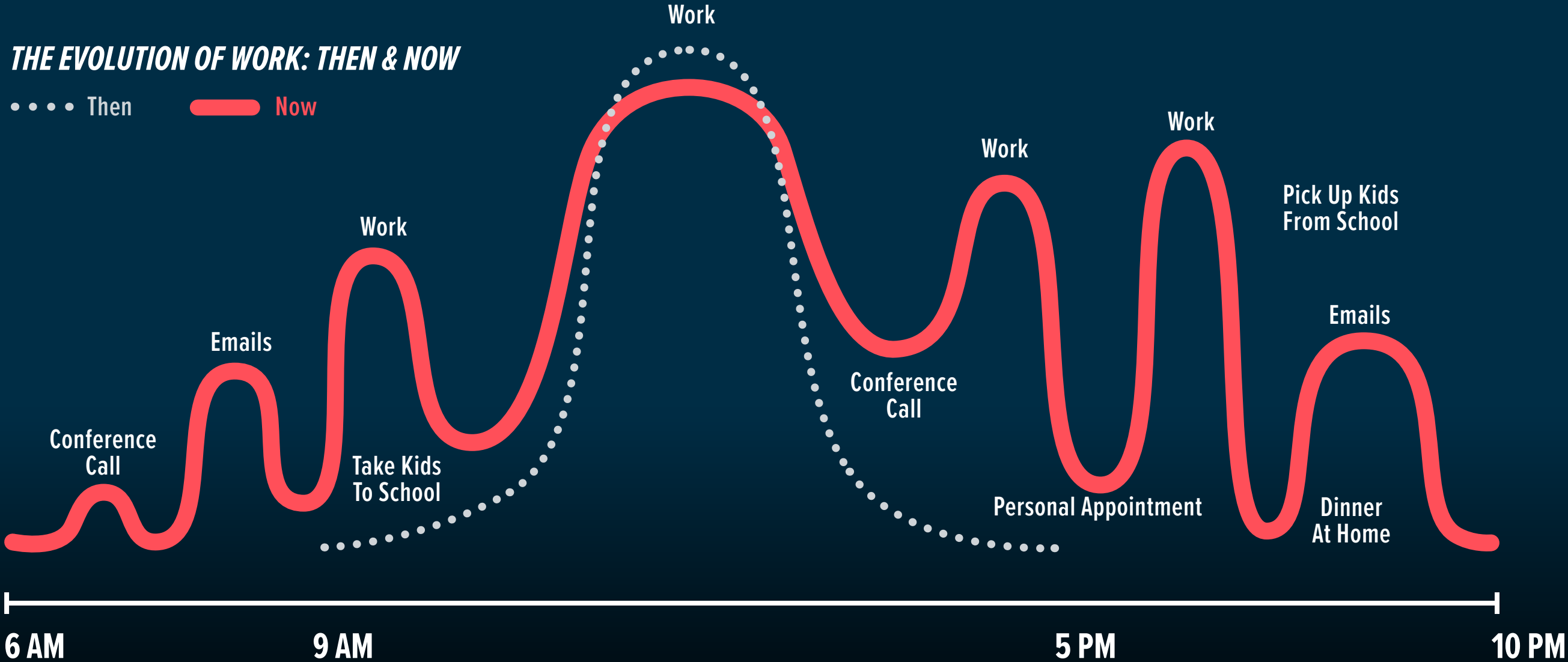




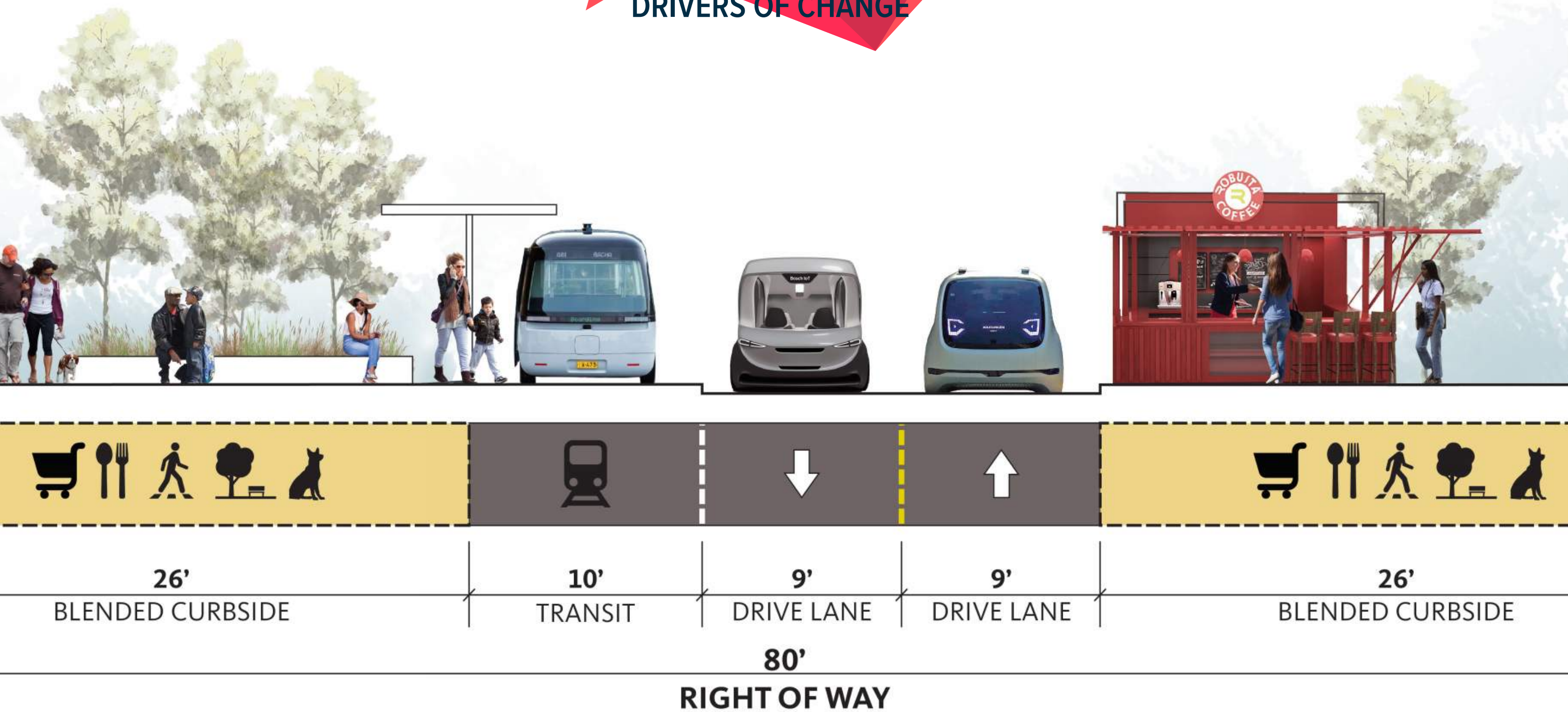
DRIVERS OF CHANGE

*THE EVOLUTION OF WORK: THEN & NOW*

• • • • Then      ——— Now



## DRIVERS OF CHANGE

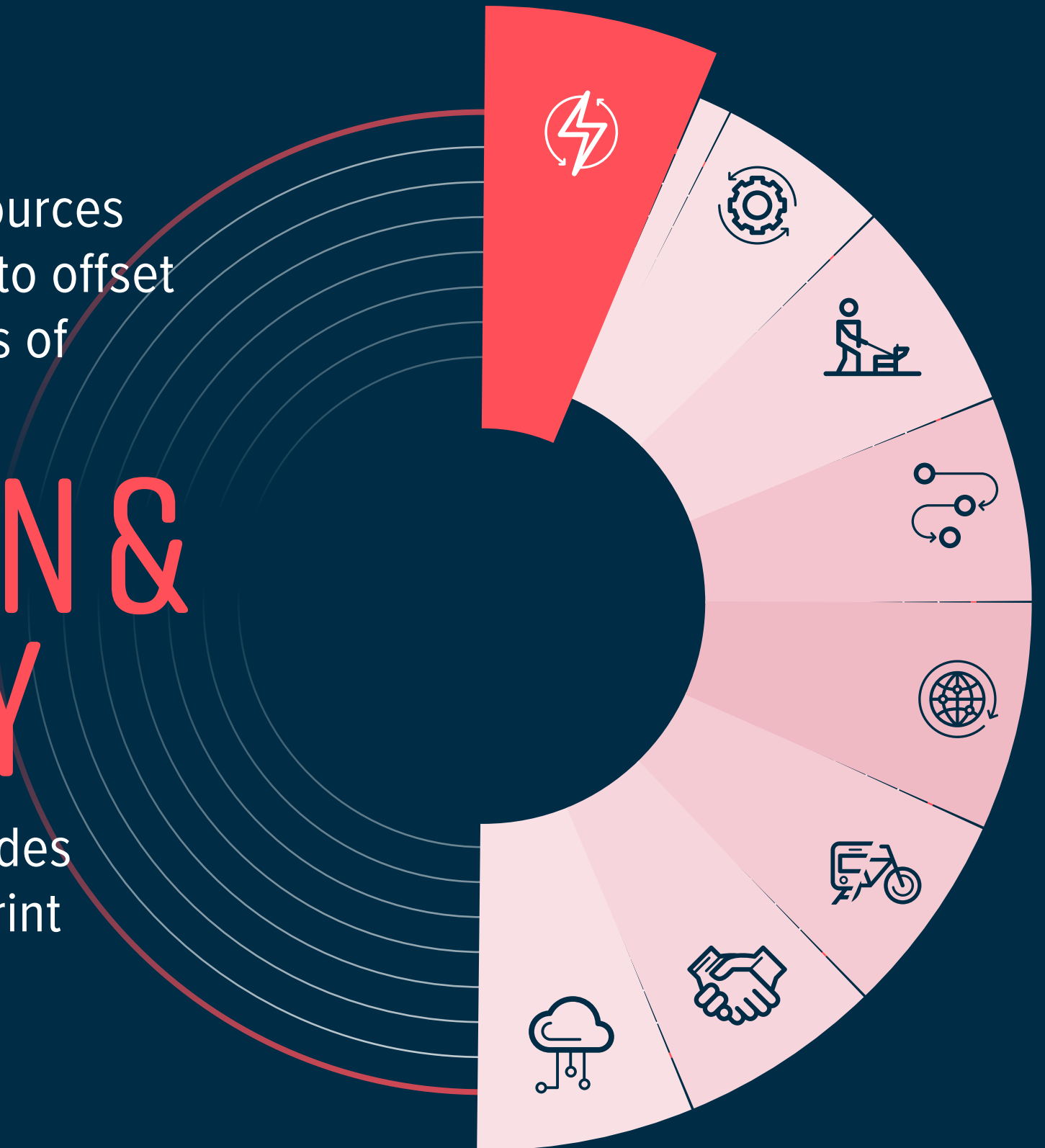


WHY

The miniaturization of electric power sources through evolving technology allows us to offset most, if not all, petroleum-based modes of transportation in our future cities.

# ELECTRIFICATION & MICROMOBILITY

New, smaller, lighter, more efficient modes that operate with a much smaller footprint than cars are the future.





The background image shows a city street scene. On the left, a red bicycle is partially visible, blurred. On the right, several black and red electric scooters are parked on a sidewalk. The scooters have the word 'circ' written on them. The background is slightly out of focus, showing a street with a yellow traffic light and some greenery. A large red triangle is overlaid on the left side of the image, containing the text.

60%  
OF ALL TRIPS IN  
THE U.S. ARE LESS  
THAN 5 MILES

OUR GOAL IS TO BUILD  
URBAN ENVIRONMENTS  
SUPPORTIVE OF SAFE  
MICROMOBILITY NETWORKS  
AND NET-ZERO CHARGING  
INFRASTRUCTURE.

95%

OF THE WORLD'S CURRENT  
TRANSPORTATION ENERGY COMES  
FROM OZONE PRODUCING, PETROLEUM-  
BASED FOSSIL FUELS

—ENVIRONMENTAL PROTECTION AGENCY (EPA)

84 MILLION

TRIPS WERE PROVIDED BY  
MICROMOBILITY IN 2018, A 100%  
INCREASE FROM THE YEAR BEFORE

—NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS





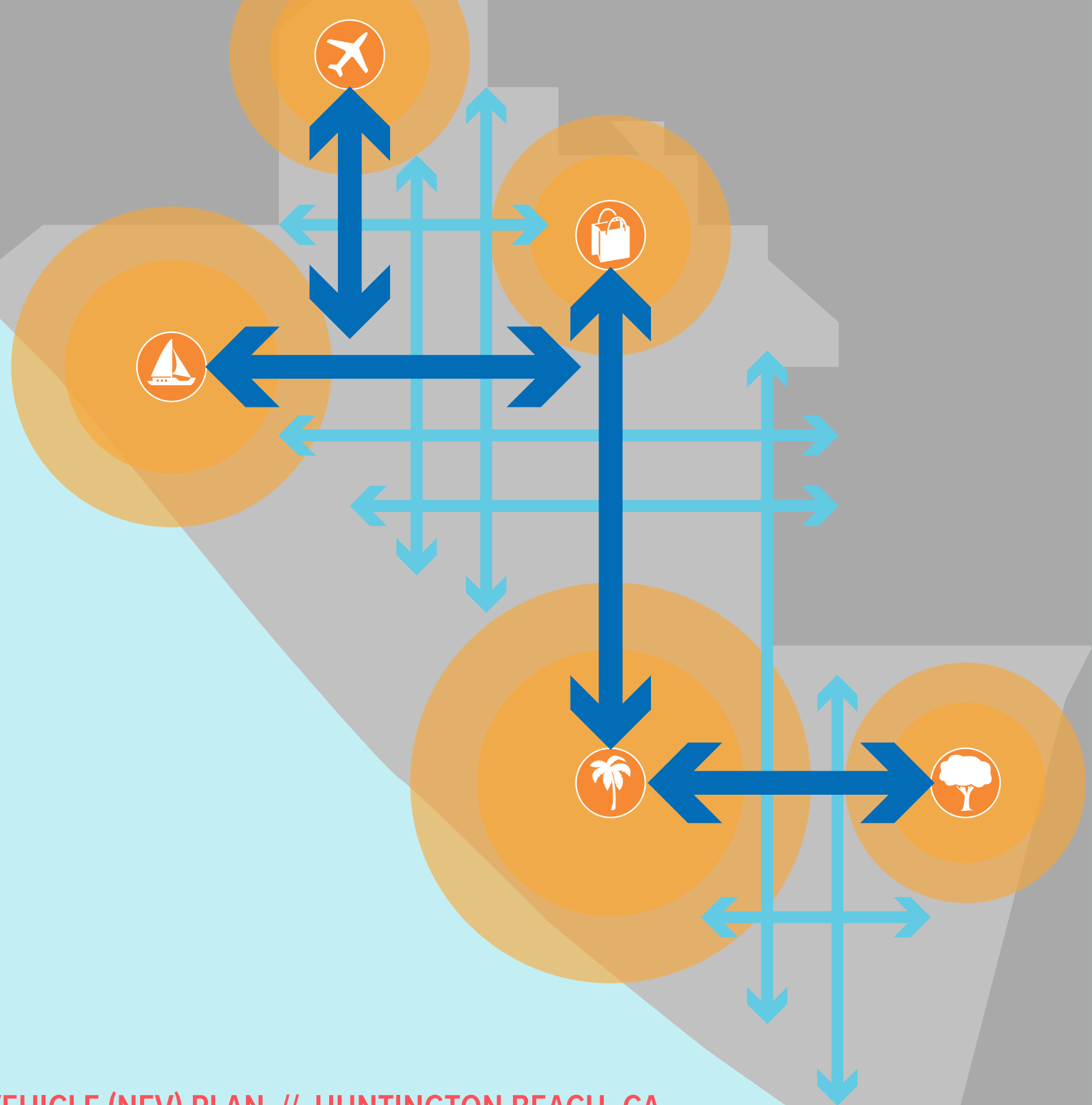
**IDENTIFY LOW-SPEED  
MOBILITY ZONES**

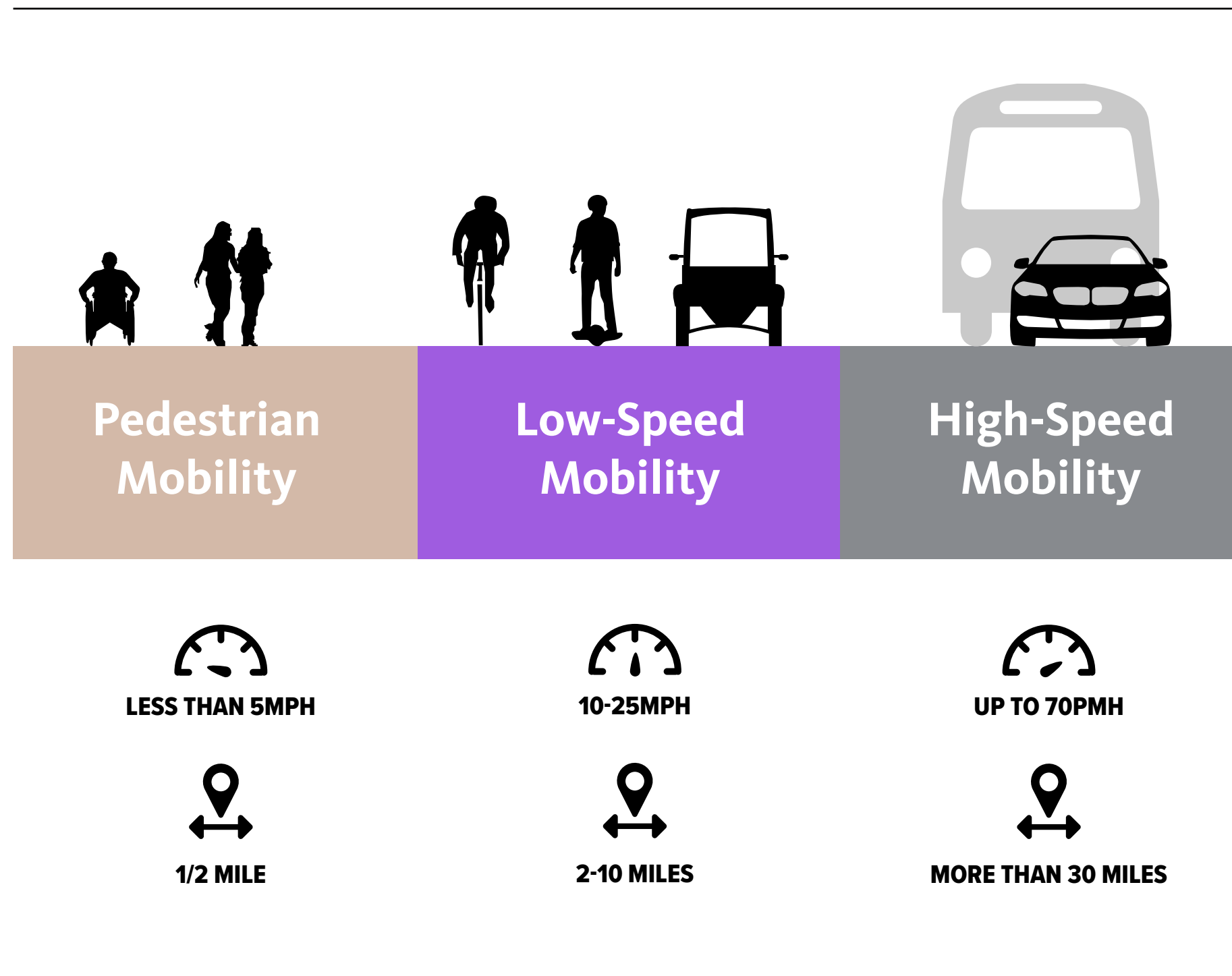


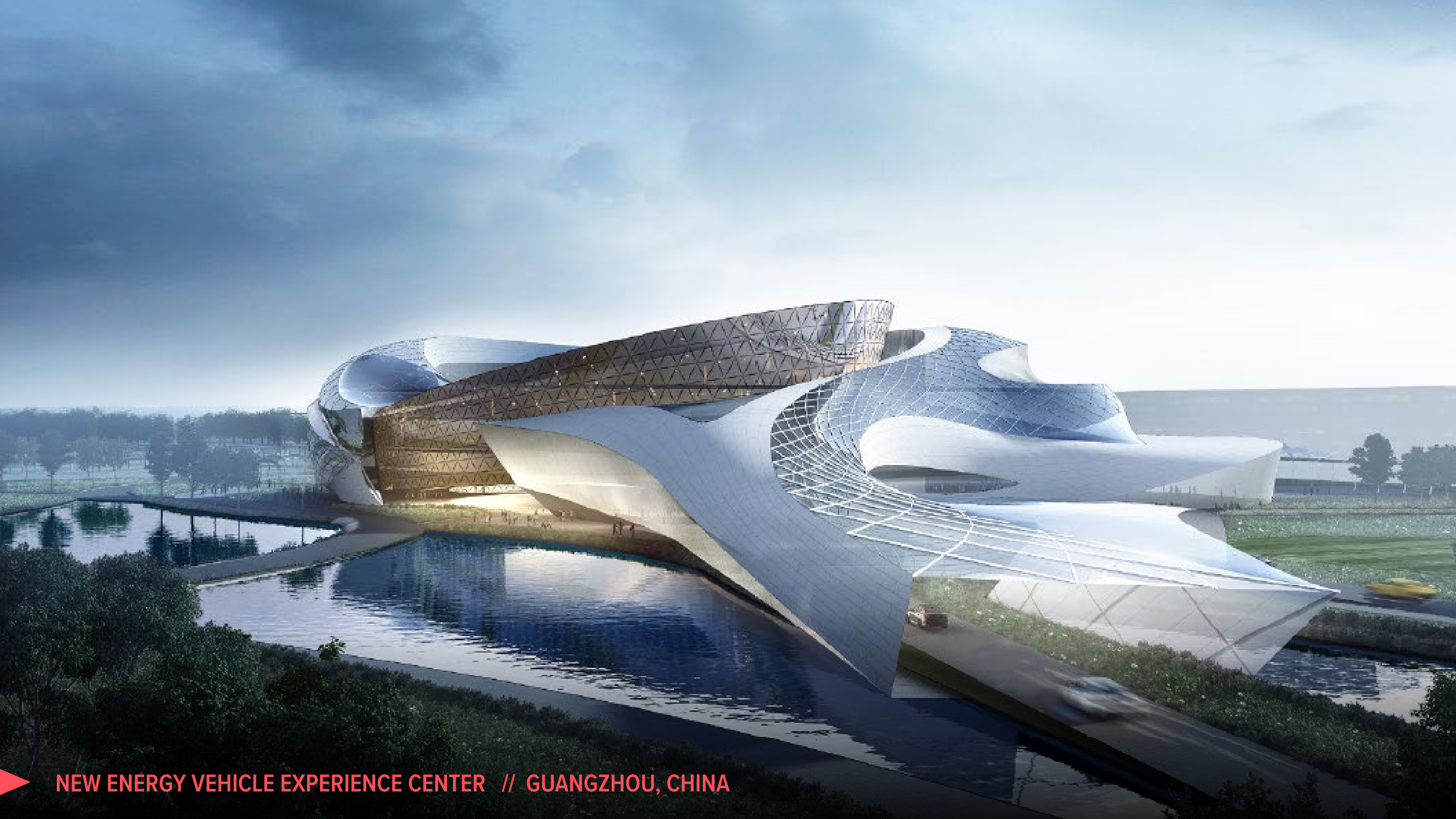
**DEVELOP BACKBONE  
ROUTES**



**CONSIDER OPTIONS  
FOR FUTURE NETWORK  
EXPANSION**







NEW ENERGY VEHICLE EXPERIENCE CENTER // GUANGZHOU, CHINA



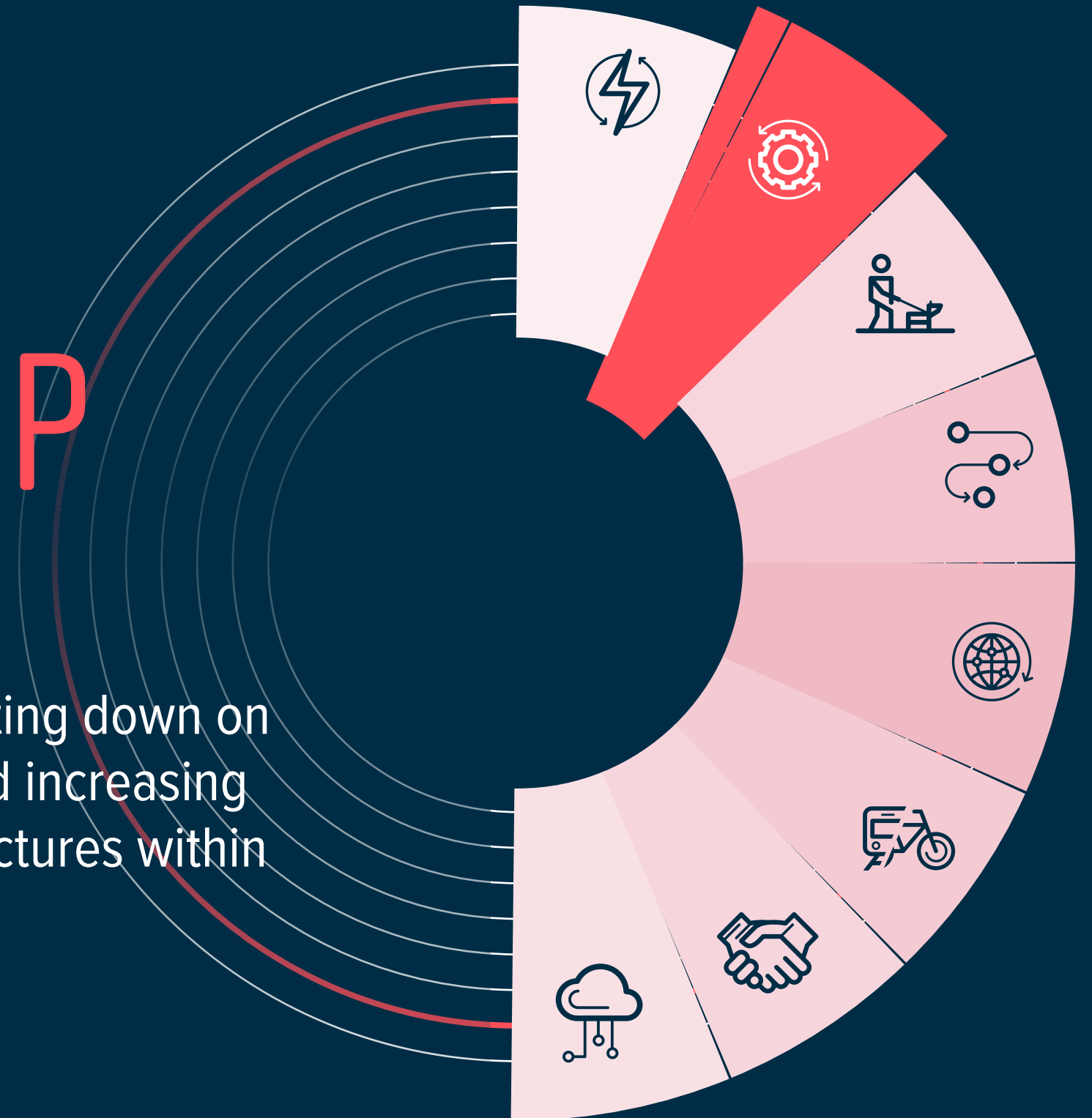
NEW ENERGY VEHICLE EXPERIENCE CENTER // GUANGZHOU, CHINA





# CHANGING TRIP DYNAMICS

Online retail and remote working are cutting down on longer commutes and shopping trips, and increasing the need for new logistic and supply structures within dense and walkable communities.







3X  
AS MANY ONLINE  
FOOD ORDERS  
COMPARED TO 7  
YEARS AGO



OUR GOAL IS TO RESHAPE  
THE BUILT ENVIRONMENT TO  
SUPPORT LIVE, WORK, AND  
PLAY LIFESTYLES WITHIN  
SAFE AND WALKABLE  
COMMUNITIES.

9%

OVER 76% OF AMERICANS DRIVE  
TO WORK EACH DAY, ONLY 9%  
OF WHICH CARPOOL

—READWRITE, “OVERCOMING THE LAST MILE COMMUTE  
CHALLENGE WITH THE IOT”

1 in 3

PEOPLE WILL BE HIRED TO  
WORK ONLINE FROM ANYWHERE  
THEY WANT BY 2020





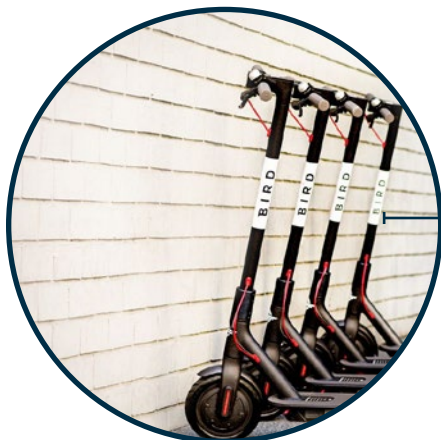
ONLINE GROCERY WAREHOUSE



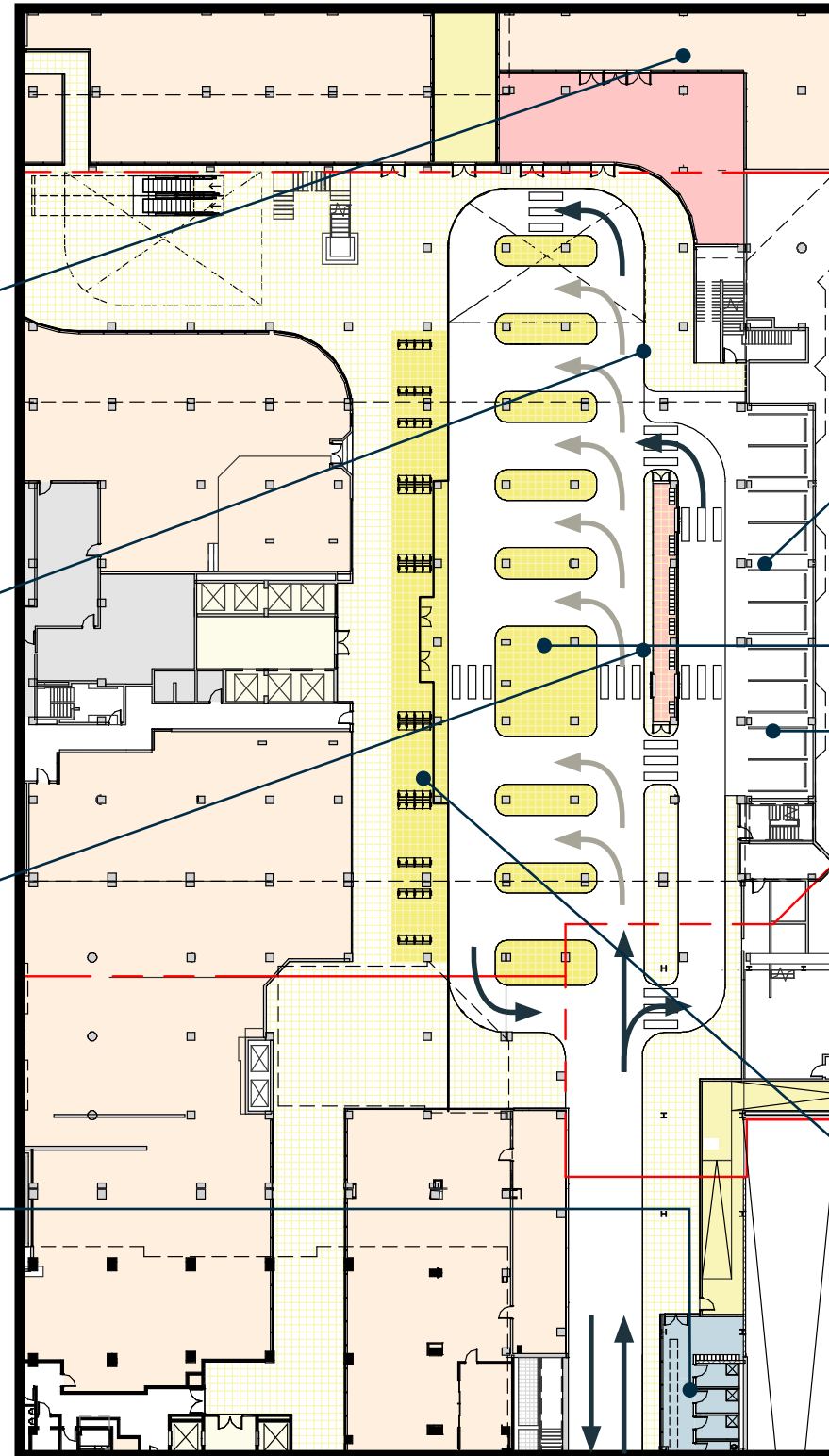
SAME-DAY  
GROCERY PICK-UP



SAME-DAY ONLINE ORDER PICK-UP



ELECTRIC SCOOTER  
CHARGING STATION



CURBSIDE GROCERY  
PICK-UP PARKING



RIDESHARE PICK-UP ZONE



ELECTRIC VEHICLE  
CHARGING STATION



RIDESHARE LOBBY





CAMPUS POINT LILY ENTRY // SAN DIEGO, CA







WHY

Roads are for cars, streets are for people.

# RECLAIMING STREETS

As cities densify, streets will play a critical role in supporting health and wellness by supporting a broader range of travel modes as safe sustainable places for people.







**35%**  
**MORE PEDESTRIAN**  
**DEATHS ON**  
**U.S. STREETS**  
**SINCE 2008**

OUR GOAL IS TO REBALANCE  
STREETS FOR NEW MOBILITY,  
PEDESTRIAN WELFARE,  
WATER MANAGEMENT,  
EXPERIENCE, AND QUALITY  
OF PLACE IN OUR CITIES.

+10

POINTS IN “WALK SCORE”  
INCREASES COMMERCIAL PROPERTY  
VALUES BY 5 TO 8 PERCENT.

— UNIVERSITY OF ARIZONA & INDIANA UNIVERSITY, 2010

—  
2X

RESIDENTS WHO PERCEIVE THEIR  
COMMUNITY TO BE WALKABLE HAVE ON  
AVERAGE 2X HIGHER LEVELS OF TRUST  
AND COMMUNITY INVOLVEMENT

—WALKING BUILDS COMMUNITY COHESION, UNIV. OF NH &  
CARSEY INSTITUTE 2014



# THE FINEST PLACES IN THE WORLD ARE CITIES WITH ENTIRE NETWORKS OF CAR-FREE STREETS KNOWN AS PEDESTRIAN CITIES.









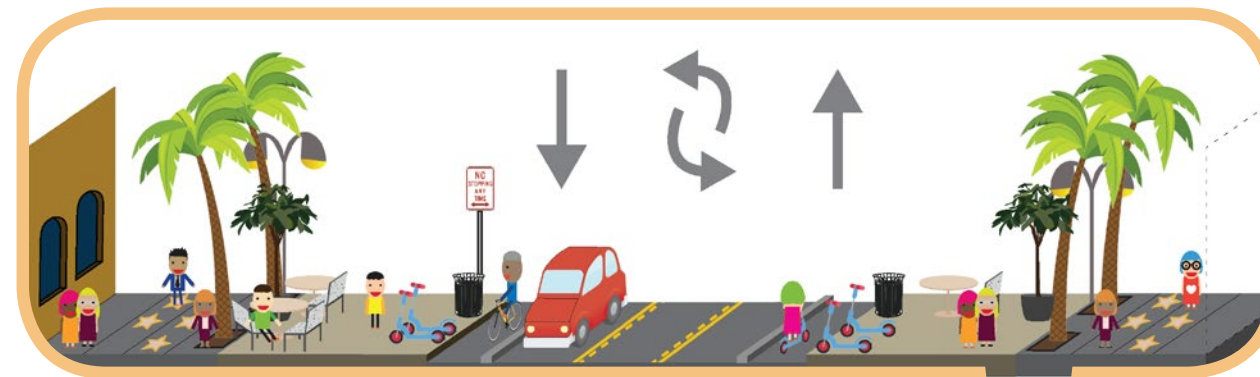


SANTA ANA MAIN STREET // SANTA ANA, CA





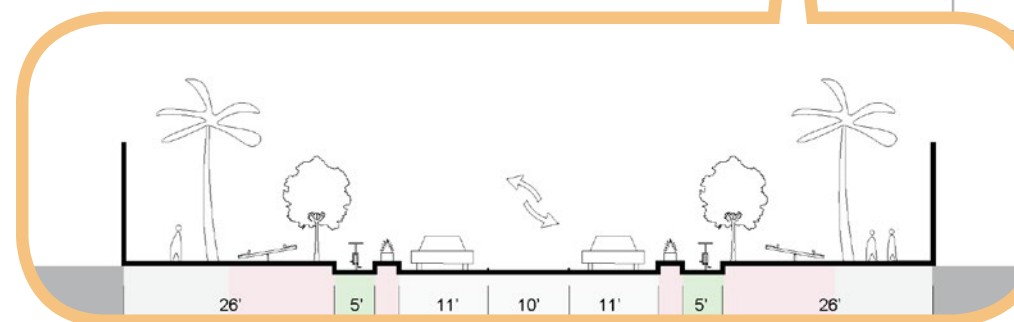
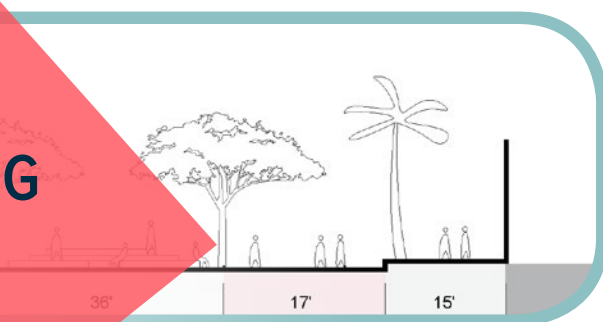
PROMENADE: PEDESTRIAN ONLY



ENHANCED COMPLETE STREET

+10

ACRES OF SPACE FOR  
PEOPLE & AMENITIES  
CREATED BY ELIMINATING  
ON-STREET PARKING &  
2 TRAFFIC LANES



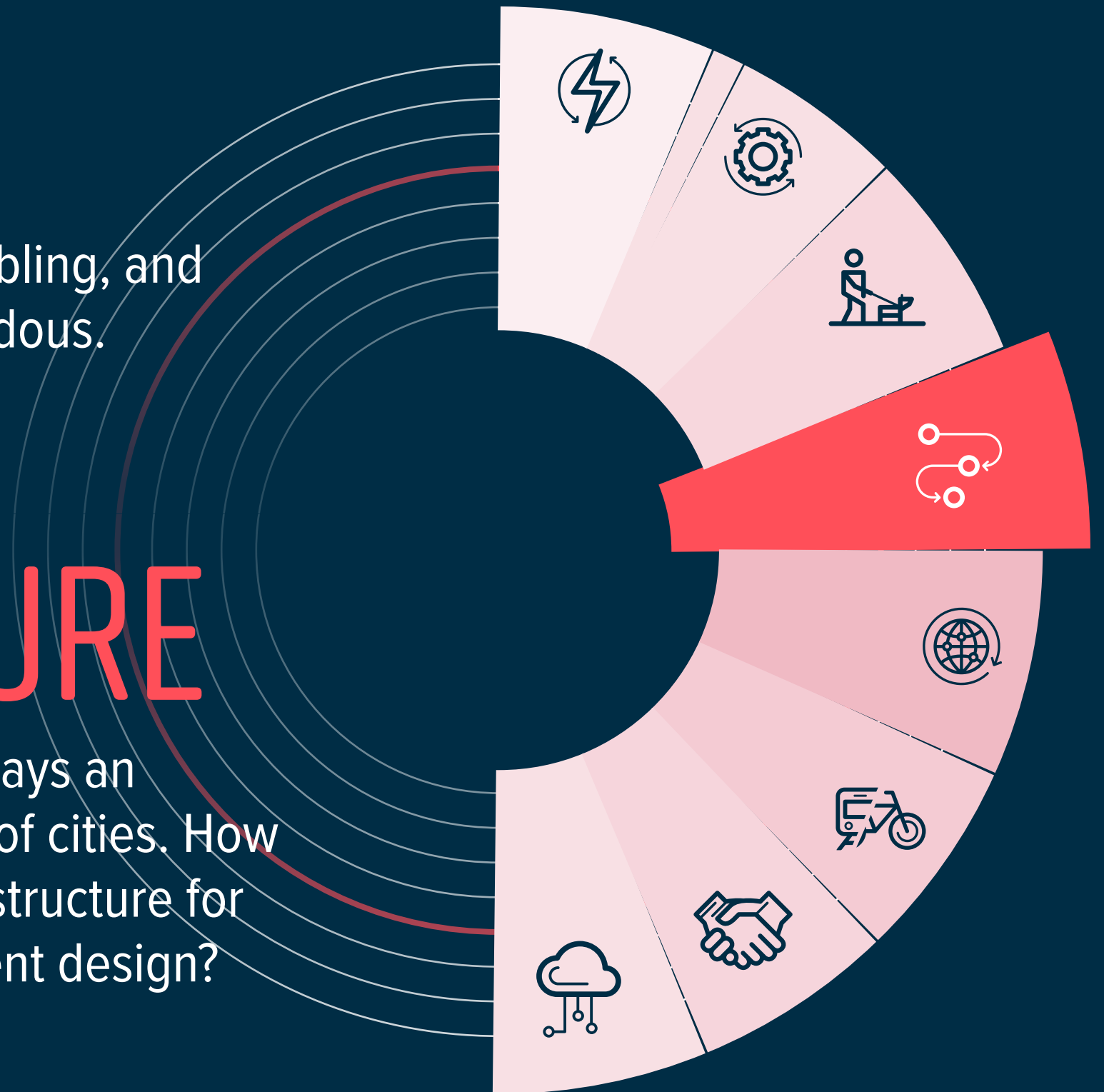
HOLLYWOOD WALK OF FAME STREETScape // LOS ANGELES, CA

WHY


In too many cities, infrastructure is crumbling, and the costs of replacement can be tremendous.

# ADAPTIVE INFRASTRUCTURE

More than a functional requirement, it plays an outsized role in shaping the experience of cities. How can we both repurpose and create infrastructure for the future using technology and intelligent design?







**\$1.5T**  
ESTIMATED COST OF  
“INFRASTRUCTURE  
GAP” BY 2025

SOURCE: AMERICAN SOCIETY OF CIVIL ENGINEERS



OUR GOAL IS TO  
LEVERAGE DESIGN IN  
THE CONSIDERATION OF  
INFRASTRUCTURE—THE  
BONES OF ALL CITIES.

6.9B

HOURS WERE LOST TO U.S.  
DRIVERS AND BUS RIDERS SITTING  
IN DELAYED TRAFFIC IN 2014

\$3.3T

AVERAGE ANNUAL INVESTMENT ON  
INFRASTRUCTURE JUST TO SUPPORT  
CURRENTLY EXPECTED RATES OF  
GROWTH WORLDWIDE





THE BENTWAY STRACHAN GATE // TORONTO, ONTARIO





# 700K

RESIDENTS ACROSS  
7 NEIGHBORHOODS  
ARE KNIT TOGETHER

THE BENTWAY STRACHAN GATE // TORONTO, ONTARIO





SEATTLE MARINERS' FAN EXPERIENCE // SEATTLE, WA





▶ LONDON UNDERLINE // LONDON, UK





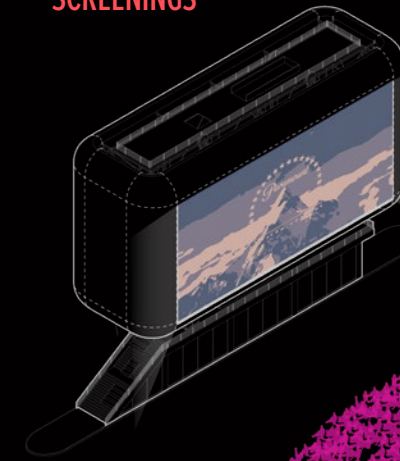




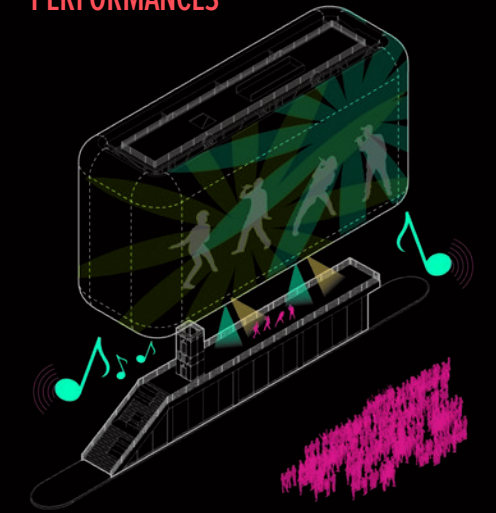




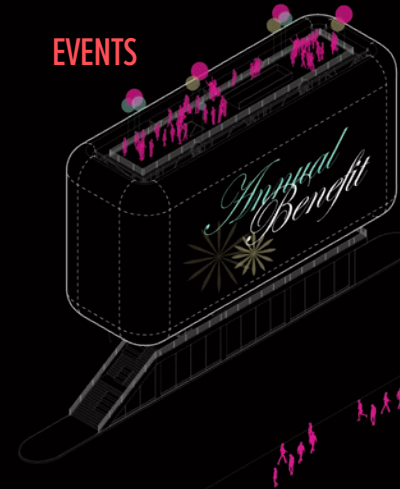
SCREENINGS



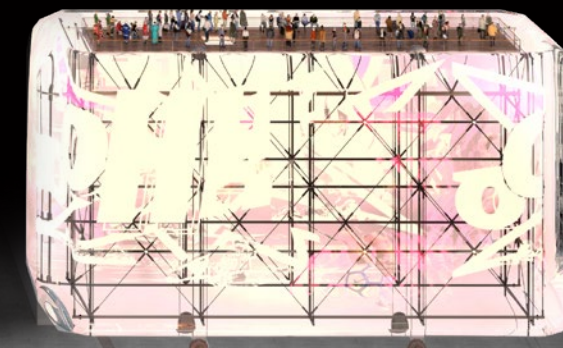
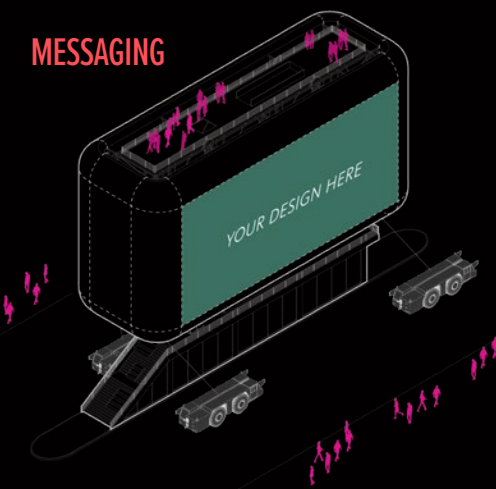
PERFORMANCES



EVENTS

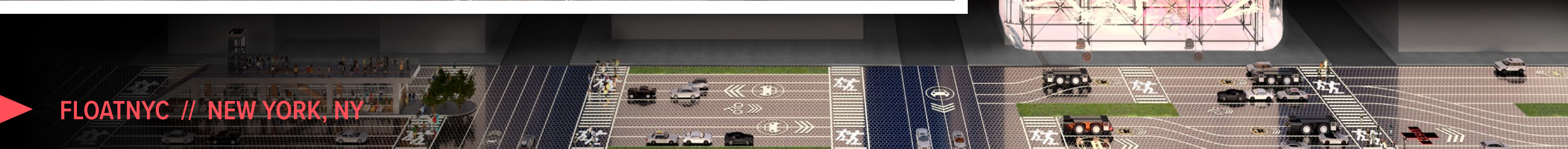


MESSAGING

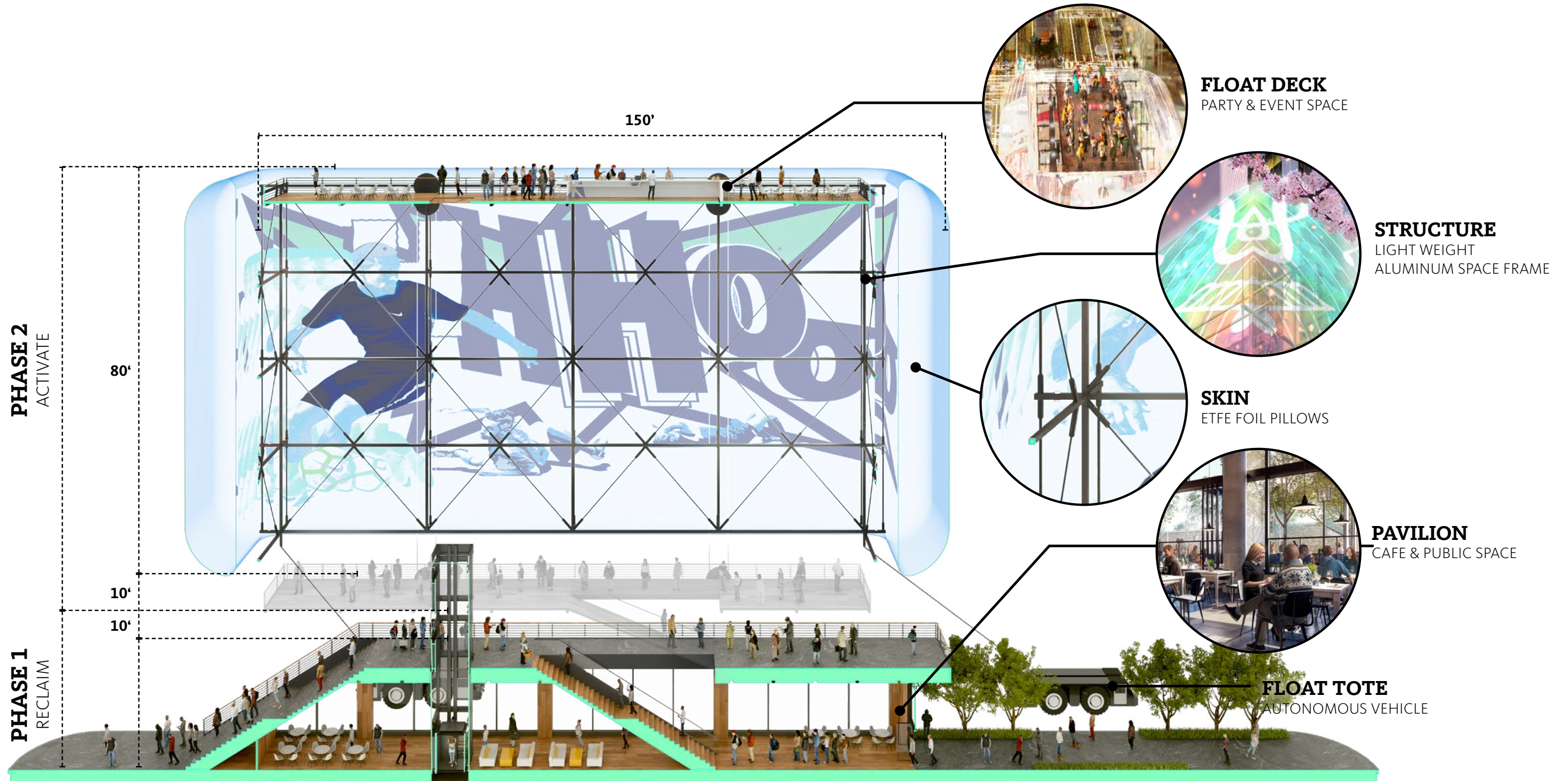


**SMART INFRASTRUCTURE**  
UMBRELLIUM RESPONSIVE ROAD SURFACE

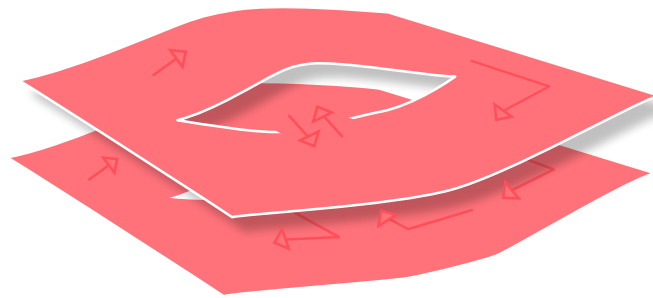
FLOATNYC // NEW YORK, NY







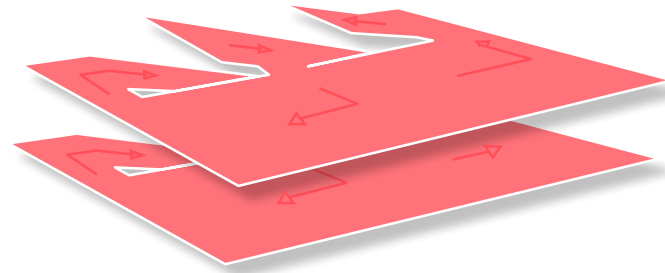




### Sloping Floors

One-Way Circulation

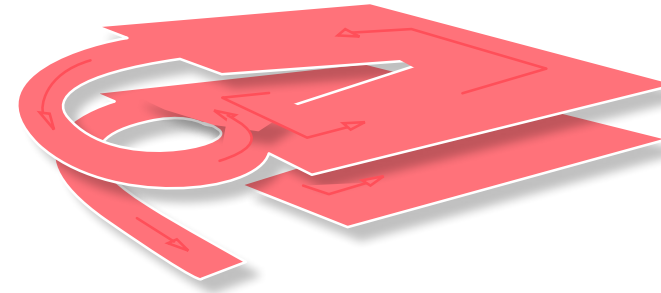
**OPTIMIZATION** ●●●  
**REPURPOSING** ○○○



### Sloping Floors

Cross-Connected Circulation

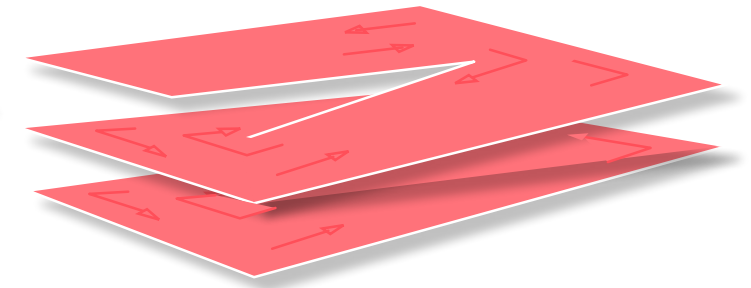
**OPTIMIZATION** ●●●  
**REPURPOSING** ○○○



### Sloping Floors

Helical Down Ramp

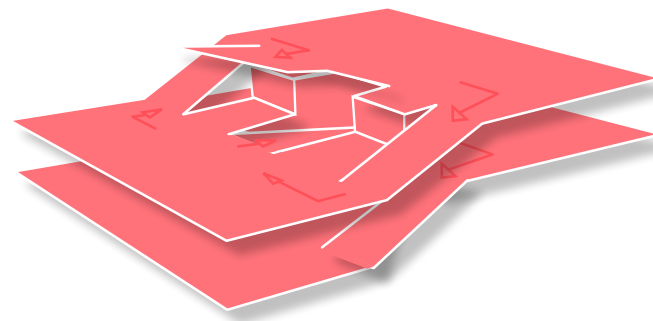
**OPTIMIZATION** ●●●  
**REPURPOSING** ○○○



### Sloping Floors

Two-Way Circulation

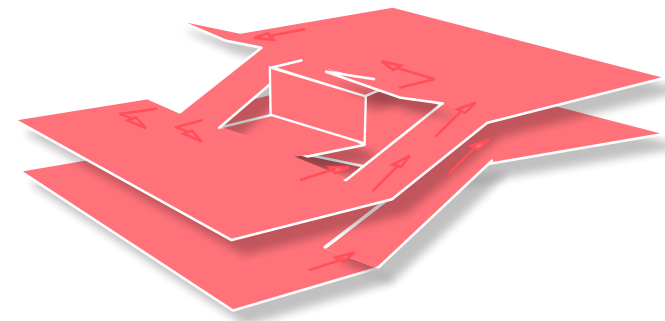
**OPTIMIZATION** ●●●  
**REPURPOSING** ○○○



### Staggered Floors

Two-Way Center Ramp

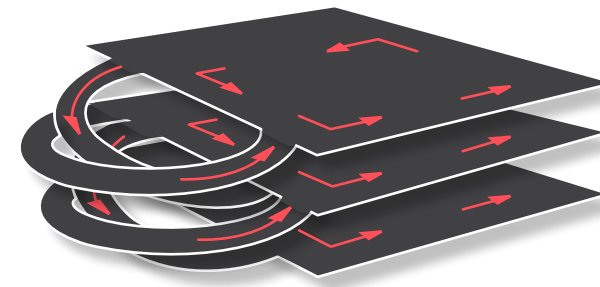
**OPTIMIZATION** ●●●  
**REPURPOSING** ●○○



### Staggered Floors

One-Way Circulation

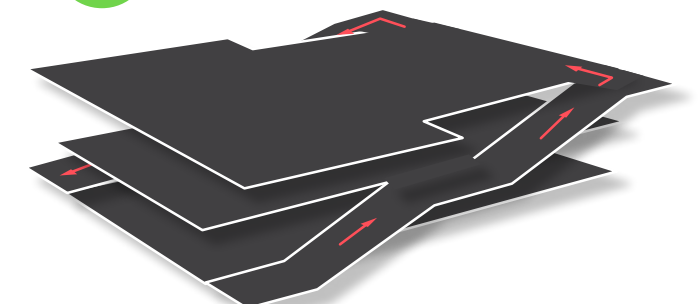
**OPTIMIZATION** ●●●  
**REPURPOSING** ●●○



### Flat Floors

Helical Ramps

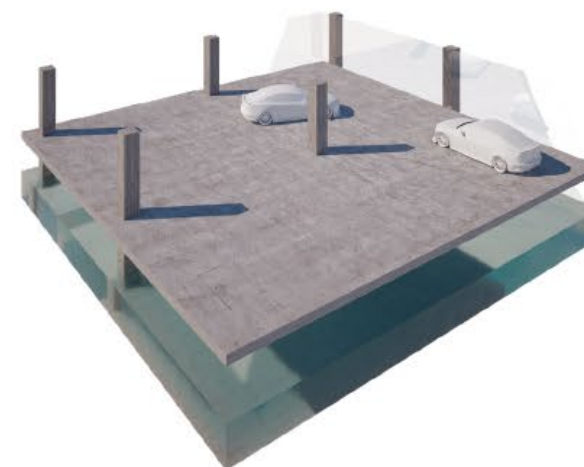
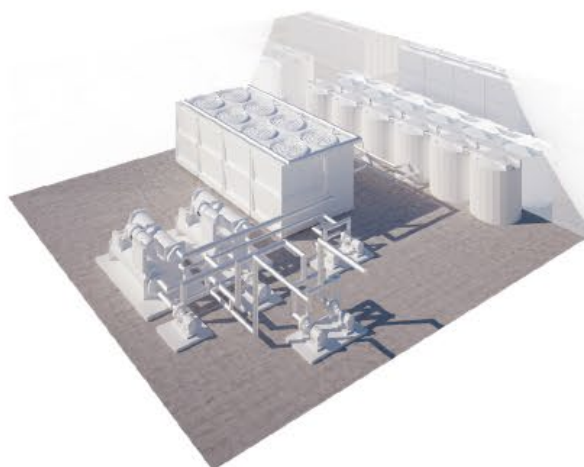
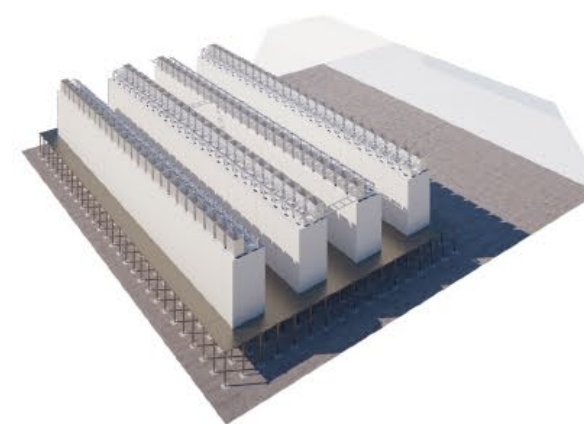
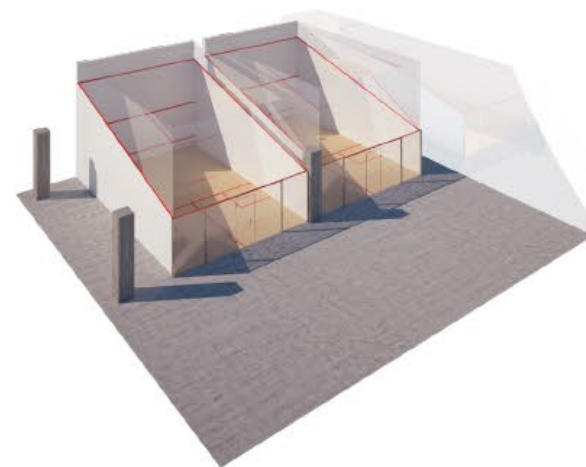
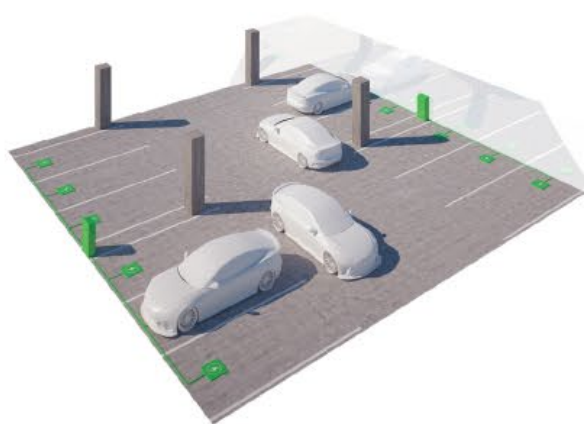
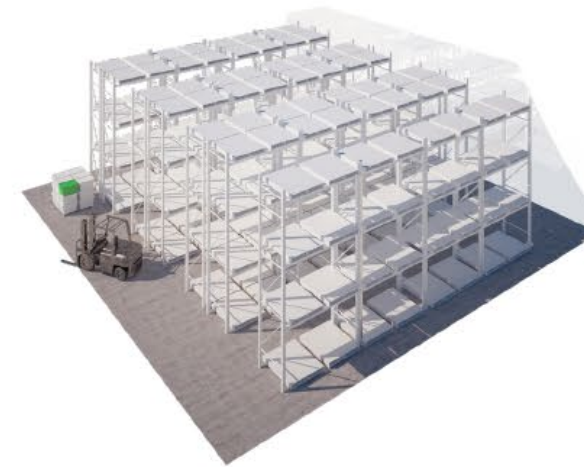
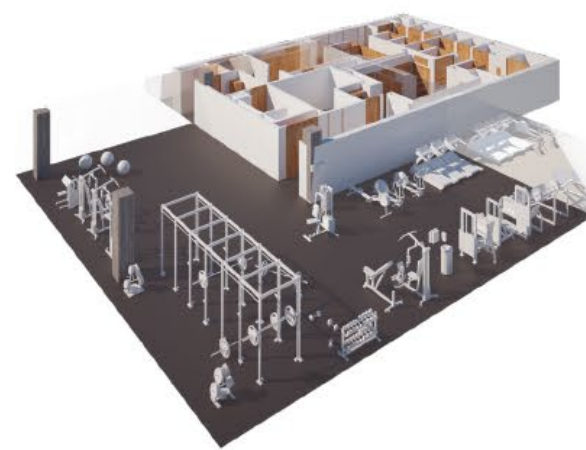
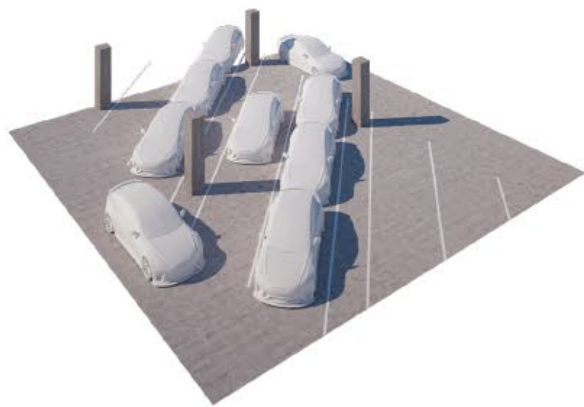
**OPTIMIZATION** ●●●  
**REPURPOSING** ●●●



### Flat Floors

One-Way Ramps

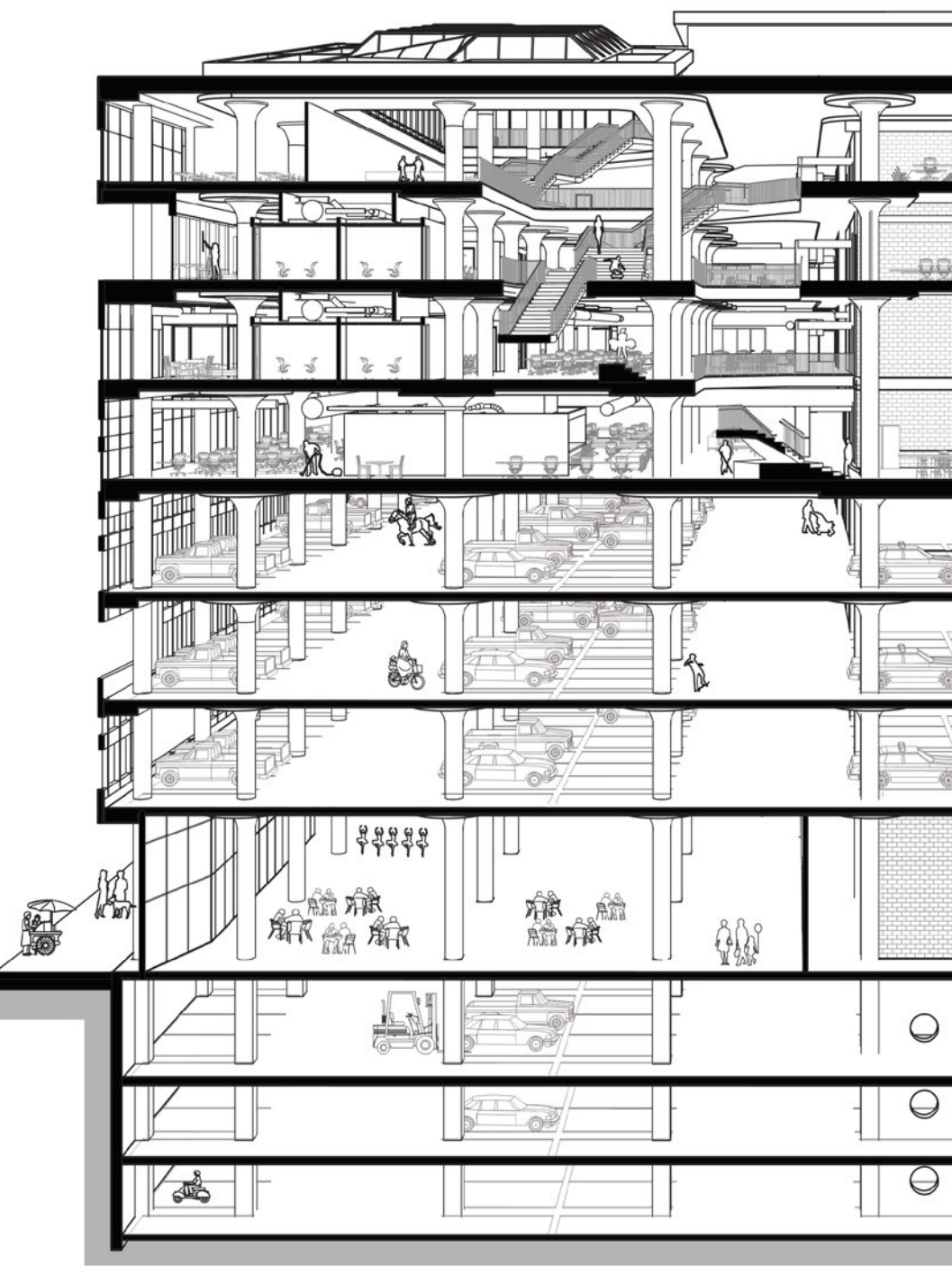
**OPTIMIZATION** ●●●  
**REPURPOSING** ●●●











84.51° CENTRE // CINCINNATI, OH





ROOF PARKING/EVENT SPACE

COURTYARD

EVENT  
LAWN

EXTERIOR CIRCULATION/  
BREAKOUT AREAS

CENTRAL ATRIUM

ROOF TERRACES/  
GARDENS

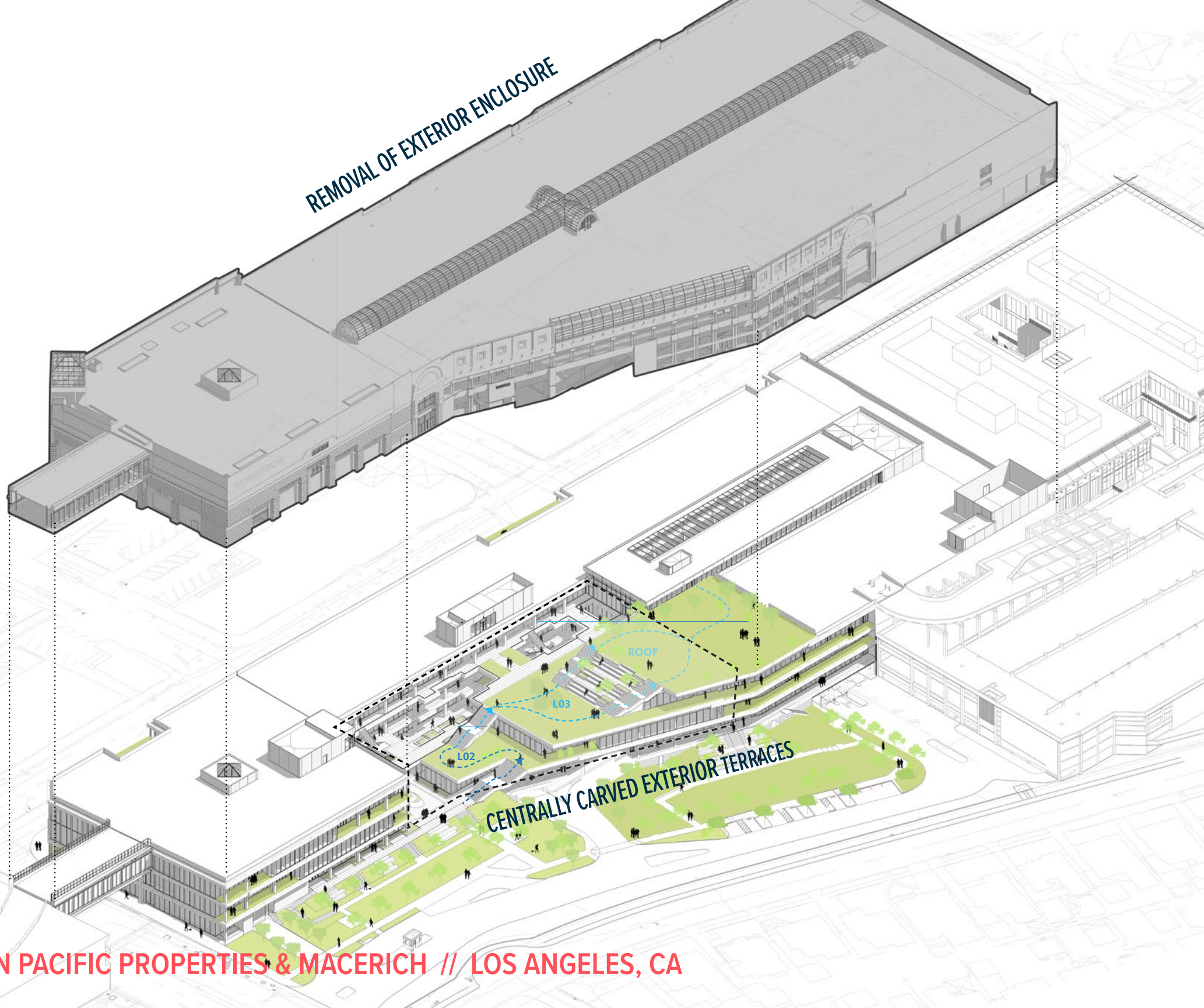
RIDESHARE DROPOFF/  
FOOD TRUCKS

TENANT  
BALCONIES

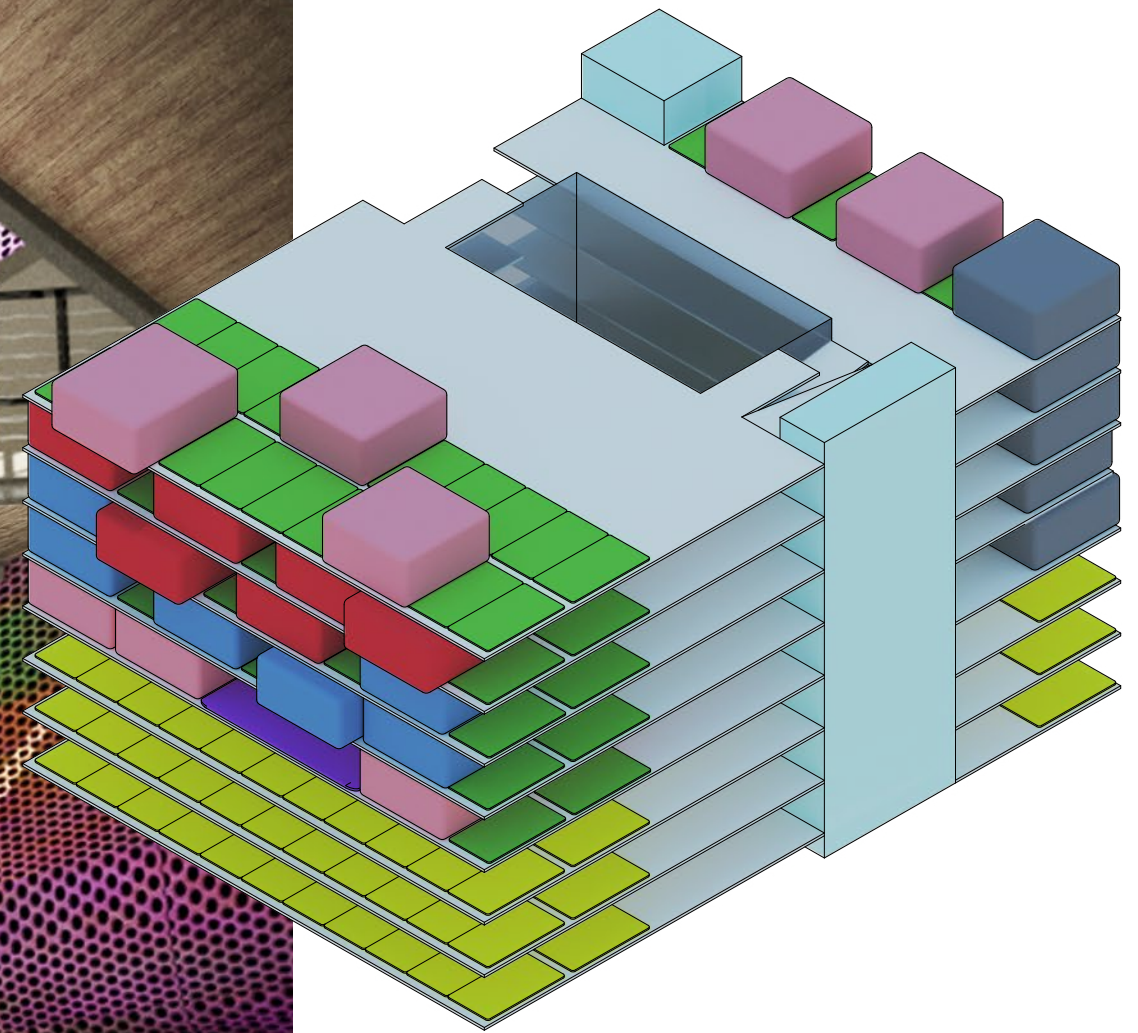
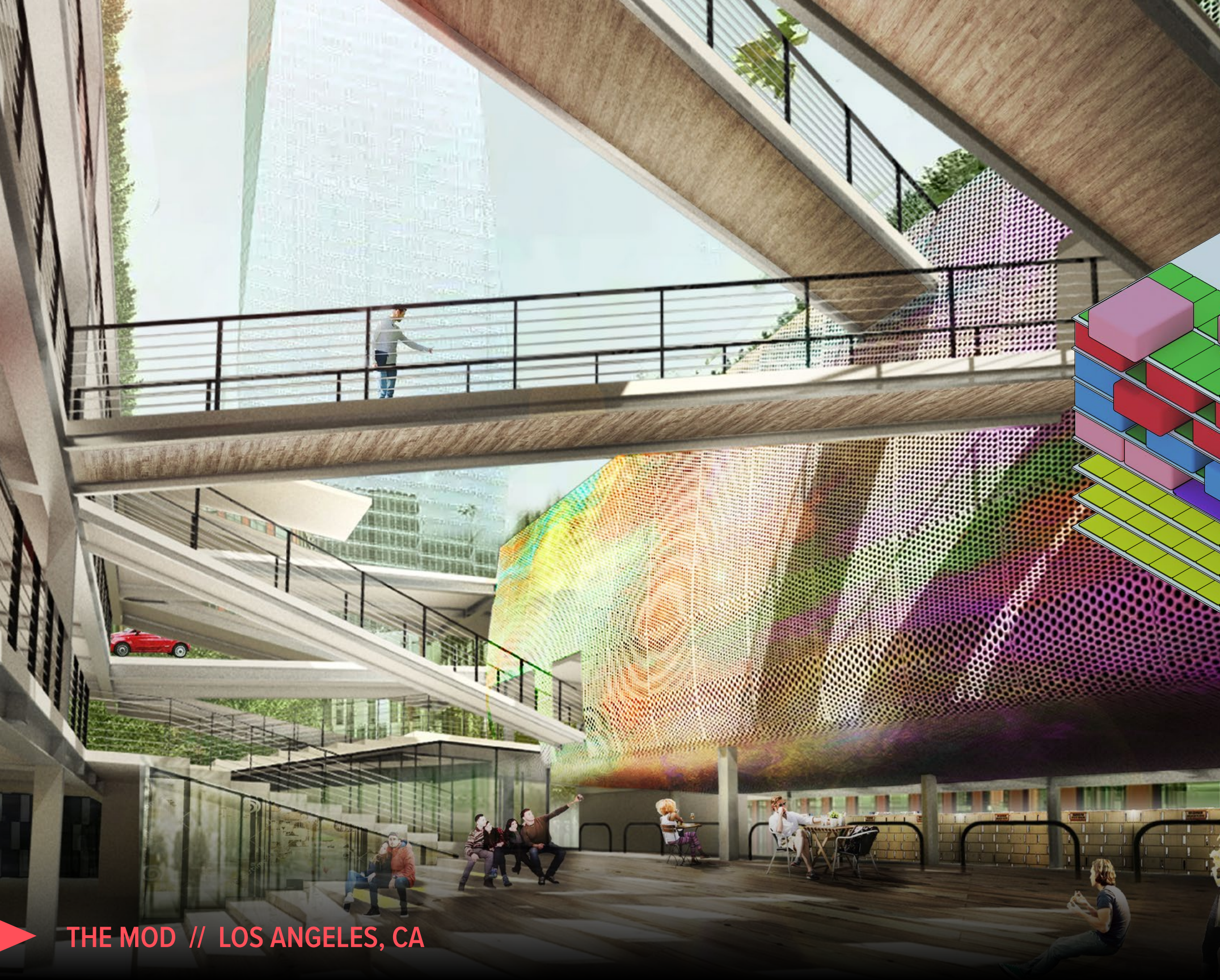
ONE WESTSIDE GOOGLE CAMPUS - HUDSON PACIFIC PROPERTIES & MACERICH // LOS ANGELES, CA



BEFORE







### UNIT MIX FOR PREFABRICATED MODULES

- |      |          |       |      |
|------|----------|-------|------|
| SHOP | RESTROOM | STAY  | PARK |
| WORK | ENTRY    | GREEN | CORE |



## WORK HOSPITALITY

Green habitats, access to nature, outdoor, urban farming, a different vantage point, private tenant terraces, breakout space, welfare facilities, consulting rooms, meditation space.

## LODGING

Operator led co-living, micro-living, boutique hotel, serviced apartments, student hotels

## PUBLIC COMMONS

The centre of gravity for the development. Mixed cultural space with a focus on showcasing the culture of the Royal Docks. Permeable floor spaces are welcoming and open. Constant buzz of diverse people through day and night. Evolving display of content keeps people coming back because they know 'something will be happening at the Mills'.

## CINEMA

Not just a commercial cinema, but a local, regional and national draw, a place for local filmmakers and performers to showcase their work. Flexible day time use for brand screenings and education.

## AUDITORIUM

Music, theatre, performances, exhibitions, talks, community gathering, innovation showcase, brand events, corporate collaborations with Excel.

## CULTURE SILOS

A curated, evolving display of music, performance, art and cultural events. Flexible spaces for multiple cultural and community focused uses. Sub-divisible and curatable space

## COWORK

A range of workspaces that can cater for different types of tenants. Start-ups, SME, progressive businesses, incubators and accelerators.

## MAKER SPACE

The seed of business and idea creation. Spaces for testing and prototyping without pressure or judgement. An incubator for the self-made and curation of the next generation of makers, showcasing the process as well as the product.

## THIRD SPACE

A sub-divisible volume, multiple layers, moveable and adaptable. One volume, multiple uses and functions. Markets, food hall, product showcase, community table, exhibitions, internal street.





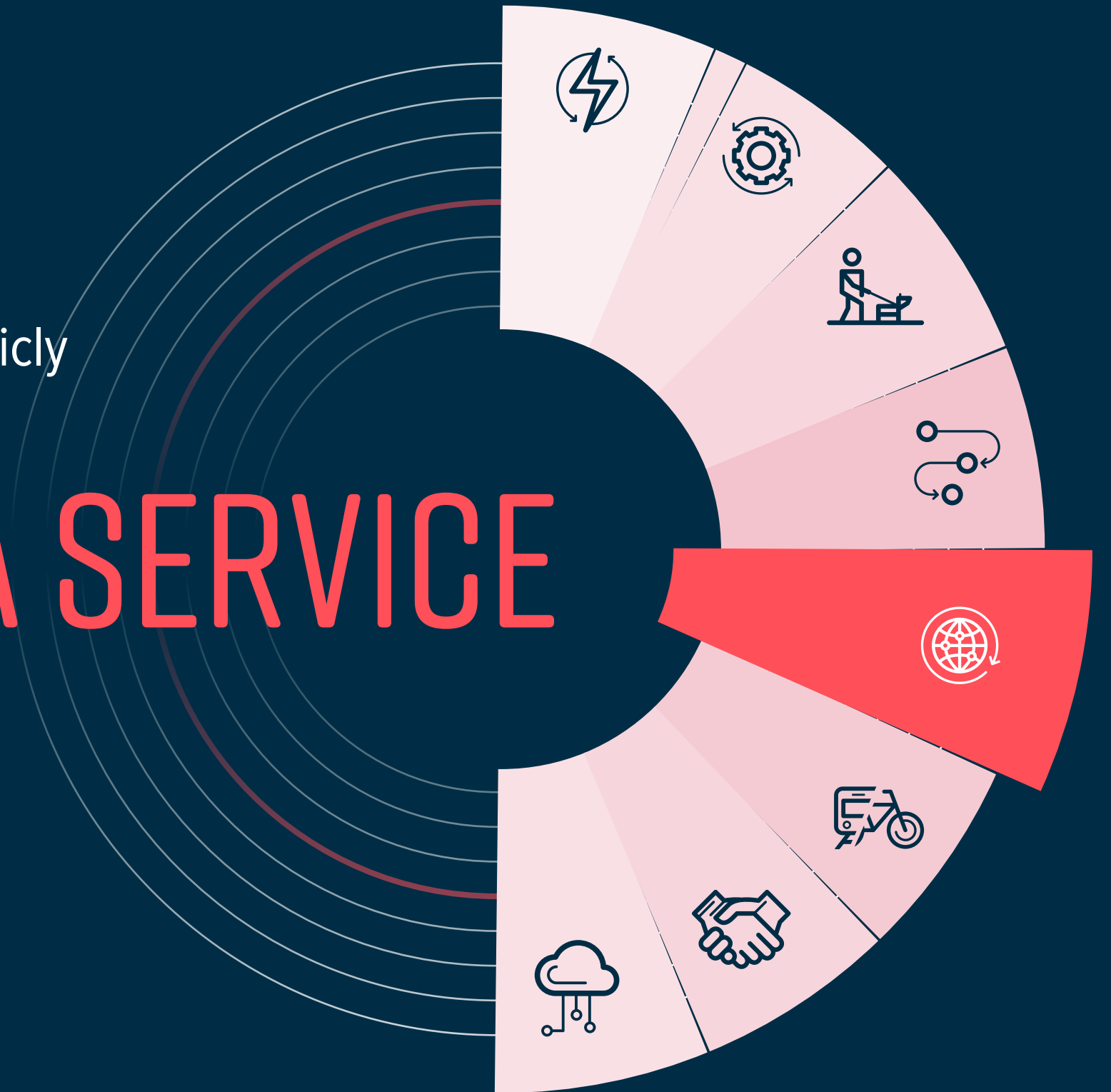
545WYN // MIAMI, FL



Mobility solutions are shifting away from a privately owned model to a publicly shared model.

# MOBILITY AS A SERVICE

Individuals and organizations design their specific mobility solutions to fit a vast array of preferences.







**\$9.5T**  
EXPECTED MARKET  
CAPITALIZATION FOR  
MaaS (MOBILITY  
AS A SERVICE)  
BY 2030



OUR GOAL IS TO DESIGN  
MOBILITY SERVICE  
SOLUTIONS THAT ENHANCE  
OUR CLIENTS' CORE  
PRINCIPLES AND THEIR  
ABILITY TO CONNECT  
TO CITIES.

95%

OF U.S. PASSENGER MILES TRAVELED  
WILL BE SERVED BY ON-DEMAND  
AUTONOMOUS ELECTRIC VEHICLES OWNED  
BY FLEETS, NOT INDIVIDUALS BY 2030

—RETHINKX SECTOR DISRUPTION REPORT

\$5,600/YR

SAVINGS IN TRANSPORTATION COSTS  
FOR THE AVERAGE AMERICAN FAMILY USING  
MOBILITY AS A SERVICE (MAAS)

—RETHINKX SECTOR DISRUPTION REPORT





SANTA MONICA BUSINESS PARK // SANTA MONICA, CA







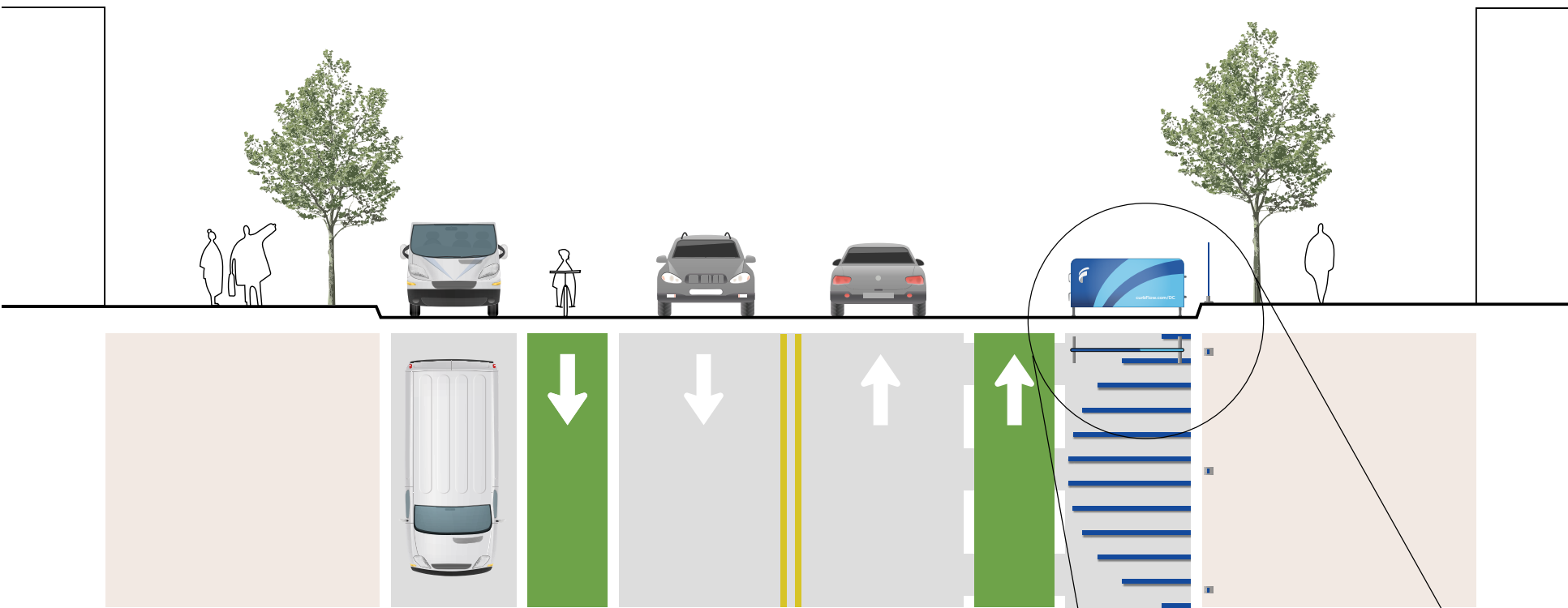




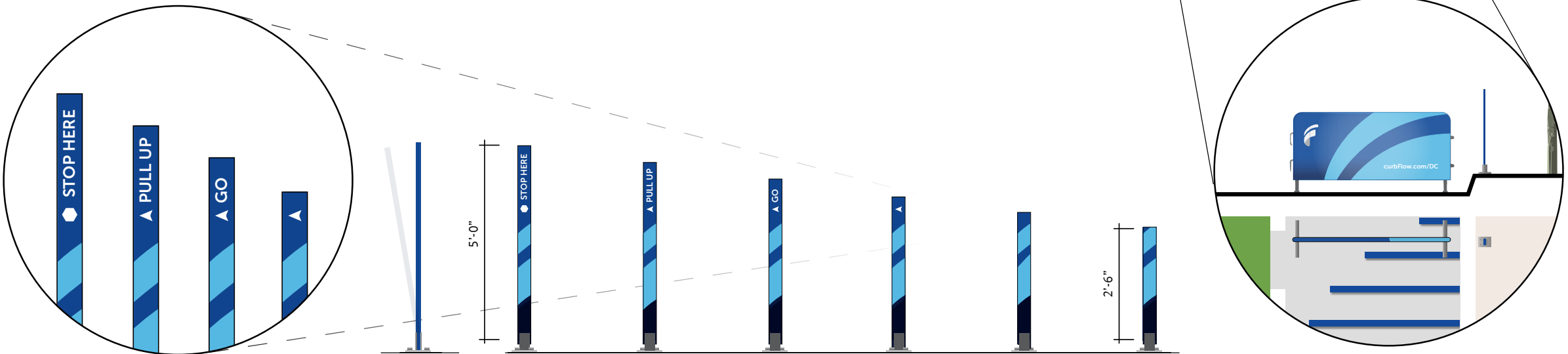
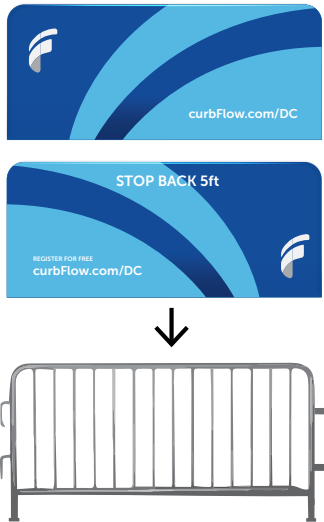
RENDERED VIEW



ELEVATION/STREET PLAN



PROGRAM ELEMENTS

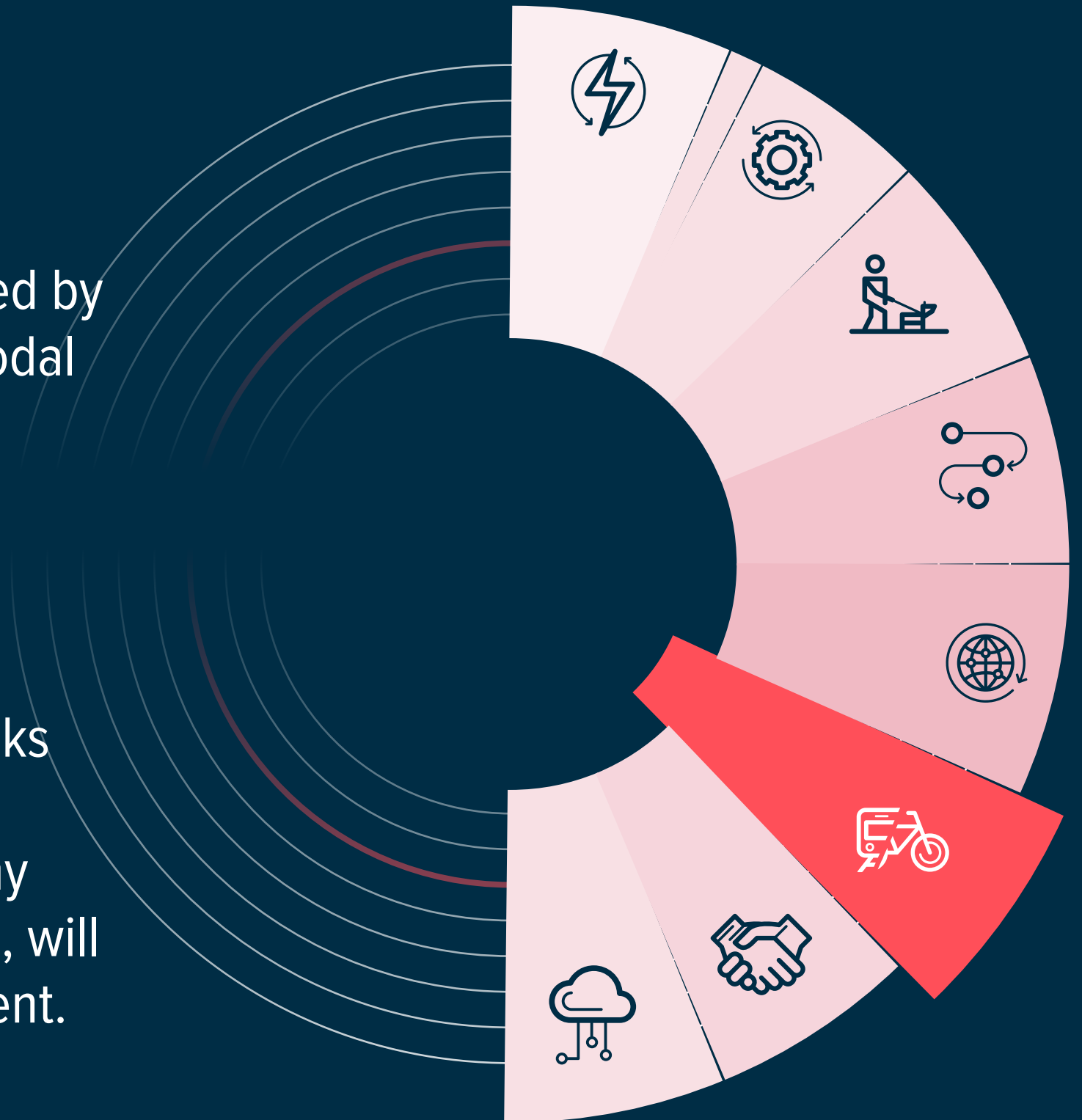





Our cities are evolving from being shaped by monomodal to being shaped by multimodal mobility networks.

# MULTIMODAL

The paths that form our streets and blocks designed primarily for automobiles will become diversified and inclusive of many modes. Transfer points, or mobility hubs, will become key drivers of future development.





The background image shows a subway platform. Two people are standing on the platform, facing away from the camera. The person on the left is wearing a black hoodie and jeans, holding a white skateboard with a red graphic. The person on the right is wearing a black jacket and jeans, holding a yellow skateboard with black text. A train is blurred in the background, moving from left to right. A large red triangle is overlaid on the left side of the image, containing the text.

**77%**  
**OF AMERICANS THINK  
PUBLIC TRANSPORTATION  
IS THE BACKBONE  
OF A MULTI-TRANSIT  
LIFESTYLE**



OUR GOAL IS TO DESIGN  
CITIES THAT SUPPORT  
SEAMLESS MULTIMODAL  
CONNECTIONS AND THE  
EXPANDING SPECTRUM  
OF NEW MODES IN  
DEVELOPMENT.

2X

MORE JOB OPPORTUNITIES FOR  
AMERICANS WHO CAN DRIVE OR BIKE  
TO/FROM A TRANSIT STATION

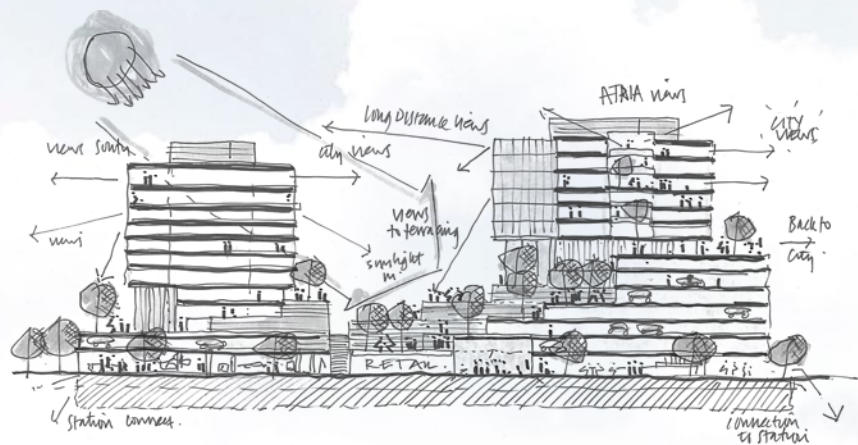
—TRANSPORTATION PART A JOURNAL, USC

143  
MILLION

AMERICANS OVER THE AGE OF 16  
COMMUTE TO WORK EVERY DAY

—READWRITE “OVERCOMING THE LAST MILE COMMUTE  
CHALLENGE WITH THE IOT”





2151 HAWKINS // CHARLOTTE, NC





2151 HAWKINS // CHARLOTTE, NC





ONE WESTSIDE GOOGLE CAMPUS - HUDSON PACIFIC PROPERTIES & MACERICH // LOS ANGELES, CA





15 MI

OF UNDERUTILIZED  
RAIL CORRIDOR BECOMES  
INTERBOROUGH  
CONNECTOR

BQXL: BROOKLYN CROSSLINE // BROOKLYN, NY









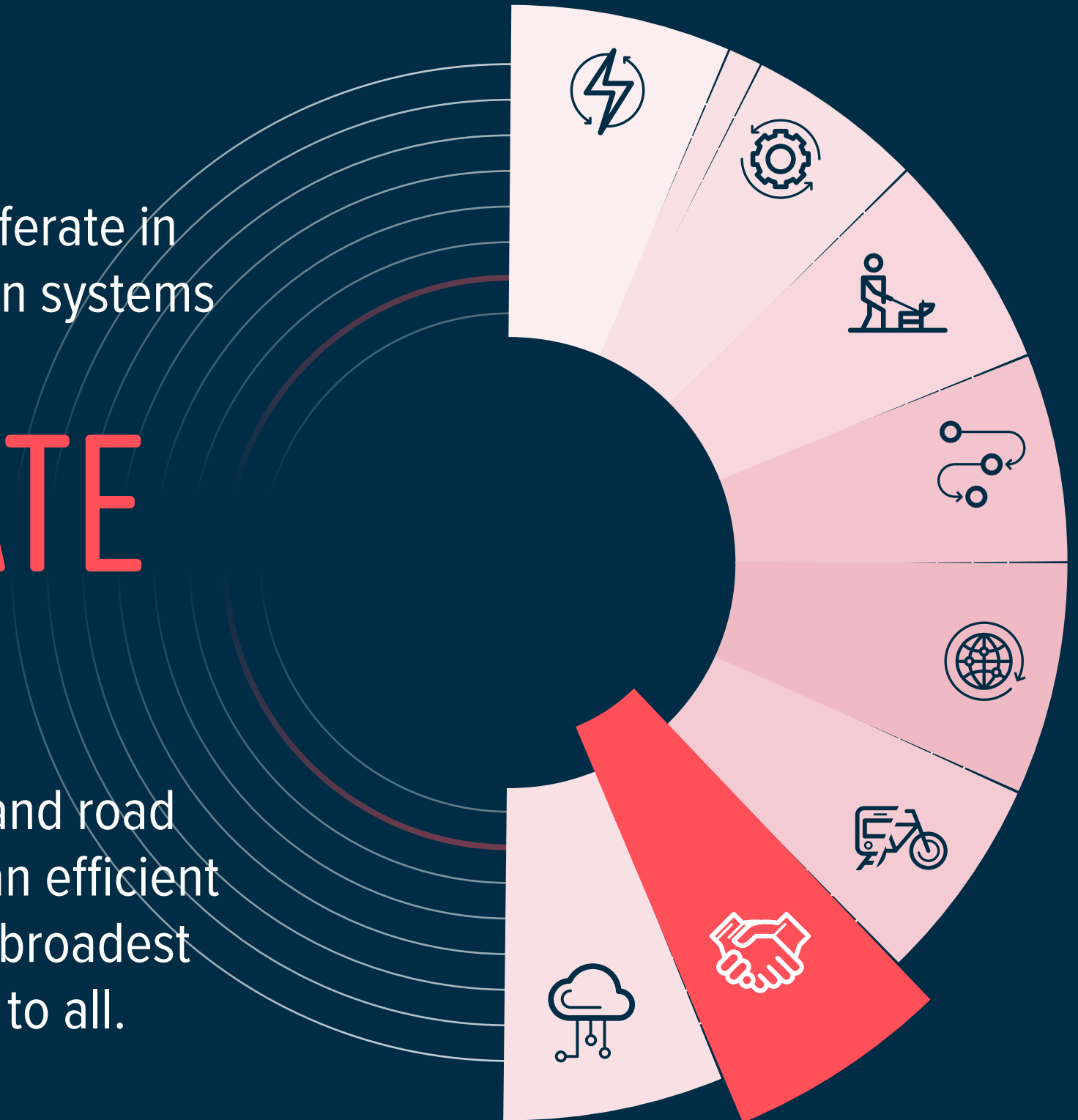
SANTA MONICA BUSINESS PARK // SANTA MONICA, CA



As private sector mobility solutions proliferate in the technology age, public transportation systems are at risk of being neglected.

# PUBLIC-PRIVATE INTEGRATION

The integration of backbone public rail and road networks with new modes will provide an efficient and equitable mobility construct for the broadest range of communities, providing access to all.





A woman with short brown hair and glasses, wearing a dark jacket with a high-visibility yellow and orange reflective stripe, is holding a US dollar bill. She is standing in front of a window that reflects an American flag. The image is overlaid with a large red triangle containing white text.

# 17 MILLION

AMERICANS ARE  
“UNBANKED” AND  
THEREFORE DON'T  
HAVE ACCESS TO  
TECH-ENABLED  
MOBILITY



OUR GOAL IS TO  
UNDERSTAND AND  
LEVERAGE THE OVERLAP  
OF PUBLIC AND PRIVATE  
SECTOR INTERESTS FOR  
THE BETTERMENT OF  
COMMUNITIES.

98 MILES

OF PROTECTED BIKE LANES  
COVER NYC, ALL CREATED IN  
THE LAST 10 YEARS

—NYC DEPARTMENT OF TRANSPORTATION

5 BILLION

PARKING SPACES WILL BE AVAILABLE  
FOR REUSE WITH THE ADOPTION OF  
AUTONOMOUS VEHICLES GLOBALLY

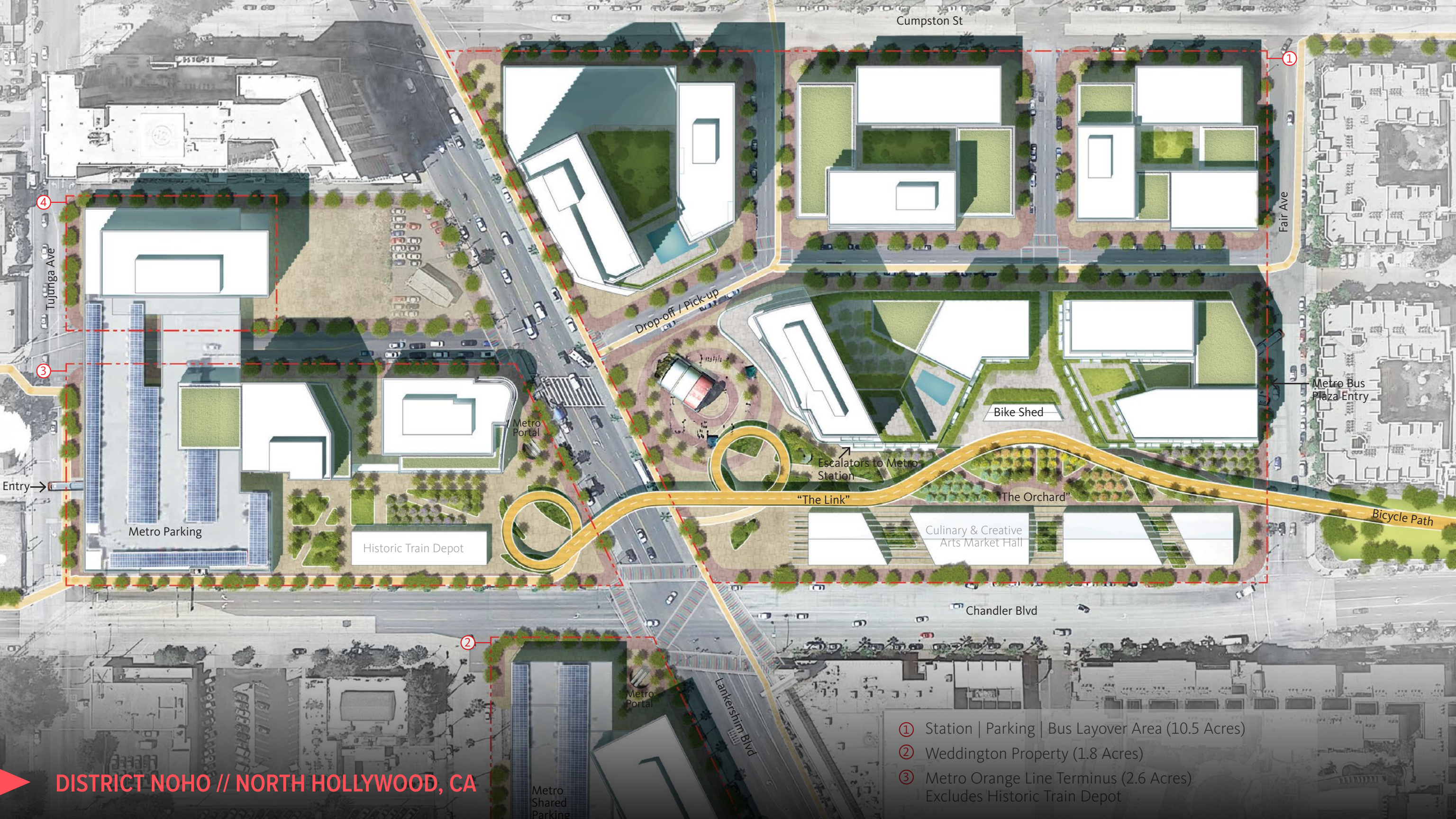
—THE NEW YORK TIMES





DISTRICT NOHO // NORTH HOLLYWOOD, CA





Cumpston St

Fair Ave

Tujunga Ave

Drop-off / Pick-up

Metro Portal

Escalators to Metro Station

Bike Shed

Metro Bus Plaza Entry

Metro Parking

Historic Train Depot

"The Link"

The Orchard

Culinary & Creative Arts Market Hall

Bicycle Path

Chandler Blvd

Metro Portal

Lankershim Blvd

Metro Shared Parking

- ① Station | Parking | Bus Layover Area (10.5 Acres)
- ② Weddington Property (1.8 Acres)
- ③ Metro Orange Line Terminus (2.6 Acres)  
Excludes Historic Train Depot

DISTRICT NOHO // NORTH HOLLYWOOD, CA





BALTIMORE PENN STATION REDEVELOPMENT // BALTIMORE, MD





AMTRAK PHILADELPHIA 30TH STREET STATION UNDERGROUND RETAIL CONCOURSE // PHILADELPHIA, PA





UPTOWN STATION // OAKLAND, CA



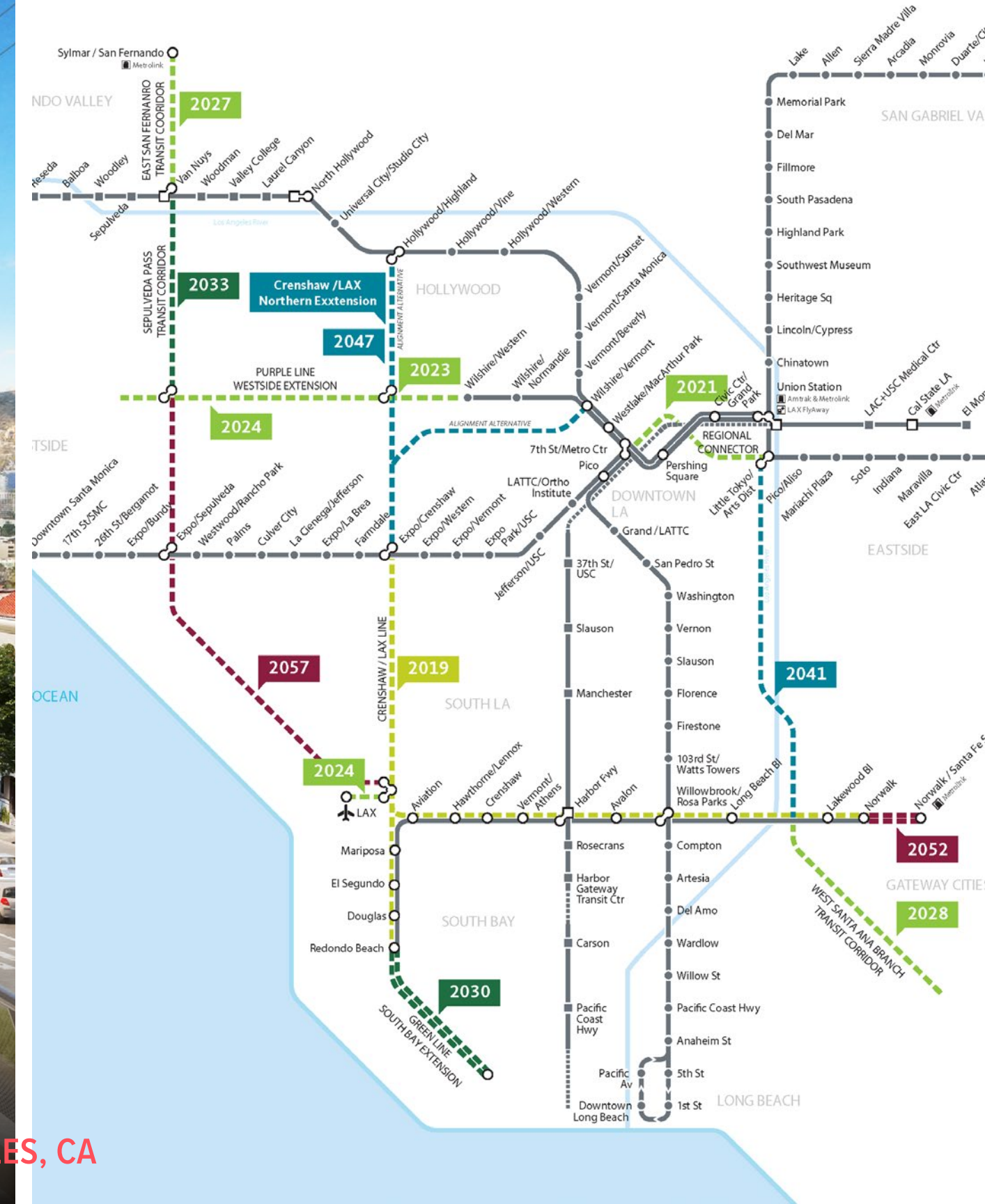


# 5.5 MI

/12 STATION CONNECTION  
FOR THE NORTH-SOUTH  
GAP IN CENTRAL LA

METRO CRENSHAW LAX EXTENSION URBAN DESIGN STUDY // LOS ANGELES, CA





METRO CRENSHAW LAX EXTENSION URBAN DESIGN STUDY // LOS ANGELES, CA



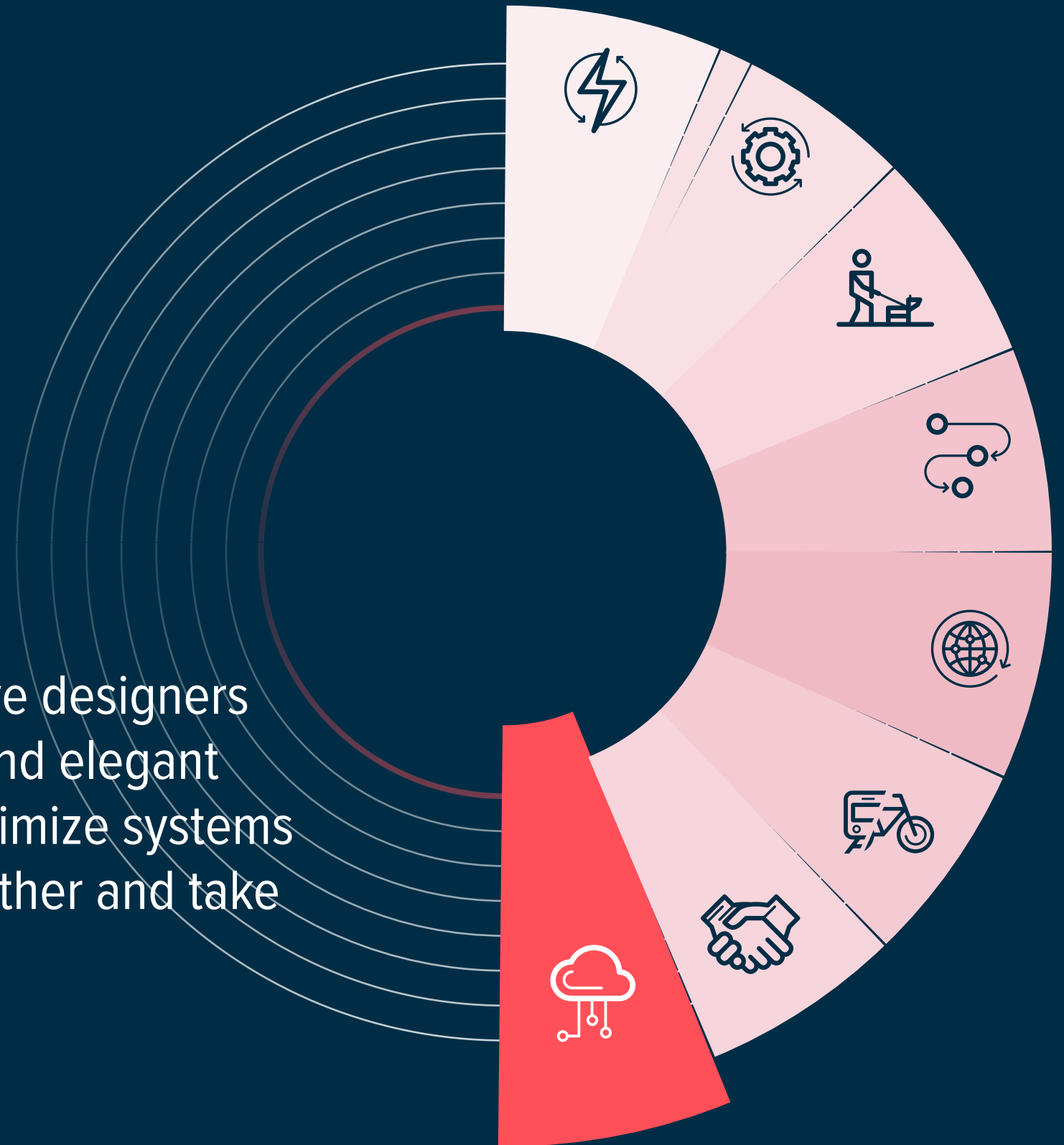





Mobility at the city, regional, and global scale is infinitely complex.

# BIG DATA

Harnessing big data intelligently will give designers and planners new tools to find simple and elegant solutions within the complexity, and optimize systems that ultimately aim to bring people together and take them where they want to go.







# 150 BILLION DEVICES WILL BE CONNECTED TO THE IoT BY 2025

SOURCE: "THE DIGITIZATION OF THE WORLD FROM EDGE TO CORE," IDC



OUR GOAL IS TO HARNESS  
BIG DATA AROUND SHARED  
INTERESTS INCLUDING  
EFFICIENCY, HEALTH,  
SUSTAINABILITY, AND  
MODAL OPTIMIZATION.

30%

OF THE IOT DATASPHERE WILL  
BE IN REAL TIME BY 2025

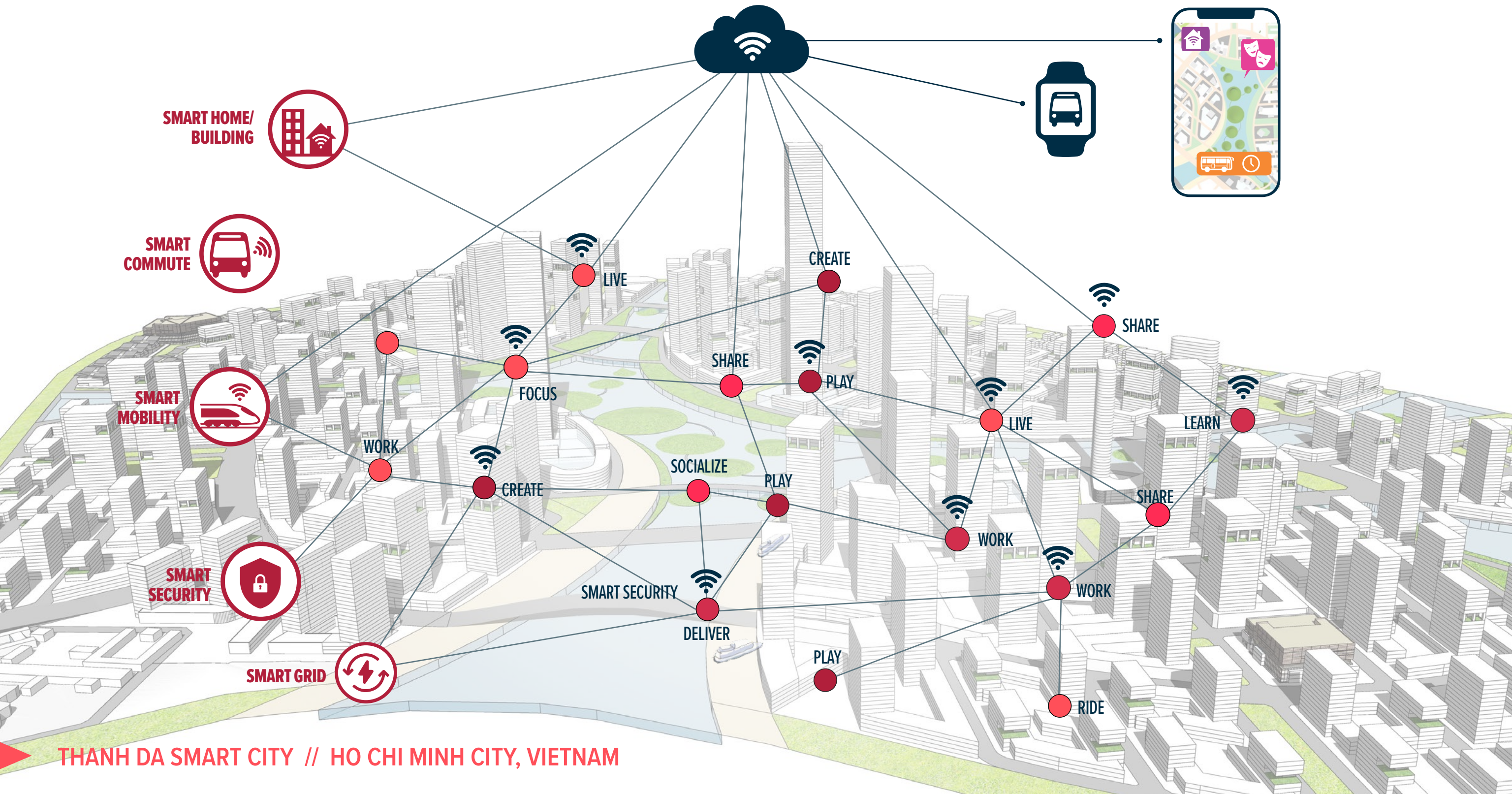
—“THE DIGITIZATION OF THE WORLD FROM EDGE TO CORE,” IDC

49%

OF THE WORLD’S STORED  
DATA WILL RESIDE IN PUBLIC CLOUD  
ENVIRONMENTS BY 2025

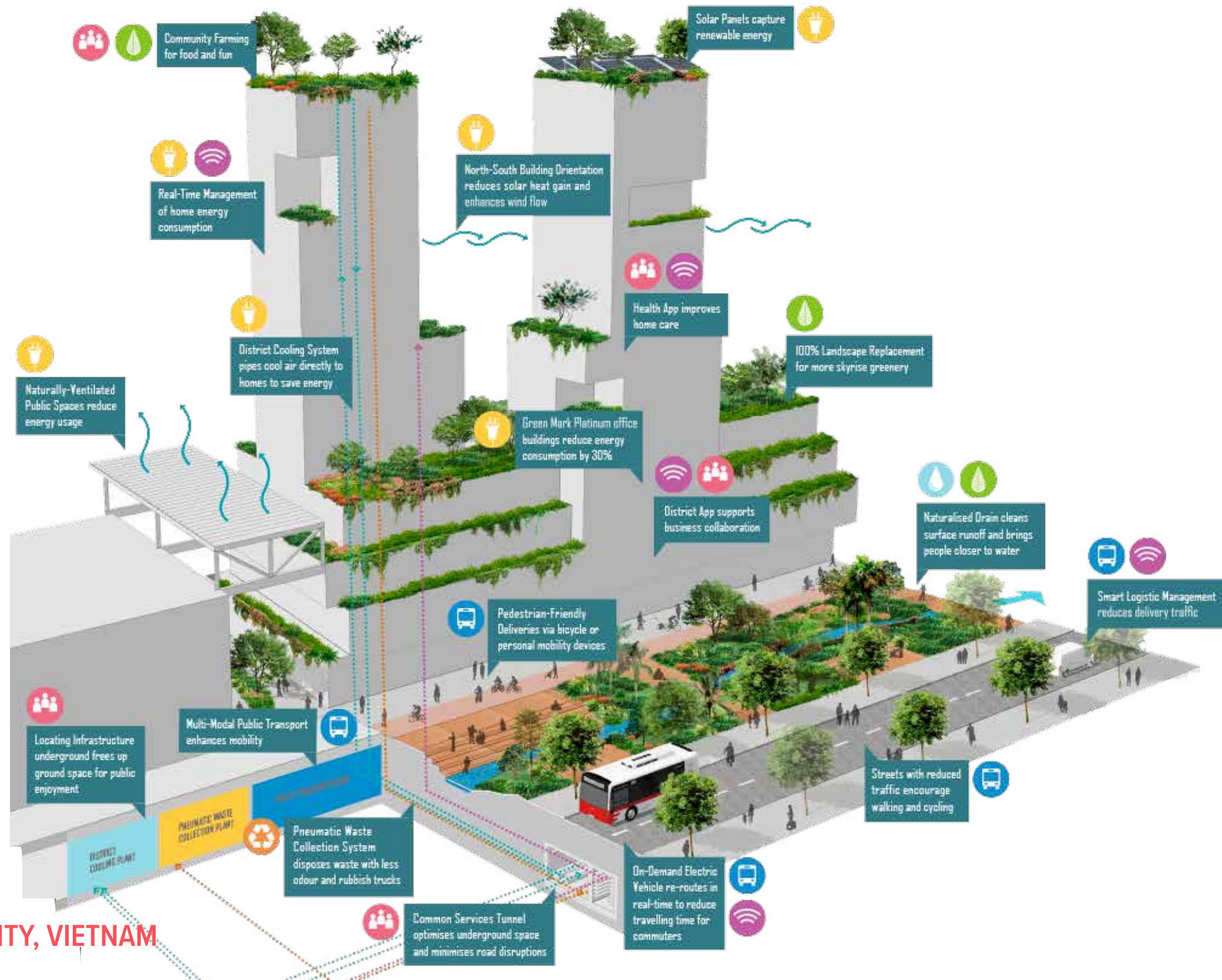
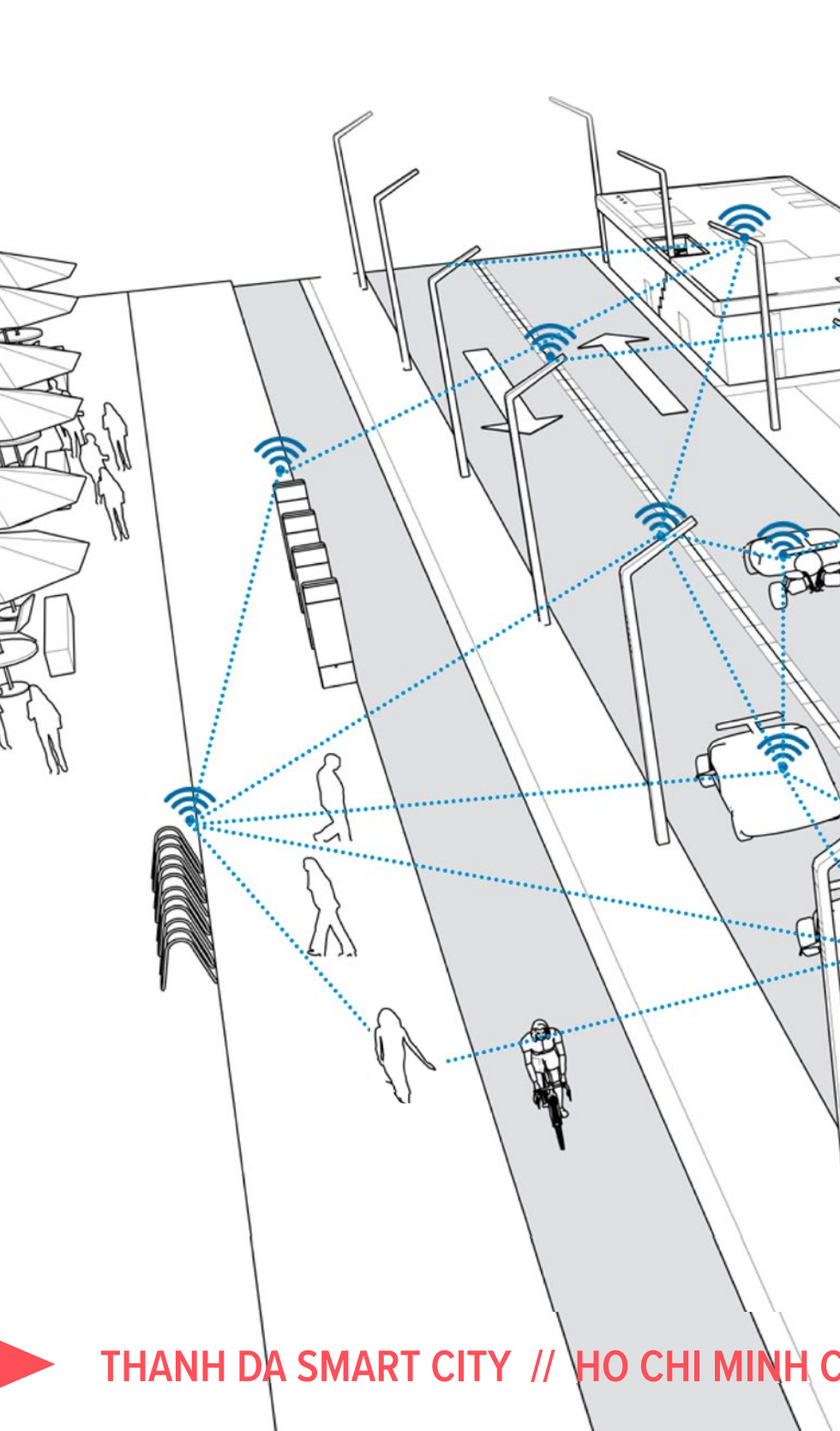
—“THE DIGITIZATION OF THE WORLD FROM EDGE TO CORE,” IDC



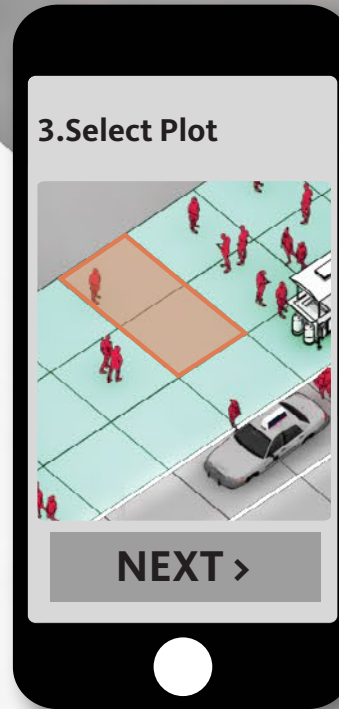
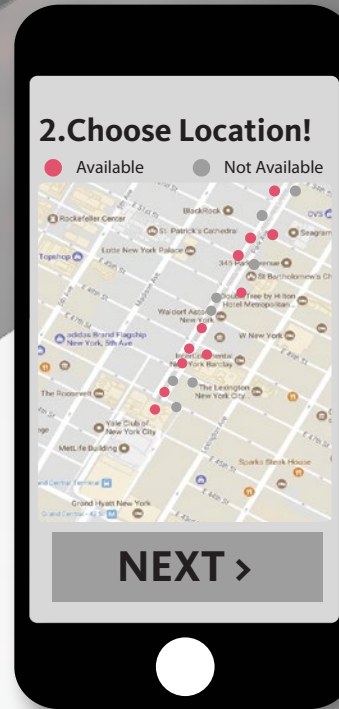
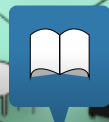
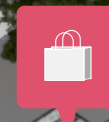


THANH DA SMART CITY // HO CHI MINH CITY, VIETNAM









FLOAT NYC // NEW YORK, NY



**RIVES TAYLOR, FAIA, LEED AP BD+C**

Principal | Gensler

rives\_taylor@gensler.com

713.356.1403