

# DDA Curb Management Study

Presentation to Planning Commission

November 12, 2024

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## Agenda

- ❑ DDA and Parking System Overview
- ❑ Why Curb Management/Study Process
- ❑ Key Findings
- ❑ Curb Priorities Guide
  - Development Plan Review
- ❑ Curb Management Playbook
  - Current Efforts
  - Next Steps

# DDA: Two Separate Systems

## PARKING

Operate public parking system for the City



## TAX INCREMENT FINANCE SYSTEM

Investments in downtown in support of City goals



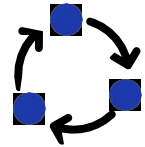
# Parking Fundamentals



DDA manages, operates, and maintains public parking through an agreement with the City



Parking facilities are City assets



Parking system is a self-sustaining system



Parking revenues support other transportation related initiatives

# Parking Fundamentals



City receives 20% of gross parking revenue (\$4.1M FY24)

- Public Services & General Fund



City manages enforcement and receives enforcement revenue



City manages and receives revenue for residential permit program





## Downtown Ann Arbor **Curb Management Plan**

The Curb Management study was intended to help us understand current activity at the curb, and to manage the curb in a more equitable and informed way. In particular, vehicle access at the curb.



**WALKER**  
CONSULTANTS

# CURB MANAGEMENT BEST PRACTICES

- ✓ Understand the **value of curb assets**
- ✓ **Prioritize** curbs based on land use and goals
- ✓ **Price and regulate curbs to incentivize** behavior
- ✓ **Flex curbs** based on demand
- ✓ Use curbs to **increase access** for walking, biking, and transit
- ✓ Envision **curbs as community destinations**
- ✓ **Performance measure** and **evaluation** processes for decision making
- ✓ **Pilots** to test curb treatments
- ✓ **Digitize curb regulations** to prepare for the future
- ❑ **Modern Enforcement strategy** that increases access to business, reduces congestion and safety conflicts, keeps the system financially sound





# How Effective Curb Management Will Support Downtown Ann Arbor

Effective curb management is key to supporting downtown Ann Arbor as it grows and evolves. This Curb Management Plan will set forth the path to successfully manage and optimize resources by the following:



## Prioritization

Prioritize finite curb space in line with DDA and citywide goals and plans that prioritize people, safety, equity, sustainability, active travel, and support business.



## Pricing

Use pricing to create a standard way of valuing the curb and to generate revenue that will be reinvested in curb space management.



## Operations and Processes

Institutionalize and operationalize curb management and enforcement across agencies and departments and create clear roles and processes.



## Policy

Set the policies to use curb space efficiently and support broader policies such as eliminating off-street parking requirements for new development.



## Infrastructure and Technology

Leverage infrastructure and technology for optimization to create efficiency, communicate with curb users, and increase safety.



## Flexibility

Adjust curb regulations throughout the day to optimize infrastructure as demands shift, such as mornings for commercial loading and evenings for passenger loading.



# Already Meeting Goals for Downtown Ann Arbor's Curbs!



**Safe,  
comfortable  
downtown  
streets**



**Equitable, just  
access for all  
people**



**Affordable and  
inclusive  
community**



**Resilient,  
energy  
responsible  
downtown**



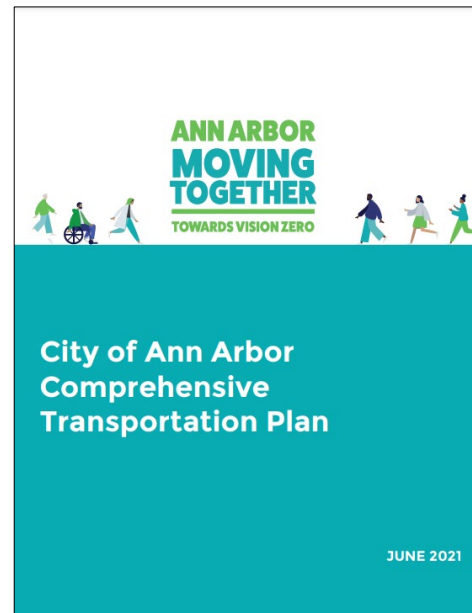
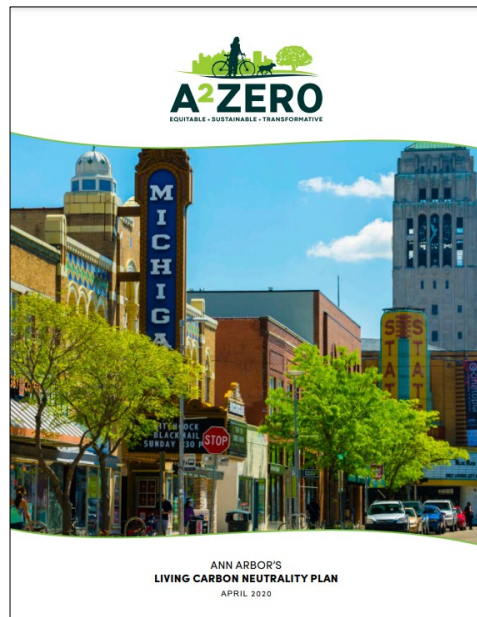
**Vibrant and  
thriving local  
economy**



**Responsible  
design and  
implementation**



**Connected  
community  
with streets as  
civic space**



# Curb Management Goals and Guiding Principles



## Safe and Comfortable Downtown Streets

Increase curbside safety through design, management, and enforcement to support Vision Zero goals where no one dies or is seriously injured in crashes on streets



## Resilient, Energy Responsible Downtown

Reduce traffic congestion and transportation emissions to save time, money, and support the goal for a carbon



## Equitable, Just Access for All People

People of all abilities, stages, income, race, and culture have equitable access to and at the curb



## Vibrant and Thriving Economy

Efficient curb space allocation provides greater access for commercial activities, delivery, and customers whether they walk, bike, drive, or ride transit



## Increase Multi-Modal Travel

Allocate space and build infrastructure that creates safer spaces for biking and walking and promotes their use to get to and around downtown



## Connected Community with Streets as Civic Space

Create safe spaces for people-centered activities including dining, recreation, and entertainment



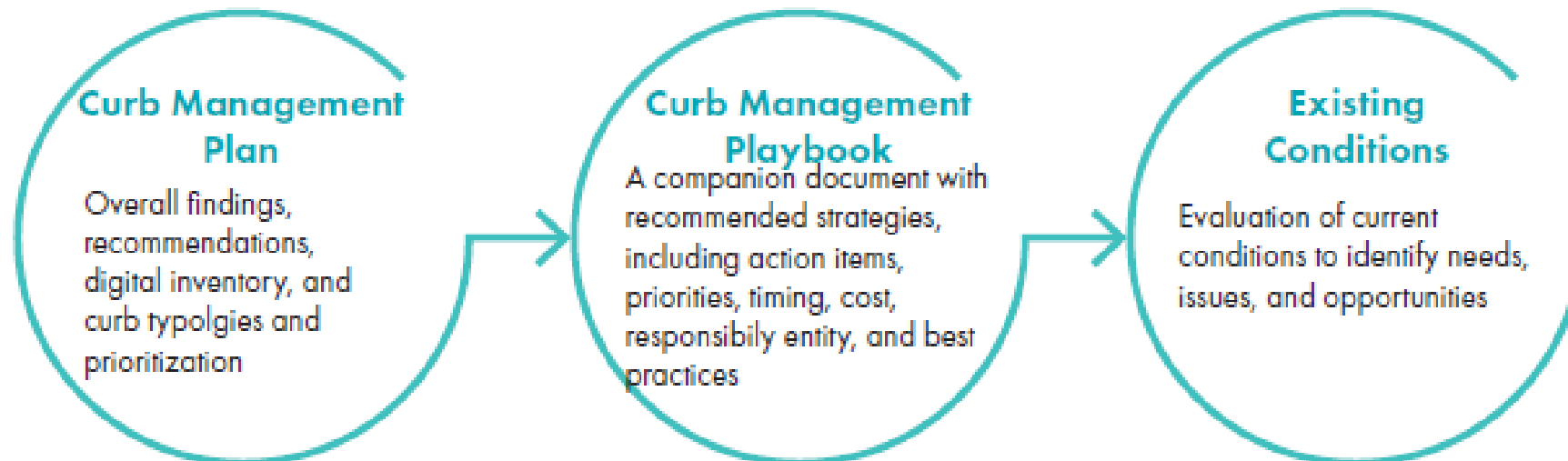
## Increase Curb Utilization and Manage Demand

Maximize the use of limited curb space through allocation, operations, policy, and design so the right uses, have access to the right places, at the right times

# NAVIGATING THE DOWNTOWN ANN ARBOR CURB MANAGEMENT PLAN

Three documents make up the Curb Management Plan:

- **The Downtown Ann Arbor Curb Management Plan** details overall findings, the digital curb inventory, curb typologies prioritization, and the recommended strategies and action matrix.
- **The Downtown Ann Arbor Curb Management Playbook:** Appendix A is a companion document that details the implementation steps for each recommended strategy.
- **The Downtown Ann Arbor Existing Curb Conditions Memo:** Appendix B provides research and analysis of current curb conditions used to identify needs and opportunities, and develop recommended strategies.



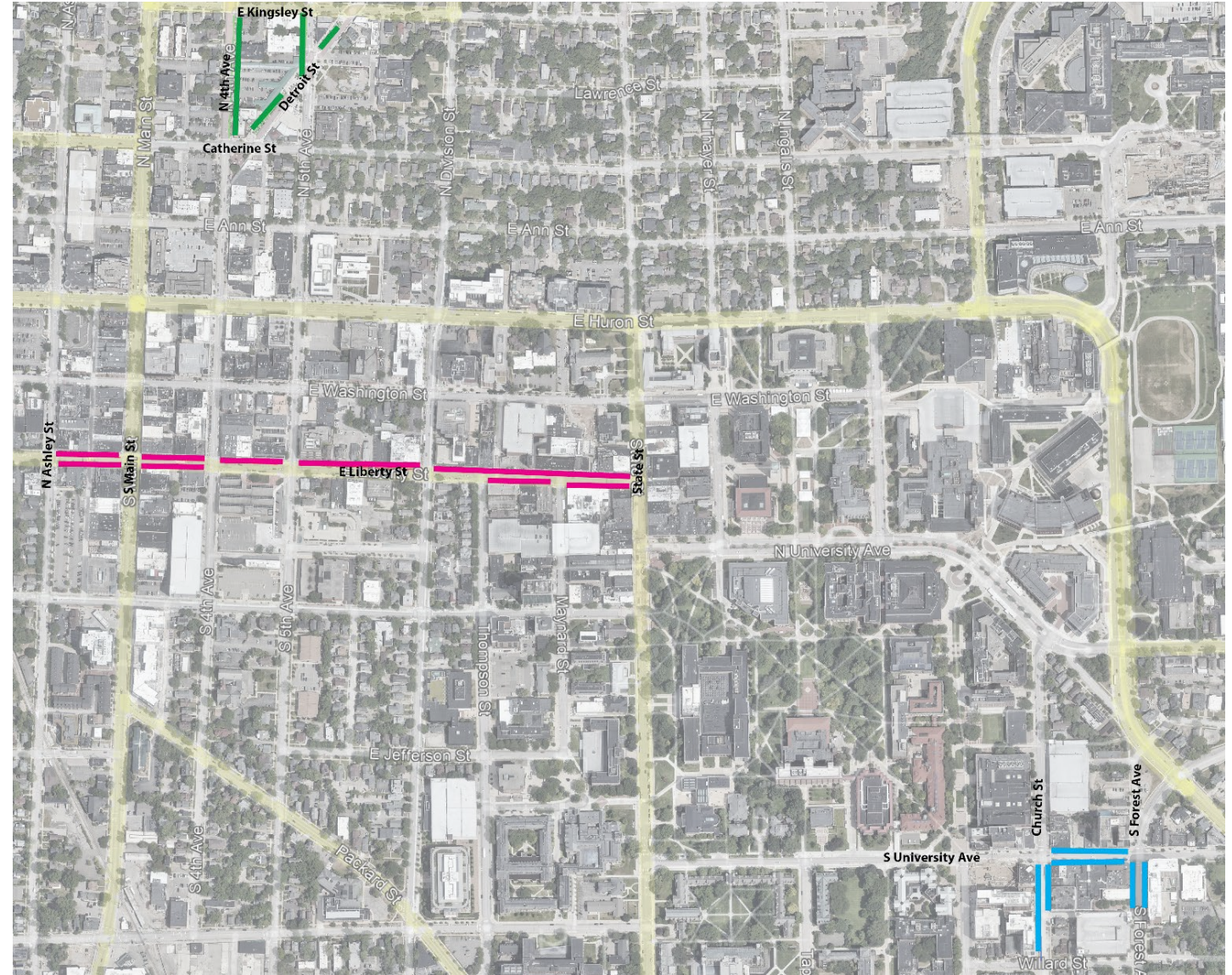


# Curb Data Collection

## Identify:

- What areas have the greatest use?
  - Who is using these areas and how long are they staying?
  - How do use patterns compare to existing regulations?
- **Green** – Kerrytown: June 18<sup>th</sup> to 24<sup>th</sup> from 6:00am to 1:00am
  - **Pink** – Liberty Street: June 18<sup>th</sup> to 24<sup>th</sup> from 6:00am to 1:00am\*
  - **Blue** – South University Area: September 12<sup>th</sup> to 18<sup>th</sup> from 6:00am to 1:00am

\*Liberty Street from Main Street to 4<sup>th</sup> Avenue and Liberty Street from Main Street to Ashley Street was closed from Thursday afternoon until Monday morning for outdoor dining, lowering the number of parking sessions on those blocks.





# Data Findings



## Curb Utilization

- Parking **utilization is high during times when meters are not enforced**
- Significant number of **short-term curb sessions less than 15 minutes** in spaces marked for paid parking
- Significant number of **short-term sessions in “no parking” areas**
  - In the S. University study area, **17% of sessions are violations with a median duration of 4 minutes, not including citations**
  - Approx 100 curb violations per day, not including citations
- **Vehicles parked in commercial spaces not conducting commercial activity, spaces unavailable for delivery**
- **Gap between meter payment and actual use**



## Violations Matter and Prevent Access to Business

- Violations prevent access to local business
- Congestion, safety conflicts, prevents system from operating in a financially sound way
- Areas regulated as “no parking” are still functioning as “parking”

# Data Findings and Typologies



**Typology: Dense residential, fast casual restaurants, and retail**

- **Observations:** Significant short-term sessions and violations
- **Recommendations:**
  - **More short-term curb** spaces, move long-term parking to garage, **increase rates** and **expand meter hours of operation to manage peaks** and **ensure access to business**
  - **Nuance:** For example, on South Forest lots of illegal parking, need to create access and serve business, can remove parking, but **challenging to prevent parking in bike or bus lanes without enforcement or separation**



**Typology: Neighborhood commercial (Kerrytown)**

- **Observations:** Lower utilization, less violations (and areas to violate), still most sessions are short-term, supply supports demand
- **Recommendations: Parking can be removed** for other uses related to the circulation study and **considering off-street parking absorbing spillover, future development, and data**
- **Nuance:** Higher utilization and activity on Farmers Market days



**Typology: Outside of dense areas**

- **Observations:** Longer-term residential parking, bike lanes on some streets, supply supports demand
- **Recommendations: Parking can be removed** for other uses related to the circulation study, **considering off-street parking absorbing spillover, future development, and data**

# Curb Data Collection: South University Area

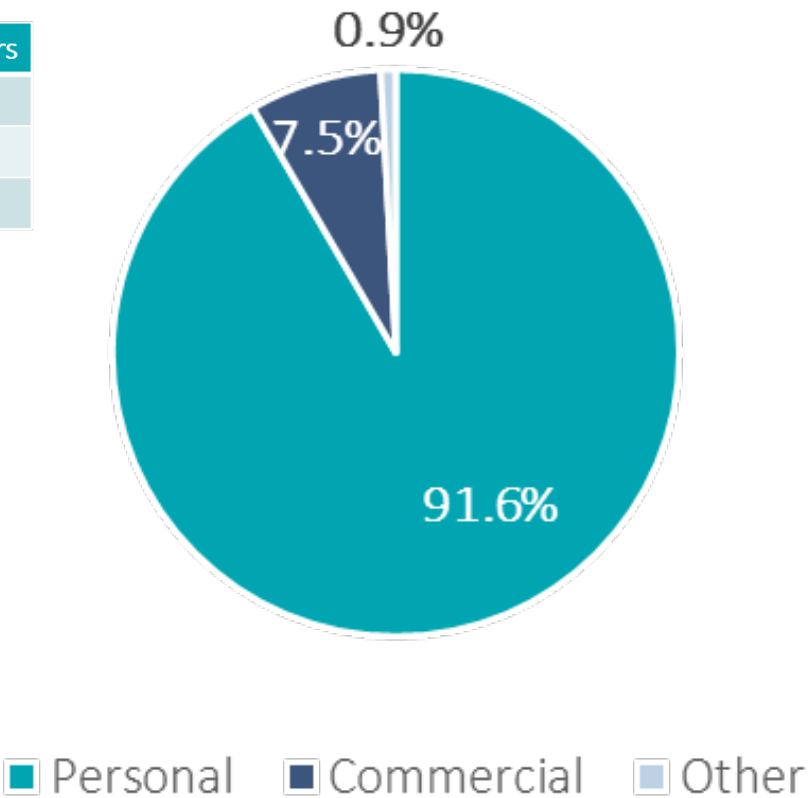
Length of Stay Summary – South University Area

	Under 2 mins	Under 5 mins	Under 15 mins	Under 30 mins	Under 1 hour	Under 2 hours
Personal	20%	43%	67%	76%	85%	93%
Commercial	10%	26%	53%	68%	89%	95%
Overall	19%	41%	66%	75%	85%	93%

**Key Takeaways:**

- 66% of vehicles parked less than 15 minutes, and 75% less than 30 minutes
- Commercial vehicles had longer length of stays than passenger vehicles

Vehicle Type Mix



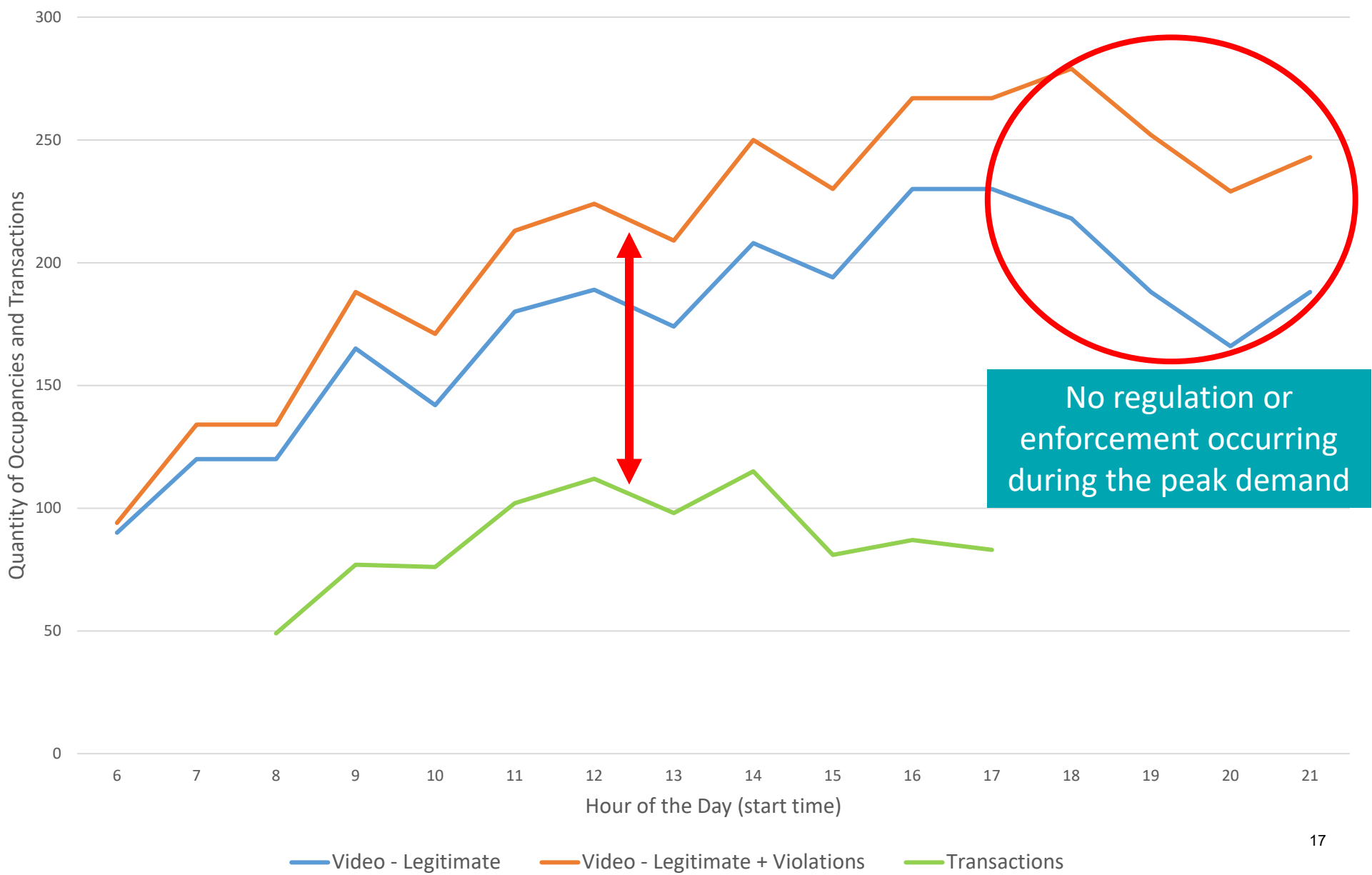
# South University Area: Vehicle Arrivals By Type





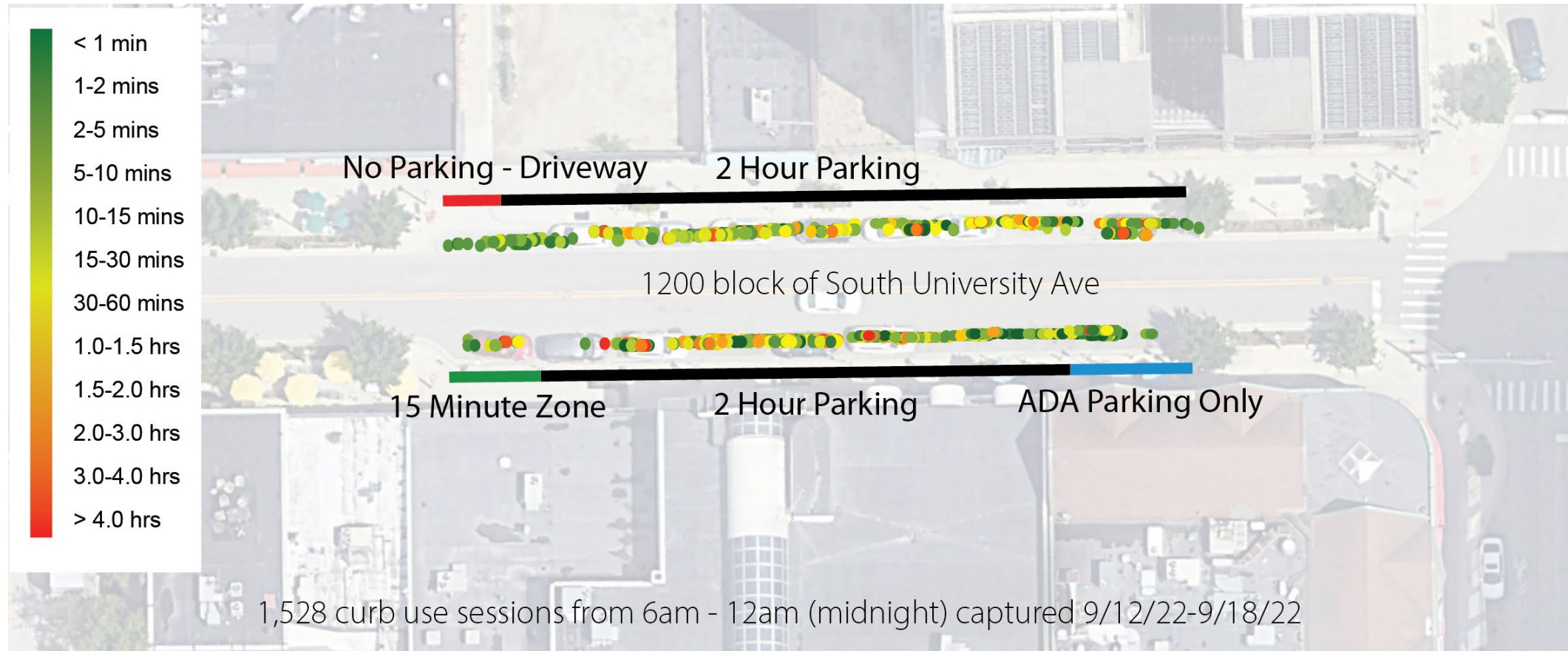
# South University Area: Vehicle and Transaction Data by Hour

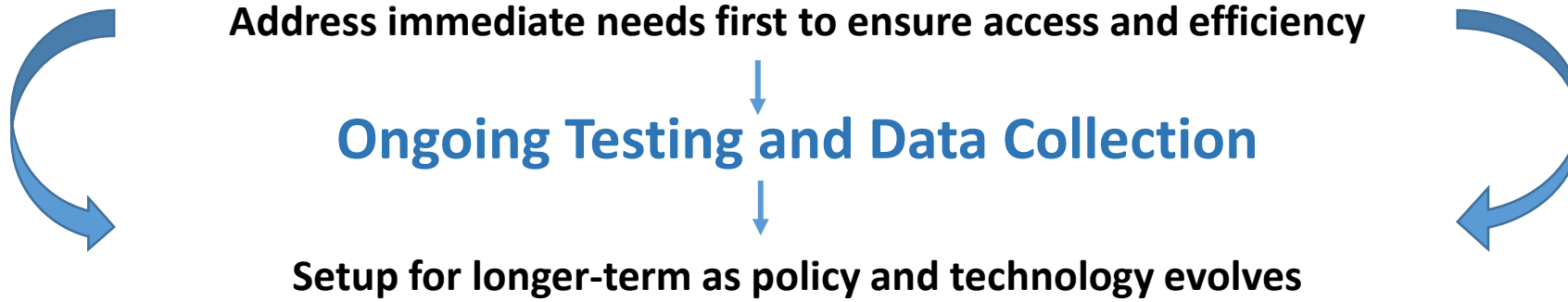
*Violations include vehicle stopped in No Parking zone*



## South University Area Short term violations occurring in no parking zone/driveway

- 15-minute curb is working (except for one user)
- Longer-term stays in the 2-hour parking, but most stays are less than 30 minutes
- Meeting significant curb access needs





## IMMEDIATE

1. Parking needs:
  - a. Update rates
  - b. More short-term spaces
2. Loading zone standard
3. ADA standard
4. Develop enforcement strategy
5. Develop data collection process
6. Develop performance metrics
7. Update curb typology/permit process updates
8. Integrate curb typology information into Street Design Manual

## NEAR-TERM

1. Enact enforcement strategy
2. Update enforcement hours
3. Develop strategy to charge more curb users (i.e., paid loading zones)
4. Package lockers strategy
5. Use data and goals to evaluate changes at the curb

## LONGER-TERM

1. More paid curb users
2. Curb digitization and technology processes
3. Vehicle guidance
4. Preparation for AVs
5. EV charging (curb)



## Downtown Ann Arbor **Curb Management Plan**

Plan details curb management strategies that will advance Ann Arbor's goals, priorities, and critical objectives for downtown curbs. There are two components:

- Curb Priorities Guide to help practitioners determine how to distribute curb space along a block or corridor.
- Curb Management Playbook detailing strategy recommendations and implementation steps.



# STREET DESIGN MANUAL



## DDA role in site plan review process

### Within the DDA

- Sidewalk width
- Brick pavers
- Bike parking
- Street trees and tree pits
- Pedestrian-scale streetlights
- Curbside uses

### Within the larger DDA Parking area

- Curbside uses

## Informed by the Street Design Manual

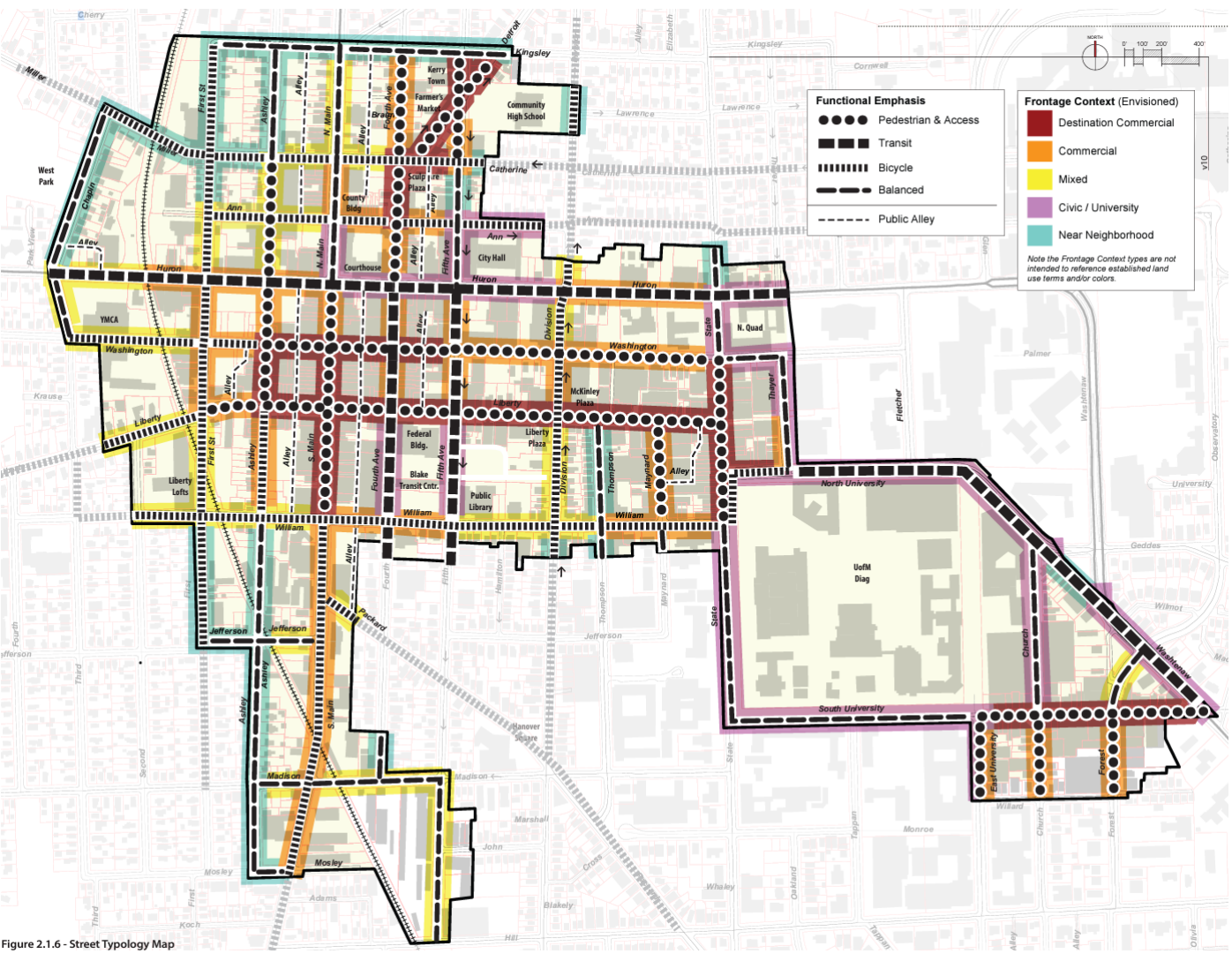


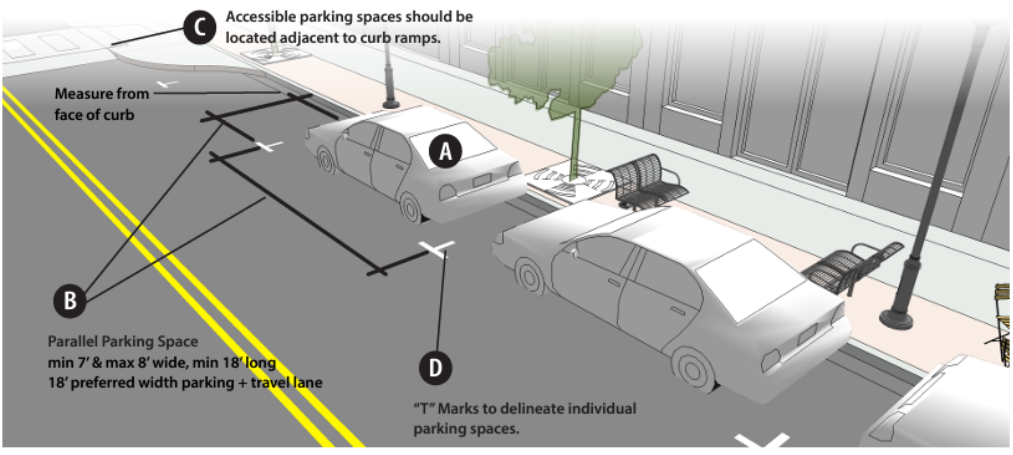
Figure 2.1.6 - Street Typology Map

including conversion to bicycle facilities, transit lanes, bumpouts, bicycle parking or other uses. The use of the public curbside must weigh the needs of the uses on that block face against the role and necessity of the street as a link in a larger networked system.

### Related Design Elements

- **Bicycle Lanes:** Curbside parking conflict with cyclists within the first 2 to 3 feet of a parked car. This is known as the “dooring zone,” the area where vehicle drivers or passengers may inadvertently open their door into a passing cyclist. Parking lanes and adjacent facilities should be designed with adequate space, such as a 2 to 3 feet wide buffer zone between the parking lane and the bicycle lane, to minimize this risk.
- **Cafe Seating and Outdoor Retail:** Access into and out of vehicles parked at the curbside may conflict with cafe seating in the Amenity Zone of the sidewalk. Similarly bicycle racks, parking meters, street light poles, and other fixtures in the Amenity Zone should provide sufficient space to enable access and egress from vehicles parked curbside. Typically 18 to 24 inches is sufficient clearance between parked vehicles and Amenity Zone elements.

Figure 4.2.1- On-Street Parking



place solid waste in parking lane

## DESIGN & OPERATIONS

### Design Requirements

- A Parking Angle:** On-street parking shall align parallel to the curb. While perpendicular or angled parking are also acceptable configurations, in narrow street rights-of-way like downtown Ann Arbor parallel parking provides more benefits and fewer conflicts with other street users.
- B Parking Space Size:** Parallel curbside parking spaces shall be a minimum of 7 feet of width and 20 feet of length. Width shall be measured from the face of curb to the center of the parking lane markings. The length of spaces may be reduced down to 18 feet in constrained locations.
- C ADA Accessibility:** Parking spaces designated for use by persons with disabilities should be located adjacent to curb ramps to facilitate access to and from the sidewalk space by persons of all abilities.



Curb Priorities Guide groups curbs into types based on the following;

- Overall goals and priorities
- Land Use
- Infrastructure
- Stakeholders and Users
- Local Context and Needs

Guide used for

- Development/Project Review Process
- Capital and Public Planning
- Ongoing Planning and Curb Operations



## Curb Functions and Uses Menu

<b>Pedestrian and Bicycle Access</b>	<b>Transit</b>	<b>Commercial Support</b>	<b>Vehicle Travel</b>	<b>Long-Term Parking</b>	<b>Balanced</b>	<b>Seasonal</b>	<b>All</b>
Active transportation and people-oriented activities	Supports people moving along a block or corridor riding transit	Supports businesses by providing space for food and goods pickup and delivery, and shorter-term vehicle parking	Allocates space for vehicle travel	Provides space for longer-term parking for residents and visitors	Recognizes that some downtown blocks have unique needs that could and should support a mix of curb uses	Seasonal changes for curb use such as street closures during warmer months	Green space, utilities, and lighting are integrated into all functions
Bicycle/Scooter infrastructure •Bike/scooter parking •Bike/scooter lanes  Activated and recreational space for pedestrians •Sidewalks •Street furniture/art •Public parklets •Pedestrian curb bump outs •Performance space •Food trucks	Transit lanes  Bus queue jump lane  Transit loading •Bus stops •Charter bus	Vehicle parking •Short-term •Metered •ADA  Commercial delivery loading zones •Semi trucks •Box trucks •Delivery vans •UPS/FedEx/Amazon/US PS  Food/on-demand pick-up and delivery •Vehicles •E-bikes	Travel lanes  Driveways and curb cuts  Fire access lanes	Vehicle parking  •Long-term •Permit •Metered •ADA •EV Charging	No default, Mix of all functions based on each block's unique needs	Street Closures  Streetcaries	Green space •Street trees •Planting areas •Raingardens, bioswale •Stormwater management Utilities  Street lighting

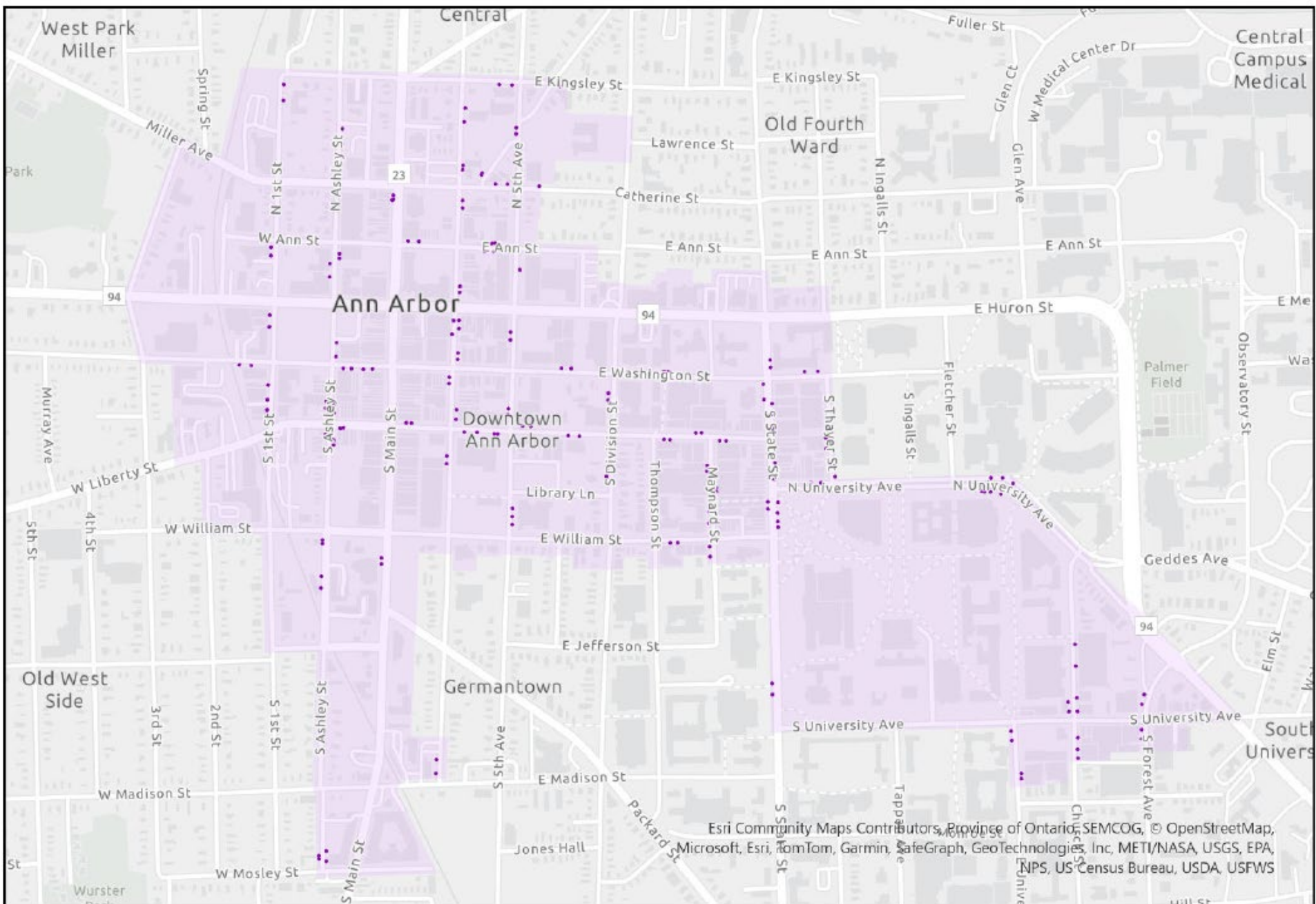


## Curb Prioritization Guidelines

Destination Commercial		Commercial		Near Neighborhood		Dense Residential		Mixed	
Prioritization Hierarchy	Allocation	Prioritization Hierarchy	Allocation	Prioritization Hierarchy	Allocation	Prioritization Hierarchy	Allocation	Prioritization Hierarchy	Allocation
Pedestrian and Bike Access	0% - 100%	Pedestrian and Bike Access	0% - 100%	Pedestrian and Bike Access	0% - 100%	Pedestrian and Bike Access	0% - 100%	Varies based on each blocks unique needs, planning efforts, and capital projects	
Commercial Support	10% - 20%	Commercial Support	25% - 75%	Long Term Parking	25% - 100%	Commercial Support	10% - 25%		
Transit	0% - 100%	Vehicle Travel	0% - 100%	Vehicle Travel	0% - 100%	Transit	0% - 100%		
Vehicle Travel	0% - 100%	Transit	0% - 100%	Transit	0% - 100%	Vehicle Travel	0% - 100%		
Long Term Parking	0% - 10%	Long Term Parking	0% - 10%	Commercial Support	0% - 5%	Long Term Parking	0% - 10%		

# DDA Loading Zone Signs

November 2024



Curb Management Playbook details strategy recommendations and implementation steps.

Strategies presented in five categories-

- Curb Policy and Regulations
- Curb Access and Equity
- Curb Economics
- Curb Operations and Processes
- Curb Data and Digital Governance



B4	Develop a standard for ADA parking spaces	Review existing ADA signed spaces to understand if there are better placement options within the block perimeter. For new ADA spaces, installed on newly or substantially reconstructed streets, follow PROWAG (Proposed Public Rights-of-Way Accessibility Guidelines).	Near and Long Term	\$ \$ \$
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C1	Modernize curbside parking pricing	Implement a strategy to modernize parking rates to help manage the parking supply, including incrementally increasing rates, modifying hours, and creating new short-term spaces.	Near and Long Term	\$ \$
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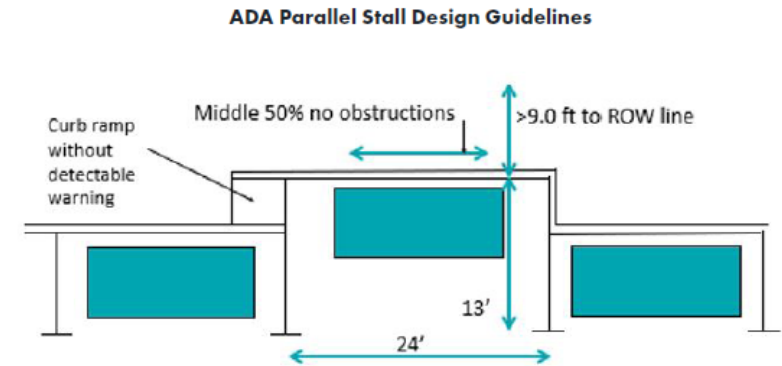
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### Quantity

- Reviewed block perimeters
- Identified blocks that needed ADA spaces (some blocks exceed)
- Working to convert around 48 spaces this year (+ existing=103 spaces)
- Another dozen or so following that in 2025

When considering placement on a block face we took amenity zone elements such as the following into consideration; trees, planters, light poles, signs, and hydrants. We also considered surface condition, slope, location of payment kiosk, adjacent uses, destinations, and proximity to curb cuts.

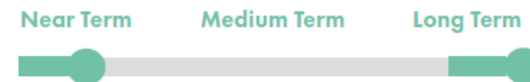
### Design



**Supportive Policies** - PFS, CTP Strategy 19. Shared Streets, SDM Goal 1: Mobility, Accessibility & Safety  
**Impact** - Medium

**Relevant Curb Typologies** - All

**Responsible Entity** - DDA, City of Ann Arbor Transportation Engineer



Relative Cost \$-\$\$\$  
 \$ \$ \$

C1	Modernize curbside parking pricing	Implement a strategy to modernize parking rates to help manage the parking supply, including incrementally increasing rates, modifying hours, and creating new short-term spaces.	Near and Long Term	\$ \$
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☒ Rates

- A three-year schedule of rate increases approved early 2024
- Modeling software that allows us to forecast revenue impacts (usage and space loss)

Short-term Spaces

- 15-minute paid parking spaces

Paid Parking Hours

- Requires collaboration with multiple units at City

D2	Continually update wayfinding and signage to ensure clear communications for curb users	Share digital curb inventory and regulations information with the public through websites, communications portals, apps, and open APIs. Explore the potential for automated parking guidance systems to on and off-street parking spaces that provide information to drivers as they enter downtown with information directing them to available curb spaces.	Near and Long Term	\$ \$
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E1	Maintain curb inventory database	Establish a point person responsible for digital curb inventory maintenance. Allocate annual funding for cub inventory database maintenance and establish a process for updates. Determine how the digital curb inventory will be hosted and the appropriate platform, and open source information. Long-term look for opportunities to use APIs to support planning, management, enforcement, and payment.	Near and Medium Term	\$ \$ \$
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C5	Package locker hubs	Expand package locker hubs and explore creating a shared delivery locker program for small and medium-sized packages near commercial loading zones or in parking garages and commercial and residential buildings.	Medium Term	\$ \$
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D1	Target enforcement and add additional resources to ensure compliance	Develop enforcement strategy to increase compliance and reduce violations, including program goals, performance targets, and evaluation measures. Increase resources and funding, develop an education and awareness campaign, identify new technology, and develop performance metrics.	Near Term	\$ \$ \$
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C2	Charge a fee to all users for curb access to increase equity	Explore implementation of curb access fees for commercial loading zones, beginning with metered commercial delivery zones and smart loading zones over the long term. Explore the potential to amend State law to establish a local TNC fee for curb access.	Medium and Long Term	\$ \$
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Curb Management Plan

<https://www.a2dda.org/wp-content/uploads/2024/10/DDA-Curb-Management-Plan-Final-2024.pdf>

Downtown Area Circulation Study

<https://www.a2dda.org/people-friendly-streets/projects/downtown-area-circulation-study/>

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