**Transportation Commission**
**Study Session**

January 12, 2023

# Bellevue Curb Management Plan

**Presented By:**


Chris Iverson | City of Bellevue

Lauren Mattern | Nelson\Nygaard

Alex Mercuri | Nelson\Nygaard


NELSON NYGAARD

CITY OF BELLEVUE WASHINGTON

# Agenda for Today


**CMP Update**


**Curb Typology**

# Objectives for tonight

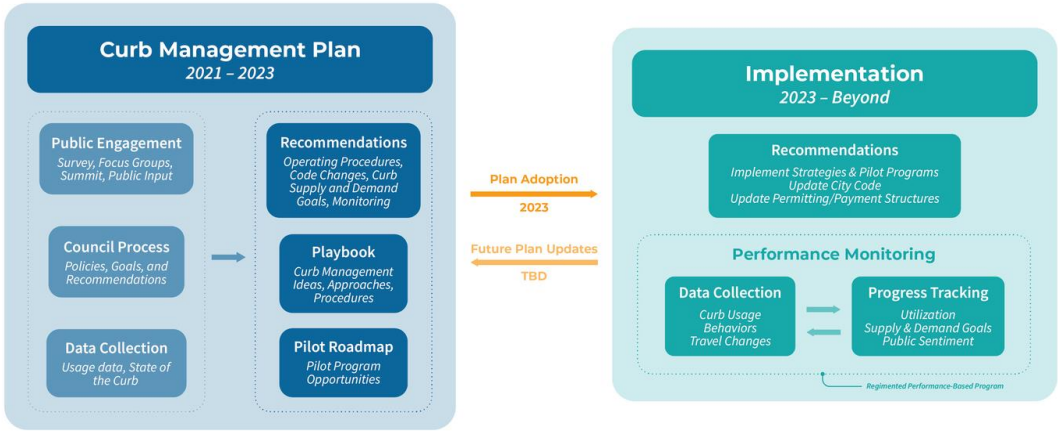
- Project team informs Transportation Commission on the Curb Typology future approach & draft content, and invites comments and discussion

# 1 CURB MANAGEMENT PLAN UPDATE

# New Resources on Project Webpage

1) **Frequently Asked Questions**
   - PDF and drop-down format
2) **CMP Schedule Diagram**
   - Identifies project schedule
   - Indicates follow-up work after CMP completion
3) **Existing Conditions report**
   - "State of the Curb" published online
   - Includes data collection throughout 2022



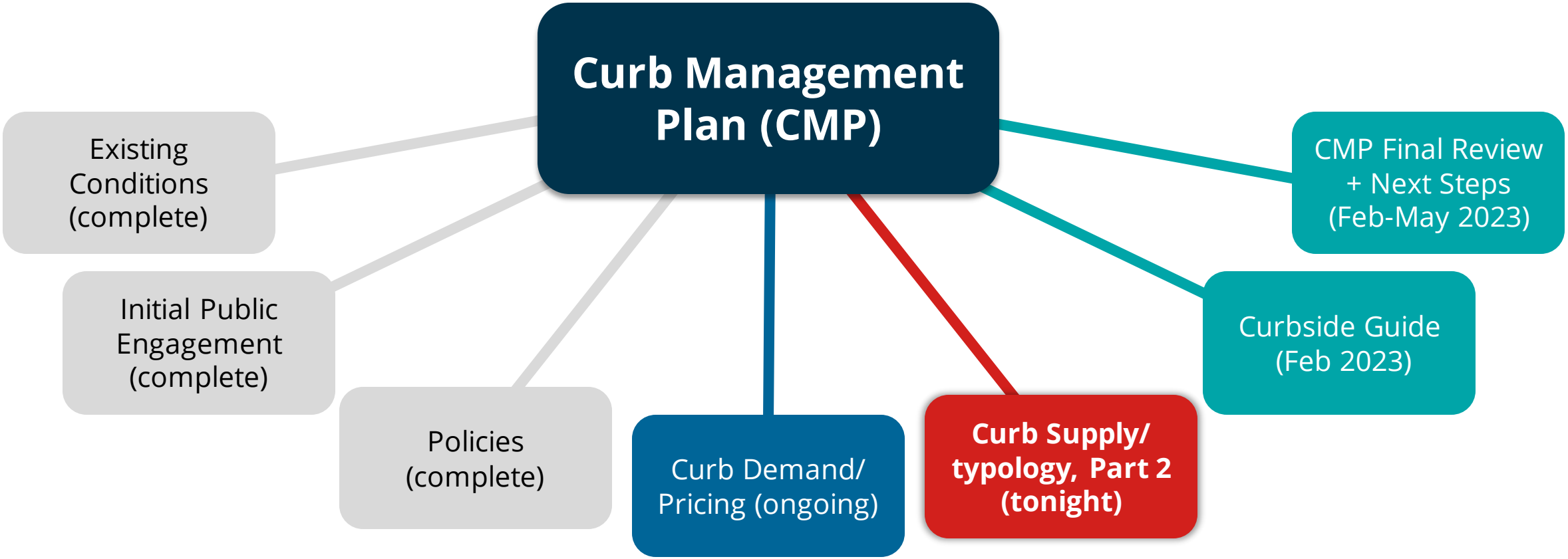


# Curb Management Policies

1) **Policies in support of Curb Management approved by City Council on Dec 12, 2022**
   - Ordinance 6707 adopted unanimously
   - Policies aim to provide support for curb management practices

# 2 CURB TYPOLOGY: FUTURE INTENT

# CMP Context

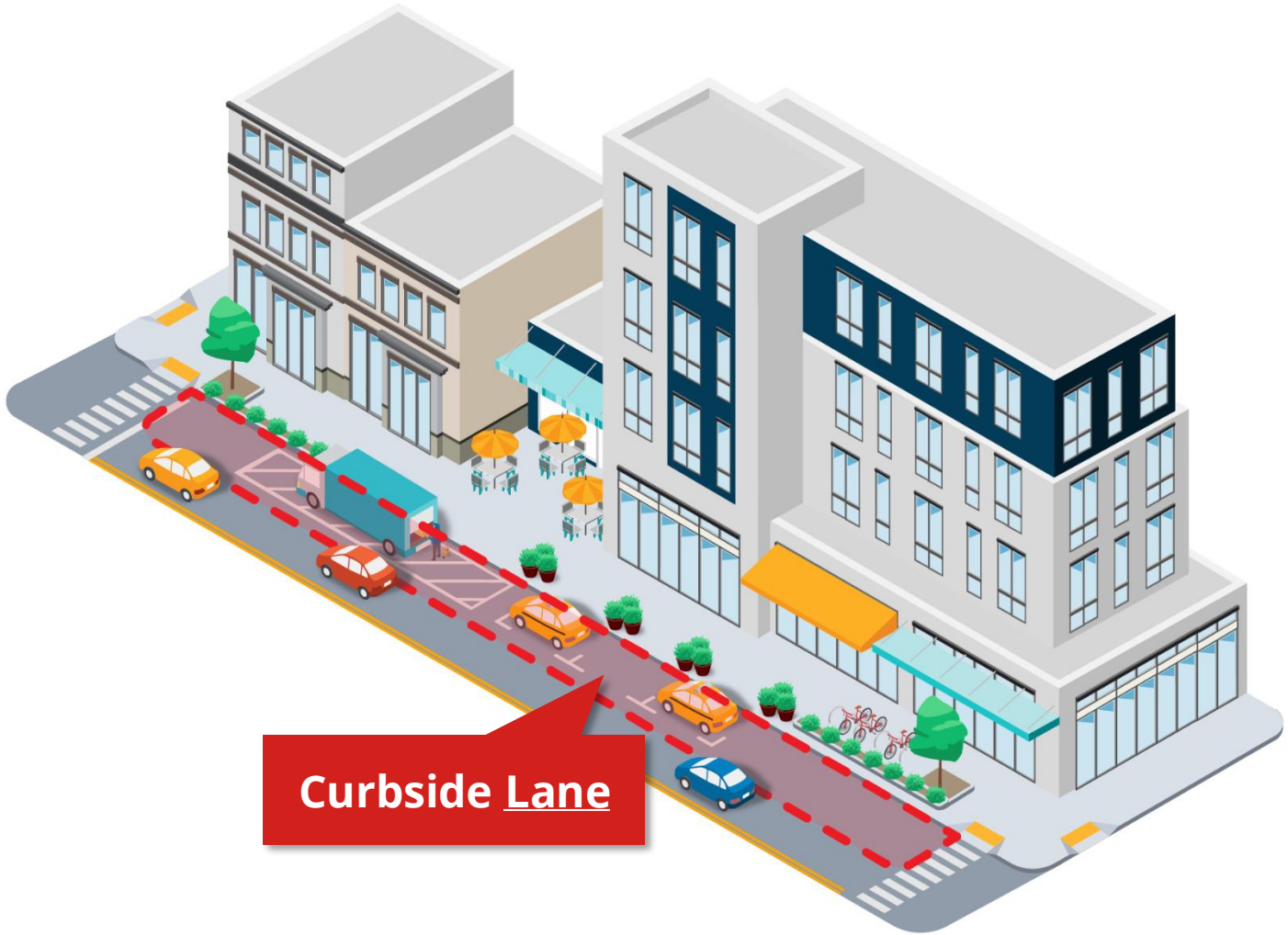

Curb Management Plan (CMP)
Existing Conditions (complete)
Initial Public Engagement (complete)
Policies (complete)
Curb Demand/ Pricing (ongoing)
Curb Supply/ typology, Part 2 (tonight)
Curbside Guide (Feb 2023)
CMP Final Review + Next Steps (Feb-May 2023)

# What is the Curb Typology?

The **Curb Typology** is a planning framework that will help City staff make decisions about how to prioritize the use of curbside space in Bellevue.

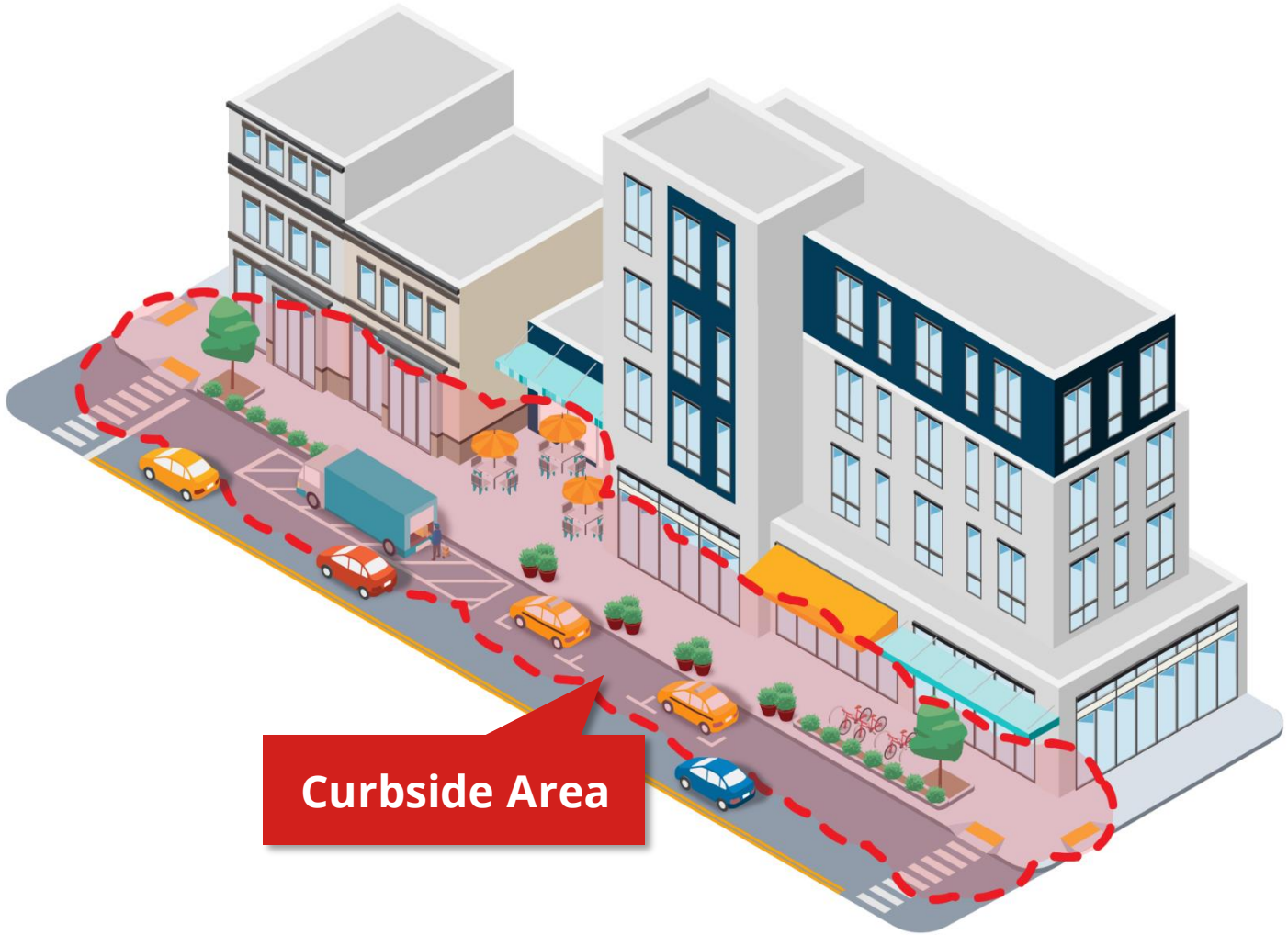
# What is the Curb Typology?

The **Curb Typology** is narrowly focused on the use of the **curbside lane**. The curbside lane does not include the sidewalk or other areas “above” the curb.



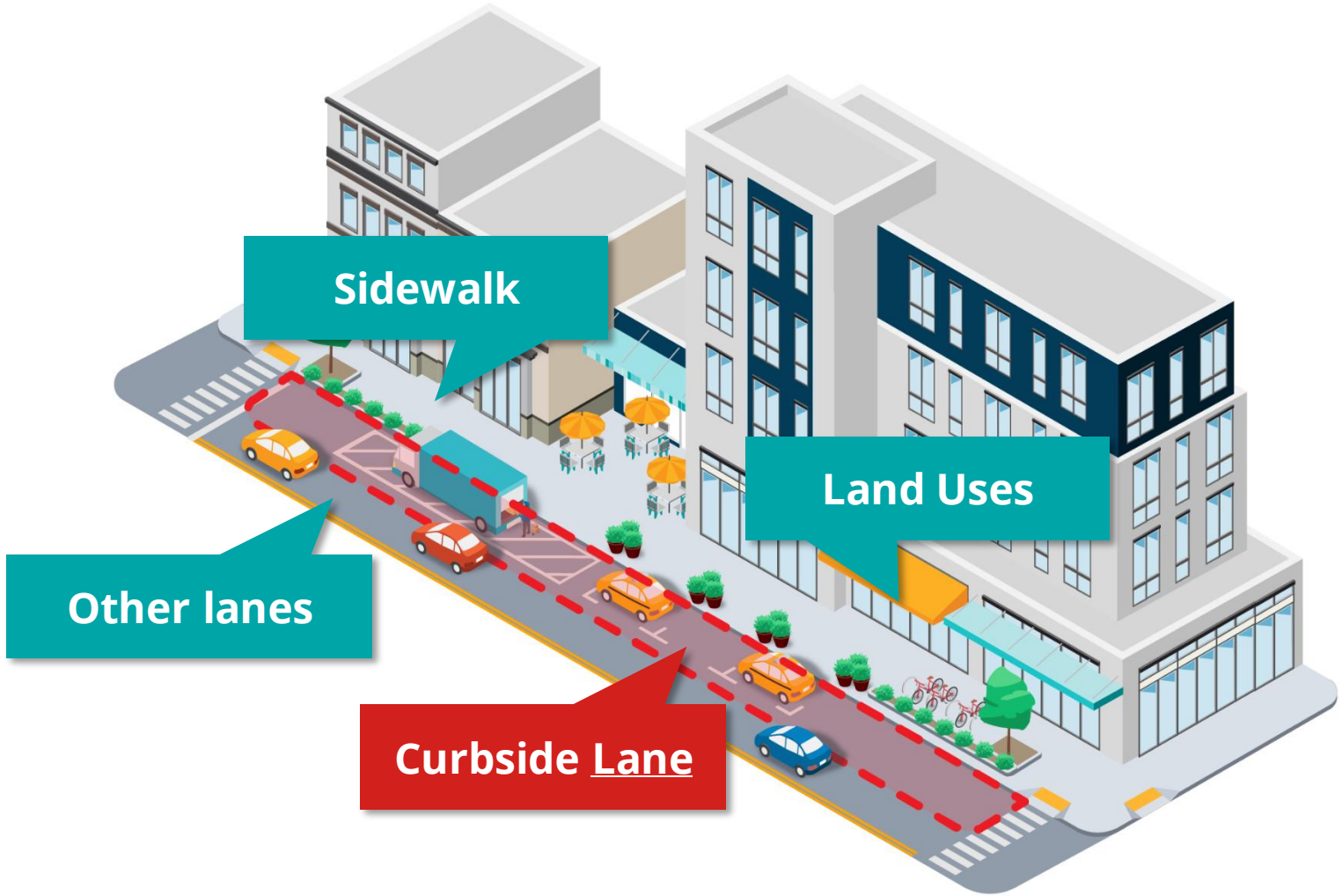
# What is the Curb Typology?

The **Curb Management Plan** will include the Curb Typology while also addressing a range of policies, functions, and activities that take place in the general **curbside area.**



# What is the Curb Typology?

While the focus of the curb typology is the curbside lane, other adjacencies were nonetheless considered and reflected in the development of the typology.



# How will the Curb Typology help?

1

**Serve as a Public Resource**

2

**Support City Staff**

3

**Articulate Future Curb Vision and Priorities**

# Existing and future curb types

**Each curb is assigned both existing and future types**

**Existing curb type:**
**Descriptive**
*How does each curb function in Bellevue today?*

**Future curb type:**
**Direction**
*What are Bellevue's future priorities for each curb?*

# Existing and future curb types

**Each curb is assigned both existing and future types**

Discussed in October

**Existing curb type:**

**Descriptive**

*How does each curb function in Bellevue today?*

Focus for Tonight

**Future curb type:**

**Direction**

*What are Bellevue's future priorities for each curb?*

# Tonight we will:

- Review the future Curb Typology **approach and process**
- Review updated **curb type definitions**, including examples and cross-type compatibility
- Review the **future curb type map**, which is based on existing plans, policies, and other references
- Review places in Bellevue where the future curb type map indicates **conflicting curb priorities**
- Discuss **next steps** for the Curb Typology and Curb Management Plan

# 3

# CURB TYPOLOGY: BELLEVUE'S APPROACH

# What are the curb types?

**Movement and storage have mode-specific sub-types**

| M | A | P | S |
|---|---|---|---|
| Movement (Auto) | Access | Place | Storage (Auto) |
| Movement (Transit) | | | Storage (Transit) |
| Movement (Bicycle) | | | |

# How are the curb types assigned?

The future curb types are assigned in a three-step process:

1. **Permissibility**: Which curb types are permissible based on existing plans and policies?
2. **Priority**: Where multiple permissible types are assigned, which type(s) should be prioritized?
3. **Off-Peak Use**: What allowances & restrictions should be in place for off-peak uses?

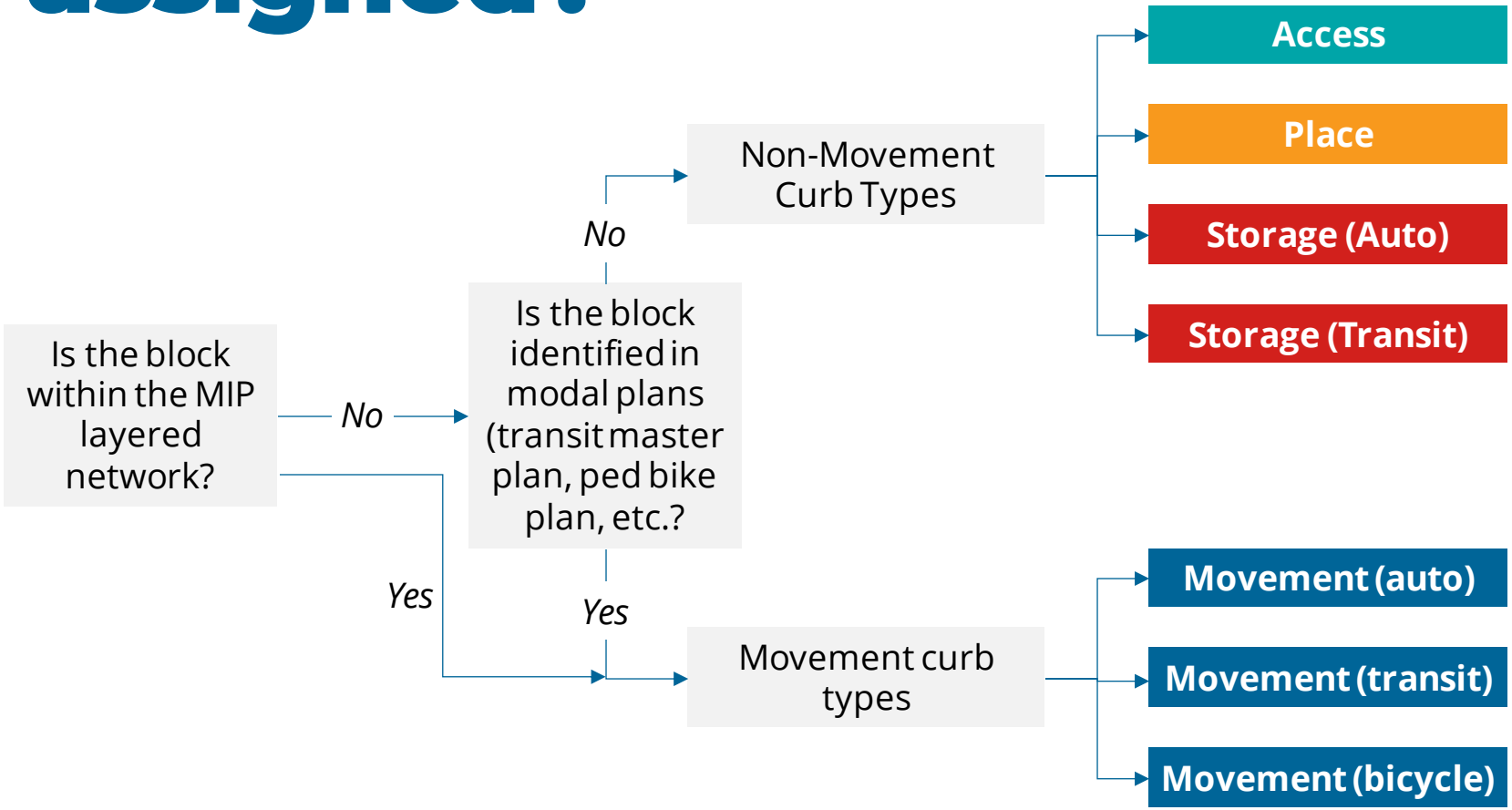
# Can a curb have multiple types?

- **Yes**—proactively supporting multiple curb types will help Bellevue leverage the limited curb space for the most benefit.
- But, **not all types are compatible with each other**, and some are compatible only with certain conditions.

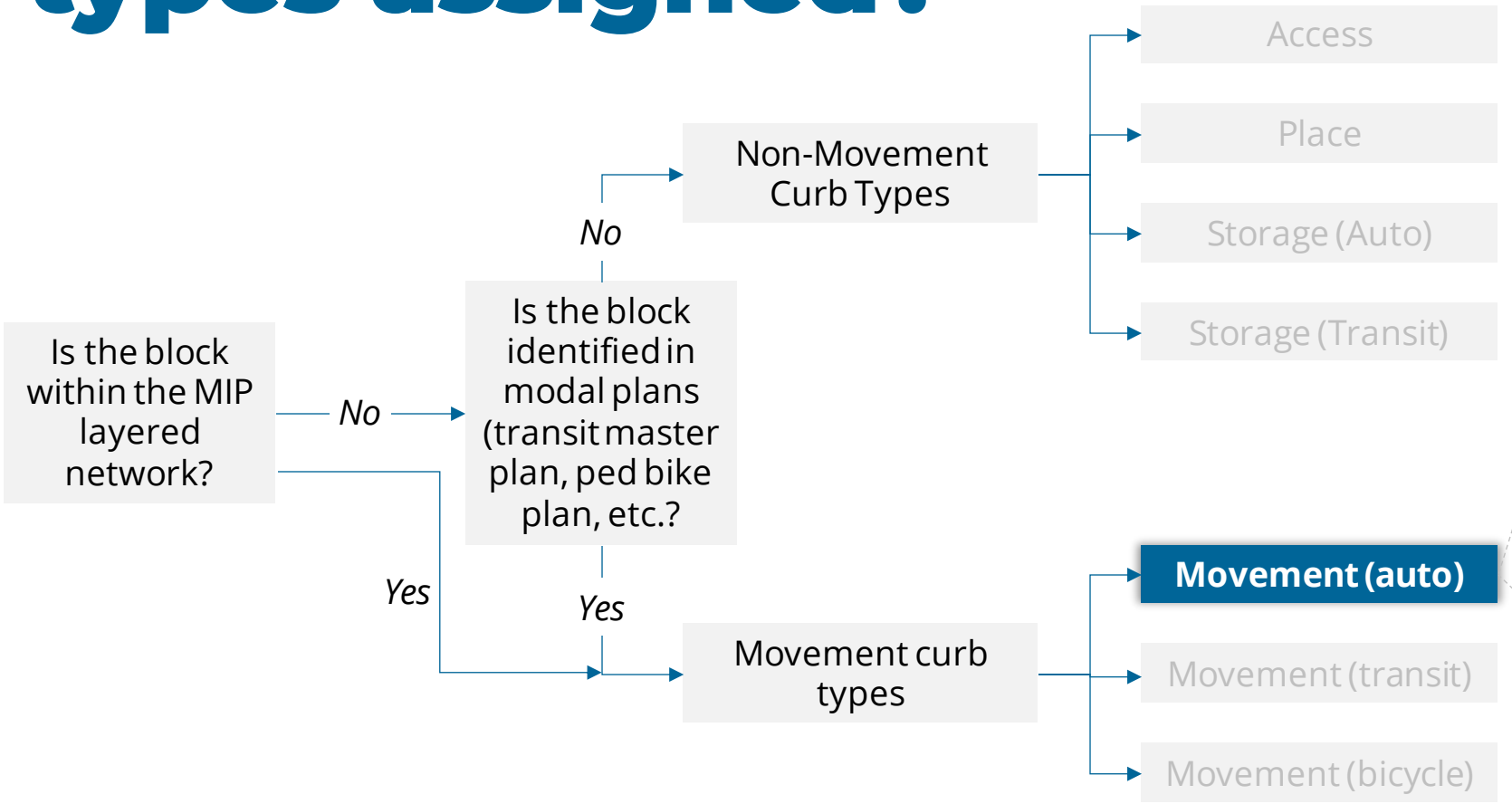
# Can a curb have multiple types?

- The curb typology will help identify places where city references show overlapping direction about curb use permissions, as well as places where there is a clear priority for one use over another

# Permissibility: How are curb types assigned?



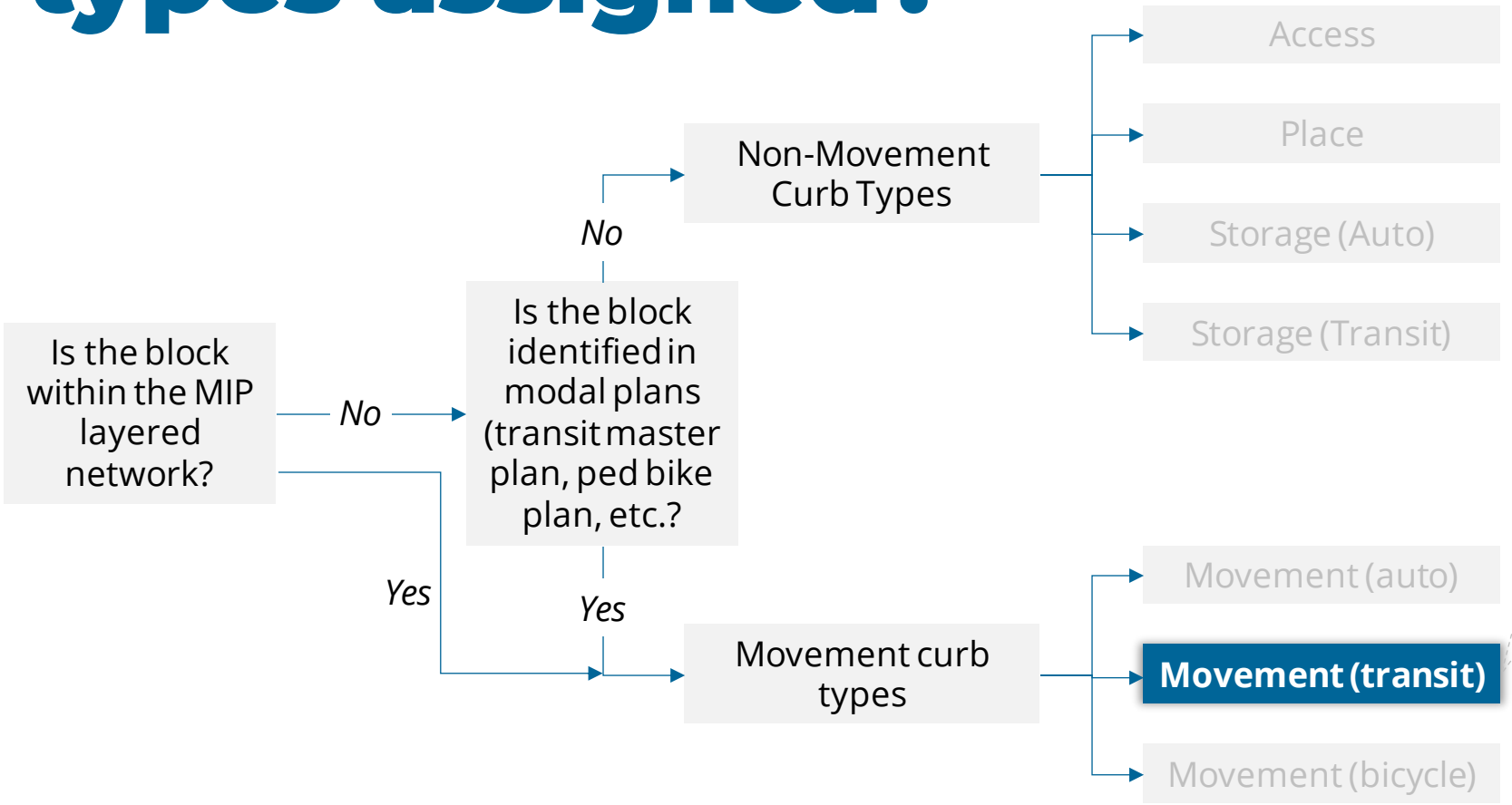
# Permissibility: How are curb types assigned?




**Movement (Auto) type criteria:**

- Vehicle network (MIP)
- Auto bias corridor (Downtown Subarea Plan)
- Arterial street (BelRed Streetscape plan)
- Designated truck route (Comp Plan)

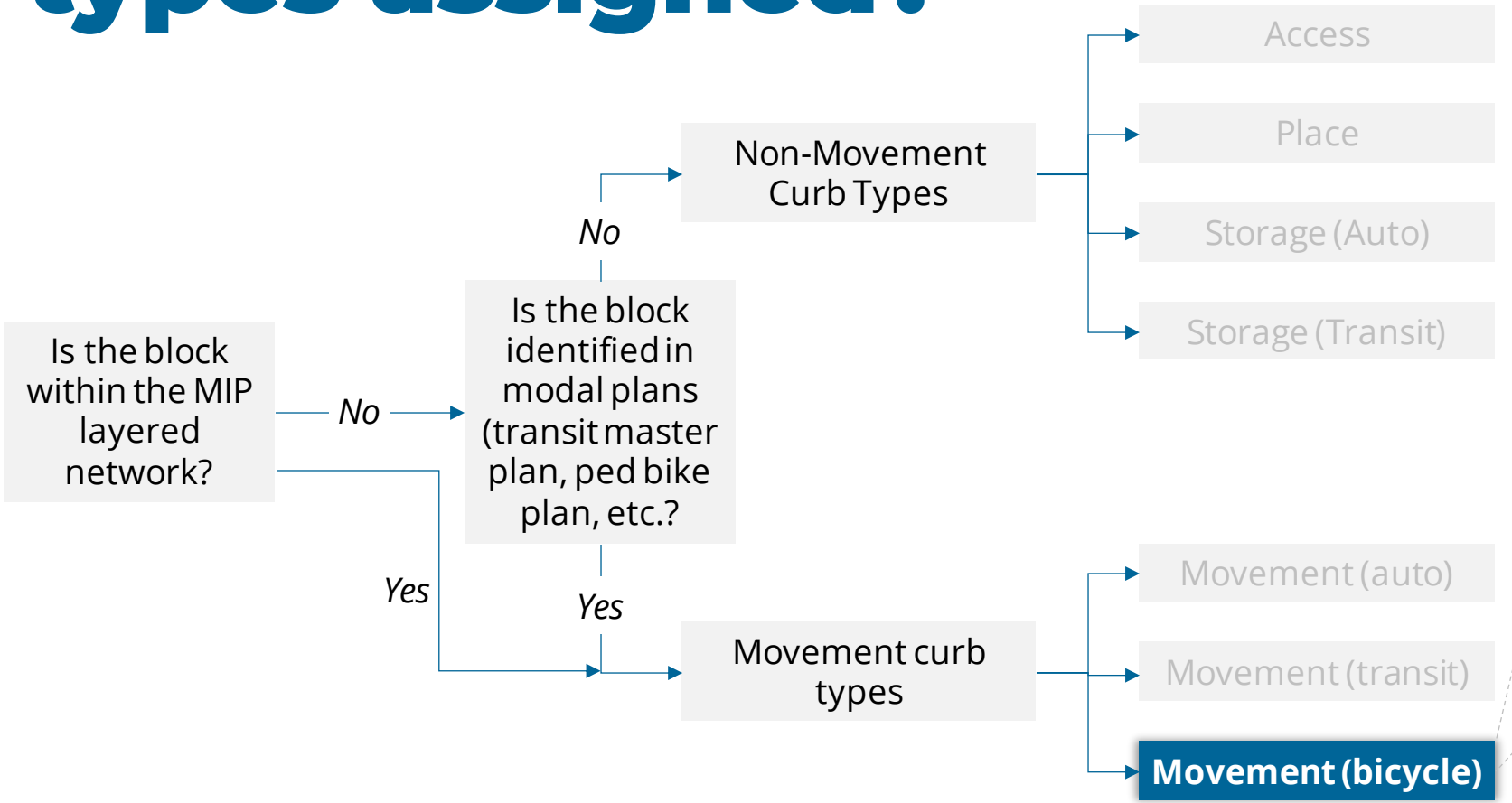
# Permissibility: How are curb types assigned?




**Movement (transit) type criteria:**

- Frequent Transit Network (FTN) in the "2030 Growing Resources" scenario (Transit Master Plan)

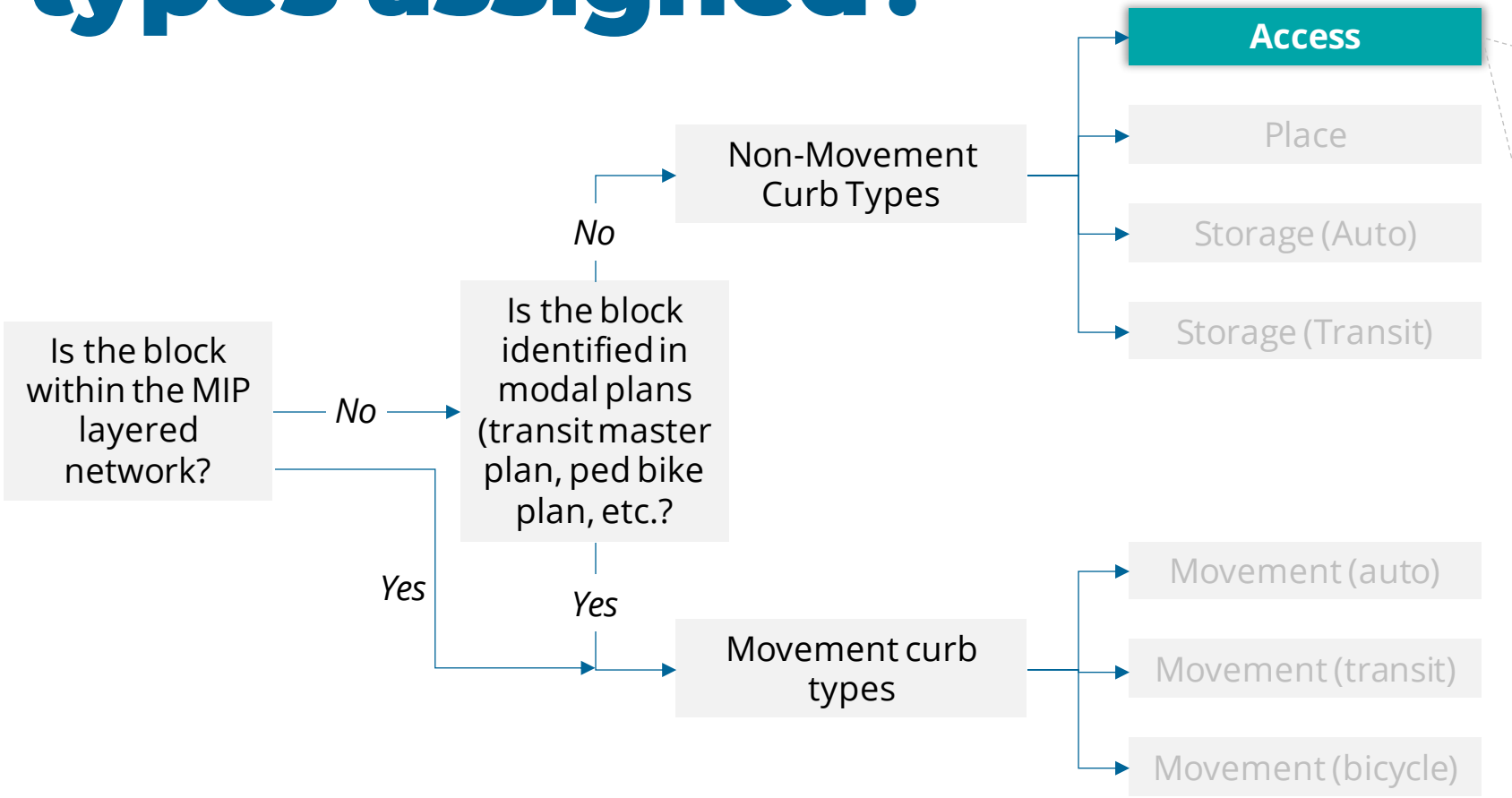
# Permissibility: How are curb types assigned?




**Movement (bicycle) type criteria:**

- Bicycle network LTS target (MIP)
- Primary bike corridor (Ped/Bike plan)
- Bike lanes envisioned (BelRed Streetscape Plan)

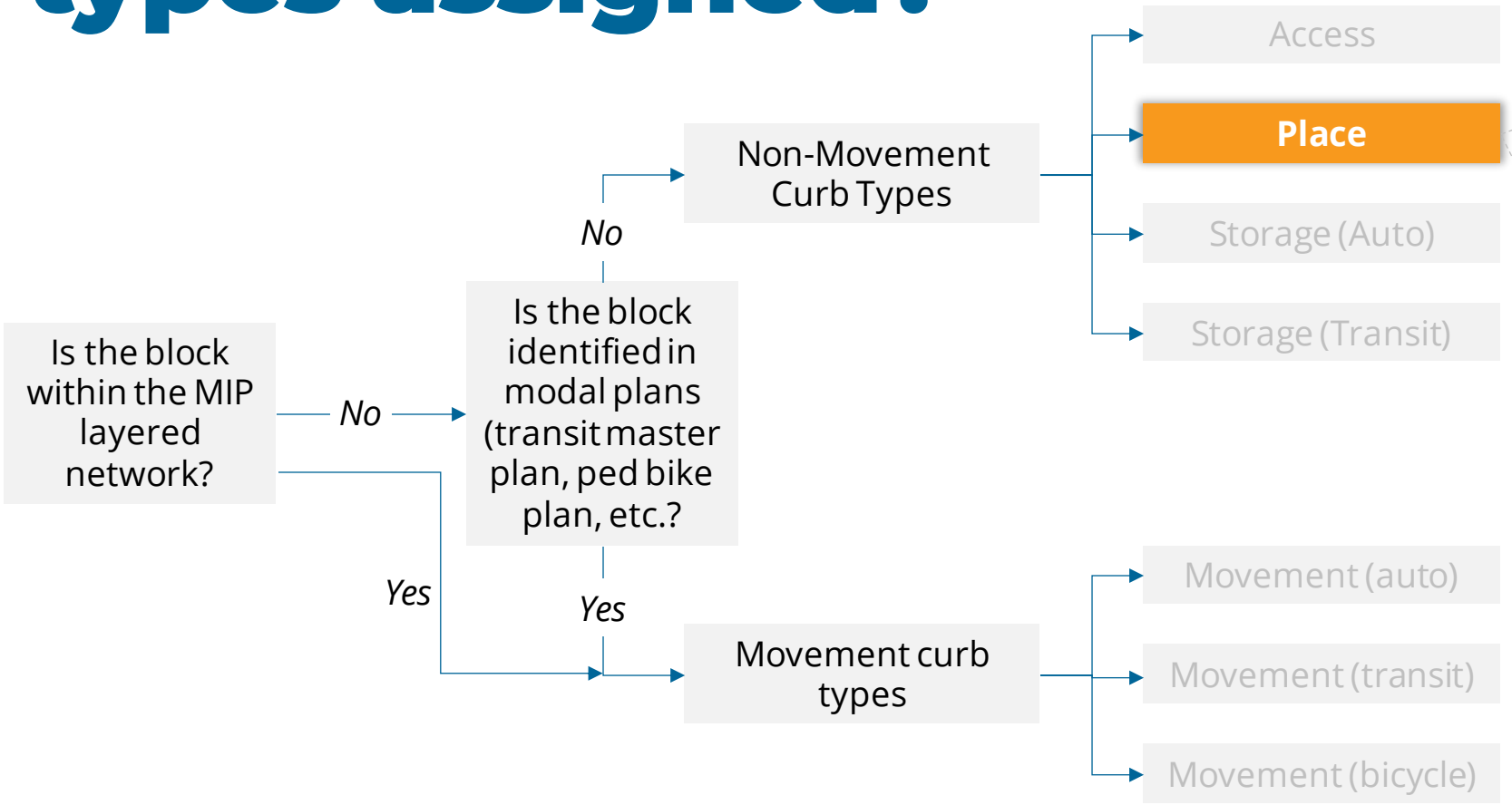
# Permissibility: How are curb types assigned?




**Access type criteria:**

- Non-movement corridor ≥ 2 blocks long
- Within ~300' of access points to key destinations (transit stations, parks, public institutions)
- Established pick-up/drop off locations

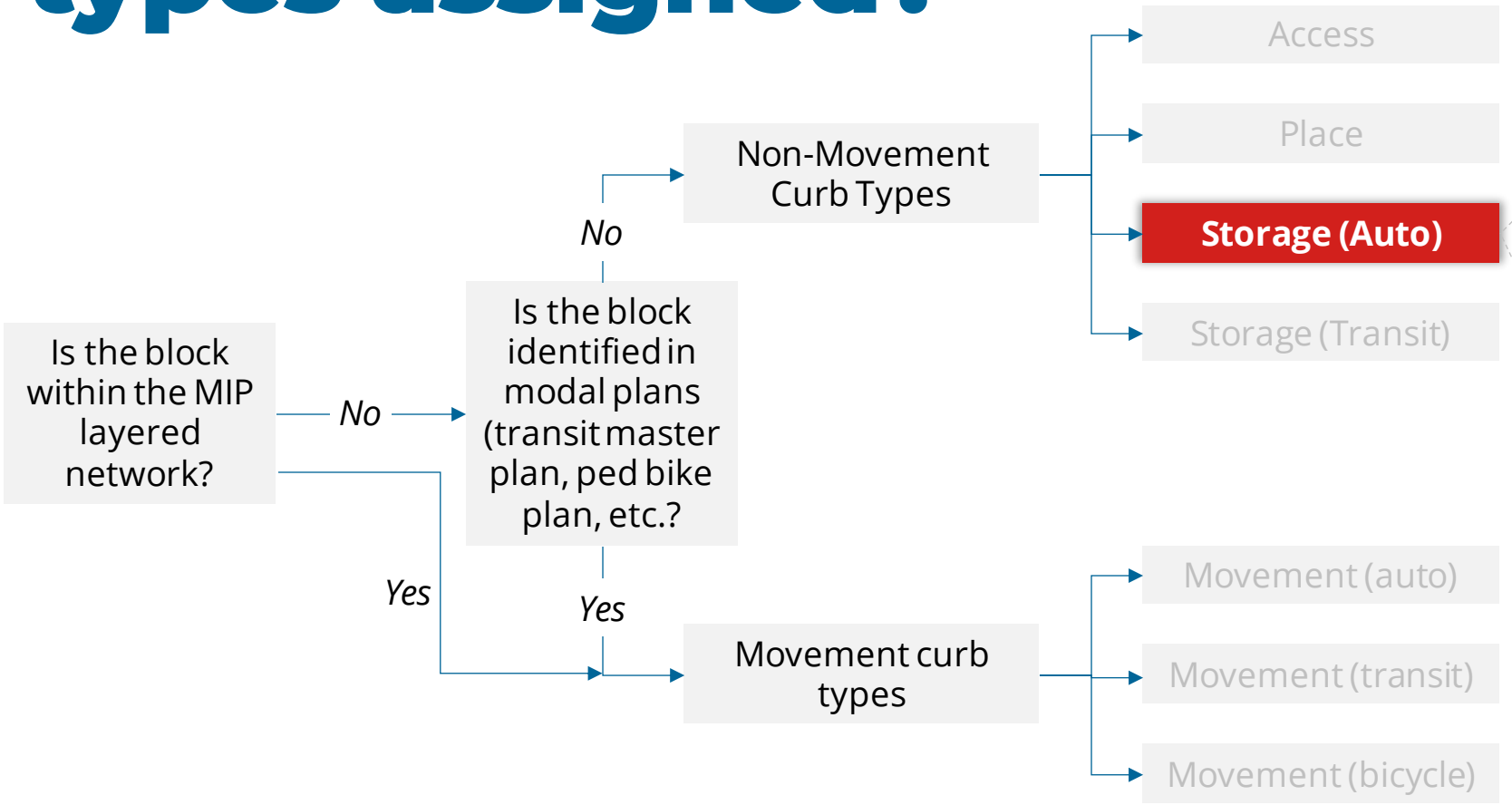
# Permissibility: How are curb types assigned?




**Place type criteria:**

- Grand connection
- Signature street (Comp Plan)
- Green street (BelRed Streetscape Plan)

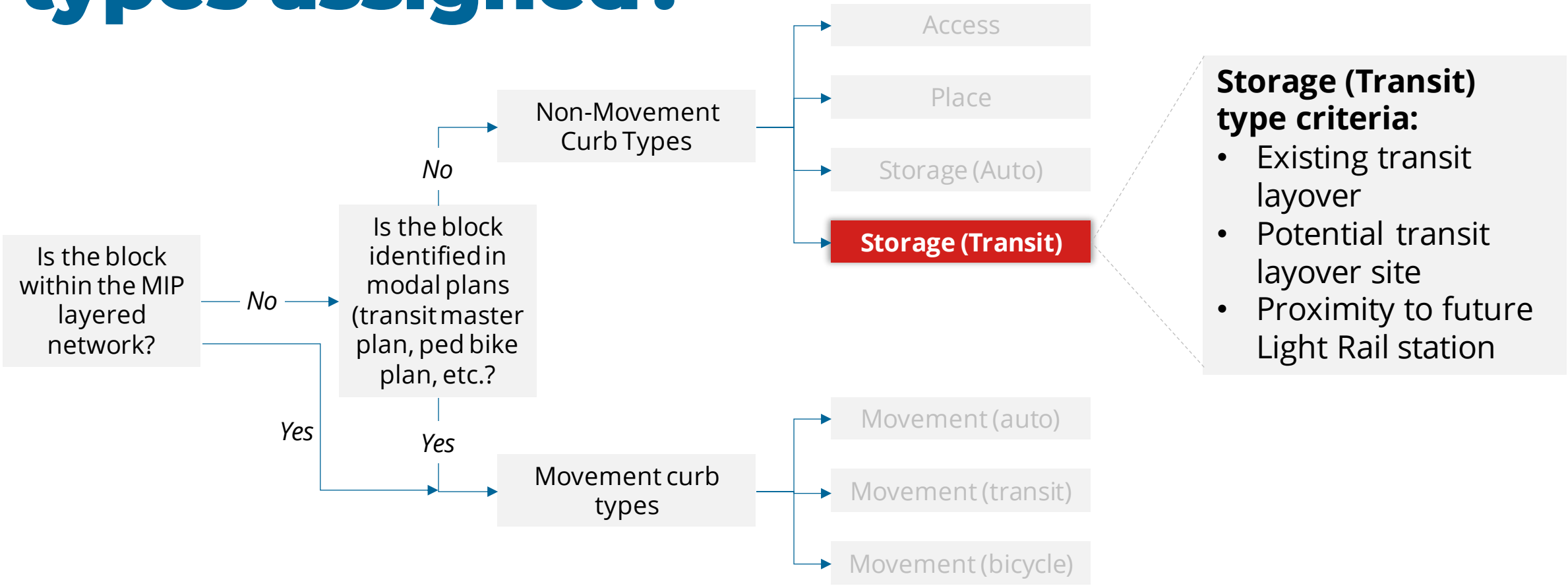
# Permissibility: How are curb types assigned?



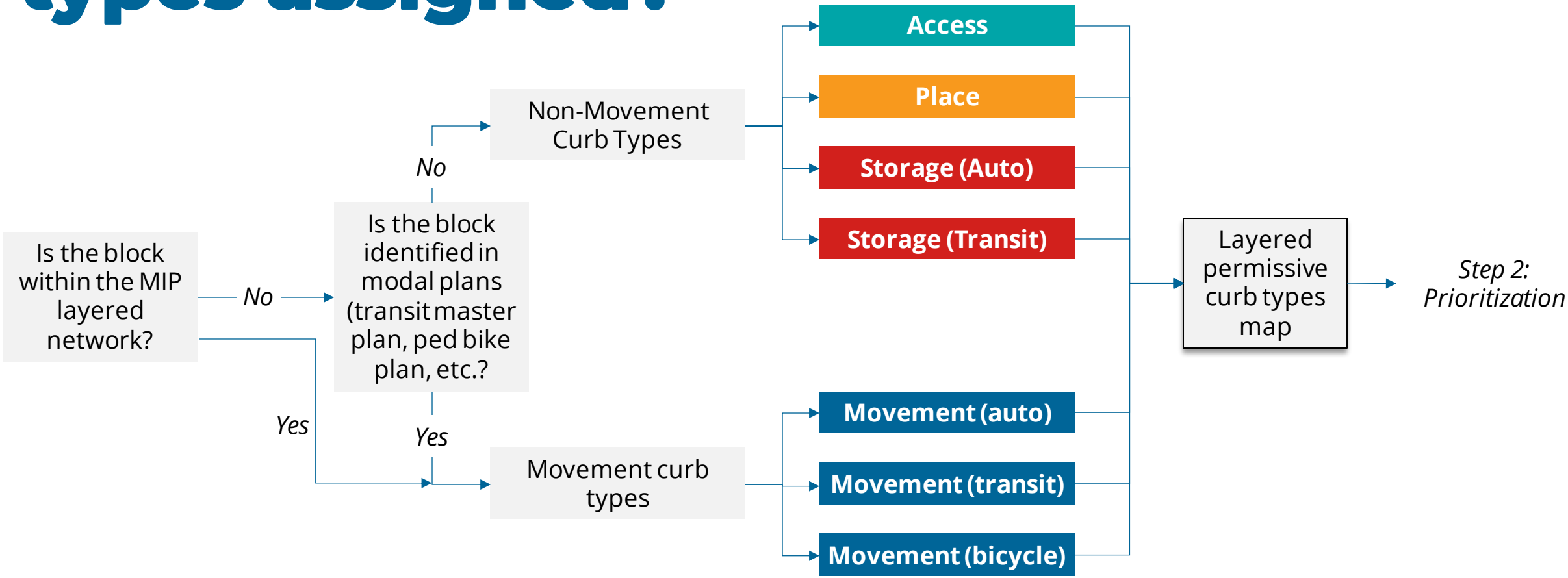

**Storage (Auto) type criteria:**

- Existing on-street parking
- Non-movement corridor < 2 blocks long
- Required street parking (BelRed LUC)

# Permissibility: How are curb types assigned?



# Permissibility: How are curb types assigned?



# 4

# CURB TYPOLOGY: PRIORITIZATION AND RESTRICTIONS

# Movement (Auto)

**What uses are prioritized?**

- Auto travel/general purpose lane

**What are some typical related features and adjacencies?**

- Continuous buffer/landscaping strip with few or no breaks
- Larger setbacks between the roadway and building frontage
- Limited “active” adjacent uses

# Movement (Auto)

**What uses are prioritized?**

- Auto travel/general purpose lane

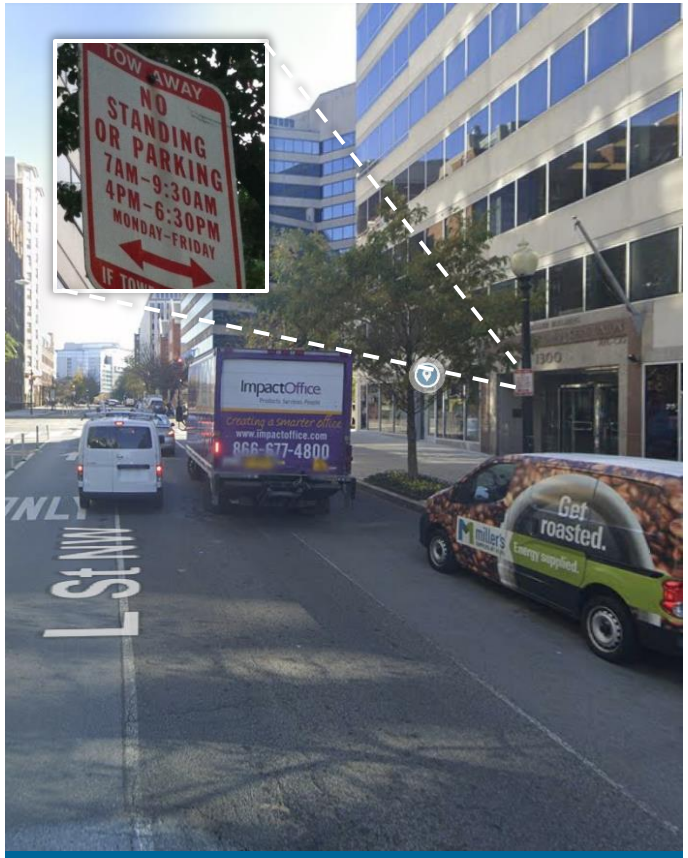
**What are some typical related features and adjacencies?**

- Continuous buffer/landscaping strip with few or no breaks
- Larger setbacks between the roadway and building frontage
- Limited “active” adjacent uses

# Movement (Auto)

## What other uses can be compatible?

| | | |
|---|---|---|
| **Movement (Transit)** | ✓ | ▪ **Peak period**: Transit priority features, i.e. rush hour bus lane |
| **Movement (Bicycle)** | ✓ | ▪ Compatible where there is sufficient right-of-way |
| **Access** | ✗ | ▪ Not a compatible type (except for bus stops) |
| **Place** | ✗ | ▪ Not a compatible type |
| **Storage (Auto)** | ‖ | ▪ **Off-peak:** in-lane parking |
| **Storage (Transit)** | ‖ | ▪ **Off-peak**: bus layover |




**Auto (storage): Peak only travel lane**
***L Street NW, Washington DC***


**Movement (transit): Rush hour bus lane**
***16th Street, Washington DC***

# Movement (Transit)

**What uses are prioritized?**

- Transit lane (bus or rail)

**What are some typical related features and adjacencies?**

- Transit stops/stations
- Transit-supportive development (dense residential, commercial, or mixed use)

# Movement (Transit)

**What uses are prioritized?**

- Transit lane (bus or rail)

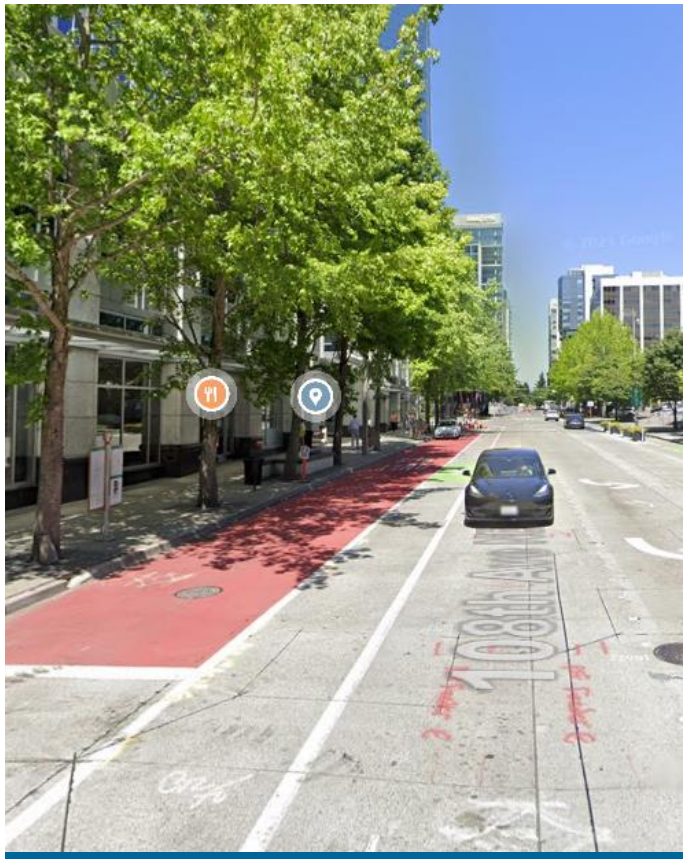
**What are some typical related features and adjacencies?**

- Transit stops/stations
- Transit-supportive development (dense residential, commercial, or mixed use)

# Movement (Transit)

## Which other types are compatible?

| | | |
|---|---|---|
| Movement (Auto) | ⏸ | ▪ **Off-peak use**: Rush hour transit lane |
| Movement (Bicycle) | ✓ | ▪ Compatible where there is sufficient right-of-way |
| Access | ⏸ | ▪ Shared transit stops |
| Place | ⏸ | ▪ Compatible with some "place" uses (such as a transit mall/plaza) |
| Storage (Auto) | ⏸ | ▪ **Off-peak use**: in-lane parking |
| Storage (Transit) | ⏸ | ▪ **Off-peak use**: bus layover |



**Movement (Bicycle): Transit lane and bike lane**
***Bellevue, WA***


**Place: transit-only street and plaza**
***16th Street Transit Mall, Denver CO***

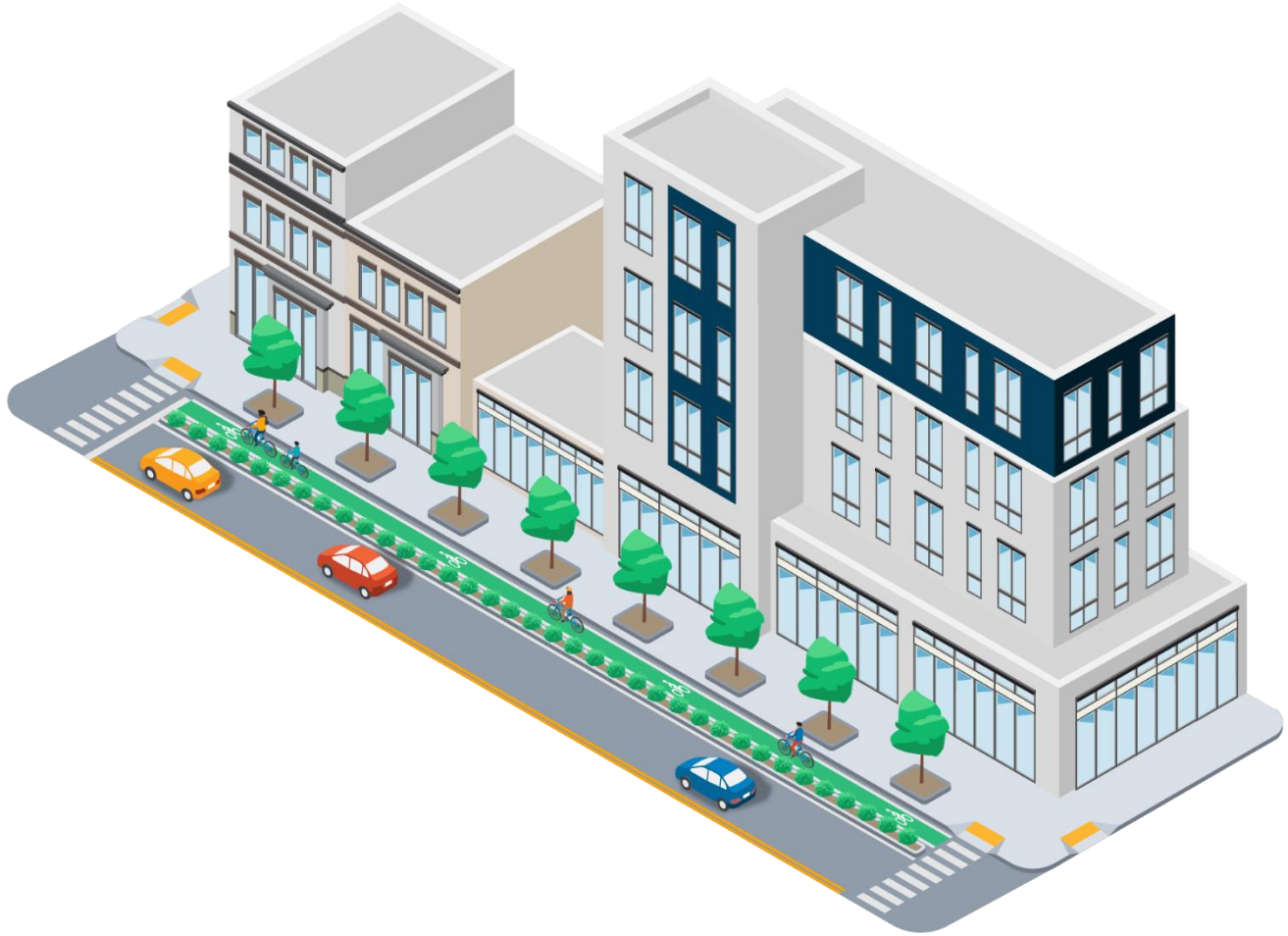
# Movement (Bicycle)

**What uses are prioritized?**

- Dedicated bicycle facility (bike lane, cycle track, or shared use path)

**What are some typical related features and adjacencies?**

- Bicycle parking
- Landscaping
- Buffer between bicycles and traffic



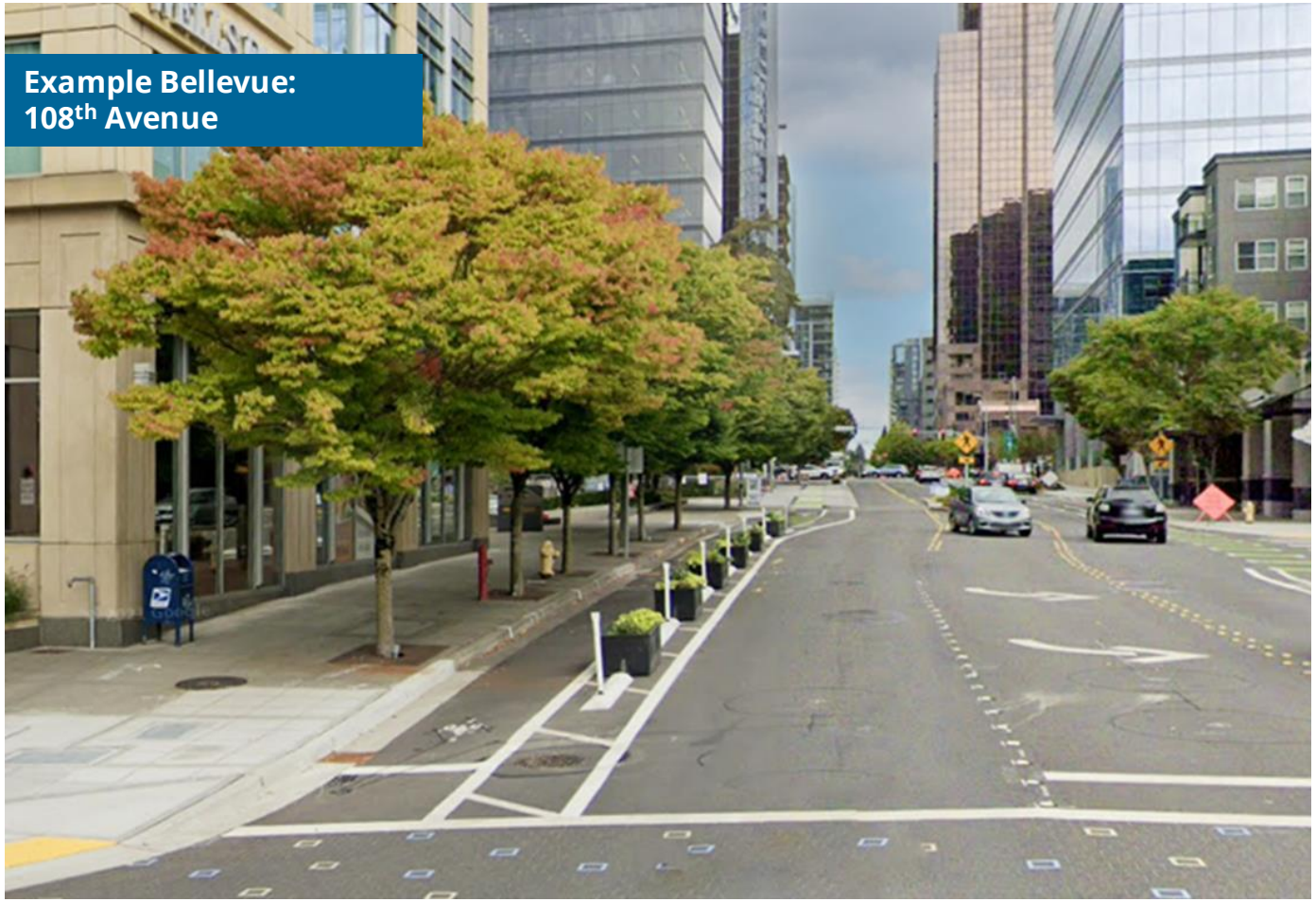
# Movement (Bicycle)

## What uses are prioritized?

- Dedicated bicycle facility (bike lane/path, cycle track, or shared use path)

## What are some typical related features and adjacencies?

- Bicycle parking
- Landscaping
- Buffer between bicycles and traffic

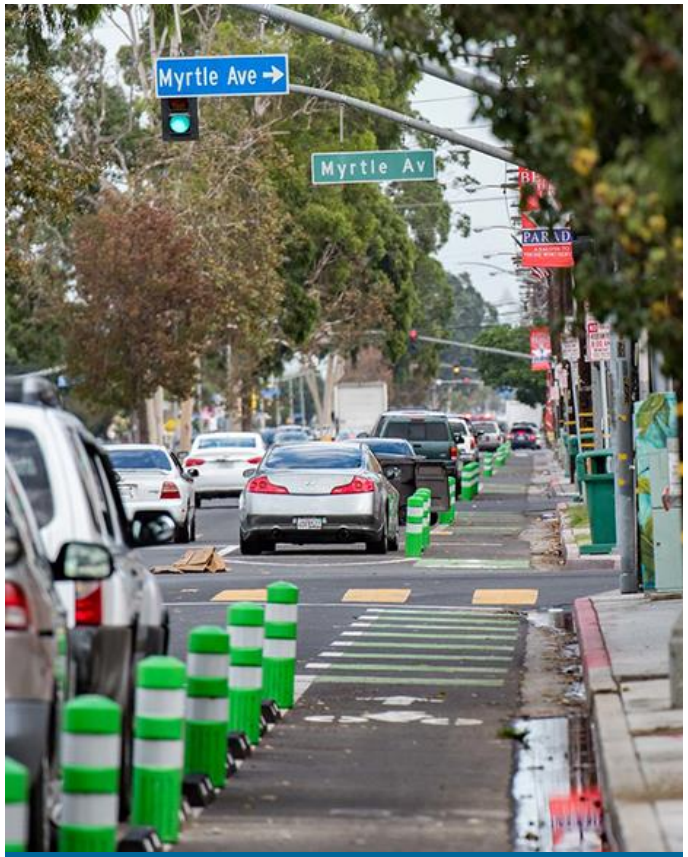


# Movement (Bicycle)

## Which other types are compatible?

| | | |
|---|---|---|
| **Movement (Auto)** | ✓ | ▪ Compatible where there is sufficient right-of-way |
| **Movement (Transit)** | ✓ | ▪ Compatible where there is sufficient right-of-way |
| **Access** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Place** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Storage (Auto)** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Storage (Transit)** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |

**Movement (Transit): Bus and bike lane**
***Madison, WI***




**Storage (Auto): parking protected bike lane**
***Long Beach, CA***

# Access

## What uses are prioritized?

- Freight loading, passenger PU/DO, delivery zones, transit and shuttle stops, on-street bicycle and micromobility parking corrals

## What are some typical related features and adjacencies?

- Permeable landscaping and streetscape features that allow access to/from curbside lane
- Storefronts and entrances to key destinations

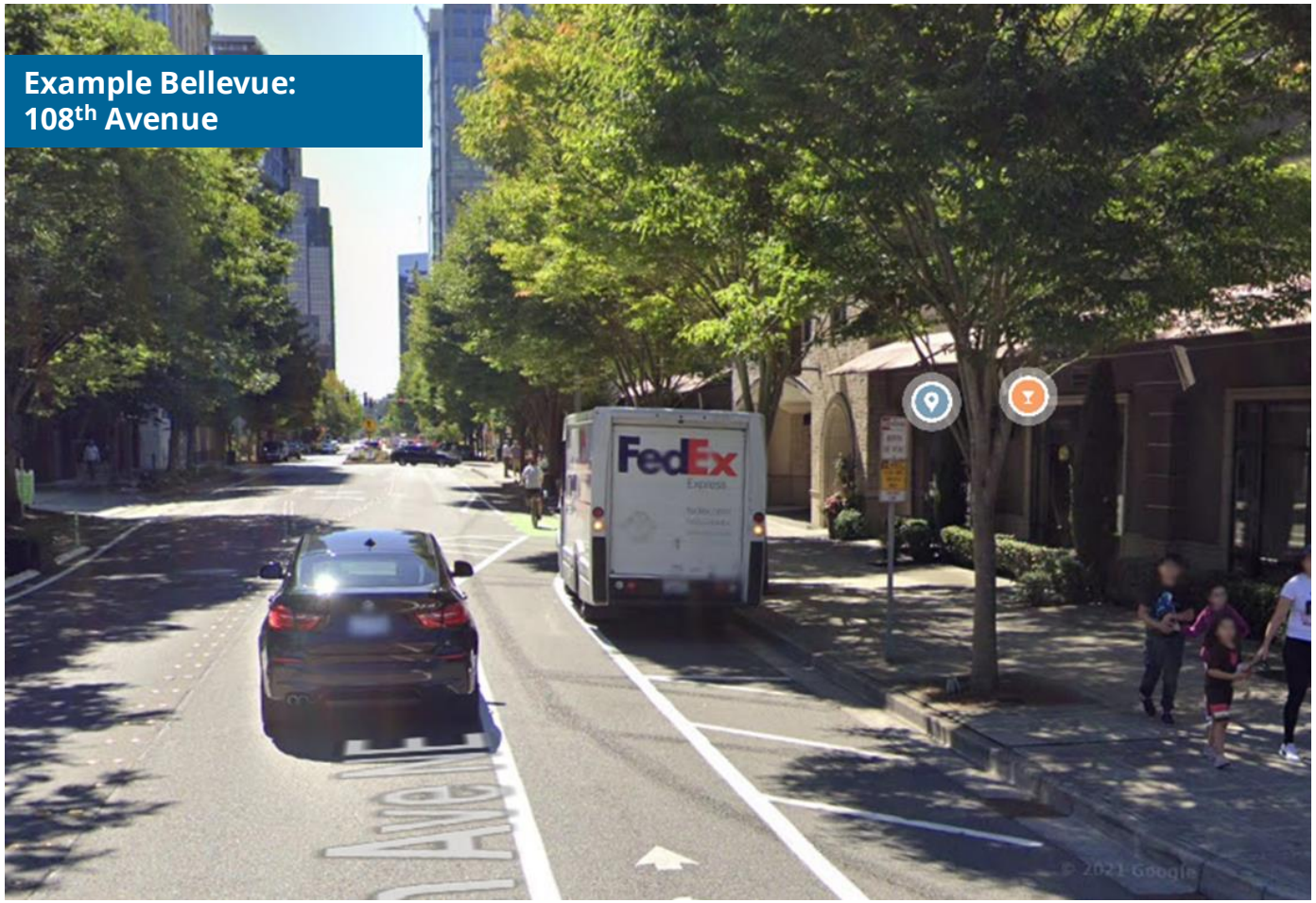
# Access

## What uses are prioritized?

- Freight loading, passenger PU/DO, delivery zones, transit and shuttle stops, on-street bicycle and micromobility parking corrals

## What are some typical related features and adjacencies?

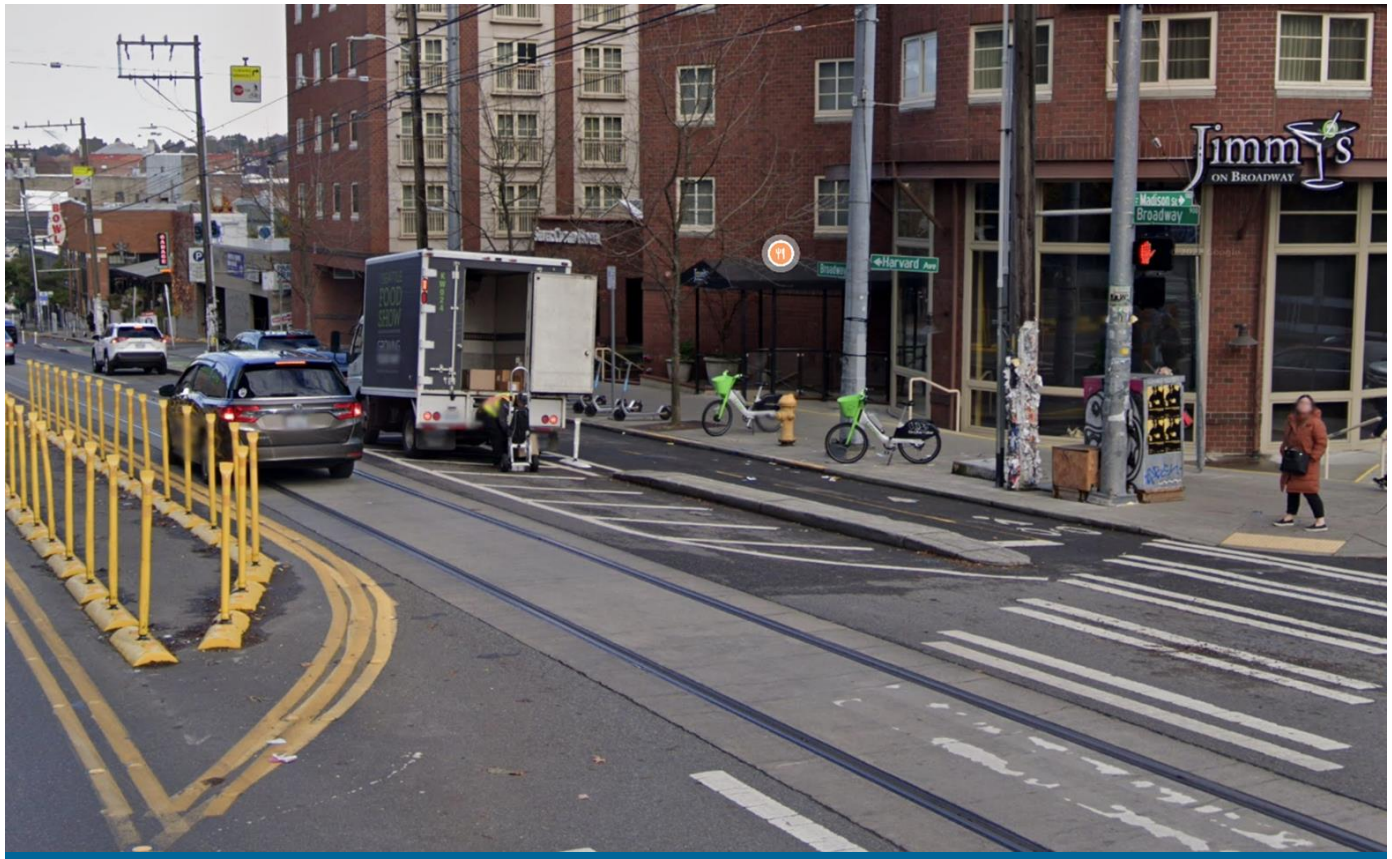
- Permeable landscaping and streetscape features that allow access to/from curbside lane
- Storefronts and entrances to key destinations



# Access

## Which other types are compatible?

| | | |
|---|---|---|
| **Movement (Auto)** | ✗ | ▪ Not compatible |
| **Movement (Bicycle)** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Movement (Transit)** | ‖ | ▪ Specific transit stops |
| **Place** | ✓ | ▪ Any configuration |
| **Storage (Auto)** | ✓ | ▪ Any configuration |
| **Storage (Transit)** | ✓ | ▪ Any configuration |




**Movement (bicycle): protected bike and loading zone**
***Broadway, Seattle WA***

M A P S

# Place

**What uses are prioritized?**

- Curbside dining, parklets, temporary events

**What are some typical related features and adjacencies?**

- Programmed spaces within the curbside area
- Proximity to public spaces or other active uses (plazas, parks, civic buildings, shopping or dining districts, institutions)

# Place

## What uses are prioritized?

- Curbside dining, parklets, temporary events

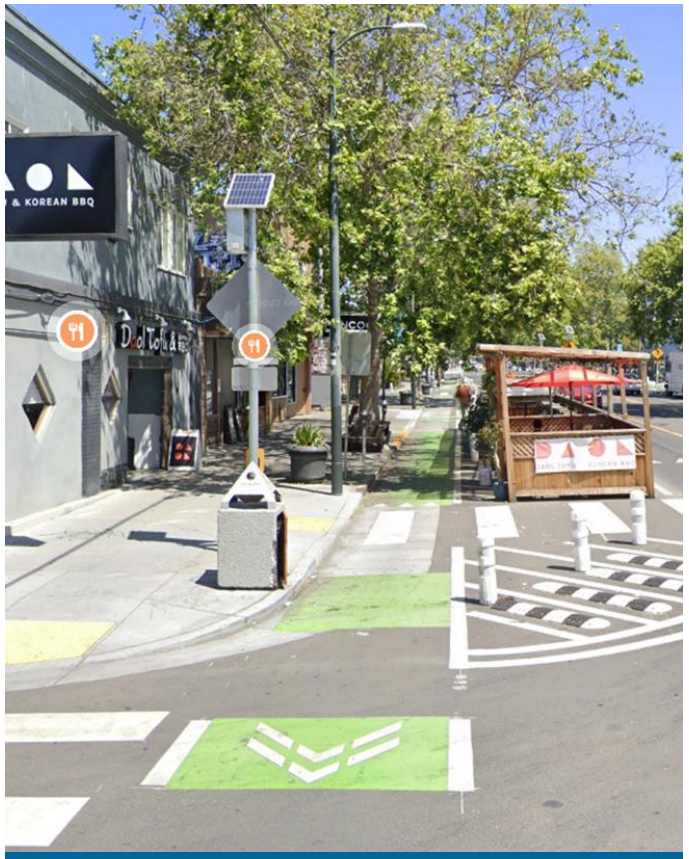
## What are some typical related features and adjacencies?

- Programmed spaces within the curbside area
- Proximity to public spaces or other active uses (plazas, parks, civic buildings, shopping or dining districts, institutions)

# Place

## Which other types are compatible?

| | | |
|---|---|---|
| **Movement (Auto)** | ✕ | ▪ Not compatible |
| **Movement (Bicycle)** | ‖ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Movement (Transit)** | ‖ | ▪ Specific transit stops |
| **Access** | ✓ | ▪ Any configuration |
| **Storage (Auto)** | ✓ | ▪ Any configuration |
| **Storage (Transit)** | ✕ | ▪ Not compatible |



**Movement (Bicycle): Protected bike lane**
***Oakland, CA***

**Access: Bicycle parking and dining/parklet**
***Paso Robles, CA***

# Storage (auto)

**What uses are prioritized?**

- Parking (long term)

**What are some typical related features and adjacencies?**

- Residential land uses
- Low-traffic streets
- Large setbacks

# Storage (auto)

**What uses are prioritized?**

- Parking (long term)

**What are some typical related features and adjacencies?**

- Residential land uses
- Low-traffic streets
- Large setbacks

# Storage (auto)

## Which other types are compatible?

| | | |
|---|---|---|
| **Movement (Auto)** | ⏸ | ▪ **Off-peak use**: in-lane parking |
| **Movement (Bicycle)** | ⏸ | ▪ Parking-protected bike lane if sufficient right-of-way |
| **Movement (Transit)** | ⏸ | ▪ **Off-peak use**: in-lane parking |
| **Access** | ✓ | ▪ Any configuration |
| **Place** | ✓ | ▪ Any configuration |
| **Storage (Transit)** | ✓ | ▪ Any configuration |

**Movement (Transit): Off-peak bus lane parking**
***Somerville, MA***


**Access: Loading zone and on-street parking**
***Seattle, WA***

# Storage (transit)

**What uses are prioritized?**

- Transit layover zone

**What are some typical related features and adjacencies?**

- Low-traffic streets
- Streets with sufficient right-of-way for transit vehicle turning
- Transit operator amenities (break area, restrooms)

# Storage (transit)

## How is the curbside lane used?

- Transit layover zone

## What are some typical related features and adjacencies?

- Low-traffic streets
- Streets with sufficient right-of-way for transit vehicle turning
- Transit operator amenities (break area, restrooms)


Example in Bellevue: 110th Avenue NE

# Storage (transit)

## Which other types are compatible?

| | | |
|---|---|---|
| **Movement (Auto)** | ⏸ | ▪ Only if layover is only needed at off-peak times |
| **Movement (Bicycle)** | ✓ | ▪ Any configuration |
| **Movement (Transit)** | ⏸ | ▪ Only if layover is only needed at off-peak times |
| **Access** | ✓ | ▪ Any configuration |
| **Place** | ✗ | ▪ Not compatible |
| **Storage (Auto)** | ✓ | ▪ Any configuration |

**Movement (Bicycle): Transit layover and bike lane**
***San Jose, CA***

# Off-peak allowances and restrictions

| Primary Curb Type | Off-Peak Restrictions |
|---|---|
| Mv | Truck Routes<br>Single Lane Arterials |
| Mt | Mt curb serving >4 buses/hour (FTN) |
| Mb | No off-peak changes (curb remains Mb 24/7) |
| A | N/A |
| P | P curbs may be seasonal* |
| Sv | N/A |
| St | N/A |

# Last thoughts on curb definitions:

- There are a wide variety of design solutions that help leverage the curb for multiple different uses
  - **The typology does not dictate which configurations are best for Bellevue**
- Some combinations require trade-offs in terms of user-friendliness, enforceability, productivity, safety, and other performance metrics.
  - The curb typology provides a roadmap that will help evaluate where and when those trade-offs may be appropriate, based on plans, policies, and site conditions.

# How can the typology be used?

**Example Situation #1:**

- City staff are reviewing a developer proposal located in the study area.

**How the curb typology helps:**

- Staff refer to the typology to determine how the curb space should be designed and operated along the frontage improvements for the site.
- Staff then provides feedback to the developer, which is incorporated into the planned project in alignment with the impacts of the proposal and the City's vision.

# How can the typology be used?

**Example Situation #2:**

- City engineers receive a request from a retailer to install a 15-minute loading zone along the curbside near their business to support freight and passenger loading.

**How the curb typology helps:**

- Engineering staff refer to the typology to determine whether loading is permitted and/or prioritized along that blockface.
- City staff and engineers either (a) approve the request and are able to address all related operational needs and design considerations, or (b) deny the request and are able to easily communicate their rationale.

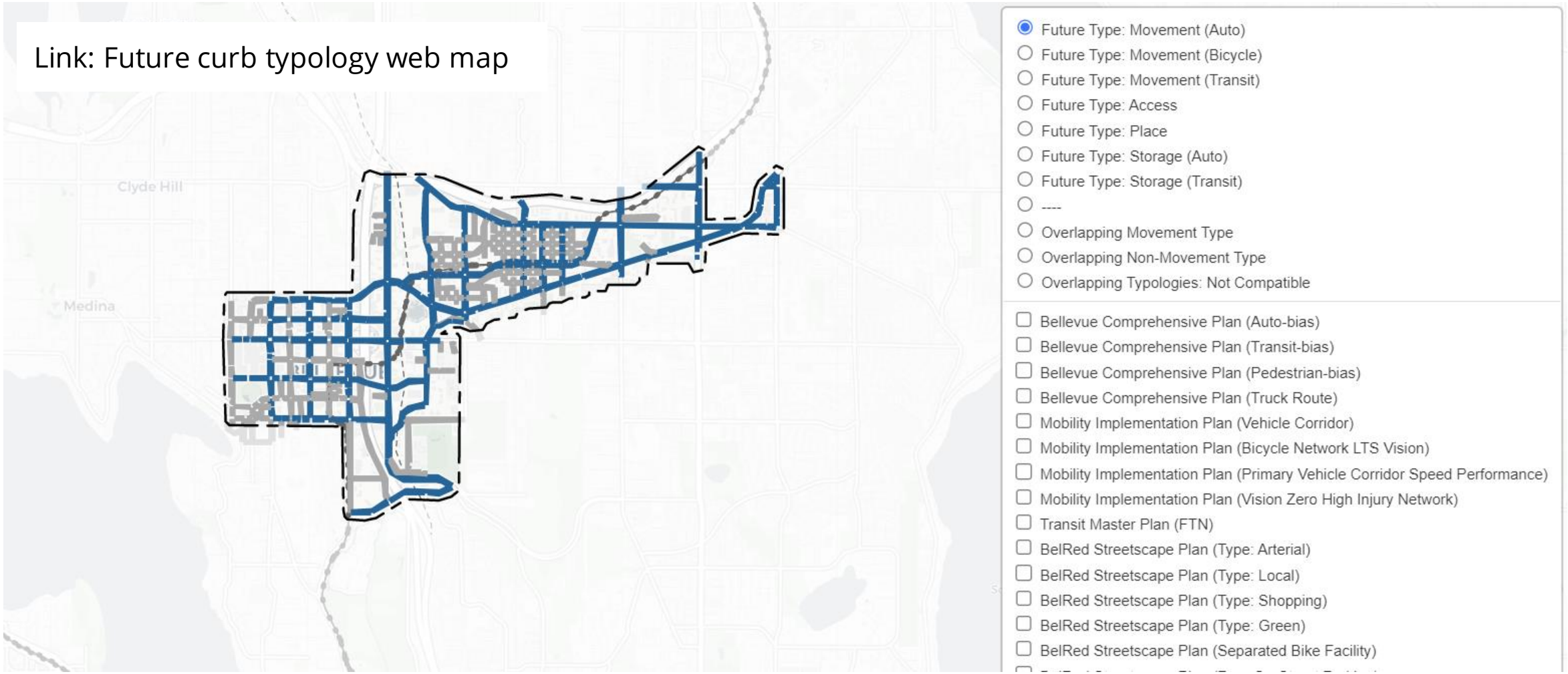
# Curb Typology process:

# Clarifying Questions?
# Concurrence?

# 5 FUTURE CURB TYPE MAP AND CONFLICTS

# Future typology web map

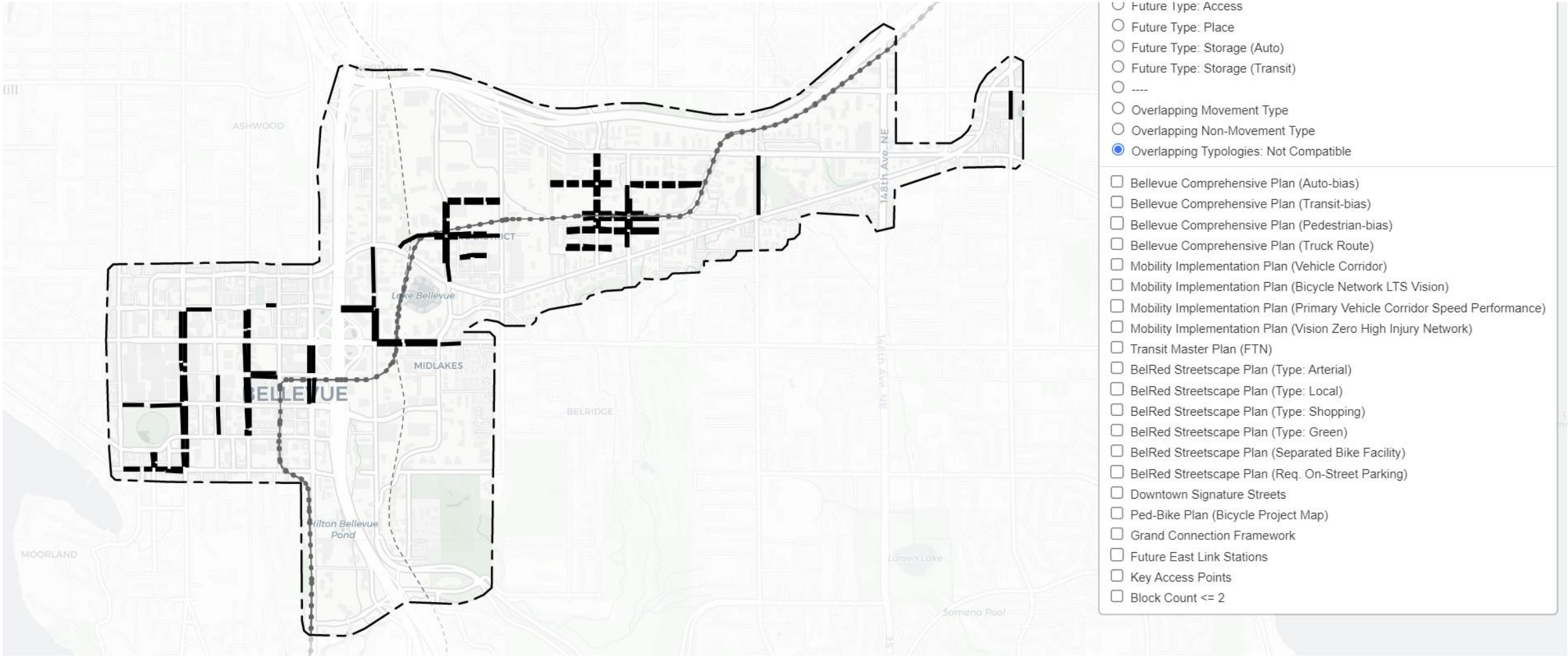
Link: Future curb typology web map



# Conflicting curb types

- In some cases, existing City plans and policies indicate **conflicting or incompatible priorities** about how the curb should be used
- **Key question for discussion:** When we can't do everything, what should we do first and foremost?

# Conflicting curb types



# Conflicting curb types

Four options:

1. Proceed with overlapping priorities and resolve through future processes
2. Certain City plans or policies take precedence over others
3. Prioritize to maximize key performance metrics (i.e. productivity, safety)
4. Prioritize based on principles and values (different from metrics—things that are more challenging to measure or quantify)

# Conflicting curb types

Staff Recommendation:

1. **Proceed with overlapping priorities and resolve through future processes**
2. Certain City plans or policies take precedence over others
3. Prioritize to maximize key performance metrics (i.e. productivity, safety)
4. Prioritize based on principles and values (different from metrics—things that are more challenging to measure or quantify)

# Future Curb Type Map & Conflicts:

## Clarifying Questions?
## Concurrence on staff recommendation?

# NEXT STEPS

# Next steps for the CMP

- February 2023:
  - High-level CMP recommendations + Pilot Roadmap
- February – May 2023:
  - Detailed TR Commission review + discussion of CMP
  - Public Review of CMP
- May 2023:
  - TR Commission provides final recommendation on CMP

# Thank You

**Chris Iverson|** *City of Bellevue*

**Lauren Mattern|** *Nelson\Nygaard*

**Alex Mercuri |** *Nelson\Nygaard*

NELSON NYGAARD

CITY OF BELLEVUE WASHINGTON

# APPENDIX