

City of Bellevue

CURB MANAGEMENT PLAN

Appendix A: Curbside Practices Guide

2023



DRAFT 2023-04-07

CURB PRACTICES GUIDE CATEGORIES

The Curbside Practices Guide is a tool for City staff, agency partners, developers, private partners, and other practitioners that covers foundational practices that support the Curb Management Plan (CMP).

The Guide serves as a set of ongoing implementation actions, curb management tools, and programmatic activities that will support Bellevue's efforts to achieve its vision and outcomes for curbs in the Urban Core. Readers can use information in the Guide to direct project implementation, program development, investment decisions, and ongoing stakeholder collaboration.

The Guide is comprised of 28 curb management strategies and tools, which are divided into six categories of curb uses. Each curb strategy

documents common and leading practices that ensure sound curb management. These practices will shape how City staff and other stakeholders implement the curb strategies to achieve Bellevue's overarching curb outcomes and objectives. Cross-referencing the CMP's curb typology, each "cut sheet" provides location guidance for each curb strategy. Lastly, the Guide provides implementation guidance including considerations for project design, permitting, innovations, and evaluation.



Curb Regulations (RG)

- RG.1:** Streamline and digitize curbside regulations
- RG.2:** Add resources for curbside enforcement and compliance
- RG.3:** Advance Bellevue's permitting system and procedural processes to optimize curb use
- RG.4:** Consider changes to language in the Land Use Code to better integrate the built environment with the curbside



Storage (ST)

- ST.1:** Perform an implementation study for a paid parking program and update on-street parking procedures
- ST.2:** Refine and scale residential parking programs
- ST.3:** Build and expand accessible parking (ADA) inventory
- ST.4:** Create Program to allow for car sharing
- ST.5:** Implement common carrier locker program



Curb Access Features (AC)

- AC.1:** Create more passenger loading zones
- AC.2:** Expand and relocate conventional commercial loading zones
- AC.3:** Establish a smart loading zone program
- AC.4:** Manage an expanded employer shuttle loading zone program
- AC.5:** Improve the bus shelter and shared stop program
- AC.6:** Establish formal protocols for curbside transit layover



Sustainable and Emerging Mobility (SE)

- SE.1:** Deploy public charging infrastructure to promote equitable electric mobility
- SE.2:** Develop a mobility hub strategy
- SE.3:** Proactively evaluate Bellevue's current and future curb policies and tools to manage automated mobility services
- SE.4:** Leverage Bellevue's Transportation Demand Management (TDM) Plan to manage curb demands



Curb Space Activation (AT)

- AT.1:** Expand the Al Fresco on-street dining program
- AT.2:** Establish a Parklet Program
- AT.3:** Formalize a program for food trucks and curbside vendors
- AT.4:** Establish guidelines for protecting and expanding curbside green space
- AT.5:** Consider amending Land Use Code language to better integrate green space with the curb zone



Digital Governance (DG)

- DG.1:** Collect, Maintain, and Share Curb Asset Information
- DG.2:** Collect and Analyze Curb Activity Data to Inform Decisions
- DG.3:** Automate Enforcement and Pricing Processes
- DG.4:** Create and Maintain Digital Policy Expressions and Management Tools

HOW TO READ THE CURBSIDE PRACTICES GUIDE

Each cut sheet discusses one actionable curbside strategy for Bellevue to consider—ranging from technology interventions and innovative curbside uses to updating current programs and making policy and procedural changes.

OVERVIEW

This section describes what the curbside strategy is and its importance

EXISTING PRACTICES

Highlights current or past practices Bellevue has implemented. This section will also link to any relevant websites or discuss any relevant processes or policies.

RG.2

Add resources for curbside enforcement and compliance

Given the growing demand for finite curbside space, enforcement of the curbside is crucial to address non-compliant behavior. Compliance and enforcement protocols are essential to ensure positive curbside management outcomes, particularly for vehicle parking, passenger loading, and commercial delivery/loading.

Existing Practices

- Enforcement responsibilities are shared between the Bellevue Police Department and a contracted parking enforcement operator. The contractor currently covers Downtown Bellevue, while Bellevue Police covers the rest of the city.
- On average, the downtown contractor issues approximately 350 citations each month. Citations include safety and overtime infractions. Funding levels for this contracted service have remained stagnant over the last decade while the cost of service has increased. This has resulted in less curbside enforcement coverage in Downtown.
- Bellevue Police monitor parking and curbside violations on a largely complaint-based basis.
- Even with a standing contract and service level requirements, the City lacks a towing operator.
- The Mobility Services Division grants permits that allow leasing of right-of-way. Violators of permit conditions can be issued citations through code enforcement.
- The City lacks a municipal court to process parking citation appeals and adjudications. Tickets are processed through King County District Court (KDCC). Bellevue pays KDCC for this service and receives some revenue; however, that revenue does not cover the cost of enforcement services.

CASE STUDY: PARKING ENFORCEMENT PILOT PROGRAM IN PASO ROBLES, CA

The Paso Robles Police Department created a Parking Ambassador position in the City, rather than hiring additional parking enforcement officers. The Parking Ambassador was responsible for educating drivers about violations and issuing notices and tickets.

Source: [Parking Today article](#), [Southwest Parking article](#)

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES



APPLICABLE CURB TYPES

This section lists the most applicable curbside types from the CMP's Curb Typology section

WHERE DID THIS IDEA COME FROM?

The curbside strategies were selected within Bellevue's current context, with real community stakeholders and issues in mind. This section describes key pieces of feedback that drove the recommendations and strategies.

VISION

This section details the desired end state for the curbside if the strategy is implemented.

Vision

Bellevue can create a comprehensive enforcement strategy that holistically encourages compliant behavior while achieving broader city goals. Given current capacity constraints, the City can look to creative or technology-enabled solutions that emphasize equity, efficiency, and productivity of the curb.

By analyzing enforcement data and evaluating existing violations, Bellevue can determine if noncompliant behavior is prevalent in certain areas, and whether this indicates a need to modify curbside regulations or increase enforcement of existing regulations.

Strategies and Implementation Actions

- Increase funding resources for curbside enforcement. Additional resources can allow more coverage time, expand geographic scope to include areas like the Spring District, and focus on curbside violations other than parking matters.
- Consider how current and future technologies can promote compliance across the entire enforcement ecosystem (e.g., regulations for personal vehicles, electric micromobility, commercial vehicles, ridehail, autonomous delivery vehicles, and more).
- Evaluate creative strategies, including:
 - Educating community members by installing clear street signage and wayfinding that aligns with current regulations.
 - Directing drivers to legal on-street parking spaces and publicly available private off-street parking areas.
 - Expanding the use of camera-based technology to automatically issue tickets or alert officers of safety violations in real time.
 - Creating a more robust data collection system that produces maps and allows for efficient enforcement routes.

Cost Considerations

Moderate-High: Due to the low number of citations issued and the processing arrangement with KDCC, the City does not recover sufficient revenue from citation fees to balance costs of enforcement. Traditional enforcement protocols are resource-intensive and can be costly, as they rely on manual monitoring and citation approaches. Innovative enforcement technologies can be costly upfront but may allow for improved economies of scale without significant internal resource requirements.

Priority Stakeholders

- Parking enforcement officers
- Community members
- Local retail businesses
- Commercial delivery companies
- Transportation and Police departments



COST CONSIDERATIONS

This section indicates planning level or order-of-magnitude costs, as well as assumptions for future costing.

PRIORITY STAKEHOLDERS

This section lists some of the key stakeholders that should be engaged or formalized as partners.

STRATEGIES AND IMPLEMENTATION ACTIONS

This section indicates applicable technology, tools, or design considerations as well as programmatic recommendations and actions that Bellevue must consider over the coming years

Streamline and digitize curbside regulations

Curbside regulations dictate parking, stopping, standing, and loading at the curb. Regulations are typically displayed via on-street signage and illustrated within maps and information on the City's website. As curbside regulations become more nuanced, Bellevue should consolidate, simplify, and digitize curbside regulation information.

Existing Practices

Currently, Bellevue regulates curbside activity in several ways to mitigate common concerns and organize competing curbside activities.

- **Curbside Use Designations:** Bellevue regulates curbside use designations and restrictions such as loading zones, employee shuttle zones, passenger pickup and drop-off zones, and bus transit layover zones. During the COVID-19 pandemic, the City enacted three-minute food pick up zones in front of some dining establishments. Bellevue's Right-of-Way group issues [permits](#) to reserve curbside spaces for temporary loading/unloading tied to adjacent properties that require loading activities.
- **On-street Parking:** City Council authorizes on-street parking regulations primarily by enacting time limits, banning a vehicle parking for over 24 hours, and approving residential parking zone geographies. On-street parking regulations are displayed on street signage. The City Traffic Engineer has the authority create special parking areas for loading/unloading, transit operations and taxistands. This person can also restrict parking, stopping, and standing of up to 300-feet of curb length without requiring Council approval. Council action through ordinance is required to create time limited on-street parking and to restrict parking, stopping and standing for more the 300-feet. Curbside operation changes primarily manifest as traffic control signs that restrict parking, stopping, and standing of vehicles. The City also offers [Park Smart](#) yard signs for individuals to display on private property to instruct drivers about parking regulations near driveways, fire hydrants, mailboxes, stop signs, or corners.
- **Curbside Operations Modifications:** Bellevue's [street use permit](#) is the most relevant permit for allowing temporary curbside leases to occur. Examples of permitted curbside operation changes include Al Fresco on-street dining areas, employer shuttle zones, food truck permits, street festivals, and more. Applications take approximately [one month](#) to process, include a [fee](#), and require supplementary documents such as a Traffic Control Plan.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Vision

Bellevue's curbside vision imagines the curb as a flexible and dynamic place that adapts to changing needs, pressures and preferences. To achieve this, Bellevue should assess current curbside regulations and streamline processes.

Bellevue should clearly communicate regulations to the public, both physically and digitally. Digital regulations would complement street signage that shows time limits or permit restrictions. This will allow the curb to be a more dynamic resource for Bellevue. With a strong curbside regulation program, the City can easily update for permanent changes or temporary events.

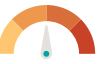
While Bellevue's street use permit provides a mechanism for applying for a variety of street uses, there are opportunities to make the process of modifying or adding new curbside operations more transparent and standardized.

Strategies and Implementation Actions

- Establish a curbside regulation API aligned with the Curbside Data Specification (CDS), and consider pushing the API to driver-facing mobile apps. Digitizing curbside regulations will allow Bellevue to share regulations and make real-time updates quickly. While digitizing regulations can be complex and technologically challenging, there are vendors that can help create a digital map of curbside infrastructure and regulations.
- Leverage Bellevue's Curbside Typology framework when assessing and refining curbside regulations.
- Prioritize simplicity in designing and displaying curbside regulations, with clear and concise signage to prevent driver confusion.
- Consider complementary curbside uses to maximize efficiency of curbside space such as allowing shared transit stops and time-of-day loading zones.
- Gather existing regulations and community input to understand pain points around curbside regulations and process modifications.

- Create a modified Transportation-specific permit system to handle non-disturbance curbside leasing requests and regulation updates (see Practice RG.3).

Cost Considerations



Moderate: This strategy requires a moderate amount of staff time for regulatory coding and materials costs for new signs, posts, and installation labor.

Priority Stakeholders

- Transportation Department
- Commercial vehicle operators and drivers
- Visitors, workers, and residents
- Private property owners and/or managers
- Permit applicants



Add resources for curbside enforcement and compliance

Given the growing demand for finite curb space, enforcement of the curbside is crucial to address non-compliant behavior. Compliance and enforcement protocols are essential to ensure positive curb management outcomes, particularly for vehicle parking, passenger loading, and commercial delivery/loading.

Existing Practices

- Enforcement responsibilities are shared between the Bellevue Police Department and a contracted parking enforcement operator. The contractor currently covers Downtown Bellevue, while Bellevue Police covers the rest of the city.
- On average, the downtown contractor issues approximately 350 citations each month. Citations include safety and overtime infractions. Funding levels for this contracted service have remained stagnant over the last decade while the cost of service has increased. This has resulted in less curbside enforcement coverage in Downtown.
- Bellevue Police monitor parking and curbside violations on a largely complaint-based basis.
- Even with a standing contract and service level requirements, the City lacks a towing operator.
- The Mobility Services Division grants permits that allow leasing of right-of-way. Violators of permit conditions can be issued citations through code enforcement.
- The City lacks a municipal court to process parking citation appeals and adjudications. Tickets are processed through King County District Court (KDCD). Bellevue pays KDCD for this service and receives some revenue; however, that revenue does not cover the cost of enforcement services.

CASE STUDY: PARKING ENFORCEMENT PILOT PROGRAM IN PASO ROBLES, CA

The Paso Robles Police Department created a Parking Ambassador position in the City, rather than hiring additional parking enforcement officers. The Parking Ambassador was responsible for educating drivers about violations and issuing notices and tickets.

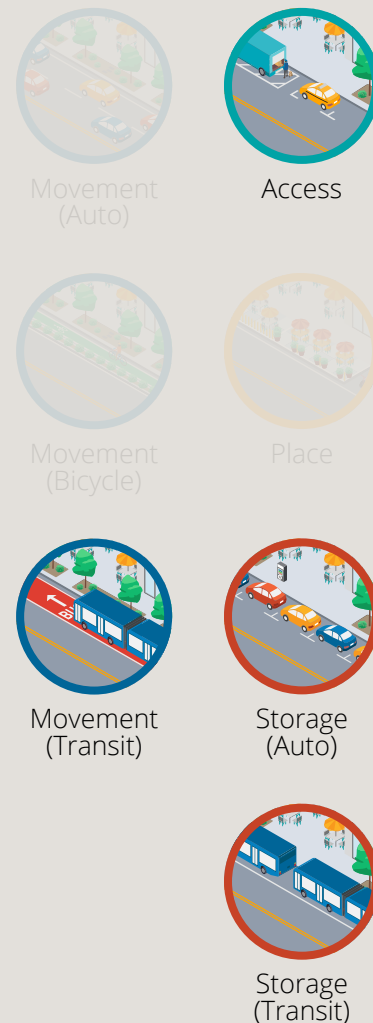
Source: [Parking Today article](#), [Southwest Parking article](#)



WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES



Vision

Bellevue can create a comprehensive enforcement strategy that holistically encourages compliant behavior while achieving broader city goals. Given current capacity constraints, the City can look to creative or technology-enabled solutions that emphasize equity, efficiency, and productivity of the curb.

By analyzing enforcement data and evaluating existing violations, Bellevue can determine if noncompliant behavior is prevalent in certain areas, and whether this indicates a need to modify curb regulations or increase enforcement of existing regulations.

Strategies and Implementation Actions

- Increase funding resources for curbside enforcement. Additional resources can allow more coverage time, expand geographic scope to include areas like the Spring District, and focus on curbside violations other than parking matters.
- Consider how current and future technologies can promote compliance across the entire enforcement ecosystem (e.g., regulations for personal vehicles, electric micromobility, commercial vehicles, ridehail, autonomous delivery vehicles, and more).
- Evaluate creative strategies, including:
 - Educating community members by installing clear street signage and wayfinding that aligns with current regulations.
 - Directing drivers to legal on-street parking spaces and publicly available private off-street parking areas.
 - Expanding the use of camera-based technology to automatically issue tickets or alert officers of safety violations in real time.
 - Creating a more robust data collection system that produces maps and allows for efficient enforcement routes.

- Assess and evaluate options to update the current [parking fine schedule](#). Most fines are \$44 unless noted otherwise. Updating fines for certain citations will deter non-compliance and help manage Bellevue’s growing demand for on-street parking. Create a comprehensive enforcement data set with existing data collected from the City.
- Regularly collect and analyze data around parking violations.
- Consider establishing a municipal court to process parking citations, infractions, and potentially associated misdemeanors.
- Consider extending both the hours of time-limited parking and associated enforcement for some areas. Existing data shows peak demand occurs after 6PM on some blocks within the study area. Extending time limits will help with parking turnover & support evening business activities.

Cost Considerations



Moderate-High: Due to the low number of citations issued and the processing arrangement with KDCD, the City does not recover sufficient revenue from citation fees to balance costs of enforcement. Traditional enforcement protocols are resource-intensive and can be costly, as they rely on manual monitoring and citation approaches. Innovative enforcement technologies can be costly upfront but may allow for improved economies of scale without significant internal resource requirements.

Priority Stakeholders

- Parking enforcement officers
- Community members
- Local retail businesses
- Commercial delivery companies
- Transportation and Police departments



Advance Bellevue’s permitting system and procedural processes to optimize curb use

To consolidate and simplify procedural processes for curb use, Bellevue should update its permit system to accommodate Transportation-specific curb use leases that are independent from the current development-driven program.

Existing Practices

The permit system that Transportation relies on to issue street use permits is owned and maintained by the Development Services department. Permits have conditions outlined in both the City’s Traffic Code and Land Use Code. This has created complex and arguably redundant procedures for regulating temporary curbside uses, which slows the City’s ability to nimbly respond to the urban core’s dynamic curb demands.

The Mobility Services and Mobility Operations teams are most directly involved with curb management pilots and programs within the Transportation Department, with the Right-of-Way group governing permitting issuances and approvals.

Vision

Because the curb is in a constant state of change and disruption, right-of-way permitting processes need to be responsive and owned by Transportation Department staff. Creating new permitting approaches under the stewardship of the Transportation Department will allow for streamlined permit reviews on some lease-based uses in the public right-of-way.

A new Transportation-specific permit system will allow:

- Consistent processes across modal and place-based permits (e.g., commercial delivery, micromobility, bike parking, parklets, etc.).
- Streamlined review of curbside lease functions through a modified Street Use Permit.
- Improved decision-making with clear criteria modeled after the CMP guidance.

Likewise, restructured curb permitting will empower staff to rigorously evaluate new curb uses and requests for curb changes while increasing public understanding of the permitting process.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Strategies and Implementation Actions

- Establish permitting approaches in the Transportation Department for situations that regulate temporary use of the right-of-way. Permits tied to construction or development-related impacts to the right-of-way will remain under the purview of Development Services.
- To streamline processes, Bellevue Transportation Department should establish a system that is untied from Development Services—this may reduce overhead fees and pair closer with city codes.
- Coordinate internally across city departments to transition the permit system ownership and management.
- Procure a transportation-specific permitting system with cross-functionality with existing asset management systems.
- Revise existing curb-related regulations and agreements to refer to and nest under the new curb permitting mechanism(s).
- Update shared micromobility service requirements, including those that restrict motorized scooters on most Bellevue streets per Bellevue City Code. Scooter restrictions should be revisited to allow for more flexible usage, such as permitting riding in bike lanes, on multi-use paths, and Urban Core streets.

Cost Considerations



Moderate-High: Procuring a new permitting system and building asset management schema is the primary cost consideration. This would be a relatively high upfront cost with lasting operating cost saving due to procedural, staffing, and resource efficiencies.

Priority Stakeholders

- Transportation, Finance, Development Services, and City Attorney’s Office departments
- Prospective curb permit applicants (e.g., food truck vendors, commercial delivery companies, and micromobility companies, etc.)



CASE STUDY: STREAMLINED OUTDOOR DINING PERMITTING IN BOSTON, MA



To support local business during the onset of the COVID-19 pandemic, the City of Boston worked quickly to simplify and streamline their permitting process for outdoor dining. Staff across departments collaborated to identify permitting roadblocks and minimize requirements to focus primarily on safety and accessibility. While the old permit approval process involved staff from across the Boston Transportation Department, the new process is now managed by a single division which has the authority to make decisions about curb changes and cross-collaborate with other divisions when needed. The simplified application process also made it easier and more user-friendly for businesses to navigate.

Source: [Transportation for America](https://transportationforamerica.org/case-study-streamlined-outdoor-dining-permitting-in-boston-ma/)

Consider changes to language in the Land Use Code to better integrate the built environment with the curbside

Current requirements in the City's Land Use Code encourage separation of vehicle traffic from the pedestrian realm through the use of amenity areas, landscaping, and street trees. At the same time, right-of-way space is primarily reserved for traffic throughput, which isn't conducive for added curbside activities. Land Use Code language may be modified through future workplans to provide better curbside synchronicity to the built environment as Bellevue grows.

Existing Practices

Currently, the Development Services department is responsible for management and updates to the city's Land Use Code, which dictates building requirements in Bellevue.

Vision

Bellevue's curb aim to be flexible, dynamic, and user-friendly as the city evolves. To address this vision of curb space usage in Bellevue, certain Land Use Code language should be amended to better pair this vision with the built environment.



WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

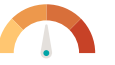
Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Strategies and Implementation Actions

- Implement changes to code language within a broader Land Use Code Amendment (LUCA) process. Collaborate with Development Services and Community Development staff that lead development of LUCA workplans to ensure positive outcomes.
- Land Use Code language modifications should address the following:
 - Improve requirements for continuous planter strips and sidewalk width requirements. For example, Land Use Code 20.25A.090 provides rules for sidewalk widths and planter strip designs per block. Based on public feedback, requirements for sidewalk widths should be revisited to consider more width in some areas, while planter strips should include higher soil volumes to encourage tree growth. Planter strip designs should also be evaluated to allow for more hardscaping between the street and sidewalk in areas where Storage, Place and Access typologies apply.
 - To reduce demand of freight load at the curbside, design more functional loading bays within building sites. Land Use Code 20.25A.160 provides requirements for loading functionality to happen on-site, but does not give direction on location. Better placed loading docks will encourage freight operators to use the loading bays instead of relying on curbside areas for goods delivery.

- Allow for more curbside flexibility. Land Use Code 20.25A.160.B currently requires all passenger loading to occur on-site, while keeping right-of-way clear. Modified code language should allow for certain types of short-term loading accommodation at the curbside while still maintaining that primary passenger loading occur on-site.

Cost Considerations



Moderate: Amending the Land Use Code requires significant staff resources and timeframes to employ. Embedding new code language should be done in conjunction with other LUCA workflows rather than through independent efforts.

Priority Stakeholders

- Transportation, Community Development, Development Services departments
- Developers, retailers, and property owners



CASE STUDY: GENERAL DEVELOPMENT STANDARDS IN SHORELINE, WA



The City of Shoreline municipal code encourages context-sensitive curb design that is informed by the presence of on-street parking.

“Streets with on-street parking shall have sidewalks to back of the curb and street trees in pits under grates or at least a two-foot-wide walkway between the back of curb and an amenity strip if space is available. Streets without on-street parking shall have landscaped amenity strips with street trees.”

Source: [Shoreline Municipal Code](#)

Perform an implementation study for a paid parking program and update on-street parking procedures

On-street parking is a scarce resource in Bellevue's Urban Core. Currently, on-street curbside parking is free but time-limited within the study area. The CMP establishes a framework to manage parking areas dedicated for private passenger vehicles using a variety of regulatory tools, with pricing identified as the most effective strategy.

Existing Practices

Bellevue has several on-street parking options for residents and visitors. All on-street parking is free of charge, although Comprehensive Plan policy language considers the strategy of pricing on-street parking. Generally, vehicles are limited to parking for 24-hours citywide, but are primarily restricted to two-hour parking within the study area.

Vision

Curbside on-street parking will continue to be an important resource for Bellevue as growth occurs. However, current free-of-charge management practices will cause an unfriendly parking experience, increase congestion through block circling, and add to double parking events. Paid on-street parking in other communities has resulted in better user experiences, improved traffic outcomes, and aided the economic vitality of surrounding businesses.

Streamlining parking procedures and establishing a paid parking program in Bellevue can help achieve the vision and principles outlined in the CMP. Added nominal trip costs will be offset by the time savings gained through parking efficiency. A stakeholder-informed implementation analysis for paid on-street parking will ensure clarity and transparency with the community.

CASE STUDY: ON-STREET PARKING PROGRAM IN ASPEN, CO

Aspen implemented paid parking in its downtown in 1995 to manage parking supply and increase availability. Over the last three decades, Aspen's parking program has evolved to address changing demand and incorporate new technology. The City began regularly collecting parking data to monitor demand and inform rate adjustments, rolled out multiple payment methods, began using parking revenue to support TDM programs, and implemented a paid residential parking program to reduce parking overflow in residential neighborhoods.

Source: [Federal Highway Administration](#)



WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Strategies and Implementation Actions

- Perform an implementation study for paid on-street parking. This study would engage stakeholders, determine initial rates, provide detailed cost estimates on needed equipment and staffing, identify strategies to address impacts to paid parking operations (i.e. street closures), and establish a phased implementation approach for pricing on-street parking. Prices should be established to achieve a target curb occupancy goal of between 70% and 80% in parking zones (i.e. ensuring 1-2 parking spaces per block are available at any given time). Prices should be adjusted on at least an annual basis using updated data. The study can also explore the following:
 - Potential pilot areas for initial paid parking deployment.
 - Productivity and other non-occupancy metrics.
 - Revenue estimates and program budgeting.
 - Expansions of enforcement time periods in certain areas.
- Implement paid on-street parking program based on findings from implementation study.
- Initiate On-Street to Off-Street Curb Diversion pilot alongside parking pricing implementation (see the Curb Pilot Roadmap for more information).
- Streamline code language associated with on-street parking. Establishment of time-limited street parking segments that are longer than 300 feet have historically been created through passage of ordinances. This has established a layered legal structure around allowing street parking in the study area. Additionally, the authorities of the City Engineer can administratively establish street parking, but only in limited areas. Revisiting this procedural change will allow a cleaner procedure to add, remove, or modify curbside functions.

- Streamline process to modify on-street parking regulations. Bellevue should establish a process to ensure consistent application of curbside parking regulations across the city. This would include policy on how to review requests for on-street parking stalls in the Urban Core.
- Explore paid parking in city-owned lots within the study area.

Cost Considerations



Moderate-High: Implementing a paid parking program requires a high upfront cost to procure metering and/or app-based payment systems, as well as staff to manage the program. The implementation study will expand on work completed in the CMP focused on cost expenditures and recovery.

Priority Stakeholders

- Property owners and businesses near time-limited parking spaces
- Residents and other drivers
- Private parking operators
- Transportation, City Attorney's Office, Development Services, and Finance departments



Refine and scale residential parking programs

The Residential Parking Zone (RPZ) program restricts parking on certain streets to only residents of the zone. Vehicles without permits can only park during specific times of day. The program was created to address overflow parking onto residential streets from schools, major transit hubs and shopping areas.







Existing Practices

Bellevue's Neighborhood Traffic Safety Services (NTSS) team operates a free RPZ program in 14 different areas across the city. The program restricts non-residential parking on neighborhood streets and was established through a city ordinance. The City Council can create new residential parking zones with majority support from neighborhood residents. RPZ permits are currently free for residents, and the Transportation Department manages resident permit requests.







Vision

As new curb management programs and pricing-based approaches evolve within the Urban Core, it will be important to ensure adjacent neighborhoods are not negatively impacted by spillover parking. The RPZ program should be adjusted accordingly over time. Future RPZs adjacent to the study area may see more active enforcement and potential priced permits to cover additional costs.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

-  Movement (Auto)
-  Access
-  Movement (Bicycle)
-  Place
-  Movement (Transit)
-  Storage (Auto)
-  Storage (Transit)

Strategies and Implementation Actions

- Digitize the RPZ program so residents are able to register their permits, renewals, and license plates online. Digital permitting can streamline enforcement of RPZs.
- Consider implementing a fee associated with RPZ permits that would help recover costs for managing the program.
- Consider outsourcing the management of the RPZ program to be included within a robust downtown parking program.
- Extend geography of Urban Core parking enforcement to include RPZs in adjacent neighborhoods. Some neighborhoods bordering the study area have residential parking zones to limit spillover, but these are currently enforced ad hoc.

Cost Considerations



Low: Costs associated with a modified RPZ program would include staff time, permit issuance, signage, and active enforcement coverage.

Priority Stakeholders

- Neighborhood residents and neighborhood/homeowner associations
- Property developers and managers
- Transportation department



Example permit-based residential parking sign in Seattle, WA. Photo credit: SDOT.

Build and expand accessible parking (ADA) inventory

Accessible curbside parking includes spaces that conform with Americans with Disabilities Act (ADA) requirements. ADA spaces have specific design features that make it easier for people with disabilities to access the sidewalk and curb lane.

Existing Practices

Through its building codes, Bellevue requires developers to create a minimum number of accessible parking spaces on-site as a ratio of the total parking spaces developed. However, there are no ADA-compliant curbside parking spaces in the study area today.

Vision

Bellevue can proactively evaluate and adjust the number of ADA-compliant curbside parking spaces to accommodate its growing population and meet guidelines outlined in the Public Rights-of-Way Accessibility Guidelines (PROWAG). Assessing the number and use of ADA spaces does not require significant cost or effort if it is done in conjunction with a wider curb data collection effort.

CASE STUDY: ADA IMPROVEMENTS IN HOUSTON, TX

Over the past decade, Houston increased the number of ADA compliant parking spaces in its Central Business District from 45 to 245 spaces to keep up with demand. The City simultaneously instituted monthly police efforts to confiscate fraudulent ADA placards and ran trainings for 400 volunteers to enforce proper ADA space usage.

Source: [Program website](#)

Further Resources: [ADA Parking Guidance](#)



Strategies and Implementation Actions

- Conduct an ADA curbside parking study to determine the location and number of ADA on-street stalls needed within the Urban Core.
- Implement ADA-compliant curbside parking based on the ADA curbside parking study. Follow PROWAG guidelines to ensure equitable access to public on-street parking.
- Clearly mark accessible parking spaces through signage (displaying the International Symbol of Accessibility) and pavement markings as needed.
- Ensure spaces comply with all ADA requirements, and match PROWAG recommendations. Create a digital inventory of accessible parking spaces in the Urban Core.

Cost Considerations



Moderate: Depending on location, implementation of curbside ADA parking ranges from small changes to signage and striping in primarily existing parking areas, to larger changes that involve curbside reconstruction where sidewalks are 14' wide or bigger.

Priority Stakeholders

- Community members
- Bellevue ADA/Title VI Civil Rights Administrator
- Adjacent business owners and residents
- Transportation department



WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)



Accessible parking signage. Photo credit: public domain.

Create program to allow for car sharing

Cities across the country permit car sharing services that provide on-demand access to shared vehicles for short-term use. Several types of car sharing models exist today, including free-floating, station-based, peer-to-peer, and community-controlled models. A free-floating car share program would likely be most beneficial and space-effective in a curbside environment.

Existing Practices

Bellevue was previously home to a Zipcar program (which only used designated private parking), but currently does not have a car share program.







Vision

Car sharing programs can enhance public transit systems, housing, and workplaces by providing additional transportation options for residents and visitors. The City should create an environment that allows private-sector car-sharing companies to operate.

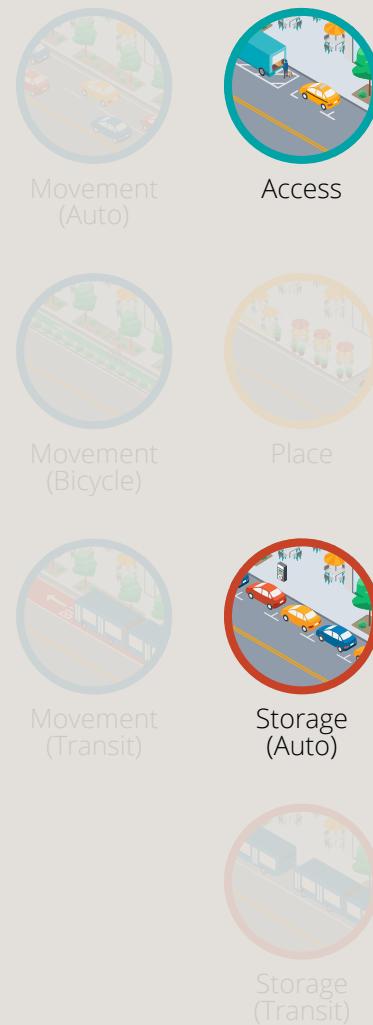


Carshare-designated parking in Saint Paul, MN. Photo Credit: Nelson\Nygaard.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Designate curb spaces near densely populated residential areas, retail areas, and within a five-minute walk of future Link light rail stations as car sharing zones. These zones should replace time-limited parking spaces where possible, rather than loading zones. Consider establishing long-term permit or license agreements to reduce market risk and signal a desire for a long-term partnership.
- Set reasonable permit fees to offset the cost of program administration, while still allowing permitted companies to operate sustainably in the long run. Car sharing permits should require companies to provide approved signage and physical markings, assist with community engagement and educational campaigns, and provide opportunities for low-income discounts. Car sharing zones should include equitable siting and rebalancing, data sharing, performance reporting, community and transit partnerships, and other public interest obligations.
- Create an incentive structure that rewards companies to include substantial numbers of EVs in their fleet. Incentives could include charging infrastructure partnerships, reduced permit fees, robust low-income and equity programs with community partnerships, app-based booking and payment integrations, and other features. Long-term, car sharing services should provide fully electric fleets.
- Integrate dedicated curbside car share and charging infrastructure into the forthcoming 2023 TDM Plan's strategy menu.
- Release a Request for Information (RFI) to gather market information about car share vendors and operators. The program should not begin without deep industry engagement.
- If seeking a free-floating car share program, identify curbside locations for dedicated car share parking in the Storage and Access curb types.

- If seeking a station-based car share program, create a license agreement or permitting process for car share operators to operate in the market and use designated car share parking spaces both within city-owned lots and private parking areas.

Cost Considerations



Low: Program costs consist of staff time to develop a car share permit program, determine fees, identify incentives, release RFIs, and establish curbside locations through signage and information. Car sharing services can limit city costs by providing additional services such as community ambassadors and outreach programs.

Priority Stakeholders

- Car share operators
- Businesses adjacent to potential car share parking spaces
- Transportation and Finance departments
- Community members
- Community-based organizations



Implement common carrier locker program

A common carrier locker is a secure central hub where consumers can receive deliveries from any carrier. Delivery drivers deposit packages into any open box in the locker. Upon delivery, customers receive an electronic notification and unique code that allows them to retrieve the package.

Common carrier lockers can consolidate delivery activity into a central point, which has been shown to reduce commercial vehicle dwell time at the curbside. They can be located on public or private property and are typically installed near adjacent commercial vehicle loading zones (CVLZs).

Existing Practices

While companies like Amazon and UPS have installed numerous proprietary Hub and Access Point lockers, the City of Bellevue has not implemented a common locker pilot or facilitated any shared lockers. Company-specific lockers do not allow use by other carriers, while common carrier lockers allow deliveries from all carriers.

CASE STUDY: COMMON LOCKER PILOTS IN SEATTLE, WA



Seattle has implemented common locker pilots in both public and private space. In 2018, it piloted a common locker in the Seattle Municipal Tower with several commercial operators such as Kroger, Ford, Nordstrom, UPS, and USPS. The pilot reduced delivery times to the building by 78% and resulted in no missed deliveries. In 2020, it piloted a shared locker in a public parking lot which focused on residential rather than commercial deliveries. Both pilots were conducted in partnership with the Urban Freight Lab and the University of Washington.

Source: [Seattle Municipal Tower pilot](#), [Seattle Belltown neighborhood pilot](#)

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Vision

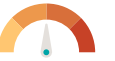
Common carrier lockers are a tool to reduce commercial vehicle emissions and concentrate curbside loading activity. Bellevue can implement a common carrier locker program by:

- Installing lockers for small- to medium-sized packages located in a public space where any downtown worker or resident could access the locker system.
- Considering amendments to the Land Use Code that would be needed to allow installation of lockers within public rights-of-way.
- Partnering with private parties to install publicly accessible lockers at the ground floor or privately-owned outdoor frontage of commercial or residential buildings.

Strategies and Implementation Actions

- Partner with a third-party company to manage lockers, relationships with operators, and private locker hosts.
- Ensure locker security using technologies like SMS to relay codes and camera surveillance. Locker security will build trust from drivers, operators, and delivery recipients.
- Collect data on CVLZ activity near lockers to assess if aggregate curbside dwell time and/or lane blockages decreases.
- Collaborate with the delivery companies, locker management companies, and on-site hosts to identify optimal locker configurations and locations. Locker placement should be as convenient and accessible as possible to both delivery drivers and recipients.
- Conduct a publicly accessible curbside common locker siting analysis with key partners. Curbside lockers will require access to consistent power and internet supply to ensure success.
- Educate locker users—both commercial drivers and delivery recipients.

Cost Considerations



Moderate: As of 2023, secure locker systems range from \$5,000-20,000 with additional costs for installation and maintenance. This program requires strong cost sharing arrangements between the City, delivery companies, and locker hosts. Because common carrier lockers provide financial benefits to commercial delivery operators and locker hosts, Bellevue can require these partners to contribute to upfront costs or a revenue sharing structure. Locker pilots can employ a common carrier pricing model, where delivery companies pay a small fee per use rather than paying an upfront or fixed fee.

Priority Stakeholders

- Commercial operators and delivery drivers
- Locker hosts (commercial, residential, or public property managers)
- Transportation, IT, and Development Services departments
- Residents, businesses, and other delivery recipients



Create more passenger loading zones

Carpools, ride share services, and future autonomous vehicles will need safe and dedicated curbside zones for passenger pick-up and drop-off (PUDO) activity. To keep up with demand, the City aims to reserve more curbside space for PUDO usage. Dedicated passenger loading zones (PLZs) typically have short time limits between three and five minutes.






Existing Practices

State law allows vehicles to momentarily stop at the curb to pick up or drop off passengers, unless otherwise signed. Within the study area, property developers are required to accommodate passenger PUDO within building sites—however, curbside PUDO zones are considered on a case-by-case basis.








Vision

Time-limited PLZs in crowded or busy pedestrian PUDO areas will allow Bellevue to safely and effectively manage curb access. The City should strategically locate PLZs near cultural institutions, residential or commercial centers, areas with nighttime activity, or other locations within an Access curb type. The availability of off-street passenger loading areas within private sites should also be considered in placement of new passenger load zones. Ideally, the reservation of prime curbside zones for PLZs at popular origins and destinations will increase the safety and operation of the street system.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- Improve the visibility and legibility of existing PLZs.
- Passenger PUDO accommodation should still be required within development sites. To supplement these amenities, consider curbside PLZ construction in conjunction with development projects:
 - Curbside PLZs should be within the curbside lane along Access, Storage and Place curb types.
 - PLZs should be considered within dedicated pullouts along certain Movement curb types.
 - Pullouts should not replace requirement for planter and sidewalk spaces.
- Use data to determine PUDO hotspots within the study area.
- Add geofencing to easily monitor and enforce ride hailing, especially curbside pick-up activity.
- Set up data sharing agreements with taxi and ride hailing services to better understand geographic and time-of-day demands along the curbside.
- Use curb space monitoring devices to track the use of existing PLZs and assess dwell time compliance. Collect PUDO usage data to develop a preliminary list of potential new PLZs.
- Coordinate with adjacent retailers and property managers to educate residents and employees about need for and benefits of PLZs.
- Deploy temporary supplemental signage during PLZ installation to better inform the public.
- Consider creative solutions such as signed zones in front of fire hydrants for short-term curb access (allowed per RCW). Explore different time limits beyond existing three-minute PUDO zones.
- Continue encouraging passenger loading activity to occur within private sites, such as driveway loops.
- Provide PLZ information through the Commute Trip Reduction program to assist vanpools and carpools identify safe places for passenger PUDO.

Cost Considerations



Low: Program costs include staff time, signage installation, public surveys, data collection, and active enforcement.

Priority Stakeholders

- Ride hailing services, taxis, and carpool drivers
- Private property owners and developers
- Residents, businesses, and other delivery recipients
- Transportation and Development Services departments



Passenger loading zone in Charlotte, NC. Photo Credit: Nelson\Nygaard.

Expand and relocate conventional commercial vehicle loading zones

Conventional commercial vehicle loading zones (CVLZs) are dedicated curb spaces for short-term commercial loading and unloading. CVLZs increase street safety and enable more efficient loading and unloading of goods. Commercial vehicles (both freight, small parcel, etc.) as well as personal vehicles used for commercial purposes (i.e., Uber, Lyft, DoorDash, Instacart) require curb space for short-term loading.

Existing Practices







Bellevue installs time-limited curbside loading zones on a primarily ad hoc basis. Zones for passenger, freight, and other parcel delivery are regulated as a single category.

Bellevue’s Comprehensive Plan requires that new developments provide for large-scale freight loading on-site rather than in the public right-of-way. Additionally, the Land Use Code requires loading bays be placed with each new development, aiming to capture all commercial vehicle and service vehicle activity. However, the Comprehensive Plan also discusses the provision of curb space to accommodate small-scale parcel delivery.

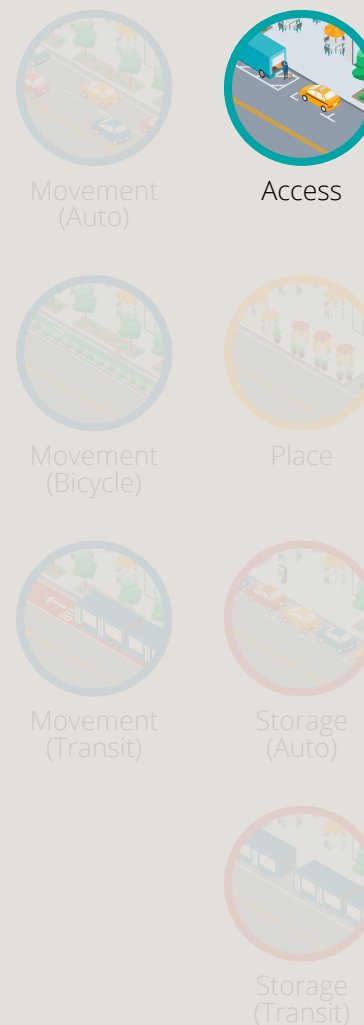
Vision

Bellevue, like many cities across the country, is experiencing increasing curb demand from commercial delivery vehicles. Rightsizing CVLZ supply to match demand mitigates double parking, loading in bike lanes or crosswalks, and other unsafe and inefficient loading situations. Reserving, expanding, and relocating CVLZs will be continuously important to keep up with rising commercial demands. At the same time, developing and implementing clear information about off-street loading accommodation can prevent curbside lanes from becoming overburdened.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Conduct a technology-enabled data collection effort to understand the current loading activity and usage of loading zones in Bellevue.
- Provide clear communication to delivery drivers and recipients regarding the location and proper use of loading zones through digital expressions like the Curb Data Specification (CDS).
- Deploy enforcement resources to more proactively monitor and enforce loading zones.
- Ensure CVLZs are not located near furniture or infrastructure that would obstruct loading activity, such as continuous planter strips, storage containers, utility cabinets, and bicycle racks.
- Collaborate with private owners of parking lots, garages, and on-site loops to develop information that encourages commercial vehicles to conduct business outside of the public right-of-way. Collect CVLZ usage data to track commercial loading trends over time. Deploy data collection efforts with technology that assesses loading activity both within and outside of CVLZs (see off-street diversion concept in the Pilot Roadmap).
- Interview and survey delivery drivers, property managers, and willing residents about the delivery process in Bellevue. Consider adjustments based on feedback.
- Establish process to create curbside loading zones that considers the CMP Curb Typology. Add new CVLZs to meet increased demand. Proactively manage current and future loading demand to promote more equitable, data-driven, and effective siting of loading zones, rather than establishing new zones ad hoc in response to individual requests.
- Establish flexible time-of-day loading spaces in high-demand areas.

Cost Considerations

Low-Moderate: Program costs include staff time, signage installation, public surveys, data collection, and active enforcement. Technology solutions for

enforcement should be considered to help streamline processes and reduce costs.

Priority Stakeholders

- Neighboring brick-and-mortar retailers
- Commercial operators and drivers
- Transportation and Development Services departments



Commercial loading zone in Bellevue.

Establish a Smart Loading Zone program

Smart loading zones (SLZs) are designated curbside zones that use technology to enable more efficient commercial loading activity. SLZs typically allow private delivery services to reserve valuable curbside spaces for a short amount of time—this provides confidence to drivers that spaces will be available and legal upon arrival. SLZs often pair with app-based systems that digitally manage curbside spaces on the city’s behalf. Monitored SLZs allow cities to collect data on curbside activity, help monetize short-term pickups and drop-offs and provide a platform to evaluate automated enforcement and invoicing. SLZs do not require extensive manual enforcement resources as they rely heavily on technology to collect data and enact interventions.

Existing Practices

Currently, Bellevue does not have a smart loading zone program. The city’s curbside technology assessment in 2020-2021 tested cameras for potential SLZ installation but did not advance due to unfavorable accuracy results at the time.

Vision

SLZs provide a safe, efficient, and legal way for commercial delivery drivers to use the curb. The zones can also be used as a mechanism for the City to collect data to understand curbside activity and trends. While there are many benefits, the City must commit resources to partner with the private sector and help oversee the management of the zones.



Smart loading zone signage in Pittsburgh, PA. Photo credit: City of Pittsburgh.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

- Movement (Auto)
- Access
- Movement (Bicycle)
- Place
- Movement (Transit)
- Storage (Auto)
- Storage (Transit)

Strategies and Implementation Actions

- Implementing and managing SLZs requires Bellevue to partner with a technology vendor to meet significant technology requirements:
 - App-based system or integration with existing apps for commercial drivers to find loading zones.
 - License plate reader monitoring of zones.
 - Automated ticketing and invoicing.
 - Notification and routing system for enforcement officers.
- Determine if SLZs will utilize license plate reader (LPR) technology to monitor usage, or rely on a reservation system only.
- Develop a scope and release request for proposal (RFP) for a digital platform that can oversee SLZ management, data collection, and potential billing.
- Define and geofence boundaries of the zones, which should accommodate several larger commercial vehicles.
- Educate enforcement teams about the pilot and any process changes. Enforcement teams should monitor the zones more frequently initially to encourage and incentivize compliant behavior, while increasing enforcement of illegal loading outside of the zones. During the first weeks of SLZ deployment, issue educational warnings instead of citations.
- Assist with onboarding commercial delivery operators, starting with those who have implemented efficiency or sustainability innovations, which may indicate alignment with city environmental values. Because SLZs leverage sensor- or camera-based technology, Bellevue must develop a strong technology services agreement and have a strong understanding of what data the vendor collects and keeps.

- Install enough SLZs to leverage a positive network effect. A greater number of zones may create a more valuable pilot for drivers, increase usage and compliance, and aid city-led data collection efforts.
- Deploy both physical (i.e., curb markings, bollards, signage) and web-based infrastructure to alert drivers of zone locations and regulations.
- During the initial few months of deployment, conduct an education campaign to spread awareness.
- Collaborate with commercial delivery companies and groups like the University of Washington Urban Freight Lab to assess primary objectives for deliveries.
- Research best practices and lessons learned from communities that have deployed SLZs.

Cost Considerations



Low-Moderate: Partnering with vendors to operate and manage the SLZs on behalf of the City requires a recurring cost. This cost can vary dramatically depending on the level of complexity. Should the city choose to price commercial vehicles’ use of the SLZ, it can establish revenue share agreements to reduce upfront costs.

Priority Stakeholders

- Commercial delivery operators and delivery drivers
- Brick-and-mortar businesses and community organizations
- Transportation and Finance Departments



Further Resources

- [Philadelphia PA Smart Loading Zone FAQs](#)

Manage an expanded employer shuttle loading zone program

Washington state law allows employers to provide transportation shuttles for its employees. Various companies in the Puget Sound region operate employer shuttles to backfill gaps in service not met by public transit. Bellevue sees employer shuttles as one of several tools to decrease single occupant vehicle trips and encourage shared mobility. The city allows shuttles to load and unload passengers at select curbside locations in the study area. Long term, employer shuttle loading zones may be shared with bus stops or other passenger loading zones.







Existing Practices

Bellevue is required to maintain a Commute Trip Reduction Plan. Employers with over 100 employees must offer one of several Commute Trip Reduction programs, which include vanpool and shuttle programs. The Transportation Department offers a specific permit for employer shuttles today, which authorizes shuttle operators to pick up and drop off employees in designated curb spaces. Shuttle services are managed by individual employers (e.g., Amazon, Microsoft) and as such, the City has access to only limited program data.

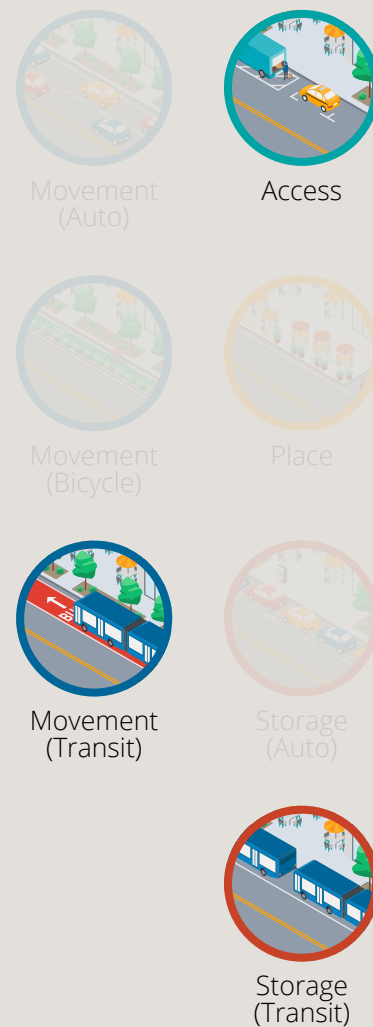
Vision

Employer shuttles can reduce drive alone commute trips, which is a priority for Bellevue. While several shuttles already operate in Bellevue, designating additional strategic curbside zones for expanded shuttle operation has the potential to lessen car dependency for a greater number of residents and employees. Bellevue can set incentives and more stringent requirements for participating employers, ensure that loading zones align with the applicable curb typology, and track other competing demands of the curb. The City's continued involvement can also ensure that shuttle programs complement, rather than duplicate or replace, public transit services.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Allocate new shuttle loading zones for use by permitted employer shuttle operators. Explore curbside areas that would benefit from time-of-day shuttle use.
- Modify existing permit language to set rules and requirements for shuttle operators, manage the number of operators, and assess program success.
- Require that the shuttle operators provide sufficient data to ensure the program is value additive to project sponsors and the City.
- Collaborate with employers and transit agencies to define shuttle loading zone locations, identify bus stops and shelters that may function well for shared use between shuttles and public transit, and maintain communication between parties.
- Develop requirements for informational signage and physical infrastructure delineating the zones.
- Collect feedback and evaluate stop locations, shuttle operator performance, and the degree to which employer programs are achieving broader TDM goals.

Cost Considerations

Low: Program costs would be low, mostly focused on sign, post, and staffing costs.

Priority Stakeholders

- Shuttle sponsors (i.e., major employers)
- Transportation department
- Brick-and-mortar retailers around zones
- Shuttle operators



Further Resources

- [Boston Region MPO Guidebook](#)
- [Commute Trip Reduction in Bellevue](#)



Employer shuttle in Seattle, WA. Photo credit: NelsonNygaard.

Improve the bus shelter and shared stop system

Transit amenities such as bus shelters are primarily owned and maintained by transit agencies, while the city can provide supplementary amenities in the surrounding area. In some jurisdictions, bus stops can be used as shared stops with other services like employer shuttles—this arrangement requires city collaboration.

Existing Practices

The City of Bellevue does not operate its own transit system, but collaborates closely with King County Metro, Sound Transit, and other transit agencies to help provide a seamless rider experience. The city has undertaken initiatives that identify ways to improve the safety, quality, and accessibility of bus stops:

- The 2014 Bellevue Transit Master Plan outlined several priorities for Bellevue’s bus shelters.
- The 2021 Mobility Implementation Plan includes bus shelters as a performance tracking indicator for the transit mode.

King County Metro states a minimum ridership threshold for providing a standard shelter and bench at bus stops—as of 2023, this minimum is 25 average daily boardings. The city sometimes requires private developments to design, construct, and maintain transit-specific weather protection within the envelope of the building site—this reduces operating costs for both the city and Metro in the long term.

Vision

As stated in Bellevue’s Transit Master Plan, the City has a vision to “support planned growth and development with a bold transit vision that provides efficient, useful, attractive service for most people, to most destinations, most of the time, serving maximum ridership”. To support this vision, the city will actively collaborate with transit partner agencies to determine bus stop amenity improvements, while exploring ways to add supplementary amenities in the proximity of bus stops. Supplementary transit amenities—such as city wi-fi, nearby shared lockers, pedestrian scale lighting, bicycle parking, micromobility hubs, wayfinding, and art installations—can provide services to community members and public transit riders beyond shelters. In a TransitCenter survey, “riders ranked simple amenities like bus stop benches, schedules, and safe street crossings as essential as shelters.”

Additionally, bus stops that have current and future projected low ridership should be explored to be shared stops with other services, such as employer shuttles and future community circulators. This will allow the curb to be better utilized throughout the day.

Strategies and Implementation Actions

- Collaborate with transit agencies to help determine bus shelter installations and modifications. Work across City teams to help streamline permit review.
- Dedicate resources towards adding supplementary amenities near transit stops to improve rider experience.
- Develop an approach for determining stops for potential future shared use.
- Work with transit agencies to help survey regular riders to determine their pain points and the highest priority amenities and services.
- Continue tracking transit usage and infrastructure data as outlined in the City’s Transit Master Plan and Mobility Implementation Plan.

- Identify criteria for supplementary bus stop amenity installations that benefit the traveling public. Explore ways to include equity within decision making criteria.
- Collaborate with public agencies and private mobility operators to determine shared stop locations. Pilot a shared stop arrangement and study before-and-after usage.
- Explore codifying requirements for transit-specific weather protection within development review.

Cost Considerations



Moderate: supplementary amenities near bus stops may be independent costs associated with the CMP, but may also be installed through other city workstreams. Grant funding and partnering opportunities may exist to aid the rider experience. Local organizations such as Business Improvement Districts or employers may be willing to partner to invest in shelter installation and upgrades.

Priority Stakeholders

- King County Metro
- Transportation Department
- Riders and potential riders
- Adjacent brick-and-mortar establishments



Further Resources

- [NACTO Transit Street Design Guidelines](#)
- [Design Requirements for Bus Stops in Bellevue](#)
- [King County Metro Transit Route Facilities Guideline \(Chapter 4\)](#)
- [WMATA Bus Stop Amenity Reference Guide](#)

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Establish formal protocols for curbside transit layover

King County Metro and Sound Transit operate a significant amount of transit service in the Urban Core. Several routes begin and end within the CMP study area and require layover between runs. Because the availability of layover is critical to the success of bus transit, Bellevue needs a formal decision-making and communication process to establish and maintain curbside transit layover.

Existing Practices

The City does not have a formal process or protocol to review transit layover needs or requests. The ad hoc nature of layover requests from Metro and Sound Transit is inefficient and does not consider transit layover requests within the context of systemic curb needs. Additionally, employer shuttles are not allowed to layover at the curbside as a condition of their operating right-of-way permit.

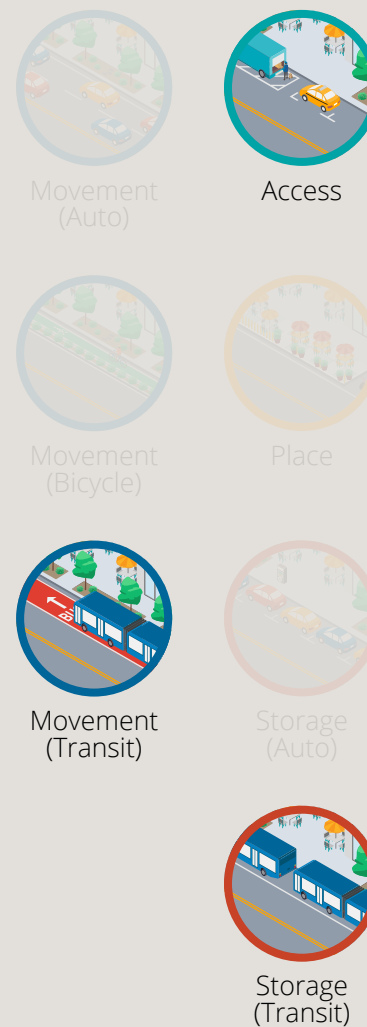
Vision

In the future, transit layover curb assignments balance King County Metro and Sound Transit’s operational needs with the City’s priorities for curbside areas. Transit layover will align with the CMP’s Curb Typology, coupled with a consistent process to assess layover needs. The process establishes a clear protocol for communicating between the City and transit agencies as well as partner expectations for evaluating transit layover spaces.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Continue ongoing partnerships with King County Metro, Sound Transit, and other transit service providers to track and determine bus layover demands at the curbside. This includes establishing a clear communications process between the City and transit agencies to convey layover needs, site-specific requests, and approval processes.
- Develop a procedure to formalize and evaluate transit layover requests.
- Maintain a database of layover locations and time-of-day curb rules. Develop an approach to track, review, and determine comprehensive bus and shuttle layover demands at the curbside.
- Create a system to formalize transit layover requests and maintain a database of layover locations and time-of-day requirements.

Cost Considerations

Low: Formalizing transit layover spaces is a low-cost strategy, primarily requiring staff time. Much of the cost is shared between the City and its transit agency partners.

Priority Stakeholders

- Public transit operators, including King County Metro and Sound Transit
- Private shuttle operators who work with major local employers
- Adjacent property owners and businesses affected by transit layover
- Transportation Department



Bus layover in Montlake Terrace, WA. Photo credit: Wikimedia.

Deploy public charging infrastructure to promote equitable electric mobility

Curbside charging stations include chargers for electric vehicles, rideshare and taxi vehicles, and electric micromobility options, such as bikes, scooters, trikes, and mopeds. Curbside charging infrastructure is typically paired with converting on-street parking spaces into electric vehicle parking spaces or electric micromobility charging docks. In some cases, electric micromobility charging docks can be located on sidewalks.

Existing Practices







Bellevue has taken steps to deploy multimodal public charging infrastructure. Most of these efforts thus far have been focused on installing chargers off-street, rather than at curbside locations. In 2022, the State of Washington released a plan outlining statewide EV charging infrastructure objectives and investments. At the same time, the Bipartisan Infrastructure Law directed the federal government to deploy a national network of electric vehicle chargers and other zero-emission fueling infrastructure. Expanding charging infrastructure is one of the first priorities in Bellevue’s [2018 Smart Mobility Plan](#) with recommended initiatives such as an on-street charging pilot.

Vision








Curbside charging infrastructure is an important strategy to increasing EV and electric micromobility adoption. With publicly accessible, convenient, and reserved charging infrastructure throughout Bellevue, the City can support widespread electric and zero emission vehicle adoption and reduce “range anxiety”.

In its charging infrastructure deployment, Bellevue must create charging opportunities for sustainable modes such as e-bikes and e-scooters rather than only provide for single occupancy vehicle charging. Charging infrastructure can also host wayfinding and other curbside community facilities such as bike parking, or shared storage. Curbside charging should be considered a supplementary resource to a broader charging network, as most charging stations are still assumed to be located off-street. Bellevue will continue to support electric charging infrastructure until critical mass adoption is achieved.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

-  Movement (Auto)
-  Access
-  Movement (Bicycle)
-  Place
-  Movement (Transit)
-  Storage (Auto)
-  Storage (Transit)

Strategies and Implementation Actions

- Partner with fast charging, Level 2, and multimodal charging providers to deploy curbside charging pilots. In evaluating the technology of these vendors, Bellevue should focus on vendors with high charger uptimes, strong business models, renewable energy, and low power grid utilization.
- Incorporate high uptimes (>95%) and maintenance requirements from vendors or contract with a vendor that specifically focuses on maintenance and uptime. Charger uptime and maintenance is crucial for the success of electric vehicles and micromobility.
- Develop a curbside EV charging infrastructure deployment approach that prioritizes equity and encourages EV/electric micromobility adoption in underserved areas. The plan should prioritize multimodal chargers.
- Require EV charging companies to provide reduced fueling costs to income eligible customers.
- Require forward compatible infrastructure for future charging infrastructure in current street projects.
- Require curbside EV charging infrastructure as a condition for some development approvals, depending on context. EV chargers would still be assumed to be owned and maintained by the city after installation.
- Initiate or join a collaborative task force to plan for and deploy charging infrastructure. This can include Puget Sound Energy, private vendors, community groups, funders and state governments, and employers.
- Create and adopt curb regulations that designate and dictate use of EV parking at charger-adjacent spaces.
- Establish a curbside charger permit that enables long-term site leases and streamlines siting approvals and grid connections.
- Provide guidance for the vendor on education and outreach campaigns.

Cost Considerations



High: Charging infrastructure that require significant trenching and utility upgrades can range between \$25,000 and \$100,000 per charger. For the City, installation, utility upgrades, hardware, and ongoing maintenance impact the City’s cost of deploying curbside EV charging. Additionally, the power grid may be limited in certain areas of Bellevue to support EV fast charging capabilities. Areas where the power grid is limited may require significant costs in power infrastructure upgrades.

Bellevue can look to secure state or federal funding for EV charging. Depending on the location, developments may also be required to install publicly available EV charging at the curbside as a condition of the project.

Priority Stakeholders

- Adjacent businesses and residents
- Puget Sound Energy
- Transportation, Development Services, Community Development, IT, and Finance Departments
- Charging infrastructure vendors
- Sound Transit, King County Metro, and WSDOT
- Joint Office of Energy and Transportation



CASE STUDY: CURBSIDE EV CHARGING PILOT, LOS ANGELES, CA



Los Angeles, with the support of a CA Energy Commission grant, ran a level 2 curbside charging pilot program in collaboration with the local utility company. The City converted utility poles and streetlights that had existing power, which allowed the City to scale the program in a cost-efficient way.

Source: [Curbside Charger Program](#)

Further Resources: [Washington State Plan for Electric Vehicle Infrastructure Deployment](#)

Develop a mobility hub strategy

Mobility hubs convene multimodal transportation services and infrastructure to accommodate transfers among various transportation modes. More advanced mobility hubs include digital tools that offer data streams and a unified mobile ticketing system. Mobility hubs are often located near major transit stops and other community destinations.

Existing Practices

There are two existing and planned mobility hubs in Bellevue, with several upcoming in partnership with King County Metro and Sound Transit:

- **Spring District Hub (completed in 2021):** Commuter transit facility that incorporates a large bike parking facility, a bike shop, retail and community spaces, and end-of-trip showers and lockers for commuters and employees. This facility is privately owned but will be available to the general public.
- **Eastgate Mobility Hub (anticipated in 2025):** A mobility hub plan was developed in 2019 to identify future improvements for the existing Eastgate Park-and-Ride that would enhance the rider experience and provide access to alternative public and private mobility options.

These mobility hubs still require individual digital platforms for the different modes but take the first step in consolidating modes in a central area.

Bellevue promotes and regulates individual mobility options and services. For example, the City's Street Use Permit provides regulation for micromobility companies to operate within public right-of-way. In 2018, Bellevue partnered with micromobility operator Lime to pilot a one-year electric bike share initiative that resulted in the installation of 50 free-floating bike parking zones.

Vision

Long term, Bellevue seeks to create a comprehensive mobility hub approach that provides both physical infrastructure space and supportive digital systems. In the near and medium term, Bellevue will look to encourage mobility options and integrating modes within hubs at curbside areas. Mobility hubs—and their corresponding multimodal options—will provide residents and travelers a broader suite of possibilities.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- Develop an overarching mobility hub plan and implementation strategy.
- Seek digital solutions that Bellevue can use as a unified technology platform. A digital platform would provide information on each travel mode and respective payment options. Work with partner agencies like King County Metro to determine if a regional platform would be more advantageous.
- Design mobility hubs to be universally accessible.
- Utilize existing mobility hub planning and implementation guides and Bellevue's Bicycle Rack Installation Guidelines to advance mobility hub designs and curbside integration. Convene a consortium of operators to discuss outcomes and objectives of Bellevue's mobility programs to promote a culture of collaboration rather than competition between operators.
- Develop a scope of work and concept of operations for a digital mobility hub platform. Release a Request for Proposal (RFP) to solicit interest from digital solutions.
- Design a permit procedure that regulates overarching shared mobility services. Permit conditions should address safety, parking requirements, operations and performance, privacy principles, and data-sharing requirements.
- Require any micromobility or shared mobility operators to integrate with the digital hub.

Cost Considerations



Moderate-High: Establishing functional mobility hubs require significant upfront costs associated with new permit approaches, digital system development, and infrastructure planning. Bellevue can apply for grants and other funding earmarked for mobility hub investments, including Sound Transit System Access funds.

Priority Stakeholders

- Adjacent businesses and residents
- Mobility operators, including King County Metro and Sound Transit
- Transportation, Community Development, and Development Services departments
- Hub users (employees and residents)



CASE STUDY: MOVEPGH PROGRAM, PITTSBURGH, PA

MovePGH, established in 2022, is a two-year pilot that unifies new and existing shared mobility services in the Transit app with a focus on equity and accessibility. To plan and implement the pilot, the City's Department of Mobility and Infrastructure established the Pittsburgh Mobility Collective, a public-private partnership between a group of mobility operators and the City.



Source: [MovePGH](#)

Further Resources: [Metro Council Mobility Hubs Planning Guide](#), [Minneapolis Mobility Hubs](#), [MTC Mobility Hub Implementation Playbook](#)

Proactively evaluate Bellevue’s current and future curb policies and tools to manage automated mobility services

Transportation technology has advanced to a level where vehicles can maneuver on streets without a driver. These connected and autonomous vehicles have the potential to revolutionize mobility over the next several decades. It will be increasingly important to ensure curbside practices stay up-to-date to manage, regulate, and accommodate mobility technologies.

Existing Practices

In the 2018 Smart Mobility Plan, Bellevue identified adoption of autonomous vehicles (AVs) and exploring autonomous and connected vehicle demonstration projects as a key initiative. The goal of the initiative was to create the blueprint for larger scale deployments and to attract autonomous mobility operators.

AV companies have expressed interest in conducting testing in Bellevue to enhance their capabilities and experience in inclement weather conditions. In cities such as Phoenix, AZ and San Francisco, CA commercial ridehail AV services, often referred to as “robotaxis”, are being offered to the general public.







Governor Jay Inslee signed Executive Order 2017-02 that took steps to enable safe testing of autonomous services. The Governor also established the Washington State Transportation Commission Autonomous Vehicle Work Group, which is tasked to develop recommendations for possible policies, laws and rules to support the safe operation of AVs on public roadways in the state. The Executive Order also established a self-certification process for AV companies to operate on public roadways in Washington state. Currently, this is the only administrative process needed to operate an AV on Bellevue streets.

At the national level, pilot projects are studying deployments of autonomous shuttles, driverless sidewalk delivery robots, and other similar technologies in public rights-of-way.

Vision

If managed well, autonomous mobility has the potential to increase street safety, reduce emissions, and enhance mobility for areas underserved by transit. To date, Bellevue has encouraged automated mobility for ridehail, shuttles, and other shared mobility services, rather than autonomous private vehicles. Future automated mobility programs

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

should complement public transit and replace single occupancy vehicles and be priced and planned such that all members of the community can benefit from the additional services.

Bellevue should consider targeted uses that can provide a positive impact within the Urban Core. Some examples include:

- Last-mile food or package personal delivery devices (PDDs), or delivery robots.
- AVs as a part of first-mile, last-mile oriented transit service.
- Freight loading and unloading within dedicated autonomous or zero emission curbside zones.

Strategies and Implementation Actions

- Designate specific passenger loading zones (PLZs) to provide curb space for autonomous pickup and drop-offs. Require any autonomous vehicle to make safe pickups and drop-offs in designated curbside loading zones, or within off-street private drives.
- Maintain local, regional, and statewide partnerships to respond to AV-related concerns. Participate in working groups to discuss AV activities at the curbside.
- Build public awareness about autonomous technology. Educating the public and soliciting support from local organizations will be crucial to gaining public support.
- Partner with one or more AV mobility operators to provide service. There are several companies in the automated mobility space, with varying philosophies and strategies to partnering with the public sector.
- Create a pilot permit structure to allow for autonomous sidewalk delivery robots. These systems have the potential to minimize vehicle trips and lower emissions by making short deliveries within the Urban Core.
- Ensure autonomous vehicles and shuttle operations are more universally accessible than traditional vehicles.

- Continue monitoring and tracking state legislation regarding AV technology and operations to ensure that the city is aligned with best practices and legal frameworks as it relates to the curbside environment.
- Allow mapping and testing of automated mobility vehicles in the city. Require operators to share data about Bellevue’s specific streetscape and weather conditions as systems collect more information.

Cost Considerations



Moderate: The cost to enable AVs to operate in Bellevue consists of staff time and infrastructure costs related to new and expanded curbside loading. As AVs become more prevalent, more staff time and city resources may be needed to address incidents and respond to public questions.

Priority Stakeholders

- Neighboring municipality policymakers
- King County Metro and partner transit agencies
- Transportation, Community Development, and IT Departments
- Autonomous mobility operators
- Community groups
- Washington State Department of Transportation and Department of Licensing



Leverage Bellevue’s Transportation Demand Management (TDM) Plan to manage curb demands

TDM strategies aim to maximize travel options through requirements or incentives. Certain practices can be employed at the curbside to help achieve program goals.

Existing Practices







Bellevue created a comprehensive Transportation Demand Management (TDM) Plan in 2015 which pulls together a cohesive set of strategies that extend through 2023. Washington State has a Commute Trip Reduction (CTR) law that requires certain jurisdictions, including Bellevue, to create plans that guide CTR work. Employers are also required to implement programs that reduce commute trips to their worksites. The City tracks employer, worker and resident TDM programs under the [Choose Your Way Bellevue](#) brand and website. Bellevue also requires that large downtown employers implement Transportation Management Programs (TMPs). Bellevue contracts with TransManage, a branch of the Bellevue Downtown Association, to assist with its TDM and CTR programs, and TransManage also directly assists some companies with their TMPs.

Vision

Bellevue’s context is different now than it was during the creation of its first TDM Plan in 2015. The City’s population is growing significantly, the climate crisis is immediate, the curb is in greater demand, the COVID-19 pandemic has permanently affected travel behavior, and transportation access remains inequitably distributed. Bellevue’s TDM plan is being updated in 2023 to guide continuation of programs along with new strategic initiatives for meeting Comprehensive Plan mode share goals.

Bellevue aims to connect TDM with the curbside by employing tools and strategies for encouraging non-drive alone modes. Adding accommodation for services like dedicated shuttle stops, installing additional pick-up and drop-off (PUDO) zones for carpool & vanpool uses, requiring car share, and building additional bike lanes along the curbside can encourage additional modes of travel.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- Align TDM programming with the CMP’s Curb Typology such that localized curb regulations reinforce drive-alone reduction targets.
- Establish performance metrics that account for curb management and TDM strategies.
- Continue adding curbside features to accommodate non-drive alone modes, such as more frequent CVLZs and PLZs and dedicated lanes for buses, bikes, and HOV travel. Use the Curb Typology to help determine where facilities should be installed or constructed.
- Create partnerships with neighboring municipalities to share how curb management practices are supporting TDM best practices and program goals.
- Highlight improvements to and additions of pedestrian, carpool, transit, and bicycle facilities along strategic curbsides that provide more equitable and sustainable travel choices within the Urban Core.

Cost Considerations



Low-Moderate: Costs primarily include staff time to coordinate between TDM and curb management initiatives. As of 2023, work to update the TDM Plan is ongoing independent of the CMP.

Priority Stakeholders

- Major employers
- Residents and employees
- Transportation Department
- TransManage and the Bellevue Downtown Association
- Neighbor cities and regional transit agencies



CASE STUDY: TDM PROGRAM IN ARLINGTON COUNTY, VA



Arlington partners with its TDM provider to design and communicate services that make it easy for residents and workers to change transportation behavior. Initiatives focus on walking, biking, wayfinding and travel planning, business-to-business transportation consulting, and research through the [Mobility Lab](#). The program defined a strong set of performance metrics and created the country’s first TDM ROI calculator that highlights the value created by implementing TDM programs. Overall, it has been successful in meeting TDM objectives: it eliminates 50,000 single occupancy vehicle trips every workday, which represents 8% of trips and a 38% reduction in vehicle miles traveled.

Source: [Arlington County TDM Plan](#), [Mobility Lab article](#)

Further Resources: [Bellevue TDM Plan 2015-2023](#), [Washington State TDM information](#)

Expand the Al Fresco on-street dining program

This City-led program allows restaurants to apply for a permit to operate in the public right-of-way to offer expanded seating options.

Existing Practices

During the COVID-19 pandemic, Bellevue began allowing restaurants to apply for a temporary Street-Use permit to operate food service within parking spaces in the curbside lane. The pilot program was concentrated on Main Street within the Old Bellevue business district. Bellevue's [Al Fresco program](#) was well-received by residents in a 2021 feedback survey and resulted in the continuation of the pilot program in 2022. However, permanent permit conditions are required to continue the program long-term.

Vision

While Bellevue has run a successful on-street dining program in a limited area, the City can expand its program so that more businesses who are interested can participate, and improve placemaking in neighborhood business districts. To accomplish this, Bellevue can replace temporary permits with permanent ones, and expand the eligibility area over time either by enlarging the eligible zone or removing geographic restrictions.

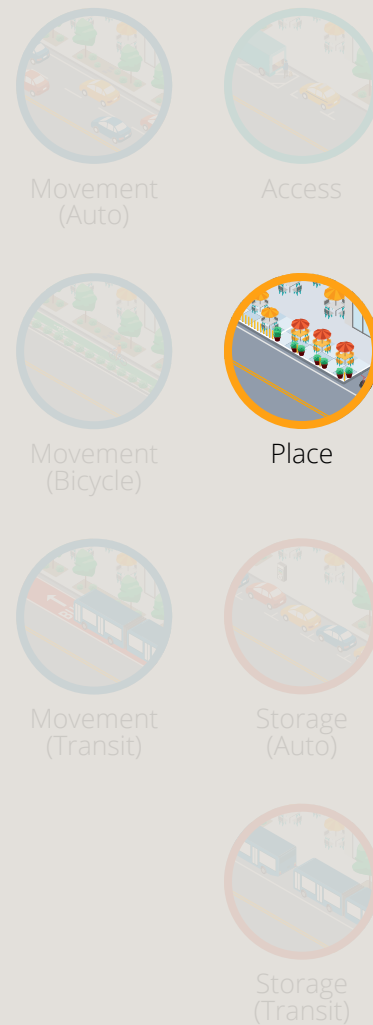


Al fresco on-street dining in Old Bellevue.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Create a permanent on-street dining program and permit approach based on best practices and lessons learned from other communities.
- Establish permit conditions that allow restaurants to place weather and sun protection in street cafes. Features may include tents, umbrellas, fans, heaters, and planters with trees.
 - Bellevue should establish regulations for electric/natural gas heaters.
 - Provide seating and amenities, which must be moveable for ADA compliance.
 - Provide sufficient lighting.
 - Delineate dining area for user safety with barriers such as fencing, railings or sidewalk markings.
 - Bellevue should establish barrier height requirements.
- Ensure dining areas comply with ADA and City Code requirements for pedestrian access routes adjacent to on-street dining areas. This entails creating a straight path of travel with no obstructions that is 4-7 feet wide depending on road type.
- Explore installation of mobility amenities next to outdoor dining spaces, such as planters and on-street bike parking racks.
- Update the permit process to make it more approachable and user-friendly for interested business owners.
- Identify expansion areas that consider:
 - Priority transit routes and employment destinations
 - Traffic Operations & Safety
 - Competing curb uses
 - Curb Typology and access points
 - Concentration of businesses and residents
- Work with local businesses and other stakeholders to educate users about the program and communicate the economic development, downtown revitalization, and quality of life improvements it can realize. Materials should be multilingual.

- Establish multiple pathways for businesses to express interest.

Cost Considerations



Low-Moderate: City staff time is the primary cost. This time includes permit review, program development and implementation, which may require a project manager with director-level support.

To recover program costs, the City can charge a one-time permit fee and a renewal fee after a certain time period. The City should consider an equitable fee structure that establish a slide fee scale to account for equity considerations.

Priority Stakeholders

- Restaurants, retailers, and other business owners
- Downtown Bellevue Association, Old Bellevue Merchants Association
- King County Metro/Sound Transit
- Residents
- Local artists and construction companies
- Transportation, Community Development, and Development Services departments



Further Resources

- [NACTO Outdoor Dining Design Guidelines](#)
- [Outdoor Dining in Bellevue: Report on 2021](#)
- [Current Bellevue design standards](#)

Establish a parklet program

Parklets act as extensions of sidewalk space within the curbside lane. These features oftentimes have public seating, weather protection, tables, and other similar amenities. They are often managed by partnership of surrounding businesses, residents, or cities themselves. Parklets can range from simple seating to vibrant and activated community spaces that include adjacent scooter and bike parking, greenery, programmed events, and cultural activities.

Existing Practices

Currently, Bellevue does not have parklets nor an official process for private parties to apply for a parklet within the curbside lane. General approaches from the Al Fresco dining pilot permit could be applicable to a parklet program.







Vision

Implementing a parklet program represents an opportunity to reimagine on-street parking spaces into community resources. Parklets also present the opportunity to efficiently evaluate new human-scale infrastructure that repurposes street space historically reserved for vehicles.








Stakeholder feedback throughout the CMP indicates a desire to improve quality public space and activate the curb for placemaking purposes.

Like the on-street dining program, the City can start by quickly implementing a temporary pilot program in a designated area to assess demand and effectiveness. After collecting sufficient feedback and evaluating the program based on success metrics, Bellevue can expand to a wider area of eligibility.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

-  Movement (Auto)
-  Access
-  Movement (Bicycle)
-  Place
-  Movement (Transit)
-  Storage (Auto)
-  Storage (Transit)

Strategies and Implementation Actions

- Add parklets into the potential permitted use cases within designated curbside lanes.
- Establish strong parklet design guidance to ensure welcoming and accessible spaces that meet community needs.
- Develop typical parklet designs to assist potential applicants. Parklet designs should feature safety elements such as water barriers to ensure protection and visibility from parking cars and traffic.
- Require that provisions and amenities within parklets are ADA compliant. Ensure parklets are clearly marked as public spaces and display hours of operation.
- Identify potential parklet locations. These locations should be mindful of stormwater access points, utility locations, nearby public spaces, and street safety considerations.
- Update language in the city's Right of Way Use Code to clarify that parklets within the curbside lane fall under a Type D permit.
- Establish permitting process, regulations, maintenance responsibilities, and design guidance.
- Consider piloting a city-owned and operated parklet to garner public feedback.
- Identify programming and activation guidelines for parklets.

Cost Considerations

Low-Moderate: City staff time is the primary cost. This time includes program development and implementation of any city-led parklet initiatives, design guideline development, and permit review of private parklet applications. Parklet program costs would be offset by one-time and renewal permit fees.

Parklet owner costs include permits, building and maintenance.

Priority Stakeholders

- Local businesses and residents
- Downtown Bellevue Association
- Neighborhood and Community Associations
- Transportation, Community Development, and Development Services departments.



CASE STUDY: PARKLET PROGRAM IN DALLAS, TX

The City of Dallas, TX implemented a temporary pilot program in 2020, which was converted in 2021 to the Street Seats program to allow more permanent installations. The program includes removal considerations and the City contracted with nonprofit partner, Better Blocks, to help with parklet design. Parklets are allowed to convert up to two parking spaces and can be either private with restaurant-specific seating or public spaces with general seating.

Source: [Dallas Parklet Guidelines](#)

Further Resources: [NACTO Parklet Design Guidelines](#)



Diagram of a parklet. Image credit: NACTO.

Formalize a program for food trucks and curbside vendors

Similar to Al Fresco Dining and Parklets, permanent permit conditions to allow food trucks to operate in specific locations can improve curbside livability and economic vibrancy in the Urban Core.

Existing Practices

In Bellevue, Food trucks are permitted to operate on private property. In 2021, Bellevue and the Washington State Food Truck Association ran a [Street Vending Food Truck Pilot Program](#) which allowed food trucks to operate in the right of way with a permit. The pilot established permit conditions and food truck locations were included within an [online map](#).

Vision

The program would grant temporary, time-of-day reservation of certain curbside spaces to allow vendor activity at the curbside. Temporarily repurposing parking spaces from single-occupancy vehicle parking to community and economic assets can increase street vibrancy, enhance walkability, and provide an affordable and simple path to business ownership.

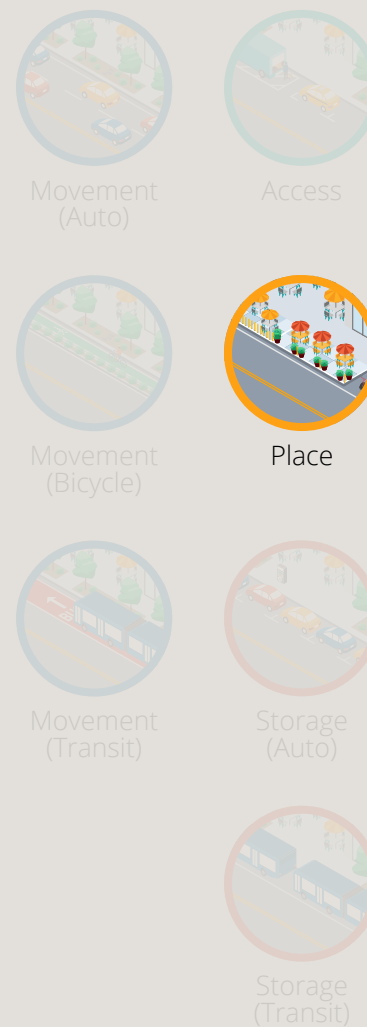


Curbside vendor in the Spring District

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES



Strategies and Implementation Actions

- Create and maintain a public-facing website and a mobile app that would allow vendors to reserve locations and show when and where vendors would operate to the public.
- Document guidelines and best practices for pedestrian access, trash and recycling disposal, customer behavior, and strategies for promotion.
- Ensure approaches are in alignment with requirements from King County and Bellevue Fire.
- Collaborate with partner agencies to ensure city-issued permits are in alignment with requirements. For example, King County requires that bathrooms must be within five hundred (500) feet of an operating site.
- Update language in the city's Right of Way Use Code to clarify that food trucks and curbside vendors fall under a Type B permit.
- Identify zone locations considering adjacent brick-and-mortar businesses, potential customer and pedestrian activity, and demographic and economic indicators. Restrict food trucks from operating in districts with heavy street-facing retail (i.e., Main Street in Old Bellevue). Zones should be located within curbside lanes where plantings and street trees will not be damaged from foot traffic.
- Publish permit requirements and conduct broad, multilingual community outreach.
- Conduct regular program evaluations, collecting feedback from food truck vendors, residents, and other stakeholders.

Cost Considerations



Low: City staff time to review and issue permits is the primary cost. Upfront costs and time are required to determine ideal curbside vendor locations and requirements.

Priority Stakeholders

- Transportation and Community Development departments
- The Washington State Food Truck Association
- Businesses and residents abutting the zones
- Business and economic development associations
- Tourism and cultural institutions
- Nearby brick and mortar businesses



CASE STUDY: CARTS IN PARKS PROGRAM IN MADISON, WI



In partnership with the Latino Chamber of Commerce the program launched in 2021 and has continued into 2022. It resulted in 14 community food events and the launch of six new businesses.

Source: [Madison Carts in Parks program website](#), [NACTO writeup](#)



Carts in Parks in Madison, WA. Photo credit: City of Madison.

Establish guidelines for protecting and expanding curbside green space

Street trees, planters, and other greenery play an integral role in curb activation, use, and accessibility. As the City looks to update its curbs with new types of uses and access features, care must be taken to avoid removing these critical green spaces or failing to incorporate them into new curb plans.







Existing Practices

Bellevue's Parks & Community Services Department stewards over 10,000 street trees and associated landscapes located along over 100 miles of streets. Bellevue's Environmental Best Management Practices Manual provides streetscape design guidelines, standard details, materials specs, and overarching guidelines on how to protect, replace, or create new planters and street trees along the curb. The City has set ambitious tree canopy goals, but several parts of the Urban Core prioritized in the Curb Management Plan have limited existing canopy.







Vision

Curbside green space such as street trees and plantings offer social, environmental, and economic benefits. Planting street trees and other greenery along the curb can offset greenhouse gas emissions, capture stormwater runoff, improve roadway safety by reducing travel speeds, and create shadier, cooler, and more livable outdoor spaces for curb users—from delivery drivers to diners.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- During the design of new curb pilots, consider the relationship between street trees and the use of the curb zone and sidewalk areas for parking, deliveries, al fresco dining, parklets, etc.
- Consider opportunities for street trees and planters when modifying the curb.
- If increasing the tree canopy is not feasible, protect what currently exists and replace the greenery should the curb project impact any existing trees or plantings.
- The Street Tree and Arterial Landscape Program team should be included in curb pilot reviews/ curb modifications as they relate to any adjacent street trees and planter strips.
- The City can modify existing detailed drawings to reflect the desired end state that curb pilot implementors must follow.
- Develop standard drawings for the landscaping zone. Standard drawings should include soil volume requirements, acknowledge code-mandated planter widths, and allow for strategic pervious hardscaping between the curbside lane and sidewalk to minimize step impact.

Cost Considerations



Low: The City Staff can modify and distribute guidelines and criteria for preserving, replacing, and installing new street trees and plantings in the curb zone without significant upfront costs. Actual street tree investments can range from moderate to high, depending on if sidewalk infrastructure needs to be reconstructed.

Priority Stakeholders

- Transportation and Parks departments
- Businesses and residents adjacent to the pilot site



Tree canopy in Bellevue.

Consider amending Land Use Code language to better integrate green space with the curb zone

Because most curb modifications stemming from property development will impact green spaces, the Land Use Code can require assessments and practices that ensure that curb changes do not negatively impact the tree canopy and green spaces.

Existing Practices

The Land Use Code for the Downtown incorporates street trees and soil volume requirements in relation to right-of-way improvements. However, in other parts of the Urban Core, such as Bel-Red, Wilburton or East Main, the Land Use Code either incorporates these requirements to a lesser degree or lack requirements entirely.


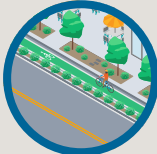



Vision

Amending the Land Use Code to ensure street trees and other green space are incorporated into curbside projects and pilots can yield safer streets and a more comfortable and lively curb environment.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- Amend the Land Use Code to require tree protection, adequate soil volumes, soil preparation standards and root barriers following Chapter 8 of the Parks Environmental Best Management Practices Manual.
- Require a tree canopy assessment as an integral component of development design and review.
- In certain curb changes, the City can require proper soil volumes by requiring soil cells and/or structural soils within the impacted curb zones.

Cost Considerations



Moderate: Amending the Land Use Code requires significant staff resources and timeframes to employ. Embedding new code language should be done in conjunction with other LUCA workflows rather than through independent efforts.

Priority Stakeholders

- Transportation and Parks department
- Businesses and residents adjacent to the affected curb site



Trees near the curb, Old Bellevue district.

Collect, maintain, and share curb asset information

To ensure curb asset information is up-to-date, it will be important to track curbside regulations and existing infrastructure such as light and utility poles, furnishings, and curb use inventories.







Existing Practices

Bellevue currently has a digitized inventory of its curb assets and regulations within a digital format called “CurbLR”. Other curb asset features are mapped and managed in Esri ArcGIS. Some examples of tracked assets include curbside lane regulations (i.e. parking restrictions), curb cuts (i.e. entrances for parking garages), curbside infrastructure (i.e. streetlights and utility features), and street furniture (i.e., trees, benches, bike racks, light poles).

Vision

Curb information has a wide variety of uses and applications. Bellevue can analyze its curb asset data to make more informed decisions and share takeaways with travelers for smoother trip planning. Collecting and consolidating accurate curb asset information digitally is a common first step in many advanced curb management programs.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

- | | |
|---|--|
| 
Movement (Auto) | 
Access |
| 
Movement (Bicycle) | 
Place |
| 
Movement (Transit) | 
Storage (Auto) |
| | 
Storage (Transit) |

Strategies and Implementation Actions

- Establish a curb asset management system that integrates with existing transportation asset management tools.
- Gather and analyze curb asset inventory using modern collection technologies. Seek vendors that help organize and digitize curb asset information.
- Design data collection and storage processes with a focus on data security.
- Establish new processes to ensure that changes and evaluations of curb assets are accurately reflected in the curb asset management system.
- Make some curb asset information available to partners and operators as open source data.
- Improve curb data organization. Convert existing digital curb inventory into the Curb Data Specification (CDS) or similar best practice format.
- Create public curb regulation dataset and tools. Develop a public-facing application that communicates curbside availability, trends, and potential future pricing.
- If not hosted interally, determine a technology platform to host the digital curb asset information, such as ESRI, Google Suite, or other private sector partner.
- Improve public information and awareness of curb regulations. Add signage & wayfinding to publicly accessible private lots to aid traveler information and mitigate illegal curbside behaviors on restricted blocks.
- Release curb asset information such as regulations and infrastructure locations through an open data web portal or a mobile app.

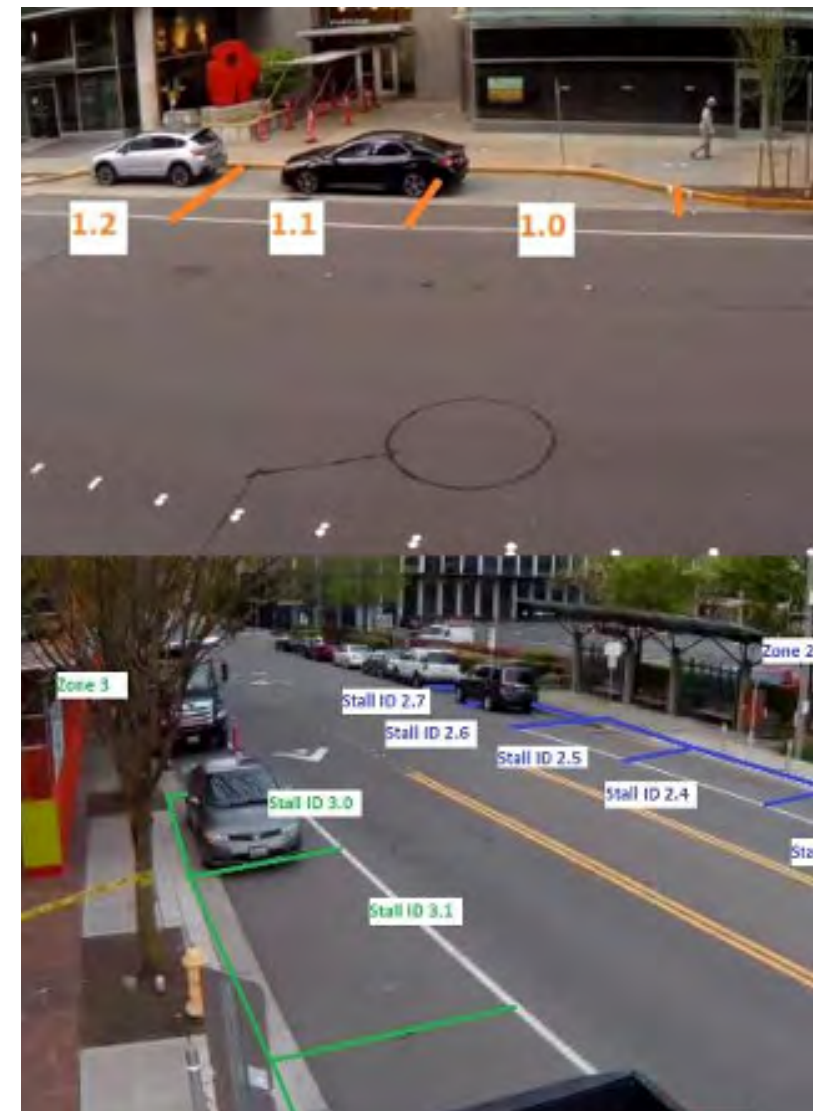
Cost Considerations



Moderate: Establishing and maintaining a curb asset management system have historically been labor-intensive, but new vendor-based solutions have promise to streamline processes. The City will need to dedicate technical staff time to manage curb asset management systems and information workflows.

Priority Stakeholders

- Data platform providers
- Third party data providers
- Transportation and IT departments
- Partners such as the Open Mobility Foundation (OMF)
- Private parking lot owners



Curbside management pilot in Bellevue.

Collect and analyze curb activity data to inform decisions

Monitoring activity in curbside areas is essential to understand how curbs are being used and to inform future operational decisions. Data can be collected from both public and private sector sources, with a focus on parking, PLZ and CVLZ activity, pedestrian and bike/scooter activity, and unsafe curb behavior such as double parking and near-misses.







Existing Practices

Bellevue has launched technology-based curbside pilots in recent years in an attempt to collect accurate data. In 2020, the city conducted a pilot and study in partnership with Transportation for America in 2020 to ground-truth curb data collection efforts and evaluate the accuracy of video-based curbside monitoring technologies. The City selected vendors to conduct the analysis with a specific focus on commercial vehicles to assess enforcement and monetization strategies. The pilot was successful in evaluating the technology's accuracy but the COVID-19 pandemic disrupted further efforts.

Vision

Bellevue is well-positioned to implement a strong curb data collection program. After an initial pilot period in a limited testing area, a more regimented curb data collection program can move quickly to full data monitoring and robust data analysis. Best-in-class curb monitoring and data collection programs have strong data privacy and sharing principles, collaborative partnerships with private sector vendors, commercial operators, and community support. A curb management data collection program will include a public-facing platform that will share curb asset information, performance tracking metrics, details from private partners, and curbside behaviors around the Urban Core.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- Dedicate annual operational funds towards a curb management data collection program.
- Deploy technology-driven solutions, including:
 - Systems that collect data on the curb. Solutions may include time-lapse cameras, RFID recorders, license plate recognition (LPR) devices, and LIDAR sensors.
 - Data dashboards and visualizations for city staff to use in operational decisions.
 - A user-facing app or website to communicate curb status and behavior changes.
- In collaboration with community partners, identify priority objectives, scenarios, and/or locations for monitoring and data collection, which will inform program design and management.
- Assess existing public data streams to identify gaps in data assets.
- Confirm use of LPR technology to quickly collect curbside trends. Ensure that personal identifiable information (PPI) is scrubbed to ensure individual anonymity and privacy of users. Integrate data analysis and visualization via vendor dashboard. Assign a city staff member as the vendor point of contact.

Cost Considerations



Moderate-High: The City would need to make an upfront investment to collect and analyze curb activity, including sensors/cameras, data platforms, dashboards, and other consumer-facing tools. Strategy costs also include installation, maintenance, as well as ongoing program management costs. Multiple devices will be required to scale the data collection program.

Priority Stakeholders

- Third party data providers
- Transportation and IT Departments



Automate enforcement and pricing processes

Automated enforcement and pricing are two common interventions that influence drivers' behavior at the curb. With dynamic pricing approaches, cities set variable curb parking rates or time limits based on demand and utilization. The goal of "demand-responsive pricing" is to achieve 75-80% occupancy, which translates to 1-2 parking spaces per block being available at any given time. This reduces cruising to find parking.

Automated enforcement refers to the remote issuance of citations for violating curb regulations, and the use of technology to reduce staff needs for enforcement. There are various levels of automated enforcement ranging from notifying enforcement officers about violation locations to automated ticketing.

Existing Practices







Bellevue's Police Department currently utilizes enforcement cameras in select locations for red light cameras and school zone speeding cameras to deter and monitor violations and efficiently write and send tickets. There are cameras in three school zones and at four signalized intersections. The downtown parking enforcement contractor also utilizes LPR technology to monitor on-street parking occupancy and issue citations. Bellevue does not have paid on-street parking today.

Vision







With strong privacy principles, appropriate checks and balances, and community engagement, automated enforcement and pricing can incentivize legal curb behavior and manage curb supply and demand. These interventions are tools in Bellevue's technology-driven curb management toolbox that can result in safer roads with fewer infractions and more parking and loading availability.

With dynamic pricing approaches that update regularly, the City can uncover stable revenue streams that can be reinvested back into community infrastructure and enforcement programs. It is also easy for the City to modify pricing based on supply and demand. These interventions require true partnership among city departments.

WHERE DID THIS IDEA COME FROM?

-  Curb Summit
-  Stakeholder Interviews
-  Survey
-  State of the Curb
-  Transportation Commission
-  Best Practice

APPLICABLE CURB TYPES

 Movement (Auto)	 Access
 Movement (Bicycle)	 Place
 Movement (Transit)	 Storage (Auto)
	 Storage (Transit)

Strategies and Implementation Actions

- In conjunction with a launched paid on-street parking program, determine data sources and considerations that would be inputs into an automated performance-based pricing approach. Data could include occupancy, average turnover, and other KPIs.
- Evaluate enforcement technology options for their ability to accurately enforce curb policy and collect curb access revenue, while protecting data privacy and civil liberties.
- Partner with vendors who offer curb management technology to collect and analyze data, create predictive models or enforcement protocols, and provide the underlying APIs to communicate pricing and enforcement updates.
- Communicate with the community about the benefits of a performance-based paid parking program and an equity-driven automated enforcement system that has the potential to minimize interactions with authorities.
- Prioritize equity to ensure the program does not become regressive:
 - Collaborate with community groups and disadvantaged populations to help create program parameters and inform how to educate the broader public.
 - Consider certain exemptions or a sliding scale fee structure.
- Analyze Bellevue's current automated traffic enforcement programs to understand technology capabilities, common community concerns, and applicability to automated parking enforcement.
- Identify priority pilot areas to evaluate pricing technology, install automated enforcement systems, and determine ticketing and tracking processes.
- Initiate the programs with a data collection period to ensure that parking duration and violation data is accurate and that the internal processes work to issue fees and citations automatically.
- Analyze data to understand whether the programs achieve desired outcomes and to make expansion decisions.

Cost Considerations



High: The City would need to make a substantial upfront investment in enforcement technology (e.g., sensor/cameras, data platforms, etc.) installation, maintenance, as well as ongoing program management costs that would partially be covered by parking fee revenue. Bellevue can also explore automated enforcement over time to save enforcement costs.

Priority Stakeholders

- Transportation, IT, Police, and Finance Departments
- Community members
- Local businesses
- Transportation and commercial delivery services



CASE STUDY: PERFORMANCE-BASED PARKING PROGRAM IN SEATTLE, WA



While automated enforcement is not yet implemented in Seattle, the Seattle Department of Transportation (SDOT) uses a data-driven process to adjust rates for 12,500 on-street parking spots. The City adjusts hourly parking rates and/or time limits based on demand based on a predictive model using transactions and regular data collection efforts.

This ensures "peak parking conditions" of one to two available spaces per block so drivers can consistently find available spots which reduces cruising and unsafe situations. In addition to varying pricing, Seattle also released an app that directs drivers to the nearest available on-street or off-street parking.

Source: [Seattle Performance-Based Pricing Program website](#)

Create and maintain digital policy expressions and management tools

Curb compliance and efficient mobility will rely heavily on digitized code, geofencing tools, and APIs that communicate curb regulations to app-based transportation providers.

Existing Practices

Curb policies and regulations are primarily documented and conveyed through analog methods, including street signs, block-by-block ordinances, and static maps.

The Open Mobility Foundation (OMF) houses the Curb Data Specification (CDS), which allows cities to represent their curb data and regulations dynamically through an open data standard. CDS digitally connects city agencies with commercial operators and curb management technology companies to streamline curb information sharing. Use cases involving CDS include sharing curb zones publicly, wayfinding to curb space, real-time curb status communication, documenting and analyzing passenger and commercial curb usage, and responding to curb violations.

Vision

In an environment where transportation and delivery services operate on digital platforms, responsive curb policy and programming will require communicating the rules of the curb in a digital language. The vision for Bellevue is to express curb regulations (i.e., on-street parking and loading, curbside travel lanes) and ad hoc curb changes (parking pricing, work zones, and closures) in a digital format. Consumers of the digitized curb policies might include navigation/mapping platforms (e.g., Google Maps, Apple Maps etc.), transportation services (e.g., Uber, Lyft, King County Metro, etc.), delivery partners (e.g., UPS, Doordash, Amazon, etc.), and travelers looking to pay for parking via a parking app.

WHERE DID THIS IDEA COME FROM?

- Curb Summit
- Stakeholder Interviews
- Survey
- State of the Curb
- Transportation Commission
- Best Practice

APPLICABLE CURB TYPES

Movement (Auto)	Access
Movement (Bicycle)	Place
Movement (Transit)	Storage (Auto)
	Storage (Transit)

Strategies and Implementation Actions

- Join the OMF's Curb Data Specification Working Group to allow Bellevue to inform and benefit from the broader specification.
- Convene an internal team that will manage digital curb policy and CDS implementation.
- Implement the CDS to begin expressing curb policies in a digital format.
- Dedicate resources to implement and manage the CDS database, organize back-end regulations into the new digital format, and regularly update digital policies resulting from legislation and real-time operating conditions. Institute permitting mechanisms, incentives, or regulations to require companies who wish to operate in Bellevue to share data via specific APIs.
- Improve curb data access and organization by converting the existing "CurbLR" digital curb inventory into the CDS format.
- Assist in the creation of a public curb regulation dataset and tool that allows consumer parking and navigation apps to communicate curbside availability, trends, and current/potential future pricing.

Cost Considerations



Low-Moderate: Technology investments to support data management, storage, and analytics range from city-owned systems development to Software-as-a-Service subscriptions. As of 2023, the OMF is in the process of developing open source software and tools that will significantly reduce the cost of CDS implementation and maintenance. The City will need to dedicate technical staff time to manage CDS implementation. At most, the Transportation Department may need to dedicate staff hours for a data analyst position, or integrate these duties into the future curb management team.

Priority Stakeholders

- Open Mobility Foundation
- Puget Sound partner cities, King County Metro, and Sound Transit
- Private mobility providers
- Curb technology vendors
- Community members and businesses that seek digital policies
- Transportation and Parks departments.



DRAFT 2023-04-07

