Shared Micromobility
Designated Parking Zones

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Community Overview

City of Grand Rapids

- ~200,000 people / 45 sq mile land area within a region ~1 million
- Fast growing, significant community changes happening
- History of racial inequities ---> more investments in target areas
- Region known for rail trails, fondos, mountain biking, gravel riding
- Current dockless shared e-scooter / e-assist bicycle services pilot
- Bronze level Bicycle Friendly Community
- Still early in creating a community that is good for bicycle transportation and for the “interested by concerned”

Shared Micromobility Designated Parking Zones (Grand Rapids, MI)
Late 2017 – started Bike Share Feasibility Study

• Significant public outreach via community events
• Focus groups with community organizations in Neighborhoods of Focus (equity areas)

City Commission requested a bicycle plan before moving forward on bike share

• Plan developed in-house with no budget
• July 2019 – Plan approved by City Commission
• Incorporated bike share feasibility study into plan

E-scooters not “a thing” until after study done
Shared Micromobility Recommendations

- Improve reach, and utility of public transit
- Increase access and enhance mobility
- Foster “park once” behaviors
- Accessible for all residents, regardless of race, ethnicity, income, gender identity, age or ability
- Enable increased physical activity
- Financially sustainable system – minimize reliance on City’s general fund

- Implement a public bike share pilot
Shared Micromobility Pilot

- Fall 2019 – issued Request for Information (RFI)
- Jan 2020 – issued Request for Proposals (RFP)
- March 2020 - Pandemic hits

- Two pilot vendors selected – Spring 2020
  - Spin – e-scooters with e-assist bicycles added in late 2021
  - Lime – e-scooters and e-assist bicycles

- Evaluation started in late Fall 2021

- Issued continued services RFP to both pilot vendors in April 2022 to select one vendor
- Selected one vendor for continued services – currently negotiating contract

Shared Micromobility Designated Parking Zones (Grand Rapids, MI)
Major issue with dockless systems = vehicle parking/ clutter between trips
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Established Designated Parking Zones following docked bike share siting guidance:
• Dense, frequent spacing
• Easy access to/from the street
• Well lit
• Operationally accessible
• Proper spacing from other curbside elements – transit stops, loading zones, poles, access lids, hydrants, seating

Currently 210 DPZs over 12 sq mi – working on adding more locations this summer/fall
Components of a DPZ

- Public ROW or public property
- Existing hardscaped surface
- Painted or taped white rectangle
- Double backed signs
  - "Started with pavement decal"
- "Rules for your Ride" pavement decal
- Similar length to docked bike share stations – 20’ to 40’+ long but flexibility to make smaller ones as needed
- Only one DPZ located in the street
- Some DPZs in parking lot spaces (business districts, parks)
- Some areas not covered enough
  - Pilot = no concrete pad construction
Effectiveness of DPZs

- Vendors required to deploy/rebalance vehicles to DPZs
- DPZs must be shown in the vendors apps ("P" symbol)
- Required to educate service users about DPZs
- Expected to use carrots/sticks to get users to park in DPZs

Vendor Feedback

- Clarity on where vehicles can be parked
- Easy for staff to find, including independent contractors
- "Best city" for parking zones – both pilot companies encouraging other cities they operate in to implement DPZs
Effectiveness of DPZs

• Service users required to park vehicles in DPZs after completing their trip

• Mixed results with public – big learning curve

Lime Tested GPS-Based Parking Buffers

• Established buffers around DPZs – users can’t end trips outside buffers*
• Routinely decreased buffer to improve compliance
• Staff observed better parking of Lime vehicles than other vendor that relied on education alone

*If users leave a Lime vehicle outside a buffer, their trip will end after 30 min ("convenience fee").
### Costs to Date / Lessons Learned

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Painting = ~190 DPZs</td>
<td>$3,850</td>
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<tr>
<td>Temp pavement marking tape</td>
<td>$3,460</td>
</tr>
<tr>
<td>Parking Zone decals (before signs)</td>
<td>$10,750</td>
</tr>
<tr>
<td>Signs (24”x30”, diamond grade sheeting)</td>
<td>$6,750</td>
</tr>
<tr>
<td>Telspar poles / bases</td>
<td>$13,400</td>
</tr>
<tr>
<td>Freestanding concrete sign bases</td>
<td>$9,840</td>
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<tr>
<td>Sign install/repair tools</td>
<td>$1,100</td>
</tr>
<tr>
<td>&quot;Rules for your Ride&quot; decal</td>
<td>$8,975</td>
</tr>
<tr>
<td><strong>Total Spent to Date</strong></td>
<td><strong>$58,125</strong></td>
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- Pilot phase – no investment in new concrete pads has left some DPZ holes in the pilot service area
- Considered in-street corrals
  - Lack staff and available contractors to install
  - Street maintenance concerns
- Limited sign maintenance so far
- Temp tape, pavement decals holds up in some areas and not in others – moisture, winter maintenance activities
- Paint holds up well in furniture zone except on new(er) concrete – sealant causes paint to flake
- Winter maintenance challenges

- Installed signs on existing poles where possible
- Non-reflective white traffic paint used on concrete, asphalt furniture zones
- Pavement markings tape used on specialty paver furniture zones
- Pavement decals are 12” x 36”
- Contractor painted boxes; staff installed everything else
Next Steps

- **July 2022 - moving from two vendor pilot to continuous service with one vendor**
  - More education to users
  - Continuous service vendor will still be required to deploy/rebalance to DPZs
  - Carrots/sticks, technology to get users to park in DPZs

- **Summer/Fall 2022**
  - Repaint/retape existing DPZs
  - Replace “Rules” decals
  - Contracting concrete DPZ pad construction to infill system gaps (using vendor data to confirm, expand staff’s pad list)
  - Convert some parking lot locations to new pad locations

- **2023 – expand service area + add more DPZs**