Personal Delivery Devices and E-scooter Mobility Hubs
Meeting Notes by Christina Howell & Sam Spearing

Thursday, June 17th 2021
Presenters: Karina Ricks (Director, Department of Mobility & Infrastructure), Erin Clark (Department of Mobility & Infrastructure), David Rodriguez (KiwiBot), Julian Echeverri (KiwiBot), Tosh Chambers (Department of Mobility & Infrastructure), Lolly Walsh (Department of Mobility & Infrastructure)

36 attendees total, didn't count for each separate presentation but there were more attending for the PDD/deliver robot portion of the meeting

1. **INTRODUCTION - Sam spearing**
   a. BDC overview
   b. Meeting recorded; live on Facebook

2. **PRESENTATION by DOMI / KiwiBot**
   a. Personal Delivery Device = sidewalk delivery robot
      i. PA law allows them and defined them as pedestrians so they will be operating in pedestrian areas
         1. Regulatory authority belongs to the state; limited oversight to municipalities
         2. Up to 6ft tall & 12mph allowed
      ii. Popularity and implementation following the demand for e-commerce/home delivery - has declined slightly as the pandemic has begun abating
         1. Amazon, Fedex, Uber Postmates now using them
   b. DOMI working with Knight Foundation to develop policy and deploy a pilot to have a real-life exercise
   c. City government can't engage in advocacy to stop/eliminate delivery robots in Harrisburg
      i. DOMI tactic is to be ready and figure out how to handle robots appropriately
      ii. Safety and accessibility - for both the humans and service - create strong local policies
      iii. City can control this pilot and figure out what does or doesn't work
      iv. Benefits - use cases targeted in this pilot - support local small businesses, let young people see this technology and build interest in it, and a social good such as distributing library books
   d. Why Bloomfield? is an age, income, household status diverse neighborhood
      i. Physical form - some wide sidewalks
      ii. Engaged community groups
      iii. Locally owned businesses that have expressed an interest in finding a more economical route to deliver their services

e. Why Kiwibot? - operates small, slow, remote operated delivery bots (human controlled)
    i. Collaborative, open, share data and allow people to see and understand the behind-the-scenes operations
f. Reviewed most asked questions from April community meeting and concerns most expressed
g. Engaged CMU and Portland State University to identify, compile, and analyze needed data to inform the future policies and procedures
h. Targeting how human users of these spaces interact with the robots
    i. Critical to understanding
    ii. City is allowed to regulate its public spaces, but not to regulate the robot operation and companies
    iii. Data will be collected using
        1. "Intercept surveys" - on-the-spot surveys with folks who have interacted with a robot
        2. Direct observations of robot and humans moving together
        3. Focus groups of users - older adults, people with disabilities, dogwalkers, etc - individual interviews and online surveys
        4. Business owner interviews to understand how it has worked for them
        5. Folks receiving delivery to understand how it works with them
i. DOMI met with emergency response providers
    i. All expressed that a pilot will be helpful to help them figure out how to respond
    ii. Protocols already in place
        1. Non emergency calls are automatically routed to 311 even if initial call is to 911
        2. Emergency calls go to 911
        3. Kiwibot damage
            a. Kiwibot will initially notify and consult with DOMI
            b. If DOMI decides damage was intentional, Kiwibot can file a police report
            c. If DOMI deems damage was caused unintentionally or in response to the robot creating a safety hazard, DOMI will not allow police report and Kiwibot will need to cover those damage costs
            d. PDD service will be halted if needed
    iii. Evaluation & Response - mid-pilot report and final report
    iv. Privacy - DOMI has already identified some issues in the state law/operating guide
        1. Kiwibot will not store any data about people
        2. Will not share data unless in the case of damage
j. Kiwibot specs
    i. 18"x18"12", up to 50lbs with cargo

        ii.   Only 1.5 mile radius

        iii.   10 maximum deployed total

3. Discussion/Questions
    a. Bloomfield-Garfield Corp - since the radius is 1.5miles and that does include Penn Ave, Garfield, does that mean Garfield residents and Penn Ave use the delivery robot service?
        i. Yes - won't be able to serve all businesses but open to a few Penn Ave businesses. Because of the area limits there will be a need to be a cutoff
        ii. BGC follow up - What is the current neighborhood line?
            1. Haven't set the area until the businesses are secured to participate. That will determine where the central hub for the devices lives and the area will radiate out from there
            2. Can make it very specific to how far the robots will travel - DOMI will decide the line around the area that will be served during the pilot
    b. Assemble - We work with kids and robotics, so are there opportunities for people from DOMI or Kiwibot to have a robot visit us to familiarize kids with these, and help them connect with the technology
        i. Yes, that's part of the purpose to connect with opportunities and expose youth to the technology. Kiwibot is very willing to do those demonstration
    c. Bloomfield resident - Accessibility of service as a goal - Could you talk more around the education piece around smart phone use?
        i. Yes - one of our hypothesis is that some people don't know how to access this service through an app, so part of this is that over the course of this pilot is to reach these groups and potentially offer the service to assisted or senior living residents to have things from locally owned pharmacies to get what they need. But this won't help them if it's not easy for them to use or they don't know how to use the app.
        ii. Follow up q - what does that process look like?
        iii. Working with Age Friendly Pittsburgh to understand what this will look like as well as users at the pharmacies. Want to go to where these user groups are to offer demonstrations or trainings on how to use this service. Have started those conversations with community partners
    d. When is pilot going to start?
        i. Very slow and steady launch of pilot
            1. Kiwibot come in end of June to do mapping - human traveling closely with robot to determine what routes are feasible for the devices
            2. Then demonstration events with the public and interact with the devices
            3. Mid to late July start deliveries with first small business
            4. Then start with 2-3 devices, then expand slowly if safety and accessibility are deemed appropriately
            5. Will go through January

e. Bloomfield resident - Will there be a point in the pilot when there is not a person walking with device and be completely autonomous
   i. Kiwibots have some autonomous capabilities but are operated by a remote operator at all times. They select a point ahead of them so that device knows what direction to head in and then the human does a lot of assistance to get robots through sidewalks and crosswalks, etc
      1. There are companies that say they have near full automation developed safely but that won't be the case for this pilot
   ii. BGC - In the last call it was brought up concerns around people getting caught in a crosswalk who use assistive mobility devices, so can you go over what people are supposed to do in these situations? A person stuck in the intersection is more of an emergency even if they aren't injured
      1. Issue with Starship Technology delivery robots that are principally autonomous in 2019 - device was there waiting for an operator to assist it. These devices will always be real-time piloted so they will be able to react instantly to those situations.
         a. If it does happen, hope that a person nearby would intervene because police can't get there quickly, but they need to call 911 because that does constitute a danger to public health. Pedestrian doesn't need to make that determination - can call 911 and they have a list of what constitutes an emergency or urgent and will address those as they would anything else
         b. Kiwibot will have human employees at the central physical hub in Bloomfield and they will be immediately aware if a situation like that were occur and be on site within minutes to address/fix the urgent issue
f. Will there be a way to communicate with the people operating the machines through voice or sound?
   i. Kiwibot has a speaker so that the operator could communicate with pedestrians. Devices are not listening so no way to communicate with operator
   ii. PennDOT regulations require that there be a phone number and identifying information on each device and that it must be a person answering the line when called
g. Will this program and the information learned used to create laws or just best practices?
   i. Our intent is that these will be used to create local ordinances, possibly to help make changes at the state level
   ii. Julian Echeverri of Kiwibot - traveling to Pittsburgh at the end of the month and happy to experience this community engagement
h. Will see him around with the bots and looking forward to answering questions

4. **Presentation by DOMI MovePGH/Mobility Hubs - Lolly walsh and Tosh Chambers of DOMI**
   a. New initiative related to new and shared transportation, called MovePGH
      i. Move Forward was the former name
      ii. Tosh - Policy specialist at DOMI
      iii. Lolly - Move PGH Program director
   b. DOMI is responsible for moving people and goods throughout the city
   c. Number of mobility complications for residents
      i. Lots of options but not available for everyone
      ii. Cars more of financial burden, avg cost $900/month
      iii. Way too many apps for various transportation modes - individual apps for each thing and they don't work together
         1. DOMI working towards a solution to simplify this experience for users
   d. DOMI in 2019 requested proposals from companies willing to collaborate on a single platform and create a seamless experience
      i. Ford-owned Spin proposed a collective, which is now called the Pittsburgh Mobility Collective, to bolster and support the Port Authority bus system, not a replacement, but the bus doesn't go everywhere a transit user wants
      ii. Trying to reduce the reliance on cars, and the 25% of City residents who don't have cars and to encourage less car usage/ownership to help improve congestion and air quality
   e. Pittsburgh Mobility Collective is all of these companies working together, but they will be under the umbrella of MOVE PGH, which is also the name of the upcoming single transit app
      i. Healthy Ride, PortAuthority, Spin, Transit app, Waze carpool, and Zipcar make up the collective
      ii. DOMI is the convener of all of these services and setting the rules for all these different companies - how often they need to be picked up, charged, where they go, how they operate
      iii. Options for mobility will include Scooters, carpool, transit, bike, car sharing, ridehail and each provides a unique service and different price points and ability to access different locations
   f. Mobility Hubs
      i. 50 around the city to start, each has a charging station and a transit info screen to show where and how much transit is nearby, will include all mobility modes (bike stations, buses, T stations, etc)
      ii. Even if you don't care about scooters, these screens will be very useful for users of mobility methods
      iii. At end of June/beginning of July will hold pop-up spots in a couple of places in Bloomfield to engage people who can't access zoom/facebook and ask questions/take comments
   g. Officially called Move PGH Hub

        i.   Currently one on Penn at (Mathilda?)
       ii.   Act as a location that is a reliable place to access scooters even if someone doesn't have internet access/smart phone
     iii.   Want to locate next to existing transit options - May expand to include bike share, moped, bike rack, benches and shelter for buses - central hub in neighborhood to access shared transportation
     iv.   Want the hub to be next to transit stops or stations and bike infrastructure to create a safe transportation space

h. Location options in Bloomfield on Liberty Ave
        i.   Number of limitation on where it can be located
            1. Non-residential areas
            2. Draw power from adjacent lamppost
            3. Have enough space, next to transit, in highly used/traveled area, preserve safe access to all private property and public infrastructure (not block anything or be too close to things)
            4. Preferably in a parking lane or sidewalk with more than 6feet of clearance once mobility hub is in - sidewalk would need to be more than 10 feet wide
       ii.   Can be piloted as temporary but would like to minimize that due to effort and cost
     iii.   Scooters are free-range - don't have to be parked at a hub, will incentivize parking at the station
     iv.   Met with BDC to understand neighborhood needs/priorities
      v.   Site #1
            1. Near Liberty/Pearl in front of Cricket wireless - several pros but a little close to loading and deliveries
     vi.   Site #2
            1. Liberty/Pearl in front of St. Joe's church - not replacing any parking at this location, seems central and doesn't block any business, and this intersection has the highest usage transit stops on Liberty
     vii.   Site #3
            1. Liberty/Edmond in front of Bloomfield Dental - doesn't take parking but has slightly less transit stop usage than the first two
    viii.   Survey available on Movepgh to vote for one of the locations
            1. https://engage.pittsburgh.gov/move-pgh/bloomfield-move-pgh

5. Questions
   a. Bloomfield resident - it's disappointing that this seems to operate from an acceptance that there are places where the bus won't go- I'd like to hear why DOMI is prioritizing a project like this over expanding that access.
        i.   We are looking at Move PGH as only one project that we can put in place without much investment with city dollars - only staff hours using tax dollars with this project - funds coming from Spin and foundations.

         Looking at this as a low hanging fruit that we can get done quickly to start improving transportation access

    ii.   We want more funding for transit

b.   Bloomfield resident - When you're talking about free-range scooters - Do you have to return to a docking station or can you leave it anywhere where someone can trip over it

    i.   Don't have to return to docking station, and in certain areas (dense and commercial areas) can and will force people to go to one of those stations to return the scooter. Will not be able to end trip in one of those areas unless you return to the docking station

    ii.   When you end the trip if not using a docking station you have to take and submit a picture to the company and fines will be levied against the user

    iii.   Egregious leaving of a scooter somewhere will result in being banned from the service and fines

c.   What have you learned from other cities? Chicago just published results on their second pilot, interesting results on placing hubs in low access/equity target areas

    i.   There have been plenty of other cities that have tried this out. Learned that more scooter companies makes things more complicated, less allows for more oversight

    ii.   Equity zones in other cities being put in place here. Split up the city into 16 different zones, taken equity index information from the Port authority and looked at demographic info to decide how many scooters go in each zone, and that's how they're deciding how many scooters go to those areas to be sure scooter companies are putting scooters there

    iii.   Introducing 150 parking corrals in addition to hubs to have lots of parking spots to allow leaving scooters somewhere safe for sidewalk/road users

    iv.   Have a lot of leverage with this company and the group partnership to dictate where they go and how many scooters go there

d.   Seeing more scooter rental company scooters as well as personal scooters for sale at Target - are you seeing an increase in private/rented usage?

    i.   Yes, seeing increase in single use electric options

    ii.   E-scooters currently unregulated at the state and the pilot will inform how they should be managed as well as statewide policy

    iii.   Senator Costa and another senator released a memo about their research on scooter regulations

Chat Log:

From Christina Howell, BDC (she/her) to Everyone:
        DOMI = Dept. of Mobility & Infrastructure

From Sam Spearing (he/him) to Everyone:
        Hey folks, if you'd like to view the slides you should be able to do so here:
https://bloomfieldpgh.org/wp-content/uploads/2021/06/Bloomfield-PDD-Pilot-Meeting-6.16.2021-1.pdf

From Mel Packer to Everyone:
        It's not a matter of "if" mass numbers of these come to our cities, it's "when".

From Nina Barbuto to Everyone:
        I have question on education opportunities abd the kiwibot for kids.

From Maura Bainbridge to Everyone:
        can you talk more about the smart phone educational piece?

From Nina Gibbs to Everyone:
        lol 😂 not my intention but Ill def do it hahah I just wanted to know if it was automatically 1.5 mile radius

From Nina Barbuto to Everyone:
        thank you

From Erin Clark | DOMI (she/her) to Everyone:
        erin.clark@pittsburghpa.gov

From Julia Mericle to Everyone:
        When is this pilot set to start?

From Sam Spearing (he/him) to Everyone:
        Our contact info: Christina Howell, Executive Director
        christina@bloomfieldpgh.org

        Sam Spearing, Housing & Mobility Coordinator
        sam@bloomfieldpgh.org

        Call us at 412-681-8800

From Nina Gibbs to Everyone:

one more question. will this program and the information learned be used to create laws or just best practices around these devices in the city limits?

From Marcelle Pierson to Everyone:
Thanks!

From Nina Gibbs to Everyone:
thank you!

From Sam Spearing (he/him) to Everyone:
https://www.move412.com/

From Christina Howell, BDC (she/her) to Everyone:
Bloomfield, Garfield, Lawrenceville residents! Your community orgs (LU, BGC, BDC) have a grant fund for urgent resident needs. Car breaks down and can't get to work and can't afford to fix it? We can grant $500 within a week towards your costs. Please send an email to Sam for Bloomfield, and any email address you find one BGC & LU's websites

From Christina Howell, BDC (she/her) to Everyone:
Lolly I know you're concerned with the question/discussion part of your section - 38 minutes left in this portion of the meeting

From Nina Gibbs to Everyone:
since there is a hub on Penn ave we would really like to have you come to a neighborhood meeting for Penn ave/Garfield.

From Lolly Walsh to Everyone:
Thanks, Christina!

From Lolly Walsh to Everyone:
Nina — Definitely! My email is lw@move-pgh.com so we can set it up

From Sam Spearing (he/him) to Everyone:
EngagePGH MovePGH
https://engage.pittsburghpa.gov/move-pgh

EngagePGH Bloomfield
https://engage.pittsburghpa.gov/move-pgh/bloomfield-move-pgh

From Maura Bainbridge to Everyone:
@Sam- I have to hop off, but will catch up on notes: I wanted to add, it's disappointing that this seems to operate from an acceptance that there are places where the bus won't go- I'd like to hear why DOMI is prioritizing a project like this over expanding that access.

From Sam Spearing (he/him) to Everyone:
    Just to follow up on the transit question/comment: Port Authority is in the midst of major planning for the future! You can check out some of what they've hear already here: https://nextransit.network/

From Sam Spearing (he/him) to Everyone:
    EngagePGH MovePGH
    https://engage.pittsburghpa.gov/move-pgh

    EngagePGH Bloomfield
    https://engage.pittsburghpa.gov/move-pgh/bloomfield-move-pgh

From Sam Spearing (he/him) to Everyone:
    BDC Contact Information
    Christina Howell, Executive Director
    christina@bloomfieldpgh.org

    Sam Spearing, Housing & Mobility Coordinator
    sam@bloomfieldpgh.org

    Call us at 412-681-8800

From Nina Gibbs to Everyone:
    thank you everyone!

From Lolly Walsh to Everyone:
    lw@move-pgh.com

From Karina Ricks to Everyone:
    thank you all!

From Xander Orenstein (they/them) to Everyone:
    Thank you for a great meeting

From Nikolas Martelaro to Everyone:
    Bye all!