Pedestrian Accessibility on Fixed Route Service (PAFRS)

Final Summary

December 2014
The Eastgate Regional Council of Governments is a multipurpose Regional Council of Governments for Ashtabula, Mahoning and Trumbull Counties, as established by Section 167.01 of the Ohio Revised Code. Eastgate is the agency designated or recognized to perform the following functions:

- Serve as the Metropolitan Planning Organization (MPO) in Mahoning and Trumbull Counties, with responsibility for the comprehensive, coordinated and continuous planning for highways, public transit and other transportation modes as defined in Moving Ahead for Progress in the 21st Century (MAP-21) legislation.
- Perform continuous water quality planning functions in cooperation with Ohio and U.S. EPA.
- Provide planning to meet air quality requirements under MAP-21 and the Clean Air Act Amendments of 1990.
- Administration of the Economic Development District Program.
- Administration of the Local Development District of the Appalachian Regional Commission.
- Administration of the State Capital Improvement Program for the District 6 Public Works Integrating Committee.
- Administer the area clearinghouse function, which includes providing local government with the opportunity to review a wide variety of local or state applications for federal funds.
- Administration of the regional Rideshare Program for Ashtabula, Mahoning and Trumbull Counties.
- Conduct demographic, economic and land use research.
- At General Policy Board direction, provide planning assistance to local governments that comprise the Eastgate planning area.
- Administration of the Clean Ohio Conservation & Revitalization Funds.

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Pedestrian Accessibility on Fixed Route Service (PAFRS)

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Pedestrian Accessibility on Fixed Route Service (PAFRS) Summary

Background

A pedestrian survey of sidewalks, crosswalks and ADA ramps was conducted by Eastgate in 2011. Eastgate updated and expanded this data in December 2014 by using aerial photography, GIS and local knowledge. This data was used as the basis for an analysis of pedestrian accessibility to transit services. An interactive web map was produced which can assist our members in identifying gaps for pedestrian access within a community. Identifying gaps in a transportation network correlate with future funding grants to promote sustainable healthy communities through walkable, accessible, and bikeable communities.

Eastgate recognizes the importance of multi-model connectivity to different modes of transportation; therefore we decided to analyze pedestrian access to existing Fixed Route and Special Service Transportation (SST) transit services in Mahoning and Trumbull Counties.

The SST service is a complementary paratransit service that is available to individuals who have registered as ADA eligible and/or senior citizens 65 years and older. The SST service area is a 3/4 mile boundary around a fixed route service line. The 3/4 of a mile distance around a bus route is considered a walkable distance, so our analysis evaluated whether pedestrians (and particularly pedestrians with disabilities) can easily navigate to a particular bus route.

Web Maps

To help make this determination, Eastgate created two web maps. The first map is for public use and shows the locations of bus routes, the availability of sidewalks (whether there are sidewalks on one, two or no sides of the road), car-free paths (known as pedestrian and bike paths), ADA ramps and crosswalks. This can help the public select their bus routes and their walking travel path. This map can help local officials identify gaps and program future funding for sidewalks, ADA ramps, and striping crosswalks.

The map layers can be toggled on and off, giving users the ability to see the connectivity of only the bus routes they are interested in. Several basemaps are available and show a combination of street layers, topography and aerial photography. The aerial photography is particular helpful in seeing exactly where sidewalks and crosswalks are located. The web map includes a sketch tool which can be used to draw a preferred walking path. The screen can also be printed as a PDF map.

The second map is for Eastgate and WRTA use and is identical to the first, with the inclusion of WRTA service boundaries and 3/4 of a mile buffers for each route. This will help in evaluating whether a SST rider lives within a walkable radius of a particular bus route.

The link to the public interactive web mapping is located on Eastgate’s homepage.
Statistics

Statistics were generated on the availability of sidewalks, crosswalks and ADA ramps by bus route.

Table 1 identifies how many linear miles of roadway within 3/4 mile of each bus route have sidewalks. Table 2 identifies how many intersections within 3/4 mile of each bus route have ADA ramps or crosswalks.

Pedestrian access

Pedestrian access to fixed route was analyzed for sixteen routes and the 3/4 mile boundary for the SST service. While pedestrian have access to all sixteen routes, some areas within the 3/4 mile boundary reveal urban and suburban housing densities without sidewalks.

The PAFRS summary data can be interpreted in different ways. For the purpose of analyzing pedestrian access to transit, our focus will be concentrated on the pedestrian gaps in this transportation network. These connectivity gaps to walkable communities developed over time because of housing and development trends.

The data contained in Table 1 show routes that have no sidewalks, sidewalks on one side of the road, sidewalks on two sides of the road, and areas that contain a pedestrian and bike path.

Within the SST area as a whole, the analysis shows that 559 linear miles around transit do not have sidewalks. Sidewalks are available on 108 miles of roadway on one side of the road, and 516 miles of sidewalks are located on two sides of the road. The data analysis indicated that 1 mile of pedestrian and bike path was located on the 36-Glenwood route that travels by Millcreek MetroParks.

The second set of tables represent the number of intersections with ADA ramps (with visible truncated domes) and crosswalks on the fixed route service and the 3/4 mile boundary. Currently, there are 4503 intersections that do not have ADA ramps and crosswalks around transit. There are 307 intersections that have ramps only, and 436 intersections that have ramps and crosswalks.

Disclaimer

It is important to note that because the PAFRS analysis was conducted using 2013 aerial photography the values are estimations. Due to imagery resolution of the aerial photography, only relatively new and intact truncated domes could be seen and used to identify the ADA ramps. As a result of this, curb cuts without truncated domes were not counted as part of the analysis. When analyzing crosswalks, only crosswalks that were clearly painted were included in the calculations. In addition, highways were excluded from the analysis.
# Pedestrian Accessibility to WRTA Fixed Route and Special Service Transportation (SST)

## Miles of Sidewalks within 0.75mi of WRTA Fixed Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>31 - Elm</th>
<th>31 - Oak</th>
<th>32 - Mosier</th>
<th>32 - Wilson</th>
<th>33 - Buckeye Struthers</th>
<th>33 - Struthers Buckeye</th>
<th>33 - Fifth</th>
<th>34 - Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sidewalks</td>
<td>30 28%</td>
<td>49 34%</td>
<td>43 36%</td>
<td>34 28%</td>
<td>60 28%</td>
<td>62 29%</td>
<td>34 31%</td>
<td>36 30%</td>
</tr>
<tr>
<td>Sidewalks on 1 Side</td>
<td>14 13%</td>
<td>22 15%</td>
<td>17 14%</td>
<td>18 15%</td>
<td>29 14%</td>
<td>29 14%</td>
<td>13 11%</td>
<td>15 13%</td>
</tr>
<tr>
<td>Sidewalks on 2 Sides</td>
<td>65 60%</td>
<td>75 51%</td>
<td>58 49%</td>
<td>67 57%</td>
<td>123 58%</td>
<td>123 58%</td>
<td>64 58%</td>
<td>67 57%</td>
</tr>
<tr>
<td>Car Free Paths</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>109 100%</td>
<td>146 100%</td>
<td>118 100%</td>
<td>119 100%</td>
<td>213 100%</td>
<td>214 100%</td>
<td>111 100%</td>
<td>118 100%</td>
</tr>
</tbody>
</table>

## Number of Intersections with ADA Ramps (with Truncated Domes) and Crosswalks within 0.75mi of WRTA Fixed Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>35 - Cornersburg</th>
<th>35 - South</th>
<th>36 - Glenwood</th>
<th>36 - McGuffey</th>
<th>38 - Belmont</th>
<th>38 - Market</th>
<th>39 - Warren</th>
<th>40 - Austintown</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sidewalks</td>
<td>92 45%</td>
<td>63 31%</td>
<td>70 33%</td>
<td>56 44%</td>
<td>48 38%</td>
<td>44 24%</td>
<td>124 38%</td>
<td>51 35%</td>
</tr>
<tr>
<td>Sidewalks on 1 Side</td>
<td>19 9%</td>
<td>26 13%</td>
<td>21 10%</td>
<td>13 10%</td>
<td>14 12%</td>
<td>23 12%</td>
<td>29 9%</td>
<td>16 11%</td>
</tr>
<tr>
<td>Sidewalks on 2 Sides</td>
<td>92 45%</td>
<td>114 56%</td>
<td>119 56%</td>
<td>58 45%</td>
<td>62 50%</td>
<td>119 64%</td>
<td>173 53%</td>
<td>77 53%</td>
</tr>
<tr>
<td>Car Free Paths</td>
<td>0 0%</td>
<td>0 0%</td>
<td>1 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>203 100%</td>
<td>202 100%</td>
<td>211 100%</td>
<td>127 100%</td>
<td>125 100%</td>
<td>186 100%</td>
<td>326 100%</td>
<td>144 100%</td>
</tr>
</tbody>
</table>

*These values are estimations. Due to aerial image resolution, only well painted crosswalks and relatively new truncated domes could be seen. Highways were excluded from the calculations. Values have been rounded to the nearest whole number.*
**FIXED ROUTE SYSTEM**

- **FIXED BUS ROUTE**
  - 31-Oak
  - 31-Elm (Logan)
  - 32-Mosier
  - 32-Wilson
  - 33-Fifth
  - 33-Buckeye Struthers
  - 33-Struthers Buckeye
  - 34-Steel
  - 35-South
  - 35-Cornersburg
  - 36-McGuffey
  - 36-Glenwood
  - 37-Albert
  - 38-Market
  - 38-Belmont
  - 39-Warren Express
  - 40-Austintown
  - 55-Austintown Loop

**WRTA SST AREA**

Source: Transit Development Program
May 2013