Introduction to the Walkway Network

GIS Jammers
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“Network 101”
What can you do with a network?

- Analyze network connectivity - can you get there from here?
- Combine with demographic data to analyze people’s access to destinations and services
- Evaluate the contribution of proposed improvements
- Generate real-time services like best routing
Dynamically-generated walking route on Google maps

Google maps

Walking directions to Roosevelt High School

1. Head northeast on N Charleston Ave toward N Lombard St
2. Turn right onto N Lombard St
3. Slight left to stay on N Lombard St
4. Turn left onto N Mohawk Ave
5. Turn right onto N Central St
6. Turn left onto N Ida Ave
   Destination will be on the left
Roosevelt High School
Portland, Oregon
East Portland in Motion
Active transportation implementation strategy
Street centerline network vs. the Walkway Network
Elements of the Walkway Network
“Weighting” the network

How far out of direction would you go to avoid walking on this segment?
GIS Jammers have created multiple tools and apps.

They have solved many technical challenges.

Active users will help drive future development of tools and apps.
The Walkway Generator

The Node Fixer

The Weighter

The Analysis Tool
Results from Walkway Network analysis can be visualized to show the effects of changes to the network.
The tools can be used to quickly tally what routes every resident might use to walk to the nearest grocery store.
Improving one crosswalk can change people’s “effective distance” to the nearest grocery store.
The effect can be visualized as a “surface of difference”
The visualization shows the effect of improving one crosswalk can extend a long way
Active users will help drive future development of tools and apps.

Oregon Walks can use these tools and apps to engage their membership in creating an accurate walkway network.

An accurate network can be used to make the case for improvements and generate real-time services.