

## Livingston County Brownbag Placemaking with Greenways and Non-motorized Facilities



Wednesday, May 23, 2012  
Noon City Hall  
Lindhout Associates Architects

Norman Cox, LLA, ASLA

The Greenway Collaborative, Inc.  
Ann Arbor, Michigan



## Rethinking Streets

- People have come to view most streets as having a single purpose – to move cars and trucks
- Lost is the historical context of streets as a public forum
- People spend more recreation time on streets than in parks
- Streets define a community's character



A street encompasses the road, the landscape, the sidewalks, the architecture and the people.

Streets constitute a community's single most important public space in terms of size, visibility and use



## Creating Growth in the New Economy

- MSU's Land Policy Institute's Growth Study Found that some segments of the population are better than others when it comes to attracting economic development
  - Educated youth
  - High energy immigrants
  - Educated senior citizens
  - Entrepreneurs



Talented, well-educated people choose location first, then look for a job

Providing a high quality of life is the key to attracting these folks




## The Importance of Place

What do these job creators want?

- Vibrant downtowns
- Green infrastructure
- Pedestrian and bicycle linkages
- Transit
- Diversity of housing options
- Recreation amenities such as water, hunting and fishing
- Creative entrepreneurial environment



This is the new board room




## Bringing About a Cultural Shift



 <p><b>Public Policies</b></p> <ul style="list-style-type: none"> <li>• Planning &amp; Zoning</li> <li>• Design Standards</li> <li>• Performance Measures</li> <li>• Decision Making Process</li> <li>• Universal Design</li> <li>• Public Transit</li> <li>• School Transportation</li> <li>• Maintenance</li> <li>• Enforcement</li> </ul>	 <p><b>Physical Environment</b></p> <ul style="list-style-type: none"> <li>• Urban Form</li> <li>• Public R.O.W.</li> <li>• Public and Private Spaces</li> <li>• Off-Road Trails</li> <li>• Wayfinding</li> <li>• Bicycle, Pedestrian and Transit Support Facilities</li> <li>• Transit Operations</li> <li>• Environmental and Art Enhancements</li> </ul>	 <p><b>Community Programs</b></p> <ul style="list-style-type: none"> <li>• Ongoing Assessment</li> <li>• Resources</li> <li>• Campaigns</li> <li>• Marketing/ Outreach</li> <li>• Special Events</li> <li>• Targeted Encouragement</li> <li>• School Age</li> <li>• Safety Education</li> </ul>	 <p><b>Quality of Life Metrics</b></p> <ul style="list-style-type: none"> <li>• Increased Activity Levels</li> <li>• Crash Reduction</li> <li>• Improved Personal Safety + Experience</li> <li>• Enhanced Health and Wellbeing</li> <li>• Energy Savings</li> <li>• Pollution Reduction</li> <li>• Sense of Place</li> <li>• Robust Economy</li> <li>• Increase Ridership</li> </ul>
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## Public Policies

- Planning & Zoning
- Design Standards
- Performance Measures
- Decision Making Process
- Universal Design
- Public Transit
- School Transportation
- Maintenance
- Enforcement



How does a community strategically position itself to promote walking and bicycling in its long-term planning and day-to-day operations?

Complete streets do not fall under the domain of one person, one department or even one agency.



## Physical Environment

- Urban Form
- Public R.O.W.
- Public Spaces
- Off-Road Trails
- Wayfinding
- Bicycle, Pedestrian and Transit Support Facilities
- Transit Operations
- Environmental and Art Enhancements




How safe, comfortable and convenient is it to walk, bike and take transit throughout the city and to surrounding destinations?

The physical environment says a lot about where bicycles and pedestrians stand on a community's priority list

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## Community Programs

- Ongoing Assessment
- Resources
- Campaigns
- Marketing / Outreach
- Special Events
- Targeted Encouragement
- School Age
- Safety Education



How do we break out of deeply ingrained travel patterns to bring about a fundamental cultural shift?

Choosing to walk, bike or take transit should not be a brave choice, but an ordinary, everyday thing

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## Quality of Life Metrics

- Increased Activity Levels
- Crash Reduction
- Improved Personal Safety
- Enhanced Health and Wellbeing
- Energy Savings
- Pollution Reduction
- Sense of Place
- Robust Economy
- Increased Ridership




The public policies, physical environment and community programs (or lack thereof) come together to influence the quality of life.

Positively influencing the quality of life for all residents is the end game.

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## Placemaking with Greenways and Non-motorized Facilities

### Understanding The Users



Key Issues for Pedestrians and Bicyclists

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## No Such Thing as a Typical Pedestrian or Bicyclist

Wide Range of:

- Ages
- Education
- Skills
- Physical abilities
- Travel speeds
- Vehicle characteristics (for bicyclists and mobility assistance devices)




It is challenging to plan and design for the variety of non-motorized user types

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## Importance of Direct Travel

- Most walking trips for personal business are about ¼ to ½ mile (5 to 10 minute walk)
- Think of out of direction travel as a percentage of the total trip distance and walking time
- Thus a 10% detour for a ½ mile walking trip is 264' (less than a city block)



Signs and barriers have little impact on changing people's behaviors

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### Pedestrian Level of Service

**Key factors:**

- Presence of sidewalk (on both sides of street)
- Degree of separation from motor vehicles
- Vehicle volume
- Vehicle speed
- Percent of truck traffic
- Directness of route

Pedestrians and bicyclists do not always mix well either

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### Different Types of Bicyclists

- Strong & Fearless
  - <1%
  - Always Biking
  - Any Road Regardless of Condition
- Enthused & Confident
  - 7%
  - Frequently Bike
  - Like Designated Facilities Such As Bike Lanes
- Interested but Concerned
  - 60%
  - Occasional Rider
  - Local Roads and Trails
- No Way, No How
  - 33%

#### Bicycle Types

Not Really This Clear Cut. There Is Movement Between the Groups.

The Greenway Collaborative, Inc. Developed by Roger Geller, Bicycle Coordinator, Portland Office of Transportation.

### Options for Travel Along Streets

**Bike Lanes & Sidewalks**

**Roadside Pathways**

**Paved Shoulders**

**Shared Roadways**

- Bike Routes
- Neighborhood Connectors
- Shared-Use Arrows
- Shared space

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### Pedestrian/Bicycle Focused Corridors

**Typical Elements:**

- Bike lanes & Sidewalks
- Crossing islands
- Planted medians
- Street trees
- 4 to 3 lane conversions
- Narrow travel lanes

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### Pedestrian/Bicycle Focused Corridors

- Minimize speed differential between motorists and bicyclists
- Design roadway such that motorists naturally drive 35 MPH or less
- Utilize traffic calming measures that also improve safety and aesthetics

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### Neighborhood Connectors

**Common Elements:**

- Mini roundabouts
- Curb extensions
- Wayfinding
- Street trees
- Restriction of through motor vehicle travel

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### Neighborhood Connectors

- Focus on creating a very bicycle and pedestrian friendly environment
- Often an alternative to an auto focused corridor
- Frequently a combination of local roads and short off-road trails
- May incorporate "green street" elements

Greenway design elements include:
 

- Greenway design elements include: limited residential use with the intent to bring forward alternative, although not necessarily the use of parks.
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### Neighborhood Connectors

- Use to link parks, schools and other key community resources
- Tie into transit stops
- Comfortable for an 11 year old to bike by themselves

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### Neighborhood Greenways

- Neighborhood Connector Plus
  - Rain gardens
  - Permeable pavements
  - Native plantings
- Can be avant-garde or traditional in appearance

Many design elements serve multiple functions; making the street more pedestrian and/or bicycle friendly while introducing sustainable elements

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### Additional Neighborhood Greenways Elements

- Art – linear art park
- Community gardens
- Bicycle parking
- Pedestrian amenities
- Make It "Special"

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### Developing a Neighborhood Connector

- Start with a typical local roadway

Evolution of a neighborhood connector

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### Developing a Neighborhood Connector

- Mark Bike Routes
  - Include destinations and distances
- Put in basic pedestrian facilities

Evolution of a neighborhood connector

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### Developing a Neighborhood Connector

- Add traffic calming
  - Mini-roundabouts
  - Curb extensions
  - Medians




Evolution of a neighborhood connector

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### Developing a Neighborhood Connector

- Add sustainable street elements
  - Permeable pavements
  - Rain gardens in the curb extensions





Evolution of a neighborhood connector

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### Neighborhood Connectors

- Provide good crosswalks at major roadway intersections
- Great for Safe Routes to Schools
- Good wayfinding signage is critical
- Some routes may be enhanced to become urban greenways

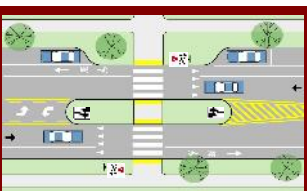



Geir Community Center 1.5  
Lansing River Trail 3.5

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### Crossing Islands


- Ability to cross the street in two stages
- Only requires a gap in traffic from one direction at a time
- Zig-Zag Crossing Provide Room for Multiple Bicycles, Trailers and Tandems
- Lighting is key

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### Active Transportation Hubs

- Information Kiosk
  - Local Walking Map
  - Bicycling Map of Area
  - Events
  - General Tourism Information
- Water Fountain
- Air Pump
- Bike Parking
- Bench
- Trash/Recycle
- Lighting



Support and encourage active transportation options  
Could coordinate with bike rental / bike sharing locations

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### Questions or Comments



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