Rachel Ley

Department of Architecture
College of Architecture & Planning
Ball State University

Architectural Thesis
Spring 2006

WELLNESS and the Built Environment
A special thanks to...

- Andrew Seager, Design studio professor [Professor of Architecture]

- Arijit Sen, Thesis advisor [Assistant Professor of Architecture]

- Amy Brown, Urban Planner [Assistant Professor of Urban Planning]

- My family who have encouraged me to go for my dreams and gave me the support I needed.

- Friends and fellow students and peers
I first focused on the physical wellness of people in general. I wanted to know if design played a role in the recent dramatic increases in United States disease and obesity rates. Through further investigation, I realized that the problem wasn’t just about the physical wellness, but about people’s overall well-being in social, emotional, physical, and psychological dimensions. To achieve a level of optimal wellbeing, the answer lies in an urban scale. At the urban scale, solutions are not just about one individual or one part of the built environment; the solution is in the relationships of parts (housing, employment, recreation, etc...) and the opportunities for people to have choices.

“People need to have healthy lifestyles but when everything in the environment works against a person; it is much harder to do”
(RWJF President and CEO Risa Lavizzo-Mourey, M.D., M.B.A.).
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Thesis - Spring 2006
What is Wellness?

Wellness is defined as having a well-balanced lifestyle of physical, psychological, spiritual, and social aspects of the mind, body, and spirit. Providing people with a place where they can live a balanced lifestyle of well-being can improve the quality of life.

Health Determinants:
- Gender & Age
- Genetics
- Income & Social Status
- Education
- Employment & Working Conditions
- Physical Environment
- Early Childhood Experiences
- Health Services
- Culture
- Personal Health Practices & Coping Strategies

Social Determinants of Health:
- Early life
- Education
- Employment/Working Conditions
- Food Security
- Health Services
- Housing
- Income/Income Distribution
- Social Exclusion
- Social Safety Net
- Unemployment

What is the Built Environment?

The built environment is defined as the designated use, layout, and design of a community’s physical structures including housing, businesses, transportation systems, and recreational resources affecting patterns of living (behaviors) that, in turn, influence health.
- Lack of sidewalks.
- Isolated housing developments from shopping and business centers.
- Busy roads that prevent children from walking and riding their bicycles to school.
- Absence of anywhere to walk to.
- Safe places for children to play.
- Lack of large recreational spaces.
- Zoning laws separate different uses.

- Blocks are too long.
- Street pavements are too wide.
- Numerous cul-de-sacs.
- Costly improvements to roads & public services.
- Congestion & air pollution (dependence on automobiles).
- Rolled curbs with wide radius at corners allow vehicles to maintain high speeds.
I am accepting AIA’s 10 Principles for Livable Communities with some modifications and several additions to the principles (To see the original document, go to www.aia.org).

1. Design on a Human Scale
Compact, pedestrian-friendly communities allow residents to walk to shops, services, cultural resources, and jobs and can reduce traffic congestion and benefit people’s health.

2. Provide Choices
People want variety in housing, shopping, recreation, transportation, and employment. Variety creates lively neighborhoods and accommodates residents in different stages of their lives. Provide opportunities to stimulate and motivate a person.

3. Vary Transportation Options
Giving people the option of walking, biking and using public transit, in addition to driving, reduces traffic congestion, protects the environment and encourages physical activity. Having connectivity establishes maximum and minimum intervals between connections and arterials. Connectivity promotes strong relationships and proximity between health and urban forms. Streets, pedestrian paths, and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.

4. Encourage Mixed-Use Development
Integrating different land uses and varied building types creates vibrant, pedestrian-friendly and diverse communities.

5. Build Vibrant Public Spaces
Citizens need welcoming, well-defined public places to stimulate socialization, face-to-face interaction, collectively celebrate and mourn, encourage civic participation, admire public art, and gather for public events. Public spaces should have a central core, the area of greatest concentration and density of occupation, intensity, or organization and strength and homogeneity of culture traits. Also, it maybe the area of closest congruence with the specific environmental image and needs of the community and also contain special services needed.
6. Create a Neighborhood Identity
A "sense of place" gives neighborhoods a unique character, enhances the walking environment, and creates pride in the community. Visibility establishes cues which can be identified especially through homogeneity. People have a sense of distinct boundaries and have the same identity or image (Rapoport). This also establishes a sense of home range for people. Establish a self-government. Residents maintain all agricultural lands, own the major building complexes and apartment units, and control future development themselves through their homeowners' association.

7. Conserve Landscapes/Connection to Indoor-outdoor
Open space, farms, and wildlife habitat are essential for environmental, recreational, and cultural reasons. The access and interaction of outdoor spaces, both private and public, creates a more uplifting and desirable environment. A connection between indoors/outdoors can be achieved on many different levels for example through daylighting, balconies, and gardens. Wherever possible, the natural terrain, drainage and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.

8. Protect Environmental Resources
A well-designed balance of nature and development preserves natural systems, protects waterways from pollution, reduces air pollution, and protects property values.

9. Design Matters
Design excellence is the foundation of successful and healthy communities. All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.

10. Prolong Health & Wellness
Having a balanced lifestyle of physical, spiritual, social, and psychological dimensions of the mind, body, and soul can offer a person a higher quality of life.
To establish a community that responds to the health and well-being of an individual and/or a group of people. To promote and provide an environment for a healthy community and lifestyle.

"Health promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. Optimal health is defined as a balance of physical, emotional, social, spiritual, and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior and create environments that support good health practices. Of the three, supportive environments will probably have the greatest impact in producing lasting change." (American Journal of Health Promotion, 1989,3,3,5)

“Design needs to reflect people, not vehicles.”
Community

Housing

Greenways

Site

Road Networks

Commercial

~More connections between 2 points will allow a traveler to have more options and a direct route.

Choose a site that offers a wide variety of features, opportunities, and connections to existing networks.

People walk around the bus stops instead of walking through them even though it's a shorter distance.

- Change in materials distinguishes functions
  - Pattern of brick - creates a flow

~A band of concrete separates the 2 zones.

People sat on the laughter even though they are not waiting for the bus.
The site borders on the city limits of Noblesville and Carmel, Indiana. It is located south of 146th St. with River Ave. running north/south through the site. The White River borders on the east end. High-income and middle-income housing border the south and southwest ends of the site. On the west end of the site is a distinctive tree line.

The site was selected because of the following:

- Proximity of major two growing cities, Carmel and Noblesville.
- Prairie View Elementary School.
- White River.
- Easy access to major arteres: State Highway 37 and Interstate 69.
- Opportunity to control growth and development in the area.
- My familiarity with the area.
View looking Southwest from River Ave.

View looking West from River Ave.

View looking North from Prairie View Elementary School.
Site Analysis

Important Site Characteristics

Potential Liabilities

Potential Opportunities
Commercial Concept - A commercial core is approximately 1/4th of a mile from every house. (the farthest distance a person is usually wanting to walk.)
~Direct
  - Connects community squares.
  - Along major arteries.

~Indirect
  - Leisurely.
  - Along river & parks.

~Open
  - Recreational.
  - In-between housing & along edges.

~Lake
  - Connects to nature.
  - Pedestrian bridge.

~Connects to park.
~Formal streetscapes.
~Natural.
~Informal streetscapes.
~Large & small spaces.
~Variety of housing.
~Nicer views.

~High Density
  - Closer to community square.
  - Includes assisted living.

~Low Density
  - Single-family housing.

~Architectural Scales & Types
  - Variety
~One community center located in the heart of the site.

~Three neighborhood centers located 1/4 of a mile apart.

~Includes regional & local commercial.

~All commercial centers can be reached by the direct greenways.
~Includes two existing streets.
~Directional flow to elementary school.
~One artery ends at the park in a round-a-bout.
~Mass transit follows the arteries.

~When two secondary streets intersect, a round-a-bout occurs.
Residential streetscapes.

Alleys allow access to residential garages.

Parking lots are provided for high density housing.
Change color & pattern on street to make drivers aware of pedestrians.

Signage.
Secondary Streets

Keep shrubs & trees at low heights on median to provide maximum visibility.

A median gives a relief for pedestrians between directions of traffic.
Parallel parking on streets for residents & visitors.

One-way streets
Two-way streets.
Yards can become private with fences or shrubs.

20'-0" to 28'-0"
Private

22'-0"

3'-0"

12'-0"
Semi-private
25 Types of Housing

Single-family housing.

Garage is in backyard if needed.

Covered front porch.

Row-housing.

Community playground.

Lots of windows.
Human scale buildings.

Banners.

Covered porches.

Provide shade with trees.

Light the streets & sidewalks.

Wide sidewalks.

Separate uses but keep visibility.
Provide open spaces that allow for large functions & events.

Amphitheatre

Provide open spaces for children.

Outdoor dining.
Covered shelter-protect people from the elements.

Trash receptacle.

Provide shade.

Lighting for security.

Bike storage.

Water fountain-ADA compliant.

Steam mist-keep people cooled off on hot days-have on path so it can be used without actually having to stop.
Incorporate areas for people to interact with water.

Provide spaces where ceremonies & celebrations can be performed without being interrupted.

Water fountain creates white noise.

Wide paths.
When I began my thesis I thought it would be a building. I would have never imagined that I would be designing a neighborhood. Thesis pulled me into a direction that I had never explored or even thought I would care about. It opened my eyes to the problems that we are facing, and as architects we need to step in and make a difference.

In the final few days left of my 5-year long journey of architecture school, I feel a great sense of pride. Not only is it a pride in what I have accomplished, but a pride in knowing that I can make a difference in people’s lives. I have realized that architecture is not about just making a building look pretty; architecture is about creating spaces and relationships that improve and enhance opportunities on how people move and operate each day. From day one, I have always believed in this quote by Winston Churchill:

“We shape our buildings; thereafter they shape us.”


Bikeability Checklist

How bikeable is your community?

Riding a bike is fun!

Bicycling is a great way to get around and to get your daily dose of physical activity. It’s good for the environment, and it can save you money. No wonder many communities are encouraging people to ride their bikes more often!

Can you get to where you want to go by bike?

Some communities are more bikeable than others: how does yours rate? Read over the questions in this checklist and then take a ride in your community, perhaps to the local shops, to visit a friend, or even to work. See if you can get where you want to go by bicycle, even if you are just riding around the neighborhood to get some exercise.

At the end of your ride, answer each question and, based on your opinion, circle an overall rating for each question. You can also note any problems you encountered by checking the appropriate box(es). Be sure to make a careful note of any specific locations that need improvement.

Add up the numbers to see how you rated your ride. Then, turn to the pages that show you how to begin to improve those areas where you gave your community a low score.

Before you ride, make sure your bike is in good working order, put on a helmet, and be sure you can manage the ride or route you’ve chosen.

Enjoy the ride!
Go for a ride and use this checklist to rate your neighborhood's bikeability.

How bikeable is your community?

Location of bike ride (be specific):

Rating Scale: 1 2 3 4 5
   awful  many problems  some problems  good  very good  excellent

1. Did you have a place to bicycle safely?
   a) On the road, sharing the road with motor vehicles?

   □ Yes □ Some problems (please note locations):
   □ No space for bicyclists to ride
   □ Bicycle lane or paved shoulder disappeared
   □ Heavy and/or fast-moving traffic
   □ Too many trucks or buses
   □ No space for bicyclists on bridges or in tunnels
   □ Poorly lighted roadways
   Other problems: ____________________________

   □ No problems

   □ Other:

   □ Other problems: ____________________________

   Overall Surface Rating: (circle one)
   1 2 3 4 5 6

   b) On an off-road path or trail, where motor vehicles were not allowed?

   □ Yes □ Some problems:
   □ Path ended abruptly
   □ Path didn't go where I wanted to go
   □ Path intersected with roads that were difficult to cross
   □ Path was crowded
   □ Path was unsafe because of sharp turns or dangerous downhill
   □ Path was uncomfortable because of too many hills
   □ Path was poorly lighted
   Other problems: ____________________________

   □ No problems

   □ Other:

   □ Other problems: ____________________________

   Overall "Safe Place To Ride" Rating: (circle one)
   1 2 3 4 5 6

2. How was the surface that you rode on?

   □ Good □ Some problems, the road or path had:
   □ Potholes
   □ Cracked or broken pavement
   □ Debris (e.g. glass, sand, gravel, etc.)
   □ Dangerous drain grates, utility covers, or metal plates
   □ Uneven surface or gaps
   □ Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
   □ Bumpy or angled railroad tracks
   □ Rumble strips
   Other problems: ____________________________

   □ Other problems: ____________________________

   Overall Intersection Rating: (circle one)
   1 2 3 4 5 6

3. How were the intersections you rode through?

   □ Good □ Some problems:
   □ Had to wait too long to cross intersection
   □ Couldn't see crossing traffic
   □ Signal didn't give me enough time to cross the road
   □ Signal didn't change for a bicycle
   □ Unsure where or how to ride through intersection

   □ Other problems: ____________________________

   □ Other problems: ____________________________

   Overall Intercession Rating: (circle one)
   1 2 3 4 5 6

Continue the checklist on the next page...
4. Did drivers behave well?

☐ Yes  ☐ Some problems, drivers:
☐ Drove too fast
☐ Passed me too close
☐ Did not signal
☐ Harassed me
☐ Cut me off
☐ Ran red lights or stop sign
Other problems: ____________

Overall Driver Rating: (circle one)

1  2  3  4  5  6

5. Was it easy for you to use your bike?

☐ Yes  ☐ Some problems:
☐ No maps, signs, or road markings to help me find my way
☐ No safe or secure place to leave my bicycle at my destination
☐ No way to take my bicycle with me on the bus or train
☐ Scary dogs
☐ Hard to find a direct route I liked
☐ Route was too hilly
Other problems: ____________

Overall Ease of Use Rating: (circle one)

1  2  3  4  5  6

6. What did you do to make your ride safer?

Your behavior contributes to the bikeability of your community. Check all that apply:

☐ Wore a bicycle helmet
☐ Obeyed traffic signal and signs
☐ Rode in a straight line (did not weave)
☐ Signaled my turns
☐ Rode with (not against) traffic
☐ Used lights, if riding at night
☐ Wore reflective and/or retro-reflective materials and bright clothing
☐ Was courteous to other travelers (motorist, skaters, pedestrians, etc.)

7. Tell us a little about yourself.

In good weather months, about how many days a month do you ride your bike?

☐ Never
☐ Occasionally (one or two)
☐ Frequently (5-10)
☐ Most (more than 15)
☐ Every day

Which of these phrases best describes you?

☐ An advanced, confident rider who is comfortable riding in most traffic situations
☐ An intermediate rider who is not really comfortable riding in most traffic situations
☐ A beginner rider who prefers to stick to the bike path or trail

How does your community rate?

Add up your ratings and decide.
(Questions 6 and 7 do not contribute to your community's score)

2. ______  21-25  Your community is pretty good, but there's always room for improvement.
3. ______  16-20  Conditions for riding are okay, but not ideal. Plenty of opportunity for improvements.
4. ______  11-15  Conditions are poor and you deserve better than this! Call the mayor and the newspaper right away.
5. ______

Total ______  5-10  Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again.

Did you find something that needs to be changed?

On the next page, you'll find suggestions for improving the bikeability of your community based on the problems you identified. Take a look at both the short- and long-term solutions and commit to seeing at least one of each through to the end. If you don't, then who will?

During your bike ride, how did you feel physically?

Could you go as far or as fast as you wanted to? Were you short of breath, tired, or were your muscles sore? The next page also has some suggestions to improve the enjoyment of your ride.

Bicycling, whether for transportation or recreation, is a great way to get 30 minutes of physical activity into your day. Riding, just like any other activity, should be something you enjoy doing. The more you enjoy it, the more likely you'll stick with it. Choose routes that match your skill level and physical activities. If a route is too long or hilly, find a new one. Start slowly and work up to your potential.
Now that you know the problems, you can find the answers.

Improving your community's score...

1. Did you have a place to bicycle safely?
   a) On the road?
   - No space for bicyclists to ride (e.g., no bike lane or shoulder; narrow lanes)
   - Bicycle lane or paved shoulder disappeared
   - Heavy and/or fast-moving traffic
   - Too many trucks or buses
   - No space for bicyclists on bridges or in tunnels
   - Poorly lighted roadways
   - What you can do immediately
     - Pick another route for now
     - Tell local transportation engineers or public works department about specific problems; provide a copy of your checklist
     - Find a class to boost your confidence about riding in traffic
   - What you and your community can do with more time
     - Participate in local planning meetings
     - Encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads
     - Ask your public works department to consider "Share the Road" signs at specific locations
     - Ask your state department of transportation to include paved shoulders on all their rural highways
     - Establish or join a local bicycle advocacy group
   b) On an off-road path or trail?
   - Path ended abruptly
   - Path didn't go where I wanted to go
   - Path intersected with roads that were difficult to cross
   - Path was crowded
   - Path was unsafe because of sharp turns or dangerous downhill
   - Path was uncomfortable because of too many hills
   - Path was poorly lighted
   - Slow down and take care when using the path
   - Use the path at less crowded times
   - Tell the trail manager or agency about specific problems

2. How was the surface you rode on?
   - Potholes
   - Cracked or broken pavement
   - Debris (e.g., broken glass, sand, gravel, etc.)
   - Dangerous drain grates, utility covers, or metal plates
   - Uneven surface or gaps
   - Slippery surfaces when wet (e.g., bridge decks, construction plates, road markings)
   - Bumpy or angled railroad tracks
   - Rumble strips
   - Report problems immediately to public works department or appropriate agency
   - Keep your eye on the road/path
   - Pick another route until the problem is fixed (and check to see that the problem is fixed)
   - Organize a community effort to clean up the path
   - Work with your public works and parks department to develop a pothole or hazard report card or online link to warn the agency of potential hazards
   - Ask your public works department to gradually replace all dangerous drainage grates with more bicycle-friendly designs, and improve railroad crossings so cyclists can cross them at 90 degrees
   - Petition your state DOT to adopt a bicycle-friendly rumble-stripe policy

3. How were the intersections you rode through?
   - Had to wait too long to cross intersection
   - Couldn't see crossing traffic
   - Signal didn't give me enough time to cross the road
   - The signal didn't change for a bicycle
   - Unsure where or how to ride through intersection
   - Pick another route for now
   - Tell local transportation engineers or public works department about specific problems
   - Take a class to improve your riding confidence and skills
   - Ask the public works department to look at the timing of the specific traffic signals
   - Ask the public works department to install signs, barriers, or other safety elements
   - Suggest improvements to signal times that include cutting back vegetation; building out the path crossing; and moving parked cars that obstruct your view
   - Organize community-wide, on-bike training on how to safely ride through intersections
### Improving your community's score...

(continued)

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<tr>
<th>What you can do immediately</th>
<th>What you and your community can do with more time</th>
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<td>4. Did drivers behave well?</td>
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<tr>
<td>Drivers:</td>
<td></td>
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<tr>
<td>Drove too fast</td>
<td>report unsafe drivers to the police</td>
</tr>
<tr>
<td>Passed me too close</td>
<td>set an example by riding responsibly</td>
</tr>
<tr>
<td>Did not signal</td>
<td>obey traffic laws; don't antagonize drivers</td>
</tr>
<tr>
<td>Harassed me</td>
<td>always expect the unexpected</td>
</tr>
<tr>
<td>Cut me off</td>
<td>work with your community to raise awareness to share the road</td>
</tr>
<tr>
<td>Ran red lights or stop signs</td>
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<th>5. Was it easy for you to use your bike?</th>
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<tr>
<td>No maps, signs, or road markings to help me find my way</td>
<td>plan your route ahead of time</td>
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<tr>
<td>No safe or secure place to leave my bicycle at my destination</td>
<td>find somewhere close by to lock your bike; never leave it unlocked</td>
</tr>
<tr>
<td>No way to take my bicycle with me on the bus or train</td>
<td>report scary dogs to the animal control department</td>
</tr>
<tr>
<td>Scary dogs</td>
<td>learn to use all of your gear!</td>
</tr>
<tr>
<td>Hard to find a direct route I liked</td>
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<tr>
<td>Route was too hilly</td>
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<tr>
<th>6. What did you do to make your ride safer?</th>
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<tr>
<td>Wore a bicycle helmet</td>
<td>go to your local bike shop and buy a helmet; get lights and reflectors if you are expecting to ride at night</td>
</tr>
<tr>
<td>Obeyed traffic signals and signs</td>
<td>always follow the rules of the road and set a good example</td>
</tr>
<tr>
<td>Rode in a straight line (didn't weave)</td>
<td>take a class to improve your riding skills and knowledge</td>
</tr>
<tr>
<td>Signaled my turns</td>
<td></td>
</tr>
<tr>
<td>Rode with (fist against) traffic</td>
<td></td>
</tr>
<tr>
<td>Used lights, if riding at night</td>
<td></td>
</tr>
<tr>
<td>Wore reflective materials and bright clothing</td>
<td></td>
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<tr>
<td>Was courteous to other travelers (motorists, skaters, pedestrians, etc.)</td>
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Walkability Checklist

How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go.

The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall.

After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.
Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

**Location of walk**

**Rating Scale:**
- 1: Awful
- 2: Many
- 3: Some
- 4: Good
- 5: Very Good
- 6: Excellent

**1. Did you have room to walk?**
- Yes
- No

- Sidewalks or paths started and stopped
- Sidewalks were broken or cracked
- Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
- No sidewalks, paths, or shoulders
- Too much traffic
- Something else

**Locations of problems:**

**Rating:** (circle one)
1 2 3 4 5 6

**2. Was it easy to cross streets?**
- Yes
- No

- Road was too wide
- Traffic signals made us wait too long or did not give us enough time to cross
- Needed striped crosswalks or traffic signals
- Parked cars blocked our view of traffic
- Trees or plants blocked our view of traffic
- Needed curb ramps or ramps needed repair
- Something else

**Locations of problems:**

**Rating:** (circle one)
1 2 3 4 5 6

**3. Did drivers behave well?**
- Yes
- No

- Backed out of driveways without looking
- Did not yield to people crossing the street
- Turned into people crossing the street
- Drove too fast
- Speed up to make it through traffic lights or drove through traffic lights?
- Something else

**Locations of problems:**

**Rating:** (circle one)
1 2 3 4 5 6

**4. Was it easy to follow safety rules?**
Could you and your child...
- Yes
- No

- Cross at crosswalks or where you could see and be seen by drivers?
- Stop and look left, right and then left again before crossing streets?
- Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- Cross with the light?

**Locations of problems:**

**Rating:** (circle one)
1 2 3 4 5 6

**5. Was your walk pleasant?**
- Yes
- No

- Some unpleasant things:
  - Needed more grass, flowers, or trees
  - Scary dogs
  - Scary people
  - Not well lighted
  - Dirty, lots of litter or trash
  - Dirty air due to automobile exhaust
  - Something else

**Locations of problems:**

**Rating:** (circle one)
1 2 3 4 5 6

**How does your neighborhood stack up?**
Add up your ratings and decide.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>3</th>
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<table>
<thead>
<tr>
<th>Total</th>
<th>5-10</th>
<th>It's a disaster for walking!</th>
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<tbody>
<tr>
<td>6-11</td>
<td>11-15</td>
<td>It needs lots of work. You deserve better than that.</td>
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<tr>
<td>16-20</td>
<td>21-25</td>
<td>Okay, but it needs work.</td>
</tr>
<tr>
<td>26-30</td>
<td></td>
<td>Celebrate a little. Your neighborhood is pretty good.</td>
</tr>
</tbody>
</table>

*Now that you've identified the problems, go to the next page to find out how to fix them.*
Improving your community's score...

1. Did you have room to walk?
   - Sidewalks or paths started and stopped
   - Sidewalks broken or cracked
   - Sidewalks blocked
   - No sidewalks, paths or shoulders
   - Too much traffic
   - What you and your child can do immediately
     - pick another route for now
     - tell local traffic engineering or public works department about specific problems and provide a copy of the checklist
   - What you and your community can do with more time
     - speak up at board meetings
     - write or petition city for walkways and gather neighborhood signatures
     - make media aware of problems
     - work with a local transportation engineer to develop a plan for a safe walking route

2. Was it easy to cross streets?
   - Road too wide
   - Traffic signals made us wait too long or did not give us enough time to cross
   - Crosswalks/traffic signals needed
   - View of traffic blocked by parked cars, trees, or plants
   - Needed curb ramps or ramps needed repair
   - What you and your child can do immediately
     - pick another route for now
     - share problems and checklist with local traffic engineering or public works department
     - trim your trees or bushes that block the street and ask your neighbors to do the same
     - leave nice notes on problem cars asking owners not to park there
   - What you and your community can do with more time
     - push for crosswalks/signals/parking changes/curb ramps at city meetings
     - report to traffic engineer where parked cars are safety hazards
     - report illegally parked cars to the police
     - request that the public works department trim trees or plants
     - make media aware of problem

3. Did drivers behave well?
   - Backed without looking
   - Did not yield
   - Turned into walkers
   - Drove too fast
   - Sped up to make traffic lights or drove through red lights
   - What you and your child can do immediately
     - pick another route for now
     - set an example: slow down and be considerate of others
     - encourage your neighbors to do the same
     - report unsafe driving to the police
   - What you and your community can do with more time
     - petition for more enforcement
     - request protected turns
     - ask city planners and traffic engineers for traffic calming ideas
     - ask schools about getting crossing guards at key locations
     - organize a neighborhood speed watch program

4. Could you follow safety rules?
   - Cross at crosswalks or where you could see and be seen
   - Stop and look left, right, left before crossing
   - Walk on sidewalks or shoulders facing traffic
   - Cross with the light
   - What you and your child can do immediately
     - educate yourself and your child about safe walking
     - organize parents in your neighborhood to walk children to school
   - What you and your community can do with more time
     - encourage schools to teach walking safely
     - help schools start safe walking programs
     - encourage corporate support for flex schedules so parents can walk children to school

5. Was your walk pleasant?
   - Needs grass, flowers, trees
   - Scary dogs
   - Scary people
   - Not well lit
   - Dark, litter
   - Lots of traffic
   - What you and your child can do immediately
     - point out areas to avoid for your child; agree on safe routes
     - ask neighbors to keep dogs leashed or fenced
     - report scary dogs to the animal control department
     - report scary people to the police
     - report lighting needs to the police or appropriate public works department
     - take a walk with a trash bag
     - plant trees, flowers in your yard
     - select alternative route with less traffic
   - What you and your community can do with more time
     - request increased police enforcement
     - start a crime watch program in your neighborhood
     - organize a community clean-up day
     - sponsor a neighborhood beautification or tree-planting day
     - begin an adopt-a-street program
     - initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

A Quick Health Check
   - Could not go as far or as fast as we wanted
   - Wear tights, short of breath or had sore feet or muscles
   - The sun really hot?
   - Was it hot and hazy?
   - What you and your child can do immediately
     - start with short walks and work up to 30 minutes of walking most days
     - invite a friend or child along
     - walk along shaded routes where possible
     - use sunscreen of SPF 15 or higher, wear a hat and sunglasses
     - try not to walk during the hottest time of day
   - What you and your community can do with more time
     - get media to do a story about the health benefits of walking
     - call parks and recreation department about community walks
     - encourage corporate support for employee walking programs
     - plant shade trees along routes
     - have a sun safety seminar for kids
     - have kids learn about unhealthy ozone days and the Air Quality Index (AQI)