

WALKABILITY ASSESSMENT: CHURCHILL NEIGHBORHOOD HOLYOKE, MA

Abstract

Growing awareness of the connection between the built environment and public health, environmental quality, and social capital has established the process of assessing the walkability of neighborhoods and entire communities. The following study took place over the six week period of April 1 – May 14, 2011, within the Churchill Neighborhood of Holyoke, Massachusetts. The goal was to assess walkability under the criteria of: sidewalk infrastructure conditions; conditions within the public right of way; traffic/street crossing conditions; land use diversity; and overall user experience of walking through the neighborhood. The completed report provides the community and the city with base information that can be expanded with firsthand knowledge of the residents.



Discussion

An assessment of the walkability of a community like that of Churchill can help identify needed improvements to the pedestrian's overall experience. This data can help identify project prioritization for local governments to address the documented conditions. The data can also be used by community members to be proactive in clean ups, community policing, and community gardens. Such activities create a stronger connection between community members and their walkable environment.

The needs of dependent populations such as children, the elderly, and the handicapped must be given due consideration when designing projects to improve an areas walkability.

Overall we generalize that there can be improvements of the Churchill neighborhood's walkability for the dependent populations as well as improvements in areas such as trash removal and alley way restoration. The neighborhood also needs to continue to gains in homeownership as a way of getting more residents involved in the communities effort to become "walker" friendly.

Our Mission

To provide the City of Holyoke Planning and Development office with a report on the findings of our walkability assessment of the neighborhood in order to identify problems.

What is walkability?

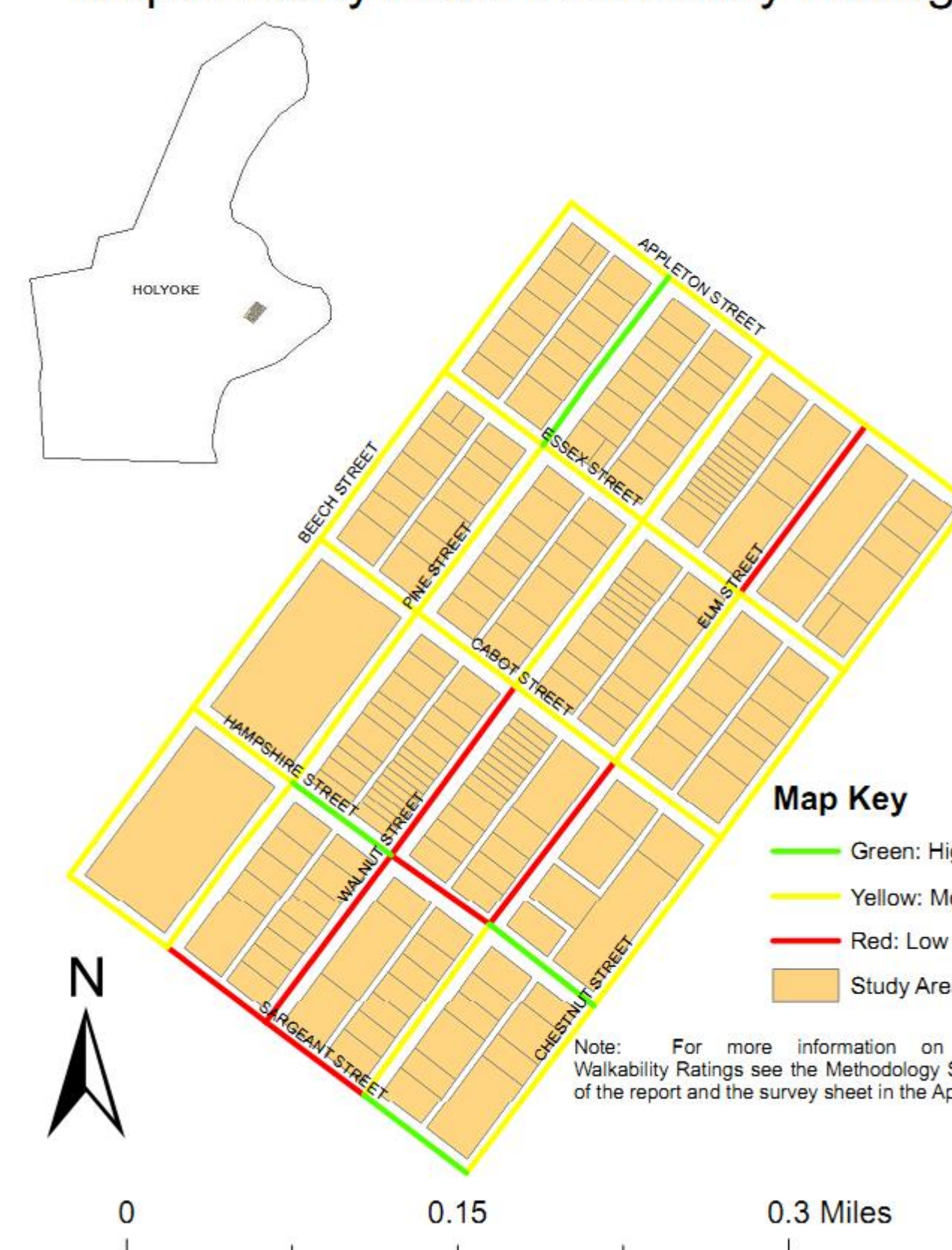
It is a term used to describe and rate the experience of walking within a neighborhood. It is used to determine how "walker friendly" a neighborhood is. Factors include accessibility of uses and physical conditions of infrastructure.

Methodology

- Designed an instrument that could effectively survey the study area in terms of conditions and overall walkability. (We developed a hybrid from other audits.
- Student teams of 4-5 utilized the class designed survey to rate conditions along streets in the study area as well as conditions within intersections; taking note of any unusual or unsafe feature.
- Within each team one student was designated as a "coordinate-taker" of various objects along streets such as trees, streetlights, fire hydrants and others with hand held Garmin GPS units.
- Photo documentation also occurred along all surveyed streets.
- Maps were rendered through ESRI Arc Map software to represent the findings of the survey as well as further analyze the area.
- An online tool known as "Walk Score" supplemented the data students gathered on the audit with regard to the ability of residents to meet their daily needs within a ¼ mile walk.

Findings

Map A Study Area: Walkability Ratings



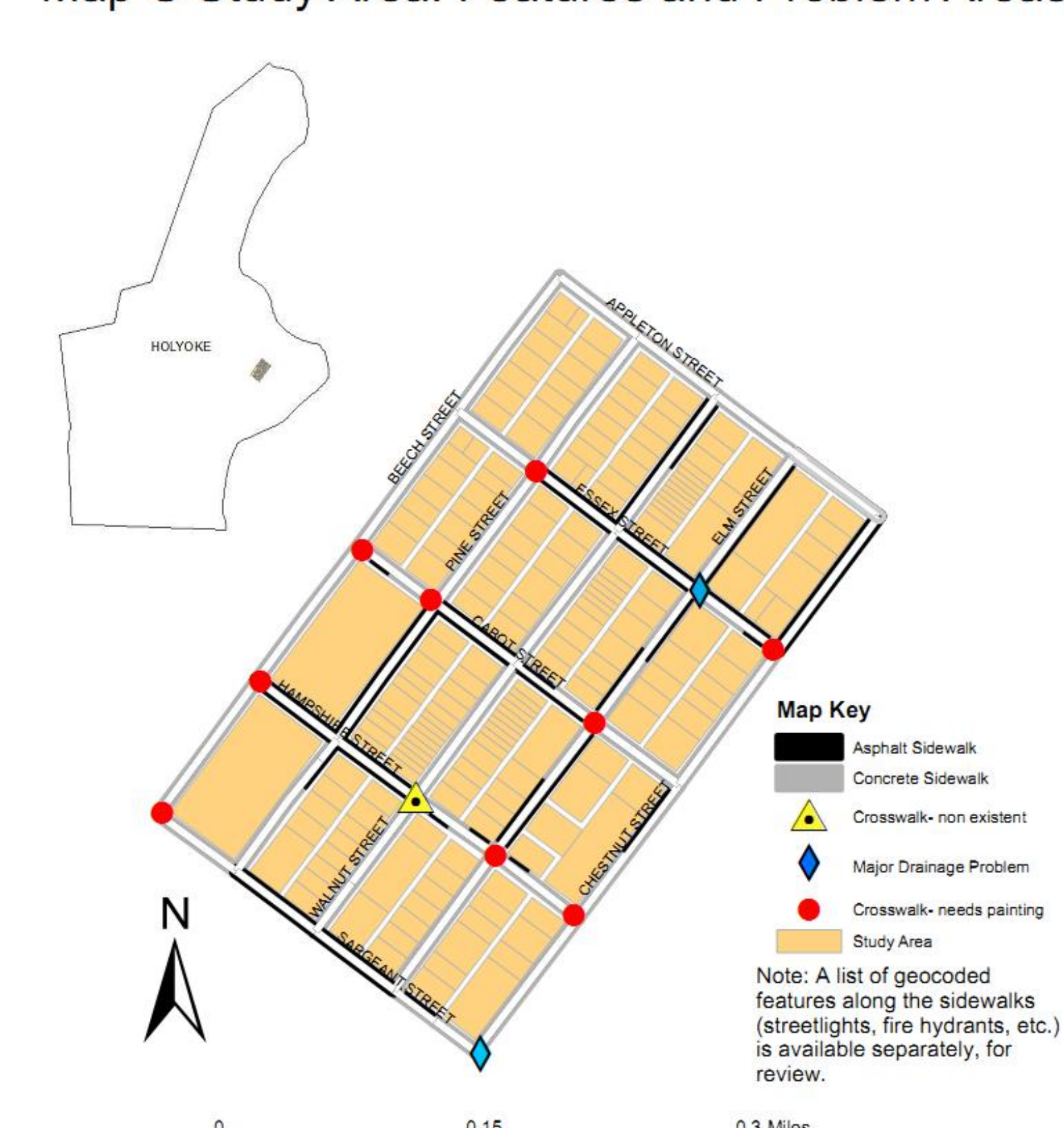
This map designates the target area and surveyed streets within the target area. It displays the results of the conducted survey rating streets for walkability; Green is highly walkable, yellow is fair, and red is very poor. Overall our survey shows that the majority of streets need improvement within this area.

Map B Holyoke Study Area: Meeting Basic Needs and Transit Access



The above map illustrates accessible amenities within the target area, as well as a quarter mile buffer zone surrounding the area. The majority of basic needs are available within the target area and buffer zone. When observing the map it should be noted that there are no grocery stores within the target area or buffer zone and the Lawrence Elementary school is also located just outside the target area.

Map C Study Area: Features and Problem Areas



The above map displays the physical features of sidewalks and street attributes within the study area. It also displays areas of concern that may certainly hinder walkability in the area. Crosswalks at street intersections are of particular concern in this area many are poorly visible and require painting and other areas need crosswalks all together. There is also an issue of variation in sidewalk material from asphalt to concrete.

Maps rendered by Mark B. Cabral, Daniel Schott, and Dylan E. Walker WSU GARP: Land Use and Resource Planning, May 2011
Data obtained from the Massachusetts office of Geographic Information; MassGIS