NOTE TO USERS

This reproduction is the best copy available.

UMI[®]

THE BIG-BOX IN THE SMALL TOWN

By

Jason P. Morgan
B.A.S., Carleton University

A thesis submitted to
The Faculty of Graduate Studies and Research
In Partial Fulfillment of
The requirements for the degree of

Master of Architecture

School of Architecture
Carleton University
Ottawa, Ontario
June 2005
©2005 Jason Morgan

Library and
Archives Canada

Bibliothèque et
Archives Canada

Published Heritage
Branch

Direction du
Patrimoine de l'édition

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

ISBN: 0-494-10107-5

Our file Notre référence

ISBN: 0-494-10107-5

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

Canada

Abstract

This thesis reacts to the current trend of big-box retailers being established on fringe locations of rural towns across North America. The primary body of the text will discuss how the big-box typology, fashioned for suburban locations, is used in rural towns with little or no concern for their unique context, creating a reliance on vehicular travel resulting in environmental, economic, and experiential changes to the rural town. Through an analysis of the typical suburban big-box, consideration of its historical precedents, and contemporary examples, this thesis discovers new design strategies for the big-box in the rural context. The second portion of this thesis proposes a design for a large retail space sited in the downtown of Hanover, Ontario. Further, this thesis embraces the role of architectural form as a necessary contribution to the community via the establishment of zones of interaction at the scale of the inhabitant.

Acknowledgements

First of all, this thesis is dedicated to my incredible wife, Jennifer Morgan, who has consistently been throughout my thesis work and everyday life, a source of faith, inspiration and love.

Secondly, I would like to thank my parents for their support, and also my thesis advisor Sheryl Boyle for her assistance while creating this thesis.

Contents

Abstract.....	ii
Acknowledgements.....	iii
List of Figures.....	vi
Thesis Question.....	9
Introduction.....	10
Area of Study.....	12
Rural Towns and the Space of Encounter.....	17
Suburbia verses the Rural Context.....	24
Rural Precedents.....	28
Industrial Buildings.....	28
National Retailer in the Small Town.....	31
Urban Precedents.....	38
The Department Store.....	38
Contemporary Urban Precedents.....	42
Questioning the Big-Box in the Rural Context.....	48
Current Big-Box Strategy.....	49
Parking Lots.....	50
Scale and Street Relationship.....	57
Location and Town Morphology.....	60
Building Form and the Impact on Site.....	64
Program (Mixed-use).....	67
The Rural Context.....	70

Community and Communication in a Rural Town.....	70
Site.....	72
Canadian Tire.....	74
Rural Strategy.....	75
Program.....	76
Design.....	78
Design Strategy.....	78
Preliminary Design Study.....	81
Roof-Top Parking Scheme (P.D.S. 02).....	81
Design Proposition.....	88
The New Downtown Canadian Tire.....	88
Conclusions.....	109
Bibliography.....	111

List of Figures

- Figure 1: The Whole Foods grocery store in Portland, Oregon. From Philip Langdon, "Grocery stores adapt to urban trends," New Urban News, (Oct/Nov, 2003). <<http://www.newurbannews.com/whatsnew.html>>.
- Figure 2: Model of Peter Busby's proposed Wal-Mart for Vancouver. From Naoibh O'Connor, "Green architect wants to make a difference with Wal-Mart," The Vancouver Courier, (Feb. 2, 2005).
- Figure 3: A rendering of Peter Busby's Proposed Wal-Mart for Vancouver. From CTV.ca news staff, "Wal-Mart pitches green design for Vancouver," (Tue. Mar. 29 2005). <http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1111767382873_26/?hub=CTVNewsAt11>.
- Figure 4: The Town Square in Russellville, Kentucky as it exists today. From Alan Ehrenhalt, "The Empty Square," Preservation, (March/April 2000), p. 43.
- Figure 5: The Town Square in Russellville, Kentucky as it once existed. From Alan Ehrenhalt, "The Empty Square," Preservation, (March/April 2000), p. 44.
- Figure 6: Current zoning codes ensure all activities are separated from one another. From James Howard Kunstler, Home From Nowhere, (New York: Simon & Shuster, 1996), p. 111.
- Figure 7: Traditional rural downtown core where buildings meet the sidewalk edge, and mixed use buildings allow people to shop, work, live, and interact along the public space of the street. From The Hanover Historical Society, A Picture History of Hanover.
- Figure 8: The Knechtel Furniture Factory after it was rebuilt in 1901. From The Hanover Historical Society, A Picture History of Hanover, p. 39.
- Figure 9: The Knechtel Furniture Factory after it was rebuilt in 1901. From The Hanover Historical Society, A Picture History of Hanover.
- Figure 10: The 1925 Canadian Tire store, located on the corner of Young St. and Isabella in Toronto. From Hugh McBride, Our Store: seventy-five years of Canadian Tire and Canadians, (The Quantum Book Group Inc: Toronto, 1997), p. 19.
- Figure 11: The Chatham, Ontario, Canadian Tire store as it appeared in 1945. From Hugh McBride, Our Store: seventy-five years of Canadian Tire and Canadians, (The Quantum Book Group Inc: Toronto, 1997), p. 42.
- Figure 12: The 1960's Sudbury, Ontario, Canadian Tire store. From Hugh McBride, Our Store: seventy-five years of Canadian Tire and Canadians, (The Quantum Book Group Inc: Toronto, 1997), p. 42.
- Figure 13: The Windsor, Ontario, Canadian Tire store. From "Our Story," <http://www2.canadiantire.ca/CTenglish/h_ourstory.html>.
- Figure 14: The 1957 Galt, Ontario, Canadian Tire store. From Hugh McBride, Our Store: seventy-five years of Canadian Tire and Canadians, (The Quantum Book Group Inc: Toronto, 1997), p. 119.
- Figure 15: Children looking at an Eaton's department store Christmas display, 1958. From the Archives of Ontario. <<http://www.archives.gov.on.ca/english/exhibits/eatons/windows.htm>>.

- Figure 16: Marshall Field's department store in Chicago, 1907. From Daniel Herman and Sze Tsung Leong, "Scale.," The Harvard Design School Guide to Shopping, (Taschen, April, 2002), p. 661.
- Figure 17: Wanamaker's department store in Philadelphia, 1909. From Steven E. Schoenherr, "Evolution of the Department Store," (December 20, 2004). <<http://history.sandiego.edu/gen/soc/shoppingcenter4.html>>.
- Figure 18: Wanamaker's department store interior Grand Court. From Robert Bender, "Wanamaker's Department Store." <<http://www.robbender.com/photos/philadelphia/buildings/wanamakers/Pages/6.html>>.
- Figure 19: Loblaws at the corner of Christie St. and Dupont St., Toronto. From Rebanks Pepper Littlewood Architects Inc. <<http://www.rebanks.ca/retail.html>>.
- Figure 20: Loblaws Queens Quay store, Toronto. From Rebanks Pepper Littlewood Architects Inc., 1997. <<http://www.rebanks.ca/retail.html>>.
- Figure 21: Loblaws Queens Quay store, Toronto. From Rebanks Pepper Littlewood Architects Inc., 1997. <<http://www.rebanks.ca/retail.html>>.
- Figure 22: A typical big-box in the rural town environment, often located on greenfield sites at the edge or beyond a town's limits. Drawing by author. May, 2005.
- Figure 23: Home Hardware in Hanover, Ontario - site use chart. Chart by author. May, 2005.
- Figure 24: Single downtown block in Hanover, Ontario - site use chart. Chart by author. May, 2005.
- Figure 25: Big-Box construction in the east end of Hanover, Ontario. Image by author. Aug. 2004.
- Figure 26: Downtown Hanover, Ontario. Image by author. Dec. 2005.
- Figure 27: Wal-Mart in Hanover, Ontario. Image by author. Aug. 2004.
- Figure 28: Traditional mixed use buildings in Downtown Hanover, Ontario, with T. Eaton's store (Far right). From The Hanover Historical Society, A Picture History of Hanover.
- Figure 29: Big-box construction in Hanover. Drawing by author. April. 2005.
- Figure 30: Arterial and cul-de-sacs (Left) and Grid of streets (Right). From James Howard Kunstler, Home From Nowhere, (New York: Simon & Shuster, 1996), p. 120.
- Figure 31: The downtown core of Hanover, Ontario, looking east along 10th Street. Image by author. Dec. 2004.
- Figure 32: Area of big-box development in the east end of Hanover, Ontario. Image by author. Dec. 2004.
- Figure 33: Site Proposal. Drawing by author.
- Figure 34: View of the existing Canadian Tire from 10th Street. Image by author.
- Figure 35: The placement of the big-box (left) in relation to the street (right). Drawing by author.
- Figure 36: The placement of the big-box in relation to the ground, with the addition of a mixed-use building to connect it to the street. Drawing by author.
- Figure 37: Preliminary Design Study 01, Preliminary Design Study 02, Design Proposition. Drawings by author.

- Figure 38: Computer study model of big-box in the site (Roof-top parking scheme). Drawing by author.
- Figure 39: Site plan of computer study model (Roof-top parking scheme). Drawing by author.
- Figure 40: Study model of big-box, situated behind the built fabric along 10th Street. (Roof-top parking scheme) Drawing by author.
- Figure 41: P.D.S. 02: Ground Level. Drawing by author.
- Figure 42: P.D.S. 02: 2nd Level. Drawing by author.
- Figure 43: P.D.S. 02: 3rd Level. Drawing by author.
- Figure 44: P.D.S. 02: Longitudinal Section. Drawing by author.
- Figure 45: P.D.S. 02: 10th Street Elevation. Drawing by author.
- Figure 46: Design Proposition: Site Plan. Drawing by author.
- Figure 47: Design Proposition: Site axonometric looking North-West. Drawing by author.
- Figure 48: Design Proposition: Site axonometric looking North-East. Drawing by author.
- Figure 49: Design Proposition: Site axonometric looking South-East. Drawing by author.
- Figure 50: Design Proposition: Site axonometric looking South-West. Drawing by author.
- Figure 51: Design Proposition: Below Ground Level. Drawing by author.
- Figure 52: Design Proposition: Ground Level. Drawing by author.
- Figure 53: Design Proposition: 2nd Level. Drawing by author.
- Figure 54: Design Proposition: 3rd Level. Drawing by author.
- Figure 55: Design Proposition: Roof Level. Drawing by author.
- Figure 56: Design Proposition: Exploded axonometric. Drawing by author.
- Figure 57: Design Proposition: Longitudinal Section LS-1. Drawing by author.
- Figure 58: Design Proposition: Sectional axonometric LS-2. Drawing by author.
- Figure 59: Design Proposition: Sectional axonometric CS-1. Drawing by author.
- Figure 60: Design Proposition: 10th Street Elevation. Drawing by author.
- Figure 61: Design Proposition: North Elevation of Secondary Entrance. Drawing by author.
- Figure 62: Design Proposition: Street & Sidewalk Plan. Drawing by author.
- Figure 63: Design Proposition: Entrance Plan. Drawing by author.
- Figure 64: Design Proposition: computer model of the main entrance along 10th Street superimposed onto the site. Drawing by author.
- Figure 65: Design Proposition: Interior view of Canadian Tire from the mezzanine level. Drawing by author.
- Figure 66: Design Proposition: Interior view of Canadian Tire from ground level. Drawing by author.
- Figure 67: Design Proposition: Exterior view of Canadian Tire from 7th Avenue. Drawing by author.
- Figure 68: Design Proposition: Exterior view of Canadian Tire from 12th Street. Drawing by author.

Thesis Question

How can an architectural strategy transform the suburban “big-box” building typology into a model that can respond and contribute to the scale, context, and community specific to rural town life?

Introduction

The infiltration of large-scale retail stores into rural communities throughout North America has become a major concern regarding their impact on the social, physical, and economic environment of our small towns and rural communities. Often called “big-box stores”, these buildings can each occupy between 20,000 and 100,000 square feet in rural communities, and have been known to be even larger. These stores can saturate retail markets both locally and regionally due to their reliance on high sales volume rather than price mark ups. This sales strategy also has the consequence of allowing big-box retailers to buy and sell at lower prices than their small town retail counterparts. These two economic disadvantages for the small town store are compounded with the gravitational effect that the big-box exudes, pulling shoppers to sites more often located on fringe locations outside of traditional commercial areas. Predominantly as a result of the economic issues involved, communities have petitioned against big-box stores out of concern for the impact they have on local businesses, jobs, municipal and property taxes, and the increased demand they have on town infrastructure. However, for other reasons or misconceptions, others have welcomed big-box retail into their area. The attraction of the big-box usually stems from the large selection of goods at low prices offered by these retailers, and the promise of job creation for the rural town. The perceived ease of automobile accessibility and the efficient one stop shopping is an additional benefit for a time-deprived society.

Typically, big-box retailers have tended to concentrate in suburban locations where residential sprawl and vehicular dependence is commonplace. Recently however, many big-box retailers have begun to infiltrate rural communities across Canada, in an effort to tap-into rural markets. In fact, the principal reason for this thesis was to address the recent emergence of the big-box in my own hometown of Hanover, Ontario. This form of construction can be problematic when the same suburban building formats, large single storey box-like volumes, are constructed on inexpensive peripheral land, without any consideration for the neighbouring rural town context. This typology and its location, reduces pedestrian accessibility because of its distance from the residential sections, and large parking lots separate the store from a continuous sidewalk along the street. Furthermore, this typology disregards relationships to the street or public domain with its large setbacks. These issues, along with homogenous architectural form and program can be destructive to the growth of a small town, and socially destructive to the people who live there. The intent of this thesis is not to dismiss the development of the big-box, rather to critique its current typology, and investigate how these large stores might be altered to become something more suitable for rural communities.

Area of Study

This project pursues the transformation of an existing building type, the big-box, to create a new mixed use retail building type that contributes to the urban goals of densification and diversity found in a traditional rural town and yet maintains the volumes of space and parking required by big-box retailers. This thesis contributes to the body of work that looks towards alternative hybrid building types for large scale retail operations in the urban and suburban environments. In addition, this thesis builds on a relatively new series of investigations concerning a reinvention of the big-box in the rural environment.

Toronto has, since the early 1970s, provided strict building regulations for the development of suburban-style shopping, placing restrictions on both large indoor shopping malls and big-box retail. The result has been the creation of urban-style mall buildings such as the Eaton's centre in downtown Toronto, and new hybrid building types for traditionally based big-box retailers such as Loblaws. The Loblaws grocery chain has recently chosen to change its suburban big-box typology in Toronto, due to pressures from both local government and neighbourhood groups. Three new stores built by Rebanks Architects Inc. have used various urban strategies, ranging from a mixing of uses, to incorporating multiple stories in the design.¹ By creating a greater building density, these stores create a more efficient use of the land, thereby increasing both the number of buildings that can be built in Toronto and the tax revenue for the city. In addition, through a diversification of uses, such as community spaces, small shops, and

¹ Rebanks Architects Inc., "Super markets," Canadian Architect, (Sept. 2001).

cafés, these stores integrate themselves within the existing fabric of their neighbourhoods.

As in Toronto, retailers that have exclusively used the suburban style big-box in the past, like grocery stores, are switching to new hybrid building types to more successfully integrate new stores into urban environments. Grocery store owners throughout North America are discovering that if they transform the big-box typology “customers will beat a path to their door.”² Stores that come up to the sidewalk, have small shops along their perimeter, or have parking underneath are becoming more commonplace according to Philip Langdon from the periodical *New Urban News*.³ The Whole Foods store in the Pearl Street area of Portland, Oregon, which opened a new 50,000 square foot store in 2002, explores the use of vertical construction strategies rather than sprawling out horizontally like a typical big-box retailer.⁴

As Langdon explains, Whole Foods “can attract plenty of customers despite placing much of the parking in a below-ground garage.”⁵

Fig. 1: The Whole Foods grocery store in Portland, Oregon.

² Philip Langdon, “Grocery stores adapt to urban trends,” *New Urban News*, (Oct/Nov, 2003), <<http://www.newurbannews.com/whatsnew.html>>.

³ Philip Langdon.

⁴ Philip Langdon.

⁵ Philip Langdon.

Linking the store with the parking garage is a passenger elevator and two escalators, one for customers and one for shopping carts full of groceries, making underground parking relatively convenient says Langdon⁶ A mixed use strategy was also explored in this development, which takes up nearly an entire 200-by-200-foot city block.⁷ Several floors were constructed above the Whole Foods store to contain 78,000 square feet of office space, and the rooftop was used for a 25,000 square foot chiller plant.⁸ Furthermore, the Whole Foods store has an in-store café and coffee shop, with the store occupying both the ground level and a second floor mezzanine.⁹ The combination of vertical construction and mixed use spaces within a residential area, are qualities that reduce the necessity of the automobile and maintain the traditional characteristics of urban living.

The city of Vancouver has also recently enforced restrictions on the big-box typology. One such case involves Wal-Mart, who applied to build a suburban type big-box store in the southeast area of Vancouver. Met by opposition from both the city and the general public, they tabled a proposal to address the concerns of the community. The design, by architect Peter Busby (Busby, Perkins and Will) drastically transforms the big-box typology through the use of a sustainable design strategy. The design incorporates the use of windmills to produce half the store's power, underground wells for heating and cooling, dozens of trees to reduce the heat-island affect of the parking lot, and skylights and rooftop water collection for store use.¹⁰ His strategy reduces the energy consumption

⁶ Philip Langdon.

⁷ Philip Langdon.

⁸ Philip Langdon.

⁹ Philip Langdon.

¹⁰ Barry Link, "Green architect right to tackle Wal-Mart project," *The Vancouver Courier*, (Feb. 9, 2005), <<http://www.vancourier.com/issues05/022205/opinion/022205op2.html>>.

of the typical big-box store by approximately 37 per cent a year, an incredible amount for a big-box retailer that would have otherwise wasted a vast amount of energy.¹¹

By pursuing a sustainable design, such as employing large amounts of natural materials, Busby will minimize the impact of a typical big-box on the environment. In addition to being environmentally

responsible, the design will allow the building to become a contributing space in the city, due to various elaborations on the typical big-box typology. Firstly, the

Fig. 2: Model of Peter Busby's proposed Wal-Mart for Vancouver.

building provides a pleasant interior, as there will be no lights on during the daytime all year, due to the large sky lit spaces.¹² Secondly, numerous trees and walkways in the parking lot and in front of the store create shaded areas and an overall pedestrian sensitive site, which in turn allows for a more socially engaging exterior space.

¹¹ Barry Link.

¹² CTV.ca News Staff, "Wal-Mart pitches green design for Vancouver," [CTV.ca](http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1111767382873_26/?hub=CTVNewsAt11), (Tue. Mar. 29 2005), < http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1111767382873_26/?hub=CTVNewsAt11>.

Busby's design has altered the typical suburban big-box typology; first by bringing the bulk of the building up to the street edge, and secondly by opening up the typically blank exterior facades of the building with glazing, clearstory windows, and rooftop skylights. Ultimately however, Busby transforms the big-box typology by using the negative characteristics of the big-box as

Fig. 3: A rendering of Peter Busby's Proposed Wal-Mart for Vancouver.

opportunities to create a sustainable design for Wal-Mart. For instance, the large roof of the big-box is used in his design to collect rain water for irrigation instead of dispensing it. Also, a typically large expanse of surface parking was an ideal place to plant dozens of trees and windmills that otherwise could not be located in the city.

Although this example, and most other examples of re-thinking the big-box typology are located in the suburbs and urban centres, their basic principles and strategies for redesign are still valid in a rural setting. Whether these big-box stores are in the city, suburbia, or a rural town, their relationship to the environment needs to be re-examined.

Rural Towns and the Space of Encounter

This thesis embraces the role of architectural form as a necessary contribution to community, via zones of interaction at the scale of the inhabitant. These places of communication become most important in rural settings where greater public spaces, such as parks and plazas, most often do not exist. The vibrancy of a community can be enhanced by design strategies which promote communication and connection in the public realm of the street and sidewalk, porches and public areas. These strategies act in opposition to the sprawling development of the big-box.

The downtown environment of a traditional rural town consists of a variety of elements, wherein mixed-use structures, a densification of the built environment, and civic buildings are all linked together through sidewalks and streets. Outdoor public space, like that of the sidewalk, is the primary space of encounter in the rural town, and is a place where social cohesion occurs and everyday community life takes place. As explained by Tom Franklin, “the people who walk their local streets are the agents of community life, [since] children who walk to school [can] make friends with other children en route...and those who walk to their local shops meet their neighbours more often.”¹³ Franklin continues by explaining that the space of encounter along the sidewalk enables each person to note another’s well being and is the basis for easy conversation between two people.¹⁴ Yet, if one or both of these people walking along the sidewalk happens to be

¹³ Tom Franklin, “Living Streets calls for more ‘play streets’ to help build social cohesion,” Living Streets, (Sept. 9, 2003), <<http://www.livingstreets.org.uk/page.php?pageid=128>>.

¹⁴ Tom Franklin.

driving, neither opportunities can arise.¹⁵ Such is the case when people in rural towns are required to drive to the big-box, given that pedestrian access at these locations was not provided or lacks continuity with the town's pedestrian structure.

The space of encounter along the street is the one public space that everyone uses in a rural setting and it provides a unique opportunity for integrating different sections of the community.¹⁶ Unlike the fringe areas of big-box construction, which include neither pedestrian sidewalks nor a continuous street edge, a downtown sidewalk offers “the prospect of interaction across many divides: racial, gender, inter-generational, mental health and disability.”¹⁷ According to Todd Jeffrey Robbins, whose dissertation discusses the importance of place identity and community interaction, the value of informal social contact is community cohesion, which is defined by close, intimate, long-lasting, multiple ties between people.¹⁸

The space of encounter along the street edge in a rural town is vital not only to build a strong sense of community cohesion, but is beneficial to the individual living in that town. The benefits to the individual include a sense of belonging, reduced stress of daily life, and improved mental and physical well being. According to Tom Franklin, “belonging or attachment is a function of a shared identity for an area.”¹⁹ Furthermore, he suggests that a sense of belonging or common experience takes place when people

¹⁵ Tom Franklin.

¹⁶ Tom Franklin.

¹⁷ Tom Franklin.

¹⁸ Todd Jeffrey Robbins, Questioning The Community Question: Wal-Mart, Place Identity And A Classic New England Town, (University of Massachusetts, Doctor of Philosophy Dissertation, Sept. 1998), p.9.

¹⁹ Tom Franklin.

encounter each other on the sidewalk, walking to food and financial service outlets for instance.²⁰ When people experience, care for, and maintain the public space of the street, it can be a source of civic pride and create a sense of belonging for the individual.

The sidewalk is an important part of the downtown in a rural community given that it connects a wide variety of civic functions and mixed use spaces in the town. The sidewalk is considered a positive community environment, according to Robert Putnam, due to its potential of allowing various people to gather in a safe and inviting setting to provide social support.²¹ Robert Putnam is a social scientist who has studied the relationship between social interaction and happiness. He believes “social support buffers us from the stresses of daily life. Face to face ties seem to be more therapeutic than ties that are geographically distant. In short, even in the single domain of depression, we pay a very high price for our slackening of connectedness.”²² Putnam continues by arguing for quality public spaces, like those found in downtown areas of rural communities, as “it is surely plausible that design innovations like mixed-use zoning, pedestrian friendly street grids and more space for public use should enhance social capital.”²³

Since it has been shown that a person’s mental well being can be enhanced by the space of encounter along the sidewalk, it is no surprise that one’s physical health can also be improved because of it. According to the Chief Medical Officer of England, feelings of lethargy or sleep disorders in both men and women are significantly less for those

²⁰ Tom Franklin.

²¹ Phillip Connolly, “Looks Could Kill,” Living Streets, (Jan. 21, 2005), <<http://www.livingstreets.org.uk/page.php?pageid=343>>.

²² Robert Putnam, Bowling Alone, (Simon and Shuster, 2000), p.332 & p.408.

²³ Robert Putnam

walking at a normal pace for more than half a mile each day.²⁴ This distance is equivalent to walking down each side of the street in downtown Hanover, a typical rural community in South-Western Ontario, Canada. As Phillip Connolly concludes, in his article on the relationship between the environment and person health, “Since the human race has walked for far longer on earth than driven or lived in dwellings, it may be that it is how humans relate to public space that provides the key to improving the human condition.”²⁵

The small town of Russellville, Kentucky is a community of approximately 7000 people that demonstrates how the space of encounter is vital to social cohesion in the rural environment. Alan Ehrenhalt writes about Russellville’s traditionally active downtown square and sidewalk space, and how it has been negatively affected due to changes in recent town development. Ehrenhalt explains that “the stores that used to generate a walk-in trade, the ones that sold shoes and hardware, have all moved to the outskirts of town” in strip malls and sprawl development.²⁶ Furthermore, he states that the last café in the downtown square closed a few years ago, and the nearest place to get a cup of coffee is now a few blocks away.²⁷ The result has been that “people in Russellville don’t get together and talk the way they used to in the town square. It is harder to have a serendipitous chat with somebody you know – to talk about the weather, plan a fishing trip, gossip about politics, brag about your children.”²⁸ Since the decline of both diverse

²⁴ “At least five times a week; evidence of the impact of physical activity and its relationship to health,” (A report for the Chief Medical Officer, Department of Health, April, 2004), p.10-27.

²⁵ Phillip Connolly.

²⁶ Alan Ehrenhalt, “The Empty Square,” *Preservation*, (March/April 2000.), p.45.

²⁷ Alan Ehrenhalt, p.45.

²⁸ Alan Ehrenhalt, p.46.

stores and walk-in style shopping in downtown Russellville, casual social encounters that have always been at the core of small-town life cannot occur. The consequence of declining social encounters has, according to Ehrenhalt, resulted in “the weakening of the democratic process to a worsening of middle-class mental health.”²⁹

Fig. 4: The Town Square in Russellville, Kentucky as it exists today.

Fig. 5: The Town Square in Russellville, Kentucky as it once existed.

²⁹ Alan Ehrenhalt, p.46.

Ray Oldenburg, a sociologist from the University of West Florida, explains how the declining social encounters found in Russellville are problematic. Oldenburg explains that “a real community originates from opportunities for people who live in a place to see each other and interact in the course of the day.”³⁰ In his book, “The Great Good Place,” Oldenburg points out that in the United States approximately half the casual gathering places that existed at mid-century have been lost.³¹ Furthermore, Oldenburg explains that places where people can gather to put aside the concerns of work and home, and hang out simply for the pleasures of good company and lively conversation - are at the heart of a community's social vitality.³² Places of encounter do not exist in the sprawl, edge located, sidewalk deprived areas of big-box construction found in the rural town. Therefore the spaces that traditionally upheld public connection and casual encounter, like sidewalks, streetscapes, and public squares or parks, should be the inspiration for re-designing the suburban big-box typology for the rural town environment.

The space of encounter is however not limited to the street edge or sidewalk in a rural town, it also exists in the many districts and neighbourhoods found in larger urban centres. The city is therefore relevant in a study on the importance of public space and pedestrian encounter, and in no place is this more evident than in New York City, where distinct neighbourhoods form unique public spaces along the sidewalks of the city.

Writing in relation to her own neighbourhood in New York, Jane Jacobs discusses the important role of the sidewalk in her book “The Death and Life of Great American

³⁰ Alan Ehrenhalt, p.46.

³¹ Ray Oldenburg, The Great Good Place, (Marlowe & Company, 1989).

³² Ray Oldenburg.

Cities.” Dedicating three chapters to discussing the importance of the sidewalk, Jacobs uses one chapter, entitled “The Uses of Sidewalks: Contact,” to elaborate on the benefits of pedestrian encounters in a public space. Foremost, Jacobs explains that the sidewalk brings “together people who do not know each other in an intimate, private social fashion and in most cases do not care to know each other in that fashion.”³³ In dense urban areas, the sidewalk becomes an important space to converse with people, both strangers and casual acquaintances, outside of the private domain of the home. A consequence for those living in an area lacking sidewalk life is that “the people of the place must enlarge their private lives if they are to have anything approaching equivalent contact with their neighbours.”³⁴ In this segregated condition, people share more with each other than what personal comfort would allow, or risk total isolation in the city.

Jacobs describes the important encounters that take place in the public realm of the urban neighbourhood. She explains that the space of encounter “grows out of people stopping by at the bar for a beer, getting advice from the grocer and giving advice to the newsstand man, comparing opinions with other customers at the bakery and nodding hello to the two boys drinking pop on the stoop, [and] eying the girls while waiting to be called for dinner.”³⁵ Jacobs explains that these customs vary throughout different neighbourhoods, yet the encounters that take place along the sidewalk are vital to each. These encounters may seem trivial, but as Jacobs explains, the sum of such contact is not trivial at all.³⁶

“The sum of such casual public contact at a local level – most of it fortuitous, most of it

³³ Jane Jacobs, “The Uses of Sidewalks: contact,” The Death and Life of Great American Cities, (New York: Random House, Modern Library Edition, 1993), p.72.

³⁴ Jane Jacobs, p.81.

³⁵ Jane Jacobs, p 73.

³⁶ Jane Jacobs, p 73.

associated with errands, all of it metered by the person concerned and not thrust upon him by anyone – is a feeling for the public identity of people, a web of public respect and trust.”³⁷

Suburbia versus the Rural Context

Since the space of encounter, specifically the streetscape and sidewalk are vital to the community cohesion of rural towns, it is beneficial to understand how suburbia differs from the rural context, and why a new model is required for the suburban big-box format used throughout rural town environments.

Perhaps the defining characteristic of both suburban environments and big-box development - and that which is preventing the space of encounter in a small town - is that everything is separated from everything else by a distance greater than what is convenient or pleasant to the pedestrian. As Andres Duany explains, each component is strictly segregated from the others.³⁸ There are five homogenous components of suburban sprawl identified by Duany. Housing subdivisions, shopping centres and big-box retail, office parks, civic institutions, and roadways are the defining characteristics of suburban sprawl.³⁹ Additionally, in spite of suburbia’s regulatory controls over segregation, it is not functional, “it simply does not efficiently serve society or preserve

³⁷ Jane Jacobs, p 73.

³⁸ Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck, Suburban Nation: the rise of sprawl and the decline of the American Dream, (New York: North Point Press, 2000)p. 5.

³⁹ Andres Duany, p. 5-6.

Fig. 6: Current zoning codes ensure all activities are separated from one another.

the environment.”⁴⁰ Public spaces of encounter are not defining features of suburbia explains Duany. The act of segregating uses, like the suburban big-box typology, discourages the mixed-use, public character of the street edge and sidewalk space so vital in establishing connection and communication among rural town inhabitants.

In contrast to the segregated components of suburban sprawl, are distinguishing characteristics found in traditional rural towns that support community cohesion. The major difference between suburban and traditional rural town environments is that each rural town has a distinct centre. A traditional rural town has a clear focus on common activities which frequently occur around a mixed use, civic, downtown area. “The five

⁴⁰ Andres Duany, p. 14

minute walk” is also allowed to transpire in such a place, where local residents are rarely more than a five minute walk from the ordinary needs of daily life.⁴¹ A street network such as a grid provides many traffic routes and a multitude of public sidewalk space for communication and connection between town residents. Narrow, versatile streets reduce overall traffic speed and reduce noise, which is important since excess noise “deters people from using outdoor space.”⁴² In addition, a reduction in noise is valuable since the World Health Organization has designated 55 decibels as the threshold beyond which traffic noise interferes with conversation between people standing on the sidewalk.⁴³

Additionally, rural town environments differ from suburban ones because they include vast amounts of parallel parking on the street, which in turn protect pedestrians from

Fig. 7: Traditional rural downtown core where buildings meet the sidewalk edge, and mixed use buildings allow people to shop, work, live, and interact along the public space of the street.

⁴¹ Andres Duany, p. 15

⁴² Phillip Connolly.

⁴³ Phillip Connolly.

traffic.⁴⁴ Furthermore there are wide sidewalks for shade trees, and buildings are constructed close to the street.⁴⁵ These elements ensure that a wide variety of activities take place on the street, explains Duany. Occurrences such as cars driving, people walking and entering buildings, conversing under trees, and dining emerge in such places. Yet, in sprawl only one thing occurs, cars moving.⁴⁶ The mixed use, pedestrian friendly environment of the traditional rural town, encourages the space of encounter along the street edge. It also demonstrates why the suburban typology of the big-box must be re-designed to accommodate this tradition of building, and possibly enhance the social and physical health of rural communities.

⁴⁴ Andres Duany, p. 16

⁴⁵ Andres Duany, p. 16

⁴⁶ Andres Duany, p. 16

Rural Precedents

Throughout history, the large building typology has been an integral component of rural life. Skating rinks, community centres, industrial factories, and warehouses are all examples of large scale buildings that have traditionally had a positive role within the small town environment. Furthermore, national retailers such as Canadian Tire have until lately, for over eighty years been found scattered throughout rural towns and urban centres. These franchise stores, each locally owned, proved to be a unique and important part of the built fabric and retail landscape of their respective towns. Through an examination of these buildings, potential strategies for modifying the contemporary suburban big-box in the rural town will be examined.

Industrial Buildings

Nearly every urban centre that existed around the turn of the 20th century in Canada owed their prosperity not only to their large commercial centres, but to the agricultural hinterland beyond the city. In the agricultural regions of single-enterprise towns, a multitude of large manufacturing and industrial factory buildings existed. These immense buildings of the industrial revolution personify the beginnings of a big-box typology of steel shed forms.

According to Geoffrey Miller who studied the big-box for its positive inherent qualities, it can be considered a vernacular building type for reason that it originates in the

prefabricated, low cost buildings of the industrial revolution.⁴⁷ These industrial buildings with generic interior spaces were constructed by well known architects and housed in anonymous vernacular buildings.⁴⁸

The exploration of steel frame shed buildings by architects such as Garnier, Kahn and Gropius in the early 20th century; express the theme of industrialization as one of the major themes of Modernism.⁴⁹ These ‘universal spaces’ of generic enclosures could accommodate a variety of uses with non-structural elements that delineated specific programmatic uses. This strategy of creating an easily adaptable, open interior space is an opportunity that could be further explored in the big-box. A structural grid, or bay system of similar structural components, can be used to plan for the future expansion of a store, or manipulated to divide the space after the short lifespan of a big-box retailer.

Many anonymous industrial buildings located in countless rural towns across North America demonstrate how a building, despite its large scale, can contribute to the small town environment. Knechtel’s furniture factory in Hanover, Ontario was an example of how a large scale building can be successfully integrated into its unique site, and in spite of its seemingly undefined interior space and immense scale, the building enhanced the public space of the town.

⁴⁷ Geoffrey Miller, The Suburban Big-Box, (Masters of Architecture Thesis, Dalhousie University, May 2002), p.3.

⁴⁸ Geoffrey Miller, p.3

⁴⁹ Geoffrey Miller, p.4

The Knechtel's furniture factory was placed adjacent to the sidewalk on the main street in Hanover when it was constructed in the late 19th century. The location of the factory attested to its importance in the town, positioned across from the town hall and municipal library. Even after the factory burned to the ground in 1900, the owner, Daniel Knechtel, decided to re-build on the site of the existing building, even though alternative sites were available away from downtown. The new factory stood four storeys, requiring less land,

Fig. 8: The Knechtel Furniture Factory after it was rebuilt in 1901.

and its location allowed employees to walk to work and access amenities such as shops and services nearby. Separated by only a sidewalk from the main street, Durham Street, this building contributed along with adjacent buildings, in defining the space of the street. Furthermore, the façade facing Durham Street was divided into a discrete series of structural bays with a maximum amount of fenestration between load bearing columns and floor plates. This expression of the structure on the building's exterior façade had many benefits; first, it seemingly decreased the overall scale to one more reflective of a

small town environment, and secondly, it allowed for a greater interaction between the public space of the sidewalk and street, with the more private interior work spaces. Lastly it allowed for a maximum amount of light to enter the interior workspace, decreasing the need for artificial lighting. Strategies such as these could easily be used to alter the big-box in order to decrease the amount of land used, and to build a more significant relationship with the street and overall town fabric.

Fig. 9: The Knechtel Furniture Factory after it was rebuilt in 1901.

National Retailer in the Small Town

Canadian Tire is perhaps Canada's first big-box specialty store. Opening their first store in 1922, J.W. and A.J. Billes focused primarily on tire sales and a small number of

automotive-related products. The first store to don the name Canadian Tire came in 1925 and was located on the corner of Young St. and Isabella St. in the heart of Toronto.⁵⁰ This store was three storeys tall, fronting onto the sidewalk with large windows at street level, thereby enticing shoppers inside. Large signs protruding from the building over the sidewalk caught the eye of motorists from far down the street. Alternatively, beyond just

Fig. 10: The 1925 Canadian Tire store, located on the corner of Young St. and Isabella in Toronto.

the store at Young and Isabella, customers could access Canadian Tires products because they became the largest direct automotive supply house with the use of a mail order catalogue. People who couldn't afford the time or money to drive to Canadian Tire could have products delivered to them by mail delivery. J.W. and A.J. Billes were touted as

⁵⁰ Hugh McBride, Our Store: seventy-five years of Canadian Tire and Canadians, (The Quantum Book Group Inc: Toronto, 1997), p.19.

“the smartest retailers involved with what was without question the most successful product in history – the automobile.”⁵¹ Yet, what gave this rapidly expanding business a welcome vitality in its early years, and allowed each franchise store to contribute to the surrounding community, was the dealer owned business philosophy that Canadian Tire established.

With everything to gain – or lose – an associate dealer’s level of energy and commitment would be limitless.⁵² This vigour translated into a multitude of new stores, re-inhabited structures, and modified spaces that contributed in a unique way to their respective towns and city neighbourhoods. The strategies used by Canadian Tire in constructing hundreds of franchise stores throughout Canada, can be applied to the big-box when considering its placement in a rural setting.

The earliest Canadian tire associate stores, located throughout Ontario in such towns and cities as Hamilton, London, Weston, Chatham and Sudbury, all adopted existing typologies of commercial buildings; yet, due to the nuances of separate ownership, materials, signage, entrance, and overall differentiation of programmatic organization, each was distinct. Essentially, each store became a reflection of an established tradition of building and local retail practice, with a national brand like Canadian Tire binding together all their collective differences.

⁵¹ Hugh McBride, p25.

⁵² Hugh McBride, p42.

Fig. 11: The Chatham, Ontario, Canadian Tire store as it appeared in 1945.

For the most part, the associate stores, like those stores found in Hamilton, Chatham and North Bay, were established in existing business districts of rural and urban environments. The typology of the store was a multiple-level, mixed use structure. Large amounts of windows for product display graced the main street façade, where entrances for both cars and pedestrians occurred directly off streets and sidewalks respectively. An efficiency of interior space was a necessity for new associate dealers trying to maximize sales. The upper levels of most stores,

Fig. 12: The 1960's Sudbury, Ontario, Canadian Tire store.

including Windsor, Ontario, St. John's, Newfoundland, and Paris, Ontario included mixed use spaces such as offices or apartments. The Upper floor of the North Bay store was one example where the cash-strapped dealer and his wife both lived while running their store below.⁵³ These examples illustrate strategies for creating a more pedestrian friendly scale, and a more significant street relationship for a national retailer.

Fig. 13: The Windsor, Ontario, Canadian Tire store.

The Canadian Tire store in Galt, Ontario, which existed in the 1950s, was built with two floors, both used for the store and its product displays. Both the ground and upper floor

⁵³ Hugh McBride.

facades were constructed fully glazed with displays and products easily visible from the sidewalk, tempting pedestrians to impulse buy as they walked past. The efficient structure, which is both cost effective and transparent from interior to exterior, divides

Fig. 14: The 1957 Galt, Ontario, Canadian Tire store.

the main street façade into smaller portions. A horizontal cantilevered canopy compliments the public space outside by providing exterior shelter before entering the store.

These past stores, which ranged in size from 1,000 to 5,000 square feet, had the majority of their parking on the street shared by many businesses. Now big-boxes, both Canadian Tire and others, range in size from 20,000 to 100,000 square feet in rural towns, with stores reaching 200,000 square feet in cities and suburban areas. In addition, these contemporary stores provide approximately one parking space for every 200 square feet of retail building area. So, a big-box 50,000 square feet in size would provide 250

parking spaces on its site. These past examples provide knowledge of perhaps forgotten ways to mediate the space of arrival and interaction in the city, yet are insufficient to use as complete contemporary models as they do not meet the sales area required for the modern big-box. These modern big-box stores rely on storing and selling large volumes of products, to regional populations shopping by car.

Urban Precedents

Large buildings of various uses from train stations, department stores, and libraries have traditionally played positive roles within the urban environment, existing as a vital part of urban life. By examining these past buildings, new strategies for altering the contemporary big-box typology can be uncovered.

The Department Store

The department store is an important precursor to the development of the big-box.

Department stores came about in the mid 1850s to serve a rising middle class and an increased consumption of goods during this time.⁵⁴ The department store, like the big-box presented everything under one roof. Yet, how the department store managed to form significant relationships with both the city, and the context of the site, was quite different than that of the big-box.

Fig. 15: Children looking at an Eaton's department store Christmas display, 1958.

⁵⁴ Merideth Clausen, "The Department Store – Development of Type," Journal of Architectural Education, (39, no.1, 1985), pp20-29.

Early department stores fit into the city in a variety of ways, becoming anchors of activity in downtown urban centres in the 19th century.⁵⁵ Although these stores were focused inwards, their presence on the street was inviting, including multiple street entrances, and

Fig. 16: Marshall Field's department store in Chicago, 1907.

elaborate street level glazing containing attractive displays. From street level, these buildings rose numerous stories, driven by the need for efficiency in urban areas with rising land values. For example, The 1902 Macy's department store in New York was

⁵⁵ Steve Schoenherr, "The Department Store," [Steve Schoenherr Home Page](http://home.sandiego.edu/gen/sol/shoppingcenter.html), (Professor of History, University of San Diego. Dec. 20, 2004), <<http://home.sandiego.edu/gen/sol/shoppingcenter.html>>.

nine stories in height, and the 1909 Wanamaker's department store in Philadelphia had three basement levels with twelve stories above grade, with an overall building height of 280 feet.⁵⁶ Various department stores, like Wanamaker's in Philadelphia, allowed for future expansion within the building itself. The architect Daniel Burnham designed each storey to be a generous double height space, that according to him it would be "high enough to allow of a division into two stories at some future time, when extra room for

Fig. 17: Wanamaker's department store in Philadelphia, 1909.

business is demanded.”⁵⁷ Upon entering Wanamaker's department store, shoppers were presented with exciting spaces and elaborate detailing. Wanamaker's in Philadelphia had an interior Grand Court that was 150 feet high, with the second largest organ in the world

⁵⁶ Daniel Herman, “Next Big Thing,” *The Harvard Design School Guide to Shopping / Harvard Design School Project on the City 2*, (Taschen, April, 2002), p.534.

⁵⁷ Thomas S. Hines, *Burnham of Chicago: Architect and Planner*, (Chicago: University of Chicago Press, 1979), p.303.

to entertain customers.⁵⁸ The location of many department stores within the city was crucial to attract people to the building, often connecting to mass transit systems.

Fig. 18: Wanamaker's department store interior Grand Court.

The Bloomingdale's store of 1872 was able to profit from a newly constructed elevated railroad along 3rd Avenue in New York.⁵⁹ The use of the railroad brought customers to the store from downtown areas of New York. All the modern modes of transportation

⁵⁸ Steve Schoenherr.

⁵⁹ Steve Schoenherr.

would be accommodated at the department store. At the Marshall Field department store in Chicago there existed railroad lines linking to Chicago's underground railroad tunnels, an elevated railway stop, a city bus stop, shuttle service and a taxi stand.⁶⁰ Some department stores offered other activities such as recreational programs and community classes to encourage people to shop there and stay longer in the process.⁶¹ One can still find these strategies employed in existing big-box stores with programmatic additions such as restaurants, fitness centres, and movie theatres.

The numerous strategies which evolved with the department store typology have enabled it to be a successful urban building type. The strategies used by the department store, such as celebrated architectural spaces and amenities, a connection to various forms of transit, multiple level designs, and its significant interaction with the street and pedestrian realm might be adapted to the big-box when considering its placement in a rural downtown environment.

Contemporary Urban Precedents

Although strategies for modifying the big-box can be found by exploring past urban precedents, there are contemporary plans that specifically focus on altering the big-box typology. Through this study of contemporary buildings and theories in the urban

⁶⁰ "Marshall Field," Merchandise Mart Properties Inc.,
<http://www.merchandisemart.com/marchitecture/marshall_field.html>.

⁶¹ Steve Schoenherr.

context, a greater range of potential strategies for altering the suburban big-box typology in the rural town will be discovered.

In response to an ever growing cosmopolitan clientele, big-box retailers are increasingly being located in dense urban locations with site restrictions. City planners and concerned neighbourhood groups are in addition forcing the big-box typology to change. Cities like New York are facing an increasing onslaught of retailers such as Home Depot and Wal-Mart, who are looking to build in dense urban locations. In Toronto, the Loblaws grocery store chain was looking to tap into urban markets and find potential sites beyond their traditional suburban locations. However, their conventional supermarket plans were rejected by both the municipal government and neighbourhood groups in urban locations throughout Toronto. This resulted in three new designs by Rebanks, Pepper, Littlewood, Boyd Architects Inc., whose buildings main architectural elements of material, scale, facade and window proportions reflect the characteristics that typify the surrounding area.⁶²

The first of these three new Loblaws stores, located at Dupont and Christie Streets, changes the big-box typology by first reducing its overall perceived mass, which at 50,000 square feet typifies a standard suburban big-box. It accomplishes this reduction in perceived mass by dividing its large volume into discrete bays, reducing its bulk on the street. Although a large proportion of the site is designated as surface parking, other urban gestures, like the large canopy over the sidewalk at the entrance facing the street, invites pedestrians from the surrounding public space. A façade that would

⁶² Rebanks Architects Inc. "Super Markets," Canadian Architect

conventionally have been left blank is animated by the additions of a café, bakery and prepared food section, increasing interaction from the street.⁶³ Diversification of site

Fig. 19: Loblaws at the corner of Christie St. and Dupont St., Toronto.

programs such as a wine shop and dry cleaner, also reflect the overall strategy of creating street interaction and making the building more attractive to the public through its architecture and through the amenities offered.

The second Loblaws in this series of urban big-box stores further diversified its program by including a housewares store, Liquor store, Loblaws Garden, cellular phone business, shoe repair, mail supplies and printing, a bank, travel centre, and tobacconist. Where the first store at Dupont and Christie streets was located in response to an established residential setting, this store, located near the Lake Ontario waterfront, was intended to act as a catalyst in an area with much unrealized residential development. Not entirely accidental or incidental to this store was its location, one block east of the main store for

⁶³ Rebanks Architects Inc.

the Liquor Control Board of Ontario and its specialty shop, Vintages. The location “was poised to benefit from an already established retail destination.”⁶⁴

Fig. 20: Loblaw's Queens Quay store, Toronto.

Fig. 21: Interior of Loblaw's Queens Quay store, Toronto.

⁶⁴ Rebanks Architects Inc.

The urban design strategy in this second store, the Queens Quay store, was much bolder than the first, eliminating the large surface parking area, and elevating the grocery store onto a second storey. The secondary shops such as Club Monaco Everyday, LCBO, Loblaws Gardens, and others were used to create a street-related perimeter of shopping, both concealing the grade-level parking within and interacting with both the street and pedestrian movement. The parking is connected to the store by means of a ramp escalator, which culminates in the store at a “double-height skylit food hall reminiscent of European market-halls.”⁶⁵ Included in the urban strategy was a mezzanine level on three sides of the interior space with seating for the Marche, which has a view out to the nearby lake. As well as a kitchen classroom, a ‘community hall’ is also located on this level, a public addition to an otherwise corporate program.

The third store, at the mid-town location of St. Clair and Bathurst in Toronto, applies many of the same urban strategies as used by the previous two examples. Again, a wide variety of retail was incorporated into the main program of the Loblaws grocery store, once more used for concealing the parking at grade-level, the main store above on the second level. A mezzanine again graced the store, providing space for seating and a community space. However, this store breaks new ground in its connection to the city, perched directly above the existing subway station, providing a welcomed alternative to the automobile.

Strategies such as a diversification of retail and programmatic uses, the elimination of surface parking, organizing the store on a number of levels, and connecting the building

⁶⁵ Rebanks Architects Inc.

to mass transit systems have enabled this architectural firm and big-box retailer to create successful urban buildings, free from the homogenous suburban big-box typology. These stores offer unique strategies that may apply to the big-box when considering its placement in the traditional downtown of a rural community.

Questioning the Big-Box in the Rural Context

In the previous chapters we have seen examples demonstrating how both large and small buildings like urban big-box stores, factories, and traditional rural stores can contribute to their respective built environments. A big-box therefore has the possibility to exist in a manner that can contribute to the scale, context, and community specific to rural town life. It has been shown that large buildings have been able to build in centrally located rural sites. Moreover, Canadian Tire's dealer owned corporate structure and small town stores can attest that it is possible to maintain national retailers in rural downtown core areas. We have seen that a big-box can be more sustainable and environmentally responsible, as well as economically viable, in successful urban big-box precedents like Loblaws in Toronto and Wal-Mart in Vancouver. A big-box can also make more efficient use of its land, incorporate a variety of uses, and greatly increase its relationship with the street as exhibited in urban department stores of immense scale. It is evident that the suburban big-box typology can be successfully changed without losing the essence of either the store or a rural town site. The question remains, why is the current big-box typology so destructive to the rural town environment, and why does it need to change? The next chapter discusses the individual negative characteristics of the big-box as they affect the rural town, and how some of the previous strategies learned from rural and urban precedents can be used to find opportunities for new designs.

Current Big-Box Strategy

Big-box retailers, which have for the most part existed in the suburbs of large cities, are now discovering new commercial markets in small towns, often serving larger regional populations outside these rural communities. In nearly every case the typical suburban big-box formats are simply transplanted into rural locations with little or no concern for the surrounding context, resulting in fragmented zones of retail on the periphery of town. The suburban format of retail is problematic because of a number of contributing factors including its dependence on the automobile to get to it, parking, its scale and street relationships, and its location and homogenous form. This building type is a suburban invention, which clearly needs to be rethought on rural terms. Through a critical analysis of the big-box other options will be considered, enabling large scale retail to play a more positive role within the small town environment.

Fig. 22: A typical big-box in the rural town environment, often located on greenfield sites at the edge or beyond a town's limits.

Parking Lots

A typical big-box includes among other negative characteristics, large surface parking situated in the foreground of the building. This creates a barrier between the building and the street, effectively cutting off any relationship between the street, the unique development of each town, and the big-box. Without concern for their surroundings, the big-box thereby reduces both the opportunity for social interaction along the street edge, and dramatically reduces pedestrian accessibility to the store, due to the organization of parking on the site.

In the town of Hanover, and rural towns within this south-west region of Ontario, the disproportionate ratio between parking and the big-box itself, attests to the big-box's inefficient use of land, and its irresponsible form of growth in the rural town. Big-box construction in the east end of Hanover exhibits how front-of-store surface parking, as part of the overall suburban big-box typology, is destructive to the existing fabric of this rural town. The recently constructed big-box store for Home Hardware occupies a site of

Fig. 23: Home Hardware in Hanover, Ontario - site use chart.

285,789 square feet (6.6 acres) in size, of which only 25,848 square feet (or 9% of the total site) is used by the big-box store. The remaining land is taken up by a lumber storage shed, 122 parking spaces, a total asphalted area of 72,139 square feet, and a remaining undeveloped portion of the site with an area of 76, 852 square feet. The parking lot alone consists of an area nearly twice that of the store, equalling approximately 44,000 square feet, or 15.4% of the entire site. In contrast, one downtown block in Hanover covers a similar area, nearly 6 acres; however it contains over 30 individual businesses, over 20 apartments and over a dozen offices with parking largely behind the stores or on the main street in front. With the parking situated between the

Fig. 24: Single downtown block in Hanover, Ontario - site use chart.

road and the big-box, the Home Hardware store is set back roughly 160 feet from the street, thereby removing any role the building could play in enhancing the public realm of the community.

Originating in the suburbs, a typical big-box serves the automobile since they are the only personal means by which to traverse the sprawl of urban centres and cover the vast

distances between individual dwellings and other buildings. However, in rural towns the traditional means of shopping relies on pedestrian travel, so a continuous pedestrian related street edge is vital to the well-being and continuity of a small town. Even in a localized area of a rural town where big-boxes locate adjacent to one other, their removal from the street edge, combined with vast expanses of surface parking, make walking from one store to the another impractical and undesirable. In contrast, the entire downtown core of Hanover is easily traversed via foot (at less than a quarter mile in length) on sidewalks. In contrast to the downtown of Hanover is the New Home Hardware store constructed on the periphery of town, which is nearly a half a mile from any residential area. A person must walk over a thousand feet to arrive at the neighbouring Canadian Tire or Zellers stores.

Fig. 25: Big-Box construction in the east end of Hanover, Ontario.

Fig. 26: Downtown Hanover, Ontario.

With this being said, the accommodation of vehicles is essential to the success of contemporary big-box retail. Their primary focus is not entirely on sales within rural town itself, but through the attraction of a larger regional market. A new Wal-Mart store in Hanover for instance attracts shoppers from over thirty miles away, driving approximately forty minutes. The surrounding countryside can dramatically increase a stores potential market, compared to that of the immediate town's population, yet the parking for a suburban style big-box needs to be rethought in rural terms to allow for community interaction.

Canadian Tire is another big-box retailer to recently build within the zone of big-box construction in Hanover. Located on a corner of a main street intersection, not far from the edge of town, the store is set back nearly 280 feet, due to 187 spaces of surface parking in the foreground of the store. With a gross floor area of 37,500 square feet for the store, and a total site area of about 235,000 square feet, this big-box uses only 16% of its site. The parking for this store occupies nearly 140,000 square feet of asphalted area, which is over three times that of the big-box. By accommodating the automobile to such

an extreme, amenities such as sidewalks, a continuous streetscape, and bicycle accommodation are left behind in the suburban style big-box typology. In a recent lecture given in Boston, Jane Jacobs explains that one of the problems with big-box stores is their disregard for pedestrian convenience and their overwhelming “accessibility by automobile to big-box stores like IKEA and Home Depot.”⁶⁶

Although the accommodation of the automobile is a necessity for the big-box, it needs to be introduced in other ways to better fit into the rural town environment. The cost of surface parking can range from \$4,000-\$7,000 (Cad.) per space depending on the site conditions.⁶⁷ For a big-box like Wal-Mart in Hanover, Ontario who built 475 spaces, a cost of anywhere between \$2 million and \$3 million would be needed to pay for paving and the land. This price does not include any dramatic changes needed in levelling a site for asphalt paving.

In addition to the cost of parking, each big-box is regulated by local municipalities and the building code to provide a certain number of parking spaces for the amount of square footage the store occupies. Since one store’s parking lot is too far from the next big-box parking lot, sharing the required parking for a store is negated. The Canadian Tire store in Hanover for instance required one parking space for every 215 square feet of retail area, and that parking can only be used for Canadian Tire. Other big-box stores in Hanover, such as Wal-Mart and Home Hardware, similarly require separate parking because each

⁶⁶ Jane Jacobs, “Perspective,” Random Comments, (Lecture: Boston College Environmental Affairs Law Review, April, 2003), <http://www.bc.edu/bc_org/avp/law/lwsch/journals/bcealr/28_4/03_TXT.htm>.

⁶⁷ Michael Replogle, and Harriet Parcells, Linking Bicycle/Pedestrian Facilities with Transit, (prepared for U.S. Federal Highway Administration, Sept. 1992), p. 3.

store is disconnected from the other. Furthermore, the amount of parking needed to meet the needs of each store is gauged to satisfy the demand of parking the Saturday before Christmas (peak period), and does not reflect the everyday needs of the store. If however like downtown, a big-box were constructed adjacent to other mixed use buildings, parking could be shared between all businesses. In conclusion, this strategy of separate parking for each store is an inefficient use of land in the town, environmentally disparaging because of increased surface water runoff, and it is socially destructive because it negates pedestrian encounter along the traditionally continuous street edge of the rural town.

Other options to use the large cost of surface parking more effectively were given in the examples of the new Loblaws stores in Toronto, discussed earlier. These stores included parking underneath the store at grade level, with the bulk of the store raised above, surrounding the parking lot are smaller retailers directly opened onto the street. Furthermore, the money spent on surface parking could be used for parking underground, on the roof, behind the store as in most rural downtowns, or as a separate vertical structure. The average cost associated with a separate parking structure is \$10,000 (Cad.) per space, and for underground parking the cost would be approximately \$15,000-\$20,000 (Cad.) per parking space.⁶⁸ By co-operating with a rural town, using existing municipal and street parking infrastructure, the cost and need for parking would further be reduced. A big-box in a rural downtown like Hanover has access to street parking and a variety of municipal parking lots.

⁶⁸ Todd Litman, "Parking requirement impacts on housing affordability," Victoria Transport Policy Institute, (12 March 1999), <<http://www.islandnet.com/~liman>>.

Even if a store were to construct fifty less spaces of surface parking, the cost savings would be approximately \$200,000 to \$350,000. Furthermore, having less parking does not always translate into decreased revenue for a big-box retailer, since a store located in an urban area can share parking with other businesses. Case in point is the New Seasons Market in Portland, Oregon. This 15,000 square foot grocery store has only 38 parking spaces, but it has the largest per-square-foot sales figure of any store in Oregon” because of its urban location.⁶⁹

Various businesses and programmatic uses such as restaurants, bars, community halls, and local organizations function outside the hours of a typical big-box store, and all exist within the traditional downtown of a place like Hanover, allowing for effective sharing of parking with the big-box store. The possibility of time-sharing, with regards to parking, is an efficiency that exists in the traditional diversity of small towns, one that is absent in the current sprawl of big-box construction being built on the fringe of rural towns.

The suburban big-box, with its vehicular focused accessibility, is furthermore destructive to certain minorities of society. As explained by Robert Brandes Gratz in “Cities back from the Edge,” shopping does not always require a car. The elderly, the poor, and the young do not always own cars. A supplement to at-store parking is home delivery. Gratz explains that a municipal subsidy for home delivery would cost less than building additional infrastructure for parking⁷⁰

⁶⁹ Philip Langdon.

⁷⁰ Roberta Brandes Gratz, Cities Back from the Edge: New Life for Downtown, (New York: John Wiley

On-grade parking is most often chosen as a result of comparing the immediate costs involved in building a multi-storey structure or excavation for a separate parking level beneath a store. Beyond just the economic cost is the experiential and architectural cost of deciding how to accommodate vehicles. As demonstrated with the examples of big-box construction in Hanover and elsewhere, the overwhelming accommodation of the automobile has detrimental affects on rural town growth and the everyday lives of its citizens. In the alternative design this thesis proposes for the big-box, consideration will be given to longer term economic benefits as well as to the well-being of the community and town infrastructure.

Scale and Street Relationship

The interior of a typical big-box is organized in a way that uses the majority of the wall surfaces for selling products and displaying signage. This requires that if wall space is to be maximized for interior use, the result would be a blank exterior facade. Along with the fact that the big-box is almost exclusively set back behind a large surface parking area, the street related façades lack interaction with the pedestrian. Big-box facades fail to provide either views from the street or entrances directly off a public sidewalk. Due to the enormous setbacks from the street, big-boxes in rural towns have compensated by increasing both the scale of the overall building volume and the exterior signage to make them visible to passing motorists. The consequence is a building that is void of any

and Sons, Inc., 1998.), p.180.

relationship to either the pedestrian scale or the surrounding context of a traditional rural town.

The big-box typology, specifically its scale and street relationship, is detrimental according to James Howard Kunstler, a writer for *The New York Times* and architectural critic. Kunstler explains that there are two different layers of detail. The first is at the level of the façade, where the blank steel façade “conveys many messages. It says, ‘the public realm has no significance and what goes on there doesn’t matter.’”⁷¹ The second way these structures affect the public realm is when the “buildings fail to define public space at a scale congenial to humans.”⁷² The giant setback of parking between the store and the highway is a space that “people cannot [occupy] in safety and comfort. They will not walk there. They will not pause and mingle there with other people.”⁷³ As an

Fig. 27: Wal-Mart in Hanover, Ontario.

⁷¹ James Howard Kunstler, *Home From Nowhere: Remaking Our Everyday World for the 21st Century*, (New York: Simon & Schuster, 1996.), pp.39.

⁷² James Howard Kunstler, pp.39.

⁷³ James Howard Kunstler, pp.39.

example, the Wal-Mart big-box in Hanover fails to define public space with a setback of 1125 feet from the street. The reality of this Wal-Mart would have been avoided if the store had been built within established commercial areas, up to the street edge, at a scale more relevant to that of the established rural town and the people who live there.

In a typical downtown, the experience of the pedestrian is of primary concern to local shops; the densely packed businesses rely on window displays and architectural elements such as shelter, lighting, views and scale to interact with the pedestrian and entice them to shop, thereby increasing product sales. Big-box stores fail to take advantage of this opportunity. In support of this theory Roberta Brandes Gratz points out that many big-box retailers in urban centres fail to stimulate impulse buying through window displays because they have traditionally relied on marketing strategies that take place once the shopper is inside the store.⁷⁴ Of the 7734 square feet that forms the front façade of Wal-

Fig. 28: Traditional mixed use buildings in Downtown Hanover, Ontario, with T. Eaton's store (Far right).

⁷⁴ Roberta Brandes Gratz, p.180.

Mart in Hanover, only 406 square feet, or 5.2%, is either glazed with windows or opened with door entrances. The remainder of the façade is composed of blank corrugated steel walls and signage.

Fortunately, as highlighted in previous chapters, there are both contemporary urban big-box strategies and traditional rural town examples of buildings that have held positive roles within their respective communities. These examples can provide alternative strategies for creating a healthier relationship to the street and a more suitable scale to the pedestrian for the big-box in the rural town environment.

Location and Town Morphology

The key to a sustainable form of town and city growth has been to build and evolve as a response to human needs, according to Andres Duany.⁷⁵ This was a method used traditionally by rural towns, one which is negated by using the suburban big-box retail model; a large single storey, box-like volume, located on the edge or outside of rural towns and accessed primarily by the automobile. The outside, or fringe sites chosen for the big-box have less to do with a retail sales strategy than they do with the reduced land taxes, and the practicality of locating and constructing a massive building in the least amount of time, money and effort. This building typology furthermore has a short predicted life-span of occupancy. In Hanover these fringe sites are located over a mile from downtown, bordering on the edge of the town, and sometimes beyond town limits. From town to town these sites vary, but are largely places of re-claimed or annexed

⁷⁵ Andres Duany, p. 15.

farmland on the edge or outskirts of town. During the haste of construction in these areas, many opportunities are missed for both the host community and the retailer. This form of construction affects the rural town both immediately and long into the future. However, by denying big-box construction in rural towns, people would continue to drive and shop at big-box stores in larger cities further away, burning more gas in the process. A more constructive solution is to find a location more suitable within the context of a rural town.

The traditional rural town model evolves as a response to the needs of the people living there. By having an efficient street network, grid or otherwise, numerous paths can connect various functions and programs and still be easily accessible to the motorist. In Hanover a grid pattern of town blocks approximately 400 feet square ensure numerous

Fig. 29: Big-box construction in Hanover.

paths throughout the town. Conversely, when a big-box decides to locate along a single arterial street or highway, traffic is forced to concentrate along a limited number of routes, causing congestion and discouraging a big-box's primary audience, the motorist.

In Hanover, all new big-box construction has taken place at one end of town along a single highway and main street in town. This type of development has in consequence necessitated four lanes of traffic to handle the influx of cars along 10th Street.

Furthermore, walking routes are scarce in such fringe locations, and distances become unrealistic for a shopper carrying products home. The four lanes of traffic in Hanover create a street seventy feet across with intermittent sidewalks, and pedestrian crossings every 2700 feet, or over half a mile.

Wal-Mart in Hanover is a prime example of why a big-box should be built within a traditional street network. This big-box is located on annexed farmland beyond the existing town limits, situated 1.7 miles from downtown, and close to a mile from any residential development. Furthermore, because of its fringe location, no sidewalks

Fig. 30: Arterial and cul-de-sacs (Left) and Grid of streets (Right).

connect the store to the town nor could anyone safely bike along its highway location.

Wal-Mart's location along a single highway prescribes only one way for motorists to get to the store, where the traditional planned grid network of streets would allow for multiple choices for entry and engagement. Not only does a street network in a town like Hanover make the town more efficient, but it will allow for the traveler, motorist or pedestrian, to alter their day-to-day routes to work, shopping, and leisure.⁷⁶ Ultimately a street network

allows people to escape the monotony of a single route to their everyday destinations.⁷⁷

In addition, since a single street in a network needs to support less overall traffic, it only requires two lanes to work efficiently. The town consequently becomes a more pedestrian friendly environment with streets that are easily crossed.⁷⁸

Locating a big-box within a traditional street network, in a diverse section of a rural town would allow both the store and town to profit, making the store more readily accessible to both the pedestrian and motorist. In addition, certain segments of society, including the elderly, the poor, and the young who may lack the ability to drive, have the option to walk, increasing an owners' potential clientele. In his book Andres Duany explains that in a traditional rural downtown or urban neighbourhood the "five-minute rule" occurs. The five minute walk is desirable in a rural town since the everyday needs of an individual can be met by walking only five minutes in any direction.⁷⁹

⁷⁶ Andres Duany, p. 15.

⁷⁷ Andres Duany, p.15.

⁷⁸ Andres Duany, p.16.

⁷⁹ Andres Duany, p.15.

A key strategy for the big-box has been to keep people at the store for as long as possible once they arrive. In a rural town this challenge is crucial considering that a large amount of business is generated from people travelling a great distance from the surrounding countryside. In a larger urban centre like Toronto, this is being accomplished in big-box grocery stores like Loblaws by including smaller stores and other programmatic uses. Secondary stores such as clothing, liquor, gardening, drycleaners, and cafés ensure that other needs are being fulfilled and people are staying longer under one roof, spending more money while there. The indoor mall is another example of a space that strives to keep people for as long as possible by providing a multitude of services such as restaurants, shopping and entertainment. However, the ability for one big-box in a rural town to do all this is unrealistic given the cost, scale and market for such a building. Yet there already exists a diverse environment within the traditional downtown of rural communities. If a big-box were to locate in such a location, which supplies all the needs of everyday life, a shopper would most likely stay longer around the big-box or perhaps make an unplanned visit while completing other everyday activities in the area.

Building Form and the Impact on Site

A big-box in a rural town is typically a large, single storey building that ranges in size from 20,000sqft to 100,000sqft. In a rural setting and small town with limited economic resources and abilities, a big-box can place enormous economic burdens on a community's infrastructure, existing businesses, and an individual's property taxes. There is a need to realize a more compact and efficient building type, which allows the big-box

to operate economically while requiring both a smaller amount of land and a decreased strain on town resources. Developing in a more traditional manner appropriate to a small town would include design options such as a basement level, a two storey structure, or raising the building to allow other uses both above and below the stores primary retail space. Changing the classic form of the big-box store is furthermore a priority because all levels of government, including local civic groups, have increasingly confronted big-box development by placing restrictions and requirements that would otherwise prevent the suburban style big-box from being built. For example, the city of Ashland, Oregon has created an ordinance that would limit the gross floor area of a building to 45,000 square feet.⁸⁰ This ordinance would further allow underground parking in addition to the limit of 45,000 square feet, stipulating that a buildings primary orientation and entrance be towards that street instead of the parking area, and a building shall be accessed from a public sidewalk with a setback of no more than twenty feet.⁸¹ A new form of retail in the rural town would abide by these concerns before they become prevalent throughout the rural town landscape.

The United States has experienced the big-box phenomenon for a much longer period than Canada, and it is therefore a great source for discovering and predicting potential problems and solutions that may arise here. Some U.S states have for example adopted policies that require big-box retailers to rule out the reuse of existing buildings before they build new ones.⁸² Other communities have tried to implement, with some success,

⁸⁰City of Ashland, Oregon, "Ordinance No. 2900, Section 18.72.050.C," Municipal Code, 23 Sept. 2003 <<http://www.ashland.or.us/Code.asp?CodeID=3350>>.

⁸¹ City of Ashland, Oregon.

⁸² Frank Jossi, "Rewrapping the Big Box," Planning Magazine, (Aug., 1998), pp.16-18

new construction standards which adhere to a higher standard of design.⁸³ Many municipalities in Georgia have for instance used retail caps which limit the size of big-box stores or the overall “footprint” of a building, often allowing larger stores to be built by adding another storey to the structure.⁸⁴ Other restrictions concerning the site of the big-box have also been implemented in Stevensville, Maryland. Where the town council prevented the development of a 155,399sqft Wal-Mart because of the increased demand both the site and building would place on the town’s water, sewage and storm drainage capabilities.⁸⁵ The amount of water required by the building and landscape, coupled with that originating from the roofscape and surface parking would far exceed the capacity of the town’s treatment plant.⁸⁶

In response to the impact these buildings have on their sites, the city of London, Ontario is moving to curb further suburban type retail development, explaining that building will only be allowed on lands already designated commercial.⁸⁷ A recent report by Michael Pearce, a retail expert at the University of Western Ontario, noted there is about one million square feet of vacant commercial real estate in London.⁸⁸ The use of existing land would create far more efficient development, and in an increasingly greater number of rural towns, similar policies are preventing big-box sprawl into agricultural land and greenfield sites on the periphery of town.

⁸³ Frank Jossi, p. 17.

⁸⁴ University of Georgia, School of Law, Controlling Big Box Retail Development in Georgia, Land use clinic, Oct. 2003.

⁸⁵ Theodis L. Perry, “Big-Box Retail Development,” Managing Maryland’s Growth: Models and Guidelines, (Maryland Department of Planning, Oct. 2001), p. 25.

⁸⁶ Theodis L. Perry, p.25.

⁸⁷ Norman De Bono, “Developers unveil plans for more big box stores,” The London Free Press, (June 7, 2004).

⁸⁸ Norman De Bono.

No matter what the reason for their concern, towns and cities throughout North America are becoming increasingly aware that the typical form of the big-box negatively impacts the well-being of their community. It is in the best interest of both the rural town and the big-box to realize a more efficient means of development and building form. As demonstrated in an earlier example, the proposed big-box design of Busby and Associates, for the new Wal-Mart being planned in South Vancouver, can be both environmentally sustainable, make efforts to contribute to a better built environment for the community, and be economically beneficial.

Program (Mixed-use)

The key to an active rural town and street life is to maintain and develop the space of encounter in the town throughout the entire day. Conventional rural town construction took place whereby no one activity existed autonomously. Shopping, eating, working, and living; all are mutually reinforcing activities that were built and woven seamlessly together. New construction however, such as the big-box, is largely a monofunctional space. In a rural town, a big-box should be more compatible to the existing fabric of mixed-use spaces. By incorporating programs such as retail, offices, and housing, a mixed use strategy can aid in mediating between the large scale of the big-box and the intimacy and vitality of the street.

However, even if a big-box were to build in a manner more suitable to that of a traditional town, the modern zoning principles that are used by the majority of cities and towns in North America prevent such a reality. Zoning, which at one time served to separate incompatible uses such as industrial from residential, has since been applied to every use. As Andres Duany explains, a typical contemporary zoning code has dozens of land-use designations; not only is industrial land separated from housing, but low density housing has been detached from high density housing.⁸⁹ Furthermore, in rural towns, new shopping areas, restaurants, and offices have been forced to be constructed in isolation from one another. Contemporary zoning also has the affect of changing existing mixed-use zones over time, altering either vacant land or restricting new construction that takes place in such areas.

In a traditional town, planning was accomplished more often by examining buildings by type rather than by their use. Large buildings are located near other large buildings and small buildings are grouped together as well.⁹⁰ Even when buildings of different sizes do adjoin, the result is that they together work to define the space of the street, building right up against the sidewalk.⁹¹ In any case, large surface parking in a traditional town occurred behind the building fronting the street.

Although contemporary planning largely prohibits mixed-use construction, more and more municipalities are adopting regulations to change the monofunctional design of the big-box. A new strategy for the big-box will become successful through the creation of

⁸⁹ Andres Duany, p.17.

⁹⁰ Andres Duany, p.17.

⁹¹ Andres Duany, p.17

mixed-use environments in which a greater variety of activities will occur, ultimately leading to more people undertaking a variety of different activities. The result is a greater potential market surrounding the big-box with a greater likelihood of a chance encounter with the retailer, while people carry on other day-to-day activities in a rural town. It is by understanding the benefits of mixed-use strategies in rural town development that a contemporary big-box and existing rural town can live symbiotically.

The Rural Context

Community and Communication in a Rural Town

In Hanover, Ontario, like many other rural towns and distinct urban neighbourhoods, the community relies on spaces of casual social encounter that are found along the continuous streetscape and sidewalk space. Hanover does however contain larger public spaces, such as parks and civic squares in which community events occur. Yet, the primary space in which spontaneous social encounter takes place is along the sidewalk of the downtown core. The new downtown square, located on the corner of 10th Street and 11th Avenue, which opened only one year ago, is a new social space that has not yet been surrounded by a large enough diversity of development to permit everyday social encounter. The other large public space in town is Hanover Park. However, the park's location north of downtown is roughly a ten minute walk away from Hanover's core area. Subsequently, it is the sidewalk and main street of downtown that is, for Hanover, the primary space of encounter, and place of this community's everyday communication.

Along Hanover's sidewalks are a multitude of mixed use buildings, civic spaces, and intimate sidewalk benches and corner store steps, where people interact while carrying out their daily activities. This downtown environment is juxtaposed against the current form of big-box development and sprawl occurring on the fringe of Hanover. Suburban type development has largely taken over more traditional mixed use, pedestrian friendly construction in Hanover, and has been destructive to the spaces of casual social encounter in this town. Sidewalks, if built at all, in this area of sprawl have become disconnected,

and the streetscape has become nonexistent due to large building setbacks from the street. Since development in Hanover has become void of any social, community building spaces, the chosen site for the design proposal supports a more traditional means of rural

Fig. 31: The downtown core of Hanover, Ontario, looking east along 10th Street.

Fig. 32: Area of big-box development in the east end of Hanover, Ontario.

town construction. A site in the downtown core will challenge the integration of a large scale retail space. However, the opportunity for encouraging communication, and

ultimately the community of Hanover will emerge due to the quality spaces of encounter already present in the area.

Site

The site for the final design proposal is in a unique and traditionally commercial downtown, located in the rural town of Hanover, Ontario. Although it is an unconventional context for a big-box, it possesses all of the elements necessary to support a national retailer of this scale. The site is located adjacent to the juncture of two major highways in the region, existing within the established grid pattern of town streets. Along with restaurants, offices, a grocery store, an LCBO, small shops, and a number of residential apartments; this site contributes to forming the edge of the main street in downtown Hanover. Forming the background of the site are two multiple-storey apartment buildings, the Royal Canadian Legion, and the Hanover Curling Club. The property was previously home to a Bi-Way retail store until it recently closed, with the site and store presently unsold. The remaining portion of the site is occupied by a municipal parking lot to the rear of the existing Bi-Way store.

Fig. 33.

Canadian Tire

Currently existing on the outer boundaries of town, in an area of big-box development, is the existing Canadian Tire in Hanover, the same store discussed earlier in this paper. This large, national big-box retailer of automotive, hardware, house wares and leisure products has operated on this site for the past seven years. However, its presence on this site is disruptive and contrary to the sustainability of the town. It is an example of both a standard suburban big-box and a national formula for the design of Canadian Tire stores

Fig. 34: View of the existing Canadian Tire from 10th Street.

that has been transplanted onto a rural site. This has resulted in specific problems for the surrounding context as discovered earlier. The belief expressed here is that a building along any street, especially the main street, should activate the pedestrian environment and contribute to the public space of the street.

Rural Strategy

The objectives of this strategy are to provide both a densification of the existing downtown (occupying unutilized space behind buildings along 10th Street), and to enhance the public space of the street edge. Furthermore, this strategy addresses the existing nature of the site as street level retail with walk-up housing and mixed use development, to provide an active and diverse pedestrian environment and space of encounter.

Currently, the site allows little pedestrian movement through it, making it difficult to access the public parking, the Royal Canadian Legion, and the Hanover Curling Club in the deeper parts of the site away from 10th Street. It is proposed that 8th Avenue be primarily used to access the new under-store parking and to provide pedestrian access to the deeper areas of the site. It is also proposed that 7th Avenue and 12th Street be used for rear access to the stores secondary entrance and municipal parking. This also allows for the shipping and receiving area of Canadian Tire to be located towards the rear of the store. The proposed mixed use strategy along the street edge will connect the bulk of the big-box, behind the existing built fabric of the street, to the public realm of the sidewalk in front. In addition, it is through the use of a multi-level structure, a variety of programs, and building up to the sidewalk, that this proposal can support the traditional place of community interaction along the street edge of downtown.

Program

The site is divided into two sections and programs are provided for each. The first section, the bulk of the programmatic area, is the Canadian Tire store, located behind the existing built fabric found along 10th Street. The second section, that subsequently joins the new Canadian Tire big-box to the main street, includes dwelling units, offices, small businesses, street level retail, and a community assembly space.

Parking for all programs will be provided on site, on the street, and shared with municipal parking to the rear of the store. Canadian Tire's main entrance defines the edge of 10th street (Hanover's main street) and serves as a semi public entrance to access the upper floor small businesses, offices, the community space, and lower level parking below the store. This semi-public thoroughfare allows for a diverse mix of uses being accessed during various times of the day from the building's main street entrance. Furthermore, in this second section of the program, that which joins the new Canadian Tire to 10th Street, are two apartments built over top of the entrance to the under-store parking. The adjacent restaurant also utilizes the access to the under-store parking from 10th Street for shipping and receiving.

The second floor consists of display space for Canadian Tire visible from 10th Street, and two offices leased out to small businesses, recreational groups, or community organizations. A community space is located on the third floor, functioning as a place for

public meetings, community classes, and local events. This space furthermore has access to a roof-top patio located over the Canadian Tire store.

Design

Design Strategy

To support the pedestrian environment and characteristics of a rural town, the big-box can exist as something built up to the street edge, or connected to it through new or existing mixed use buildings (Fig. 35.). Within these three options, variations can occur that allow the big-box to exist as something above the ground, on the ground, or within the ground (Fig. 36.). Thus, in terms of mixing uses and contributing to the pedestrian environment, design strategies were developed that explore possible relationships between programs, and the placement of the big-box within the downtown of a rural community.

Fig. 35. The placement of the big-box (left) in relation to the street (right).

Fig. 36. The placement of the big-box in relation to the ground, with the addition of a mixed-use building to connect it to the street.

Based on these strategies, three investigations were undertaken. The first (Preliminary design study 01), made an effort to interact with the streetscape, locating the big-box against the street edge, in line with adjacent buildings (Fig. 37.). The second study (Preliminary design study 02), deals with the large scale of the big-box by locating it behind existing buildings along the street. In addition, the roof is considered for various programmatic requirements such as parking, with the main store located on ground level. The third proposal (Preliminary design study 03), considers raising the building above grade and using a mixed use, multilevel structure built on the street edge, to link with the public realm of the street and sidewalk. In this third scheme parking is provided underneath the big-box.

Preliminary design studies 01 and 02 were used to test strategies while locating a big-box on the proposed site in Hanover. They were also used to discover programmatic relationships that could be established between the big-box and the public realm of the street edge. The third proposal carries forward some of the ideas explored in design study 02 and design study 01, and results in the final thesis design proposition for the site in Hanover.

1. Big-Box

Preliminary Design Study 01

1. Big-Box
2. Store Entrance
3. Roof-Top Parking

Preliminary Design Study 02

1. Big-Box
2. Mixed use

Design Proposition

Fig. 37.

Preliminary Design Study

Roof-Top Parking Scheme (P.D.S. 02)

The first design concept, which uses the roof for programmatic requirements, locates the big-box on the ground, level with the street. Interacting with the street edge is the store's primary entrance and various mixed-use spaces on the second floor. Two escalators carry motorists arriving from the rooftop parking to the main entrance, which is also used by pedestrians entering from the street.

A concrete structural system was proposed and a 32 foot structural bay was repeated throughout the big-box portion (The same dimensions used by Canadian Tire in a typical suburban style big-box). A mezzanine level is also utilized to allow for both future expansion of the store and to decrease the amount of land required for the retail area. Similarly, the warehouse space utilized a change in elevation from front to back across the site, and was located one level below the main store to reduce the amount of area required for the store.

Fig. 38: Computer study model of big-box in the site (Roof-top parking scheme).

Fig. 39: Site plan of computer study model (Roof-top parking scheme).

Fig. 40: Study model of big-box, situated behind the built fabric along 10th Street (Roof-top parking scheme).

Fig. 41.

P.D.S. 02: 2nd Level

- 1. Big-Box Retail
- 2. Warehouse
- 3. Offices For Rent
- 4. Apartment
- 5. Automotive Bays

Fig. 42.

Fig. 43.

P.D.S. 02: Longitudinal Section

Fig. 44.

P.D.S. 02: 10th Street Elevation

Fig. 45.

Design Proposition

The New Downtown Canadian Tire

Most of the negative characteristics discussed throughout this thesis about the big-box typology have been addressed in the final design proposal, using various strategies discovered through case studies and precedents in the paper. Perhaps one of the most negative characteristics of the suburban big-box is its lack of contribution to the social fabric of the town. This proposed design uses a strategy of multiple storey construction, including three levels along 10th Street, with the main retail space being placed on two levels, with an additional third level for warehouse space, towards the rear of the site. Through the use of a mezzanine level above the main store space, the proposed big-box for Canadian Tire can expand its retail floor space from 20,000 square feet to 30, 500 square feet, an additional 50% over a one storey suburban big-box. As a comparison, the existing Canadian Tire store in Hanover had a floor area of approximately 21,000 square feet on one level.

The various floor levels of the design are connected in the same way as many of the case studies and precedents mentioned earlier, through passenger elevators and escalators capable of carrying customers and shopping carts full of products. Compared to big-box construction in the east end of Hanover, in which each building uses only 9% to 16% of their respective sites, the proposed design for Canadian Tire uses nearly 100%. In addition, the site is located in an established area of town with a diversity of businesses,

residents, and programs that, along with a new Canadian Tire, can symbiotically support one another in providing the daily needs of town residents in one distinct area of town.

Efficient use of the site was accomplished by taking advantage of opportunities presented by the unique context of the proposed big-box. Since the site slopes nearly twelve feet, or one full storey, both under-store parking, and grade level access to the store was possible. The secondary entrance at the rear of the store is at grade level, allowing customers using the municipal parking convenient level access to the store. Canadian Tire's primary entrance is geared towards the pedestrian friendly main street of Hanover. This entrance is one-half storey below the bulk of the store's retail volume, situated centrally between the main store and mixed use spaces above, and the under-store parking below.

Many case studies and precedents referred to in this thesis compliment their sites by exploring more sustainable, and environmentally friendly, strategies for the big-box. The proposed design for Canadian Tire uses characteristics of a typical big-box, such as large flat roof areas, as opportunities for sustainable design strategies. First of all, a living roof is planted on all the flat roof areas of this design, thereby reducing heating and cooling costs during all times of the year. Furthermore, by including a living roof, this big-box will discourage large amounts of water run-off associated with a typical suburban big-box. Any excess water that isn't used by the green roof in this design is collected for watering plants in Canadian Tire's garden centre. A pitched roof over the central retail space of the big-box includes a bank of clearstory windows and a band of skylights down the ridge of the gable roof. Natural lighting has been shown in this paper to reduce both

the cost associated with artificial lighting, and to increase product sales due to a more pleasing interior space for customers.

Typical surface parking, that nearly always separates a suburban big-box store from the streetscape, has been dealt with in a variety of ways more appropriate of a small town.

First of all, street parking is shared with other businesses in front of the proposed Canadian Tire. Street parking accomplished two things for the proposed store; first it protects pedestrians on the sidewalk from traffic, supporting the goal of a more pedestrian friendly big-box design, and secondly it reduces the required parking needed for the big-box store. Street parking in front, and adjacent to this store, accounts for approximately 50 spaces. Further reducing the amount of parking required for the proposed design is the municipal parking lot towards the rear of the site, which has nearly 130 parking spaces. The municipal lot is shared by those at the Hanover Curling Club, The Royal Canadian Legion, an apartment building, mixed use buildings along 10th Street, and the proposed Canadian Tire store.

At the store itself, or more accurately underneath the big-box, is parking for an additional 50 cars, used by both Canadian Tire and the mixed use buildings along 10th Street during the day, and between the Royal Canadian Legion and the proposed upper floor community space during the weekend, evening, and late night hours. Also accessed from the under-store parking are the six automotive service bays for Canadian Tire, located towards the rear, and escalators at the front that bring shoppers to the main store entrance. In addition to the infrastructure of parking around the site, is the less tangible attribute of

building a Canadian Tire in this part of town, in which hundreds of local residents are only a five minute walk from the store. The store's location further reduces the need for parking on site, and in general decreases vehicular traffic throughout the town. The combination of all four strategies in dealing with parking ensure that the big-box and all its programmatic spaces can be built up to the street edge and contribute to the public space of the street, developing in a way more akin to traditional rural town environments.

Supporting the space of encounter in a rural town has been shown to be one of the most negated aspects of typical big-box construction. Yet, in this proposed big-box design for Canadian Tire, spaces of casual social encounter have the opportunity to occur. As mentioned, the elimination of surface parking has allowed the design to contribute to the continuous street edge of main street. However, it has been revealed in this thesis that mixed use design strategies, coupled with shared transitional and public spaces, allow casual social encounter in the rural town to be supported. Therefore, the proposed mixed use spaces for Canadian Tire will contribute far more successfully to social encounter than standard big-box development. Foremost, along 10th Street, above the entrance to the under-store parking, on the second and third levels, two apartments overlook the street. Secondly, also along 10th Street, on the second and third floor above Canadian Tire's main entrance, are offices for small businesses and a large community space..

All of the mixed use spaces, along with Canadian Tire and the under-store parking, are accessed through a shared transitional space, located between the individual interior programs and the public realm of the street and sidewalk. This shared transitional space is

a triple height, skylit volume that not only provides circulation to all the major spaces of the program, but serves as a secondary place of casual social encounter, between people carrying out a variety of daily activities during all times of the day. This space is open for public access outside of the limited operating hours of Canadian Tire, as the store can be completely closed off from this space. The main transition space can be used to access both the under-store parking and the community space on the upper floor throughout the day.

Along the sidewalk and the main street is the main exterior façade of the proposed design, which also provides a transition between the store and the street. Here, there are benches for sitting along the sidewalk, and a place for cyclists to lock-up their bikes. Furthermore, Canadian Tire has exterior display space along the sidewalk, under a covered recess in the main façade, which also serves to shelter customers as they enter the store. In addition, interior exhibit space for seasonal displays and product advertisements for Canadian Tire are located on two levels facing the street, with a small portion along the sidewalk and the entire second floor façade. The advantage of window displays and direct product viewing along the street edge are missed opportunities for the traditionally blank façade of the suburban big-box. The spaces of transition and overall mixed use strategy of this proposal help to define a big-box design better suited for a small town environment.

DESIGN PROPOSITION: SITE PLAN

Fig. 46.

Fig. 47. Design Proposition: Site axonometric looking North-West.

Fig. 48. Design Proposition: Site axonometric looking North-East.

Fig. 49. Design Proposition: Site axonometric looking South-East.

Fig. 50. Design Proposition: Site axonometric looking South-West.

Fig. 51.

Fig. 52.

1. Canadian Tire
2. Canadian Tire offices
3. Canadian Tire display (Interior)
4. Canadian Tire warehouse
5. Public circulation space
6. Small business offices
7. Apartment

DESIGN PROPOSITION: 2ND LEVEL

Fig. 53.

1. Canadian Tire warehouse
2. Public circulation space
3. Community space
4. Roof-top patio
5. Living roof

DESIGN PROPOSITION: 3RD LEVEL

Fig. 54.

1. Roof-top patio
2. Living roof

DESIGN PROPOSITION: ROOF LEVEL

Fig. 55.

Fig. 56. Design Proposition: Exploded axonometric

Fig. 57.

Fig. 58.

Fig. 59.

Fig. 60.

DESIGN PROPOSITION: 10TH STREET ELEVATION

Fig. 61.

DESIGN PROPOSITION: NORTH ELEVATION OF SECONDARY ENTRANCE

Fig. 62.

Fig. 63.

Fig. 64. Design Proposition: computer model of the main entrance along 10th Street superimposed onto the site.

Fig. 65. Design Proposition: Interior view of Canadian Tire from the mezzanine level.

Fig. 66. Design Proposition: Interior view of Canadian Tire from ground level.

Fig. 67. Design Proposition: Exterior view of Canadian Tire from 7th Avenue.

Fig. 68. Design Proposition: Exterior view of Canadian Tire from 12th Street.

Conclusions

How can an architectural strategy transform the suburban “big-box” building typology into a model that can respond and contribute to the scale, context, and community specific to rural town life?

In recognizing many of the problems that conventional big-box developments can create within the rural town environment, this thesis seeks to offer alternatives to the standard suburban format. The design strategies developed over the course of this thesis have potential to transform such buildings, thereby enabling them to play more positive roles in the rural town environment. These strategies were tested in two preliminary designs, which in turn resulted in a final design proposition. This proposition demonstrates that a big-box can contribute to the scale, context, and community found in the life of one rural town.

The emphasis of both the preliminary designs, and the final design proposition, has been to contribute to an established continuity of the street edge, to develop other programs along with the big-box, and contribute to the specific conditions presented by the site. As a result, the boldness generally associated with this building type has been diminished to a less conspicuous status, allowing for the scale of traditional town development and unique context to influence its form along the street edge. This approach suggests the possibility of investigations into both programmatic additions and unique site conditions in other rural towns, which could further influence the form of the big-box. Also, it has

left open the prospect to further investigate the transformation of the big-box typology itself in terms of its organization, interior spatial qualities, and architectural form. The hope is that this thesis can be used by municipal governments, planning and zoning committees, and those who wish to challenge or implement new spatial and urban requirements on the big-box. In addition, this thesis beckons to planning committees of rural towns to rethink the practice of single use zoning and to promote strategies and design goals that will enhance, not destroy, their town's social, economic and environmental sustainability.

Bibliography

City of Ashland, Oregon. "Ordinance No. 2900, Section 18.72.050.C." Municipal Code. 23 Sept. 2003 <<http://www.ashland.or.us/Code.asp?CodeID=3350>>.

Clausen, Merideth. "The Department Store – Development of Type." Journal of Architectural Education. 39, no.1, 1985.

Connolly, Phillip. "Looks Could Kill." Living Streets. 21 Jan. 2005. Mar. 2005 <<http://www.livingstreets.org.uk/page.php?pageid=343>>.

De Bono, Norman. "Developers unveil plans for more big box stores." The London Free Press. 7 June 2004.

Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck. Suburban Nation: the rise of sprawl and the decline of the American Dream. New York: North Point Press, 2000.

Ehrenhalt, Alan. "The Empty Square." Preservation. Mar./Apr. 2000.

Franklin, Tom. "Living Streets calls for more 'play streets' to help build social cohesion." Living Streets. 9 Sept. 2003. Apr. 2005 <<http://www.livingstreets.org.uk/page.php?pageid=128>>.

Gratz, Roberta Brandes. Cities Back from the Edge: New Life for Downtown. New York: John Wiley and Sons, Inc., 1998.

Great Britain. Department of Health. At least five times a week; evidence of the impact of physical activity and its relationship to health. A report for the Chief Medical Officer. 29 Apr. 2004.

Herman, Daniel. "Next Big Thing." The Harvard Design School Guide to Shopping / Harvard Design School Project on the City 2. Taschen, 2002.

Hines, Thomas S. Burnham of Chicago: Architect and Planner. Chicago: University of Chicago Press, 1979.

Jacobs, Jane. The Death and Life of Great American Cities. New York: Random House, Modern Library Edition, 1993.

--, "Perspective." Random Comments. Lecture: Boston College Environmental Affairs Law Review, Apr. 2003. <http://www.bc.edu/bc_org/avp/law/lwsch/journals/bcealr/28_4/03_TXT.htm>.

Jossi, Frank. "Rewrapping the Big Box." Planning Magazine. Aug. 1998.

Kunstler, James Howard. Home From Nowhere: Remaking Our Everyday World for the 21st Century. New York: Simon & Schuster, 1996.

Langdon, Philip. "Grocery stores adapt to urban trends." New Urban News. Oct/Nov, 2003. Apr. 2005 <<http://www.newurbannews.com/whatsnew.html>>.

Link, Barry. "Green architect right to tackle Wal-Mart project." The Vancouver Courier. 9 Feb. 2005. Mar. 2005 <<http://www.vancourier.com/issues05/022205/opinion/022205op2.html>>.

Litman, Todd. "Parking requirement impacts on housing affordability." Victoria Transport Policy Institute. 12 March 1999. 4 June 2005. <<http://www.islandnet.com/~liman>>.

McBride, Hugh. Our Store: seventy-five years of Canadian Tire and Canadians. Toronto: The Quantum Book Group Inc., 1997.

Merchandise Mart Properties Inc. Marshall Field. May 2005 <http://www.merchandisemart.com/marchitecture/marshall_field.html>.

Miller, Geoffrey. The Suburban Big-Box. Masters of Architecture Thesis. Dalhousie U, May 2002.

Oldenburg, Ray. The Great Good Place. New York: Marlowe & Company, 1989.

Perry, Theodis L. "Big-Box Retail Development." Managing Maryland's Growth: Models and Guidelines. Maryland Department of Planning, Oct. 2001.

Putnam, Robert. Bowling Alone. New York: Simon and Shuster, 2000.

Rebanks Architects Inc.. "Super markets." Canadian Architect. Sept. 2001.

Replogle, Michael, and Harriet Parcells. Linking Bicycle/Pedestrian Facilities with Transit. Prepared for U.S. Federal Highway Administration. Sept. 1992.

Robbins, Todd Jeffrey. Questioning The Community Question: Wal-Mart, Place Identity And A Classic New England Town. Diss. University of Massachusetts, Sept. 1998.

Schoenherr, Steve. "The Department Store." Steve Schoenherr Home Page. Professor of History. University of San Diego. 20 Dec. 2004. Apr. 2005 <<http://home.sandiego.edu/gen/sol/shoppingcenter.html>>.

Sorkin, Michael. Variations on a Theme Park: The New American City and the End of Public Space. New York: Hill and Wang, 1992.

University of Georgia, School of Law. Controlling Big Box Retail Development in Georgia. Land use clinic. Oct. 2003.

"Wal-Mart pitches green design for Vancouver." CTV.ca. Tue. 29 Mar. 2005. Apr. 2005 <http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/1111767382873_26/?hub=CTVNewsAt11>.