Carriage Creek

NATURALLY FLOWING CONNECTIONS
THROUGH WELL DESIGNED SPACE
Contents

01 - Introduction
Introduction
Problem Statement

02 - Background Research
Walkability
Public Safety
Storm Water Management
Sustainability
Mixed-Use Community Design

03 - Inventory, Analysis, and Program
Land Use
Vehicular Circulation
Pedestrian and Bicycle Circulation
Public Transportation
5 Year Plan Site
Analysis and Concept
Program

04 - 50 Year Master Plan
Master Plan
Street Section AA’
Street Section BB’ - CC’
Street Section DD’ - EE’
Roads and Parking Plan

04 - Master Plan Cont.
Parks and Open Space Plan
Structure Mass Void Plan

05 - 50 Year Core Site Plan
50 Year Core Site Plan
Central Plaza Enlargement

06 - 5 Year Core Site Plan
Technical Data Sheet
Technical Data Sheet Notes & Information
5 Year Core Site Plan
Entrance Sign Details
Clock Tower Detail
Bus Stop Detail
Plaza Enlargement
Cafe Elevation
Rain Garden Deck Enlargement
Elevations AA’ - CC’
Conclusion
01 - Introduction
Introduction

This report will investigate potential redevelopment efforts geared to creating a sustainable and connected mixed-use community. Contemporary community design is essential toward creating brighter, smarter, and environmentally sound communities to benefit local, state, and national goals for a better tomorrow. This report will investigate potential redevelopment efforts geared to creating a sustainable and connected mixed-use community.
Problem Statement

Carriage Hills Shopping Center and its adjacent communities are in desperate need of revitalization and improvement. This area requires a multitude of redesign and development elements to provide the site and outlying communities with a sense of identity. In addition, to creating a community identity, design efforts will account for future site sustainability by use of green infrastructure. Site circulation, storm water management, economic vitality, and overall connectivity are several key elements guiding the creation of a sustainable community.
02 - Background Research
Public Safety

The safety of the public on site is of paramount importance. Pedestrian corridors must be well lit and free of irregular obstacles. Parking lots must also meet lighting and barrier standards. Pedestrian and vehicle interfaces must be properly marked and signed. Additionally, regular patrols by employees and police officers should be implemented to ensure maximum safety for the entire community.

Walkability

Current community design is inadequately geared toward walkability and relies primarily on personal vehicular transportation. Enhanced community walkability design efforts promote active living, health, community, livability and the quality of life (Cite). Sites must be designed to connect users with destinations by means other than solely personal vehicular transportation.
Storm Water Management

To create a sustainable community it’s impact on existing storm water infrastructure must be assessed. Pavement surfaces have major impact on run-off. Porous or pervious pavements can reduce run-off and promote on-site water retention. Bioswales and vegetated channels will aide in creating a low impact development. Rain gardens also alleviate future impacts on storm water infrastructure.

Sustainability

sustain·able - adjective
• able to be used without being completely used up or destroyed
• involving methods that do not completely use up or destroy natural resources
• able to last or continue for a long time

As the definition of “sustainable” shows, present resources must be preserved. In addition to preservation of resources, existing elements should be recycled or reused when possible.
Mixed-Use Community Design

Factoring in elements of walkability, public safety, storm water management, and sustainability yields the direction needing to be taken for appropriate mixed-use community design.
Community Input

Carriage Hills Shopping Center
Community Meeting: 1/20/14
Fee Hall
Notes taken: Josh Molnar

Members Present
- See sign-in sheet

Members Not Present
- Castle Pointe
- Edgewood
- Whitehills

Meeting Notes
- Bill’s daughter from heritage hills, representing children’s interests.
- Bonnie, an employee of the credit union and resident of surrounding community, misses walkability.
- Jan Jenkins, Skyline drive with husband Mike Jenkins. Moved to Skyline due to original walkability.
- Brett Dryfus, Meridian Land Use Clerk. Feels there is excess residential and office in the township. Needs economic development, recycling and sustainability.
- Donna Rose, Carriage Hills North. Wants grocery to replace C&H, there is a high demand for a grocery with all the surrounding neighborhoods. There is no more activity in the area because there are no more attractions. The site is a “Big Hole.”
- Mike Hudson, Visually Impaired resident of Skyline Drive. Chose the area due to its walkability, after surveying all surrounding towns from Haslett, Okemos, and Lansing. 7-8 blind residents on skyline or in the immediate area “loved the area before the store imploded.”
- Ekhart ---, Ex Natural Resources professor at MSU. Discussed 2 tiered symbiotic business relationships. Relationships coexisting between residence and business. Also, mutually self-supporting businesses that complement each other.
- Neil ---, Agreed with previous statements and shared similar interest in mutually efficient businesses.
- Allen Russel, Director of Commercial Development at DTN. The area is a financial and business burden. Trying to move businesses in, Spartan NET, and DTN U have taken place. Sign ordinances would limit new primary site signage to 40% of its current size.
- Students present power point.
- Questions, Wrap-Up, and Final Community Input Session
  o Change the experience of shopping
  o Bring a sense of community to the area
  o Smaller grocery for more personal experiences
  o Café/ Breakfast establishment
  o What can be done with existing structures?
  o What type of retail is the area (E.L. and Greater Lansing) lacking?
  o How can they get the area viable as rapidly as possible?
  o Play place in/ out door for children
  o Provide an “Anchor” attraction
  o High interest in green space and green walking experiences/routes
  o Deli @ grocery/ grocery café
  o Create a community with purpose, village square concept
03 - Inventory, Analysis, and Program
Land Use

A - Retail, Office, Business
B - Public Schools
C - Carriage Hill East Apartments
D - Carriage Hill North Condominiums
E - Castle Pointe Apartments
F - Edgewood Apartments/ Condo
G - Single Family Residential
H - Hardwood Forest
I - Walnut Hills Golf Course
Vehicular Circulation

The present state of vehicular circulation is not user friendly and promotes chaos. Upon entering at the Hagadorn Road and Lake Lansing Road intersection users are directed past the Carriage Hills Shopping Center and Carriage Hill East. After motorists arrive at the intersection on Birch Row and Hagadorn they enter the maze of apartments and condominiums or exit the site on Birch Row. Beyond the intersection apartments are segregated, entries are misaligned, and connection is lost. To reduce confusion roads will be realigned and coexist with proposed neighboring community divisions.
**Pedestrian and Bicycle Circulation**

In a similarly disconnected fashion pedestrian circulation lacks designated routes between communities across the site. Limited paved walks exist near the core shopping center and do not extend efficiently to the surrounding communities. The communities themselves have walks connecting buildings but not neighborhoods. Bicyclists are limited to on-street or sidewalk riding, both of which are undesirable routes. To remedy circulation issues proposed walks will connect all users efficiently to site amenities and outlying communities. A greenway corridor will transect the site allowing maximum pedestrian and cycle traffic. Also, bicycle lanes will be designated along main roadway corridors.
Public Transportation

One element of connectivity that the site currently holds is the existing bus route. Serviced by the #24 CATA bus route the site can be easily accessed by numerous stops both east and westbound. As mentioned in vehicular circulation roadways will be realigned. With this the bus’ route through the site will alter, however, access and useability will meet or exceed present conditions.
5 Year Plan Site

The overall master plan for the site as shown in all preceding images will be supplemented with a 5 Year Plan of the core shopping district. The overall site master plan is posed as the 50 Year Plan or the overall goal for the projects completion. The 5 Year Plan will focus on achieving immediate commercial vitality for use by the surrounding communities.
Analysis and Concept

The present condition of the project site contains elements to utilize and to abandon. The driving force behind design solution will follow the concept of “natural connectivity.”

Interconnecting program elements guides design development to create a unified and comprehensive design solution.

The “natural” portion of natural connectivity is expressed in the design of all site features. Road and path alignments will flow in curvilinear form. Structure placement will inherently follow the natural flow promoting seamless interfaces between residential and commercial entities.
**Program**

**Culture**
Establish a sense of community among neighboring communities and the project site. Provide users with opportunities to gather and socialize amongst each other.
- School and Parent Utilization
- Site Character
- Art in the Landscape
- Community Connectivity
- Commercial and Residential Interfaces

**Safety**
In order to achieve vitality the site must be safe for all users at all times of day. Site lighting and spaces designed to be safe promote use and deter undesirable patrons.
- Crosswalks
- Safe Spaces
- Lighting
- ADA and Barrier-Free Design

**Circulation and Transportation**
Paramount to a sustainable community are its circulatory patterns. Separation of vehicle, pedestrian, and bicycle traffic creates safe routes for all users.
- Bike Lanes
- Trails and Greenway
- Surface and Structure Parking
- Complete Streets

**Housing**
Housing will options for all scales of user. Apartments, Condominiums vary population densities according to user groups. Separation between lifestyle types will ensure users are located near residents of similar mind sets.
- High, Medium, and Low Density Options
- Mixed Use
- LEED Certified Structures

**Streetscapes**
Streetscape presence and proper design will create a unique community environment. Complete streets including vehicle, pedestrian, furnishings, and right-of-ways promote safety and useability.
- Complete Streets
- Right-of-ways and Zones Sized Appropriately
- Lighting
- Structure Facades
- Trees and Planters
- Crosswalks
- Site Furnishings
Program Cont.

**Open Space**  
Open spaces will promote active living and social interactions. A central park corridor connecting residential districts with each other and their associated pocket parks.  
- Farmers Market  
- Vegetated Corridors  
- Green Space  
- Parks and Pocket Parks

**Recreation**  
In tandem with Open Space, recreation opportunities will be enhanced. Park design will provide all users with ample recreation space whether it be athletics or non-competitive activity.  
- Parks and Pocket Parks  
- Field Space for Small Club Athletics  
- Connection to East Lansing Trail Network

**Storm Water Management**  
Managing storm water efficiently is of necessity to project success. Limiting run-off and the environmental impact aides not only the site but the entire region.  
- Rain Gardens, Barrels, and Vaults  
- Bioswales  
- Detention and Retention Ponds  
- Porous Pavement

**Sustainability**  
Minimize carbon foot print and create a semi-self sufficient environment. Use of renewable resources will limit the need to rely on city infrastructure.  
- Geothermal Heating  
- Solar Panels  
- Wind Power  
- LEED Certified Construction

**Commercial**  
Creating commercial opportunities is essential for the prosperity of the site. Businesses need to coexist and compliment each other rather than competing.  
- Local Businesses  
- Grocery  
- Health and Well-Being  
- Retail  
- Dining
04 - 50 Year Master Plan
Master Plan

The driving concept behind this master plan is naturally flowing connections across all scales. The master plan aims to connect users in efficient and enjoyable manners mixing space uses to create maximum diversity.

The primary roads bisecting the site lay the foundation for the flow of connections across the site. Nearest to E. Lake Lansing Rd. item “A” are retail and residential mixed use structures create the core shopping and entertainment district. The office and professional district “B“ connects to the core site across N. Hagadorn Rd. North of the office district “C” is mixed office/retail/residential. Extending east “D” and “E” are high and low density multifamily facilities, connecting various living densities and live-work environments. Connecting the users of these communities to the environment and each other are two community green spaces.

North of Birch Row Dr. facilities are solely residential and community oriented. Immediately north of the core retail district lays the central park. Adjacent the central park are community basketball and tennis facilities. Housing facilities and type are mixed to promote diversity of economic class among residents.

Connecting the varying housing and retail developments is a network of parks and green spaces promoting active living and environmental sustainability. Environmental impacts of proposed constructions have been reduced through visual and physical implementations. Existing residential properties adjacent to the site will be buffered by vegetation to reduce negative and increase positive visual aesthetics. Storm water management for the site will be directed into a system of creeks and retention ponds enhancing aesthetics and sustainability.

Site vegetation along roadways varies intensity according to importance and principal use of the roadway. Street trees along the primary corridors and retail are placed to create maximum visual interest. Parks and green open space will be planted with native species and in organic naturally occurring patterns. In order to connect the environment further the site has a nature education and experience center. The nature center will facilitate active living, while providing educational opportunities for all ages.
Legend

A Retail - 1st floor
   Residential - 2nd/3rd floors
B Office - 1st floor
   Residential - 2nd floor
C Office/Retail - 1st floor
   Residential - 2nd/3rd floors
D High Density Multifamily - 3 floors
E Med. Density Multifamily - 2 floors
F Low Density Multifamily - 2 floors
G Detached Town Homes
H Attached Town Homes
I Single Family Homes

Site Acreage: 94 AC
This plan displays the road network hierarchy. The primary road corridors, displayed in red, show the proposed connections within the site. Also, the connections to existing roadways. Designed to promote even traffic patterns and safe interactions with pedestrian and bicycle traffic. By means of safe street crossings and bicycle lanes in areas of high traffic. Site parking, displayed in yellow, is designed for efficient use and quantity. See data table for detailed information. There are 3 alley routes located at the rear of town home properties. This is to promote street appearance and to reduce vehicle and pedestrian conflict at driveways.
The parks and open space plan displays the primary community recreation and mixing space. The core retail district open space, in red on the map, provides user with unique connections to shopping, living, nightlife. The retail plaza is the central attraction of the site and its design is to attract and captivate users to utilize the outdoor environment. Through means of planting and seating elements creating community gathering nodes. The yellow neighborhood parks are provided to allow users at all corners of the site to have immediate access to green open space. Green walk ways connect all open spaces to the central park series, shown in green. These large parks are designed with aesthetics and the environment in mind. Natural planting design combined with the pond and creek drainage system create connections to the natural environment.
Structure Mass Void Plan

Legend

- Structure Mass Space
- Void Space
Street Sections BB’ - CC’

Section BB’
High - Low Density Multifamily

Section CC’
Retail Mixed Use Corridor
Street Sections DD’ - EE’

Section DD’
Central Park - Attached Townhomes

Section EE’
Detached Town Homes - Single Family Homes
### Master Plan Data and Information

<table>
<thead>
<tr>
<th>Building</th>
<th>Name - Use</th>
<th>Units</th>
<th>Square Feet</th>
<th>Parking Required</th>
<th>Parking Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - 2/3 Story</td>
<td>Retail</td>
<td>TBD</td>
<td>30000</td>
<td>1/250 sf</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Apartment</td>
<td>27</td>
<td>30000</td>
<td>2/unit</td>
<td>54</td>
</tr>
<tr>
<td>B - 2 Story</td>
<td>Office</td>
<td>TBD</td>
<td>15000</td>
<td>1/250 sf</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Apartment</td>
<td>12</td>
<td>15000</td>
<td>2/unit</td>
<td>24</td>
</tr>
<tr>
<td>C - 3 Story</td>
<td>Office/Retail</td>
<td>TBD</td>
<td>14400</td>
<td>1/250 sf</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Apartment x 2</td>
<td>24</td>
<td>14400</td>
<td>2/unit</td>
<td>48</td>
</tr>
<tr>
<td>D - 3 Story</td>
<td>Apartment</td>
<td>44</td>
<td>49500</td>
<td>2/unit</td>
<td>88</td>
</tr>
<tr>
<td>E1 - 2 Story</td>
<td>Apartment</td>
<td>26</td>
<td>30000</td>
<td>2/unit</td>
<td>52</td>
</tr>
<tr>
<td>E2 - 2 Story</td>
<td>Condominium</td>
<td>46</td>
<td>51000</td>
<td>2/unit</td>
<td>92</td>
</tr>
<tr>
<td>F - 2 Story</td>
<td>Apartment</td>
<td>24</td>
<td>27000</td>
<td>2/unit</td>
<td>48</td>
</tr>
<tr>
<td>G - 2 Story</td>
<td>Detached Town Home</td>
<td>59</td>
<td>3200 lot</td>
<td>2/unit</td>
<td>118</td>
</tr>
<tr>
<td>H - 2 Story</td>
<td>Attached Town Home</td>
<td>32</td>
<td>2100 lot</td>
<td>2/unit</td>
<td>64</td>
</tr>
<tr>
<td>I - 2 Story</td>
<td>Single Family (for sale)</td>
<td>46</td>
<td>5000 lot</td>
<td>2/unit</td>
<td>92</td>
</tr>
<tr>
<td>J - 1 Story</td>
<td>Nature Center</td>
<td>1</td>
<td>1000</td>
<td>1/1000 sf</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL RES. UNITS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL SF</td>
<td></td>
<td></td>
<td>287600 SF</td>
<td></td>
<td>6.6 AC</td>
</tr>
<tr>
<td>TOTAL Parking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>919</td>
</tr>
</tbody>
</table>
05 - 50 Year Core Site Plan
This enlargement of the 50 Year Master Plan displays the detailed site design of the core retail district. Streetscape treatments will be implemented along East Lake Lansing, North Hagadorn, and Birch Row Drive. Treatments will vary intensity based on factors such as intended views in, intended image, identity. The plan is centered around the arched main access drive. On street parallel parking is present along the main drive. Additional parking lots for patrons and residents is designed to break space with vegetation. Creating intimate scale and reducing the heat island of the existing asphalt parking lots.

Pedestrian traffic is centered along the main access drive, hagadorn, and the flows created by the central plaza series. The primary central plaza, as shown in the image on the next page, is to be planted with unique flowering and ornamental trees. Seat walls and planters define spaces for outdoor gathering or cafe spaces.

**DATA SUMMARY**

- **SITE ACREAGE = 15.65 AC**
- **TOTAL RETAIL AREA = 2.44 AC**
- **TOTAL RESIDENTIAL UNITS = 139 UNITS**
- **PARKING SPACES REQUIRED = 723**
- **PARKING PROVIDED = 555 SURFACE**

(remaining under ground)
Central Plaza Enlargement

**LEGEND & BUILDING INFORMATION**

**A**  
**RETAIL - 9000 SF**  
SPORTING GOODS  
GYM/ FITNESS CENTER  
1 PARKING SPC/ 250 SF  
**RESIDENTIAL - 1 FLR**  
10 UNITS / FLOOR  
10 TOTAL UNITS  
2 PARKING SPCS/ UNIT

**B**  
**RETAIL - 5400 SF**  
NUTRITION STORE  
YOGA/ THERAPY  
1 PARKING SPC/ 250 SF  
**RESIDENTIAL - 1 FLR**  
8 UNITS / FLOOR  
8 TOTAL UNITS  
2 PARKING SPCS/ UNIT

**C**  
**RETAIL - 13200 SF**  
SPECIALTY GROCER  
1 PARKING SPC/ 250 SF

**D**  
**RETAIL - 5100 SF**  
ELECTRONICS STORE  
BANK  
1 PARKING SPC/ 250 SF  
**RESIDENTIAL - 2 FLRS**  
4 UNITS / FLOOR  
8 TOTAL UNITS  
2 PARKING SPCS/ UNIT
<table>
<thead>
<tr>
<th></th>
<th>RETAIL - 5100 SF</th>
<th>I</th>
<th>RETAIL - 5100 SF</th>
<th>M</th>
<th>RETAIL - 11400 SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>MOBILE STORE</td>
<td>I</td>
<td>DELI</td>
<td>M</td>
<td>SPANISH RESTAURANT</td>
</tr>
<tr>
<td></td>
<td>GAMING STORE</td>
<td></td>
<td>BAKERY</td>
<td></td>
<td>TEEN CLOTHING</td>
</tr>
<tr>
<td></td>
<td>CHILDRENS CLOTHING</td>
<td></td>
<td>BAGS &amp; LUGGAGE</td>
<td></td>
<td>ICE CREAM PARLOR</td>
</tr>
<tr>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td></td>
<td>BOOK STORE</td>
</tr>
<tr>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
</tr>
<tr>
<td></td>
<td>4 UNITS / FLOOR</td>
<td></td>
<td>4 UNITS / FLOOR</td>
<td></td>
<td>RESIDENTIAL - 1 FLR</td>
</tr>
<tr>
<td></td>
<td>8 TOTAL UNITS</td>
<td></td>
<td>8 TOTAL UNITS</td>
<td></td>
<td>9 UNITS / FLOOR</td>
</tr>
<tr>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>9 TOTAL UNITS</td>
</tr>
<tr>
<td>F</td>
<td>RETAIL - 11000 SF</td>
<td>J</td>
<td>RETAIL - 5100 SF</td>
<td>N</td>
<td>RETAIL - 5000 SF</td>
</tr>
<tr>
<td></td>
<td>JEWELRY SHOP</td>
<td></td>
<td>HOME GOODS</td>
<td></td>
<td>CHILDRENS TOYS</td>
</tr>
<tr>
<td></td>
<td>BAR &amp; GRILL</td>
<td></td>
<td>CAFE</td>
<td></td>
<td>CHILDREN ACTIVITY CENTER</td>
</tr>
<tr>
<td></td>
<td>WOMENS CLOTHING</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
</tr>
<tr>
<td></td>
<td>MENS ACCESSORIES</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
</tr>
<tr>
<td></td>
<td>CHINESE RESTAURANT</td>
<td></td>
<td>4 UNITS / FLOOR</td>
<td></td>
<td>8 UNITS / FLOOR</td>
</tr>
<tr>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td></td>
<td>8 TOTAL UNITS</td>
<td></td>
<td>16 TOTAL UNITS</td>
</tr>
<tr>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
</tr>
<tr>
<td></td>
<td>8 UNITS / FLOOR</td>
<td>K</td>
<td>RETAIL - 5100 SF</td>
<td>O</td>
<td>RETAIL - 4000 SF</td>
</tr>
<tr>
<td></td>
<td>16 TOTAL UNITS</td>
<td></td>
<td>MIXED CLOTHING STORE</td>
<td></td>
<td>OUTDOOR EQUIPMENT</td>
</tr>
<tr>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>MENS CLOTHING STORE</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
</tr>
<tr>
<td>G</td>
<td>RETAIL - 6500 SF</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
</tr>
<tr>
<td></td>
<td>ART GALLERY</td>
<td></td>
<td>6 UNITS / FLOOR</td>
<td></td>
<td>6 UNITS / FLOOR</td>
</tr>
<tr>
<td></td>
<td>SHOE STORE</td>
<td></td>
<td>12 TOTAL UNITS</td>
<td></td>
<td>12 TOTAL UNITS</td>
</tr>
<tr>
<td></td>
<td>WOMENS ACCESSORIES</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
</tr>
<tr>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td>L</td>
<td>RETAIL - 5200 SF</td>
<td>P</td>
<td>RETAIL - 5000 SF</td>
</tr>
<tr>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>ITALIAN RESTAURANT</td>
<td></td>
<td>PIZZA</td>
</tr>
<tr>
<td></td>
<td>6 UNITS / FLOOR</td>
<td></td>
<td>CAFE</td>
<td></td>
<td>HOME FURNISHING</td>
</tr>
<tr>
<td></td>
<td>12 TOTAL UNITS</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
<td></td>
<td>1 PARKING SPC/ 250 SF</td>
</tr>
<tr>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
<td></td>
<td>RESIDENTIAL - 2 FLRS</td>
</tr>
<tr>
<td>H</td>
<td>RETAIL - 5100 SF</td>
<td></td>
<td>4 UNITS / FLOOR</td>
<td></td>
<td>4 UNITS / FLOOR</td>
</tr>
<tr>
<td></td>
<td>WOMENS CLOTHING</td>
<td></td>
<td>8 TOTAL UNITS</td>
<td></td>
<td>8 TOTAL UNITS</td>
</tr>
<tr>
<td></td>
<td>SALON</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
<td></td>
<td>2 PARKING SPCS/ UNIT</td>
</tr>
<tr>
<td></td>
<td>BATH &amp; BODY STORE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The technical data sheet was created to provide the foundation for planning and development of the Carriage Hills Shopping Center. Existing site conditions such as setbacks, parking quantity, utility lines, and structure size and location were inventoried. Meridian Township ordinances dictated information regarding parking requirements, structure heights, road layout, vegetation requirements, and building limitations.
NOTES:

1. SET BACKS
   A. PARKING = 10' FROM R.O.W.
   B. BUILDING = 50' FROM R.O.W.
   C. RESIDENTIAL DISTRICT LINE = 100' MIN. OR 80' MIN. IF BUFFER PROVIDED.

2. RIGHT OF WAY
   A. HAGADORN ROAD (SOUTH OF E. LAKE LANSING) = 170'
   B. HAGADORN ROAD (NORTH OF E. LAKE LANSING) = 100'
   C. BROW ROW DRIVE = 60'
   D. EAST LAKE LANSING ROAD = 140'
   E. R.O.W. WITHIN PROPOSED C2 DISTRICT SHARES BOUNDARIES WITH PROPERTY LINE

3. ZONING
   A. ALL PROPERTY FOR PROPOSED REDEVELOPMENT LAYS WITHIN THE MERIDIAN TOWNSHIP C2 ZONING DISTRICT.
   B. MERIDIAN TOWNSHIP ZONING INCLUDES; RC, RB, C2, RA, AND PO.
   C. EAST LANSING ZONING INCLUDES: B1 AND RM32.

4. SITE DIMENSIONS
   A. TOTAL ACREAGE = 14.32 ACRES
   B. LOTS UNOCCUPIED = 7 STORE FRONTS INCLUDING LARGE GROCER

5. PARKING
   A. PARKING ISLANDS 10' MINIMUM.
   B. MAXIMUM DISTANCE FROM PARKING SPACE TO LANDSCAPE AREA IS 65'
   C. 2 CANOPY TREES/ 10 PARKING SPACES
   D. 200 SF LANDSCAPE AREA MINIMUM/ 10 PARKING SPACES
   E. TOTAL EXISTING = 404 SPACES
   F. BARRIER FREE EXISTING = 20 SPACES
   G. BARRIER FREE REQ.
      SPACES PROVIDED BF SPACES REQ.
      1-25  1
      26-50  2
      51-75  3
      76-100 4
      101-150 5
      151-200 6
      201-300 7
      301-400 8
      401-500 9
      501-1000 2% OF TOTAL
      1001+ 20, +1 FOR EACH 100 OR FRACTION OF OVER 1000
   H. PARKING REQ. FOR RETAIL DEVELOPMENT = 1 SPC/250 SF
   I. PARKING REQ. FOR RESIDENTIAL DEVELOPMENT = 2 SPCS/ UNIT

6. ROADWAY SITE TRIANGLES SHALL BE 45' MEASURED ON EDGE OF ROAD
   A. SITE TRIANGLE DIAGRAM

7. MIXED USE PLANNED UNIT DEVELOPMENT ALLOWED IN C2 ZONING DISTRICTS.

8. MAXIMUM OF 14 DWELLINGS/ ACRE

9. MAXIMUM BUILDING HEIGHT = 45'

10. MINIMUM ENTRANCE DRIVE WIDTH = 25'

11. DRIVEWAY SPACING
    POSTED SPEED (MPH) DISTANCE (FEET)
    25   255
    30   325
    35   425
    40   525
    45   630
    50+  750

12. SITE SIGNAGE
    A. WALL SIGNS ALLOWED AT 1 SF/ 1 LF OF FRONTAGE
    B. SIGNS SHALL NOT EXTEND ABOVE TOP OF WALL OR BE MOUNTED ON ROOF.
    C. FREE STANDING SIGNS SHALL NOT EXCEED 15' IN HEIGHT.
    D. 1 SIGN/PARCEL, EXCEPT PARCEL WITH 500' CONTIGUOUS FRONTAGE ON ONE OR MORE STREETS. SIGN SEPARATION 250' MINIMUM.
The 50 year plan investigated ideal conditions, the 5 year plan focuses in on reality and using existing features. The development of this plan continues use of the naturally flowing concept and introduces architecture and design to the concept. Streetscape treatments along perimeter roads creates the first phase of site identity with planting, signage, banners, and lighting. The large open existing parking lot is divided into parcels of greenspace. Primary pedestrian corridors and open space provide ample area for social gathering.

NOTES:
- SITE ACREAGE: 14.32 AC
- EXISTING BUILDING SF: 94500
- PROPOSED BUILDING SF: 94000
- STRUCTURE RESUSE PERCENT: 65.5%
- EXISTING PARKING SPACES: 404 (20 BF)
- PROPOSED PARKING SPACES: 400 (20 BF)

LEGEND:
- A EXISTING BUILDING AND USE TO REMAIN (TIM HORTONS/ MARATHON)
- B EXISTING BUILDING AND USE TO REMAIN (OPTION ONE CREDIT UNION)
- C EXISTING BUILDING AND USE TO REMAIN (WOK & ROLL, VISION, CHIROPRACTIC)
- D PROPOSED BUILDING (TRADE JOES EQUIVILLENT)
- E EXISTING BUILDING TO REMAIN, POTENTIAL USE CHANGE (FITNESS)
- F PROPOSED BUILDING (UNDETERMINED)
- G EXISTING BUILDING AND USE TO REMAIN (BUDDIES)
- H PROPOSED BUILDING (UNDETERMINED)
- I ALTERATION OF EXISTING BUILDING, NEW RETAIL SPACE, OPTIONAL USE TO REMAIN (HONGS CAFE)
- J ALTERATION OF EXISTING BUILDING, DOUBLE SIDED STORE FRONTS
- K ADDITION TO EXISTING CAR WASH, USE CHANGE TO RETAIL, POSSIBLE MIXED USE PENDING SPACEREQUIMENTS
- L RETENTION POND AND TIERED RAIN GARDEN
Entrance Sign Details

Pyramid stone cap theme

Flowing concrete and brick theme
Clock Tower Detail

![Diagram of a clock tower with labels for different components such as pyramid theme sheet metal roof, steel clock frame with radial and flowing theme patterns, precast cap stone, precast block, running bond brick pattern (TYP), and break line not grade.]

Precedent clock tower
Bus Stop Detail

Precedent green roof bus stop
Rain chain similar concept to rain lattice
Rain Garden Deck Enlargement

Brick column and metal fence theme
Elevations AA’-CC’

ELEVATION A-A’
EAST LAKE LANSING ROAD STREET FRONT

ELEVATION B-B’
BUDDIES PLAZA

ELEVATION C-C’
NORTH HAGADORN STREET

SCALE FOR ELEVATIONS AA’-CC’
0’ 10’ 20’ 40’ 80’
Conclusion

The design solution provided in the 50 Year Master Plan, 50 Year Core Site Plan, and 5 Year Core Site Plan intend to solve a wide array of program elements. Whether hypothesizing ideal future redevelopments or realistic proposals the goal of creating a site with naturally flowing connections and a sense of place stays true. Residential mixes with retail and varieties of housing are provided to induce maximum integration and diversity. Public open spaces and green spaces provide social gathering and recreation amenities. Vehicular, pedestrian, and cycle traffic is designed to interact as efficiently and safely as possible. Road and parking layouts provide new green space and further site appeal and identity. The service area of the Carriage Hills Shopping Center is diverse and the diverse approaches to sustainability and economic stimulus provided by the included plans will further research and planning for a new future of the region.