NOVO²

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CHAPTER 1

Problem Statement, Design Concepts, Inventory & Analysis, and Background Research
PROBLEM STATEMENT

WITH EACH GENERATION, NEW IDEALS AND PRACTICES ARE SET FORTH AND UTILIZED. AT PRESENT, FAMILY GENERAL STORES HAVE GIVEN WAY TO MONOPOLIZED RETAIL CHAINS AND WALKABILITY HAS DECREASED IN RESULT OF HEIGHTENED TECHNOLOGY AND WIDESPREAD URBANIZATION. THIS FOCUS SITE REQUIRES A SOLUTION THAT SETS THE STAGE FOR TRADITIONAL RENEWAL IN A CONTEMPORARY SOCIETY. CONCEPTUALLY, IT IS IMPORTANT TO INCLUDE VIABLE RESOURCES FOR MULTI-GENERATIONAL COHABITATION. IN THIS VIEW, HUMAN HEALTH PLAYS A CRITICAL ROLE IN HABITAT.

LOCAL RESIDENTS ANTICIPATE THE AREA RETURNING TO ITS FORMER GLORY BUT HAVE A NEW DESIGN. THIS DESIGN WILL SUIT NOT ONLY THE LOCAL NEEDS, BUT ALSO ATTRACT VISITORS FROM ALL OVER THE METRO REGION. THE DESIGN NEEDS TO BE IMPLEMENTED IN A WAY SO AS TO AVOID THE SITE FALLING INTO THE SAME LEVEL OF DISREPAIR, BUT RATHER ALWAYS BE IMPROVING. THIS SITE MUST BE ADAPTATIVE TO FUTURE GENERATIONS.
PROGRAM ELEMENTS

THESE ELEMENTS HAVE BEEN DETERMINED FROM SMALL TOWN AND PUBLIC PLAZA STUDY. COMMUNITY REPRESENTATIVES ESTABLISHED NEED FOR MANY ON THE LIST. WITH THE REMAINDER PROPOSED TO FURTHER STRENGTHEN A SENSE OF IDENTITY FOR THE SITE. BY CREATING A LIVING-LEARNING COMMUNITY WITH ACTIVE COMMUNITY PARTICIPATION, PROBABILITY FOR DESIGN LONGEVITY IS GREATLY INCREASED.

+ MEDICAL CENTER
+ FITNESS CENTER/GYM
+ GROCERY STORE
+ STREET FURNITURE
+ UNIQUE RESTAURANTS WITH LOCAL FOOD INSPIRATION
+ GREENHOUSE/URBAN FARMING
+ PUBLIC GREENSPACE
+ CIRCULATING WATER
+ CHILDREN'S PLAY AREA
+ EXTERIOR LIGHTING
+ ART INSTALLATIONS
+ CENTRAL SQUARE
+ YOUTH LEARNING
+ NEW RESIDENTIAL
+ ASSISTED LIVING
+ UNIQUE RETAIL
+ COMPLETE WALK-ABILITY
+ IMPROVED PARKING
+ WAY-FINDING MAPS
+ IMPROVED CIRCULATION
BACKGROUND RESEARCH

THE SURROUNDING COMMUNITY IS GREATLY INVESTED INTO THE PLANNING, REDEVELOPMENT, AND FUTURE OF THIS SITE. AFTER MEETING DIRECTLY WITH MEMBERS, NEEDS FOR THE SITE HAVE BEEN EXPLICITLY TRANSLATED. IT WAS WIDELY CONSENTED THAT THE SITE CURRENTLY LACKS A COHESIVE SENSE OF COMMUNITY. SOME KIND OF STRUCTURE (PREFERABLE BUILT) WILL SERVE AS THE CENTRAL HEART, EFFECTIVELY POWERING THE REMAINING ELEMENTS. IN AVOIDANCE OF FUTURE DECREASE IN QUALITY LONGEVITY IN DESIGN IS ABSOLUTELY ESSENTIAL. GREATER CONNECTIONS TO ADJACENT AREAS AND NEARBY AREAS ARE REQUESTED TO ATTRACT NEW PEOPLE. WHILE NEW DEVELOPMENT IS EMINENT, A SMALL TOWN FEEL IS IMPORTANT TO RESIDENTS. THE SITE HAS GREAT OPPORTUNITY FOR FULFILLING MANY OF THESE IDEAS.

+ INCREASED DISABILITY COORDINATION
+ LONGEVITY IN DESIGN
+ WORLD CLASS BUILT ENVIRONMENT
+ RENEWED SENSE OF COMMUNITY
+ GROCERY STORE IS PIVOTAL
+ MULTI-GENERATIONAL SUPPORT
+ INCREASED SUSTAINABILITY
+ BEAUTIFUL GREENSPACES
+ MULTI-FACETED OPPORTUNITIES
+ IMPROVED SITE WALK-ABILITY
+ DECREASED PARKING AND MORE TRANSIT OPTIONS
+ TRANSIT STATION
+ DEVELOPMENT OF A SENSE OF IDENTITY
+ PARTNERSHIP WITH COMMUNITY AND MANAGEMENT COMPANY
+ CREATE SYMBIOSIS
+ REALIZE SITE POTENTIAL
+ ATTRACT NEW RETAIL
The above maps were essential for determining the capacity for development in both core site and surrounding area. Both the bus route map and the overall analysis aided in an increased understanding of connection points. This allowed for efficient reevaluation of accessibility opportunities. The demographic maps broke down how the community functions at its current state. Knowing this will provide a foundation for creating a symbiotic relationship between residential and commercial enterprises. Multiple schools in the area and ease of access to highways highlights increased probability of travel to site, provided the appropriate amenities are established.
CONCEPTS
CUMULATIVE
CORE

A project of this scale (80-100 acres) requires a design concept in order to best align site elements and also to arrive at a cohesive project that is able to satisfy client expectations. This particular rendition of the Carriage Hills Shopping Center and surrounding area rehabilitation was founded on the basis of a few basic inspirations.

The first of which is sustainability, utilized in final design by means of a network of greenway arcs that serve dual purpose. An attractive buffer created by these greenways will not only separate retail from immediate transition into existing housing, but will also separate more multi-purpos new housing developments from new single-family homes. By doing so, noise will effectively be decreased for neighborhood enjoyment. The second purpose of greenway arcs will be to house recreational trails, brought about through the inspiration of vitality. These trails will offer multiple connection points throughout the site to proposed and existing housing, and also to an existing trailhead for expansion of the current network. Additional greenways within the site are mainly for aesthetic purposes, such as enhancing sidewalks of the grand vista entrance, medians of roads, and as a multi-purpos congregational mall within one of the housing complexes.

An important feature of the finished masterplan and site arrangement is through the creation of sight lines and interest through lighting. Primary roads and pedestrian access points were established with the idea that a worthwhile view will be achieved at the end of it. Examples include specific arcades and building breaks within the core retail center, and also the expanse view from the pedestrian lake bridge across to the multi-purpos greenway mall. Worthwhile views will be accented by directed lighting that will enhance specific areas of interest and create special view lines visible at dusk. These features also aim to promote public safety by minimizing dark and dead-end spaces.

Connectivity served as the final inspiration in the design of this site. Existing roads are heavily connected to new roads, in addition to multiple access points for residential tier. This is especially true for visiting traffic, where circles were favored over traditional intersections to minimize travel times during peak hours. In additional to the trail network mentioned above, an extensive pedestrian walkway network has been established, promoting universal accessibility.

The NEW Town Square

“Novo” translates into ‘new’ in many languages. Adding the superscript number two is a fun play on the power of square, therefore the site name reads as: New Square. Also, the name has a certain resonance to it, such as in, “Let’s go to Novo tonight!”

This site has been designed to maximize on visitor attraction. Creating the main central greenspace will allow for events and music, serving as the heart of the design from which all elements flow organically outward. In this central square, pedestrians have direct access to a majority of the shopping venues, without having to worry about crossing vehicular lanes. This plaza also has direct access to the 100-car garage and the large children’s play area in the northeast. This elements are direct nods to the ease-of-access and family-friendly qualities the new site would provide. Entrance off of Lake Lansing gives way to a main promenade, consisting of wide walkways, a variety of street-level retail and upper level residential (20 3BR; 12 2BR). Circulating around the square carries the same theme, with additional residential (35 3BR), bringing the total persons to accommodate to 189. Street-level cafes sit adjacent to the green, giving the area daytime whimsy and nighttime eloquence. The gas station and credit union remain, but are buffered by stone walls and vehicular arcades from the central loop. Homes along the western border are buffered by 40’ of greenspace. A linear park exists along the eastern edge as an attraction feature, and green roofs have been implemented atop all residential to make up for street-level turf removal.
 CHAPTER 2

Program Development
DESIGN PROCESS/EVOLUTION

PROCESS SKETCHES
DESIGN PROCESS/EVOLUTION
PROCESS SKETCHES
The design was initially proposed as being very geometric in nature, which was heavily criticized. Critiques were of flow throughout the site and design feasibility. Taking this into account, lines were softened and shaped made more organic. Pedestrian connections were improved, as was the variety of offered residential opportunities. The biggest challenge was trying to maximize space without the design looking messy.
The site took note of criticism for creating destinations successfully throughout. The main thoroughfare was altered in the north to run directly into the residential, providing an enhanced site line. Arcs of greenspace buffer different phases of residential, while providing connections to the existing trail head.
From the first attempt, critiques were unanimous that views were not sufficient enough to bring visitors into the centrally-focused design. Also, surface parking was expansive and detracted from a pedestrian friendly environment. From there it became important to create a central meeting space and then circle outward. The surface parking needed to be split up to avoid creating heat islands. Aside from that, direction was given to just further develop user-friendly accessibility and unique, attractive destinations within a destination.
The final design took into account all of the previous given feedback, such as destination areas and a central pedestrian area. Surface parking was split up and green roofs were installed on residential to balance out pervious and impervious ratios. A central shopping district to the north is good for all-seasons. Dining is spaced throughout the site and children's play areas give family friendly opportunities. Critiques have shown that the design is successful for what is wanted out of the space.
CHAPTER 3

Cumulative Site Master Plan & Elements of Design
CUMULATIVE MASTER PLAN AND ELEMENTS
Figure 1: This birds eye view of the parking availability within the main retail center is a conglomeration of the next two images. Parking spots are offered at traditional perpendicular arrangement in addition to angled spots to maximize space and vehicle retention potential. Northern and southern retail blocks are accessible by buffered pedestrian walkways, as shown in the upper right corner. Lighting is also heavily used to enhance the sense of open space.

Figure 2: The image on the right depicts how pedestrian and vehicular access lanes would overlap within the main retail center. Road lines would indicate to drivers where the majority of shoppers will be crossing the street, which pedestrians will have the right of way. This will possibly be indicated by street signage.

Figure 3: The image on the left follows the lines created by parking rows. The eastern border is anchored by a stand-alone building, and both the eastern and western borders offer vehicular entrance/exit. Vegetation throughout the lot buffers the lot from feeling like a concrete expanse and more like a walkable space.
CUMULATIVE PERSPECTIVES

Figure 4: The image on the above left shows how the pool area offers recreation and relaxation to residents of the apartment complex. The pool is located behind the clubhouse from the above right image and at the end of the green way mall as shown in the image to the right.

Figure 5: This image displays how the apartment buildings will connect to the clubhouse/leasing office and also how the streetscape hierarchy will appear.

Figure 6/7: These images of the same scene show how multi-purpose sites become depending on what time of the day and how the space is lit. The daytime picture has a green way mall within the apartment complex that can be used for recreation and congregation, which connects to a seating plaza at the end. The nighttime picture shows how the lighting turns the plaza almost into a place of its own.
Figure 8: The above perspective is a view from the assisted living tower looking north-west out over the site. The main advantage of facing the balconies in this direction is to give tower residents ample opportunities for people watching.

Figure 9: The image above is an eastern view of one of the faces of an assisted living tower located at the intersection of Hagadorn and Lake Lansing. This tower is one of the many different housing options offered to new residents on this site. By including a pedestrian overpass, universal accessibility is created and residents are kept out of harms way at grade level of the site entrance.

Figure 10: This scene depicts how the pedestrian overpass connects right with the walkway network and also to the main retail center. It was rendered at an incline angle of 8-percent.
CHAPTER 4

Core Site Master Plan & Elements of Design
Technical Data Sheet

Meridian Township Ordinances

Notes

Freestanding signage

- One freestanding sign per parcel shall be permitted, except on a site with 100 feet or more of contiguous frontage on one street and more than one point of access on that street. A minimum of 20 feet shall separate the two signs.

- Freestanding signs shall not exceed 16 feet in height.

- Freestanding signage shall be permitted, except on a site with 500 feet or more of contiguous frontage on one street and more than one point of access on that street. If two freestanding signs are located on a site based on this provision, a minimum of 250 feet shall separate the two signs.

- The freestanding signage shall convey only the business name, the primary product or service, and the property address.

- Freestanding signs shall not exceed 16 feet in height.

Structures with a gross floor area of 25,000 square feet or less:

- 28 square feet

Structures over 25,000 square feet but less than 150,000 square feet:

- 38 square feet

Structures over 150,000 square feet:

- 43 square feet

Wall signage

- One wall sign shall be permitted and may be located flat against the building's front facade or parallel to the front facade on a canopy. For businesses with frontage on more than one public street, two signs may be permitted. In no case shall more than one wall sign be located on a facade and no wall sign shall be located on a rear facade.

- Wall signs shall be allowed up to a size equivalent to one square foot for each one lineal foot of building frontage occupied.

Landscaping

- Landscaped islands or medians, having a minimum width of ten feet, shall be provided to separate parking bays from internal access drives.

- A minimum of two canopy trees shall be provided for every ten parking spaces.

- Parking areas and driveways shall be separated from the exterior wall of a building, exclusive of pedestrian entrance ways or loading areas, by a landscaped planting area of at least four feet in width.

- A minimum of 50 percent of each landscaped area, at time of planting, shall be planted with grass, ground cover, trees, or other living vegetation.

- It shall be the duty of the owner, agent or occupant of any property located within 75 feet of a structure, excepting public utility installations, to prevent weeds, grasses, brush or other vegetation from growing to a height of greater than 12 inches.

Hydrants

- No person shall, in any manner, obstruct or prevent free access to any fire hydrant by placing or storing temporarily or otherwise any object or materials of any kind within 20 feet of any fire hydrant.

Fire Access (as stated in the 2006 International Fire Code, from which Meridian Township bases ordinances)

- Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34,050 kg).

Bicycles

- The minimum height of the bicycle rack shall be 36 inches from the base to the top of the rack.

- The minimum length for the bicycle rack shall be two feet.

- A bicycle rack shall accommodate at least two bicycles.

Streets

- The minimum driveway width shall be 25 feet.

- The minimum roadway width shall be 25 feet.

- Side and rear setback min 10 ft

- Front setback min 35 ft

Building

- Max height: thirty five feet, not including steeples, belfry towers, or other similar structures, unless each required yard is increased one foot for every foot of height above 35 feet.

Speed limit vs street spacing

- Posted Speed (mph) | Minimum Separation (feet)
- 25 | 105, 56 | 125 | 30 | 150 | 40 | 45 | 230 | 74 | 275

Utility

- All public water should be within a 20’ easement

Total site acreage: 15

Total retail footage: 113930 sq.ft.

Required parking spots: 250min/281 max

Total spots onsite: 237/5, 78, 274
CORE SITE PERSPECTIVES

View from the atrium out onto the central greenspace.

Iso view of the shopping center looking from the southwest.

Bird's eye view of the shopping center from the southeast.

Looking south at the shopping center with views of the roundabout fountain, children's play area, and parking garage.
CORE SITE PERSPECTIVES

Rendered view of the play area.

Bird's eye view of the play area. The site is surrounded by a raised wall for safety, with grass and sand within. Trees help with shade and softening the view.

Looking out from the equipment.

Iso view from the southwest.
CORE SITE PERSPECTIVES

An example of how the grocery store can be smaller, but still functional such as in the ALDI brand.

The illuminated entrance sign.

The modern bend design implemented on the main vista entrance street.

The four pocket parks offer visual interest and break up the main vista. Complete with tables, green walls, water walls, and connections to residential.
CORE SITE PERSPECTIVES

Looking at the atrium from inside the shopping complex.

Eye-level view looking centrally down the main vista entrance street.

Different paving offers safe passage for pedestrians.

The store directory in place.
APARTMENT DETAILS

3 Bedroom, 3.5 Bath

2 Bedroom, 2.5 Bath

PRECEDENT IMAGES

Apartments designed onsite are for a variety of family size and living options. Three bedroom apartments are multi-story loft style, and two-bedroom apartments are single floor. Apartments range from 500-1000 square feet. Green roofs offer a sustainable aspect to the new development. Large balconies provide good view for people watching.

Offering a site directory is very helpful in mixed-use developments. Complete with a listing, this map would be successful with wayfinding when placed throughout the site. Lights will allow for evening viewing.

The entrance sign to the site is designed with oversized, illuminated letters to instantly draw attraction to the site. Its height and width will allow for large vehicular access.

Links: http://nybbdecoranddesignguide.files.wordpress.com/2013/06/091607_07181-1.jpg; https://basinstitute.org/home/image.html?zn=7&cid=b7faalldl272039dfd6082f2db729; http://farm1.staticflickr.com/211/491529985_bb5d724b8c_z.jpg
This parking garage can hold 100 cars, offering successful overflow parking for events or holiday shopping. An access hallway on the second floor connects directly to the shopping center in the design, helping with seasonal access. The stairwell is modern and glassed.

Links: http://thumbs.dreamstime.com/z/parking-garage-8058042.jpg; http://www.e-architect.co.uk/images/jpgs/new_york/delancey_municipal_garage_m300711_5.jpg; http://www.e-architect.co.uk/images/jpgs/new_york/delancey_municipal_garage_m300711_5.jpg
This table and chair design was created with a simple, but modern design to contribute to the new age characteristics of the site. Putting glass on top will reflect the many light elements throughout the site. Comfortable and outdoor safe fabric was implemented on the chairs. Less rigid than rattan.

This modern bench design draws on the concept of innovation and will be positive contribution to the town square. Raised dividers offer multiple users separation in a unified experience.

CHAPTER 5

Conclusions and References
CONCLUSIONS

This project has offered a real world look into the extensive and demanding process that is retail development planning. From obtaining initial research via survey, public outreach meetings, and ordinance lookup, there are many outlets for the foundation of a successful project. The design phase is so multi-faceted, with many critiques and revisions until a final product design can be reached. Throughout the process, one really learns what works and what doesn’t. This provides a great deal of knowledge to the individual that can be brought out in future projects. Speaking personally, I am more than grateful for the opportunity to redesign this site for the community at hand and looking forward to following the progress of the site into the future.
REFERENCES

People:
Karen Russcher, MSU Professor
Dr. Pat Crawford, MSU Professor
Rob Dalton, MSU PhD Student

Groups:
DTN Management
Carriage Hills community members

Books:


