a FEASIBILITY STUDY for BLENDING HOUSING and URBAN AGRICULTURE in LANSING, MI

PRACTICUM REPORT MICHIGAN STATE UNIVERSITY
2010

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AGENDA

- Site and neighborhood description
- Housing market analysis
- Potential occupants, design options, and construction methods
- Agriculture and green space analysis
- Development options
- Development recommendations
- Conclusion
INTRODUCTION

- Our client, the Cohousing Development Co. is partnering with the Greater Lansing Food Bank to develop a parcel of land that will incorporate housing and agriculture.
- The goal of this project is to provide our client and its partner with use alternatives that include housing type and agricultural/open space possibilities for their Lansing property.
PREVIOUS CLIENT DEVELOPMENTS

- Cohousing Development Company (CDC) developed three adjacent cohousing communities in Scio Township near Ann Arbor, Michigan
  - Sunward Cohousing
  - Great Oak Cohousing
  - Touchstone Cohousing
SITE and NEIGHBORHOOD DESCRIPTION
Area is mostly single family residential

Near many natural recreational areas

Near MSU, LCC and Cooley Law School

Near Jolly and Mt. Hope

On CATA bus route #7
site basics

- 22.84 acres
- Used to be a farm but has been fallow for 30 years
- Zoning: A-residential, single
- Previously approved for an 86 unit condominium development
neighborhood description

- City of Lansing population is declining and aging
  - Population with largest growth is 55 to 64 years of age
- Population within one mile of site is relatively stable
- LEAP is encouraging employment growth in Mid-Michigan
  - Financial services, health care, life sciences, information technology
characteristics

- Forest View Neighborhood
  - Diverse housing stock
  - 70% constructed 1970-1989
trends: new single-family home construction permits 2004-2008

- Lansing
- East Lansing
trends: foreclosed and distressed housing

Large increase in home foreclosures in recent years

Foreclosures drive down home sale prices
trends: occupancy and tenure

- % renter occupied (2000):
  - One mile: 57.5%
  - Three mile: 43.9%

- % change renter occupied (2000-2013):
  - One mile: +.1%
  - Three mile: -1.2%

- % change vacancy (2000-2013):
  - One mile: +1.6%
  - Three mile: + 3.9%

Year 2000 vacancy (1-3 mile)

# of vacant units
- 0 - 1
- 2 - 4
- 5 - 10
- 11 - 17
- 18 - 26
- 27 - 57
- 58 - 150
# Market Rate Housing Analysis

## Lansing SE

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. List $</td>
<td>$57,978</td>
<td>$46,678</td>
<td>-19%</td>
</tr>
<tr>
<td># of sales</td>
<td>349</td>
<td>419</td>
<td>20%</td>
</tr>
<tr>
<td>Avg. sale $</td>
<td>$54,336</td>
<td>$43,104</td>
<td>-21%</td>
</tr>
<tr>
<td>Avg. Market Time</td>
<td>77</td>
<td>71</td>
<td>Less 6 Days</td>
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## Lansing

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<tr>
<td>Avg. List $</td>
<td>$57,591</td>
<td>$50,843</td>
<td>-12%</td>
</tr>
<tr>
<td># of sales</td>
<td>1,549</td>
<td>1,730</td>
<td>12%</td>
</tr>
<tr>
<td>Avg. sale $</td>
<td>$53,738</td>
<td>$47,275</td>
<td>-12%</td>
</tr>
<tr>
<td>Avg. Market Time</td>
<td>75</td>
<td>71</td>
<td>Less 4 Days</td>
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feasibility: low income

- **Lansing Stats**
  - 11.7% - unemployed
  - 4.2% - receive cash assistance
  - 17.4% - received food stamps in last 12 months
  - Below the poverty line
    - 24% - all people
    - 18.3% - families
    - 33.7% - unrelated individuals 15+
feasibility: low income

The National Low Income Housing Coalition (NLIHC) reports that Lansing residents must make $2,500 a month or $30,000 a year to access affordable housing (no more than 30% of annual income)

- **Percent change 2000-2008**
  - One mile: -12.4%
  - Three mile: -11.6%

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<th>1 mile radius</th>
<th>3 mile radius</th>
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<td>HH earn &lt; $35,000 year</td>
<td>50.3%</td>
<td>37.9%</td>
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</table>

Source: US Census and ESRI Forecasts
feasibility: senior and student

Senior

Between 2000 and 2008, 55+ grew In Lansing: 2.8%
Within one mile of project site: 1.7%
Within three miles of project site: 1.8%

Student

Enrolled in college/grad school
One mile: 20.8%
Three mile: 20.5%
potential occupants

- Analysis shows that these populations should be targeted due to stable or growing population:
  - Seniors and/or Disabled Persons
    - May require similar housing design (universal design)
  - Low to Moderate Income Families and/or students
    - May require similar ownership type (rental)
design strategies and construction methods

- Cottage Communities
  - Small, dense single-family
- Cohousing
  - Emphasizes community interaction
- Universal Design
  - Non-exclusive, accommodates virtually everyone
- Prefabrication
  - Parts of a building are made off-site and then assembled on-site, saves money
- Green Building
  - Energy efficient, utilize natural energy, minimize footprint
URBAN AGRICULTURE and OTHER GREEN SPACE
agriculture feasibility

- Soil is viable for agricultural activities
  - Soil analysis is necessary to determine which crops will grow best
types of urban green spaces

- **Urban Farming**
  - Production agriculture scaled down to fit the urban form
- **Community Supported Agriculture**
  - “the cohousing of agriculture”
- **Open Space**
  - A green third space where community members can interact
- **Urban Gardening**
  - Individual; may be private or public
case studies

- **Project Grow: Ann Arbor, Michigan**
  - Urban gardening, rental plots

- **Troy Gardens: Madison, Wisconsin**
  - CSA, production agriculture

- **Growing Power: Milwaukee, Wisconsin**
  - Intensive production agriculture

**Lessons Learned:**
- Fosters community interaction
- Increases education about food production
- Increases food security – locally grown produce
troy gardens: madison, wi

- **Residential uses**
  - 30 units of mixed-income cohousing

- **Agricultural uses**
  - Five acres: CSA
  - 330 family garden plots
ANALYSIS of OPTIONS

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<table>
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<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Cohousing + CSA</td>
<td>Increases strength of residential community</td>
<td>Niche market may be hard to sell</td>
<td>Bring surrounding community to the site</td>
</tr>
<tr>
<td>Cottages + Production Ag</td>
<td>Agriculture can as an interim use, cottages are dense</td>
<td>Ag is not as profitable as housing</td>
<td>Potentially low cost housing for Ag workers</td>
</tr>
<tr>
<td>Cottages + Open Space</td>
<td>Allows for private space without compromising a strong sense of community, has wide appeal</td>
<td>Lower density may be less profitable, maintaining open space may be costly</td>
<td>Third space supplements private property</td>
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<tr>
<td>Attached Housing + Rental Plots</td>
<td>Gardens can easily be configured around housing</td>
<td>Rental plots may be less appealing and practical for short term leasers</td>
<td>Allows residents an opportunity to grow their own food by leasing outdoor space</td>
</tr>
<tr>
<td>Attached Housing + Open Space</td>
<td>Open Space can be an interim use, attached housing is dense</td>
<td>There is already park space in the area</td>
<td>Open space acts as a backyard</td>
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DEVELOPMENT RECOMMENDATION

- URBAN AGRICULTURE
- TOWNHOMES
- COTTAGES
- MULTI STORY UNIT
- COMMON HOUSE
- PARKING AT THE PERIPHERY
- PEDESTRIAN PATHS
- COMMUNITY GREEN SPACE
- PONDS IN LOW AREAS
PHASE ONE

- PERMANENT AGRICULTURE (EAST)
- TEMPORARY AGRICULTURE (WEST)
- ROADS AT PERIPHERY
- SOME LANDSCAPING
- FIRST POND (EAST)
PHASE TWO

- PERMANENT AGRICULTURE
- TEMPORARY AGRICULTURE SCALED BACK FOR HOUSING
- COTTAGES
- TOWNHOMES

- COMMON HOUSE
- MULTIFAMILY
- PEDESTRIAN PATHS

Phase 1 Residential Development
townhouses/cottages/multifamily
common house + rental ag plots

~7.7 acres permanent agriculture production and support facilities

Scaled back temporary ag usage
PHASE THREE

- Permanent Agriculture
- Additional Townhomes and Cottages
- Expand Pedestrian Paths
- Possible Expansion of Rental Plots

- Prefabrication
- Green Roofs (Multi + Common House)
- Solar Paneling (Housing)
- Universal Design (All)
THANK YOU!

QUESTIONS?