

# Big Beaver Corridor Study

COVER



*a study to reignite the development potential of this premier district*

June 21, 2006  
City of Troy, Michigan



# Statement of Purpose

The Big Beaver Corridor Study will catalogue, analyze, and define issues that will begin a process of planning and directing development opportunities for years to come.

Specifically this document, in part one, will provide an overview analysis of existing conditions and summarize stakeholder and expert opinions as important input for part two efforts to redefine basic and overall corridor characteristics and experience.

Part two addresses the corridor as “world class boulevard” concept advocated by the DDA as the strategy to re-ignite the development and redevelopment potential of the corridor. Part two will outline specific requirements needed to fulfill this goal. It will assign general land use concepts related to long term economic viability, transportation management, the urban design aesthetic, and public experience of the corridor.

The study process will present a plan that will fundamentally change the corridor from a traffic dominant highway to a mixed use urban center, a very dramatic and forward thinking idea. It will also strongly advocate the need for a comprehensive master plan in addition to this study, which will address issues of public and private realm interactions, long term values, and economic sustainability. This corridor study is an important chapter of the future master plan for the City of Troy.

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*“For many Big Beaver is the first and*



*Part One*

*only impression of the City of Troy”*





0 miles

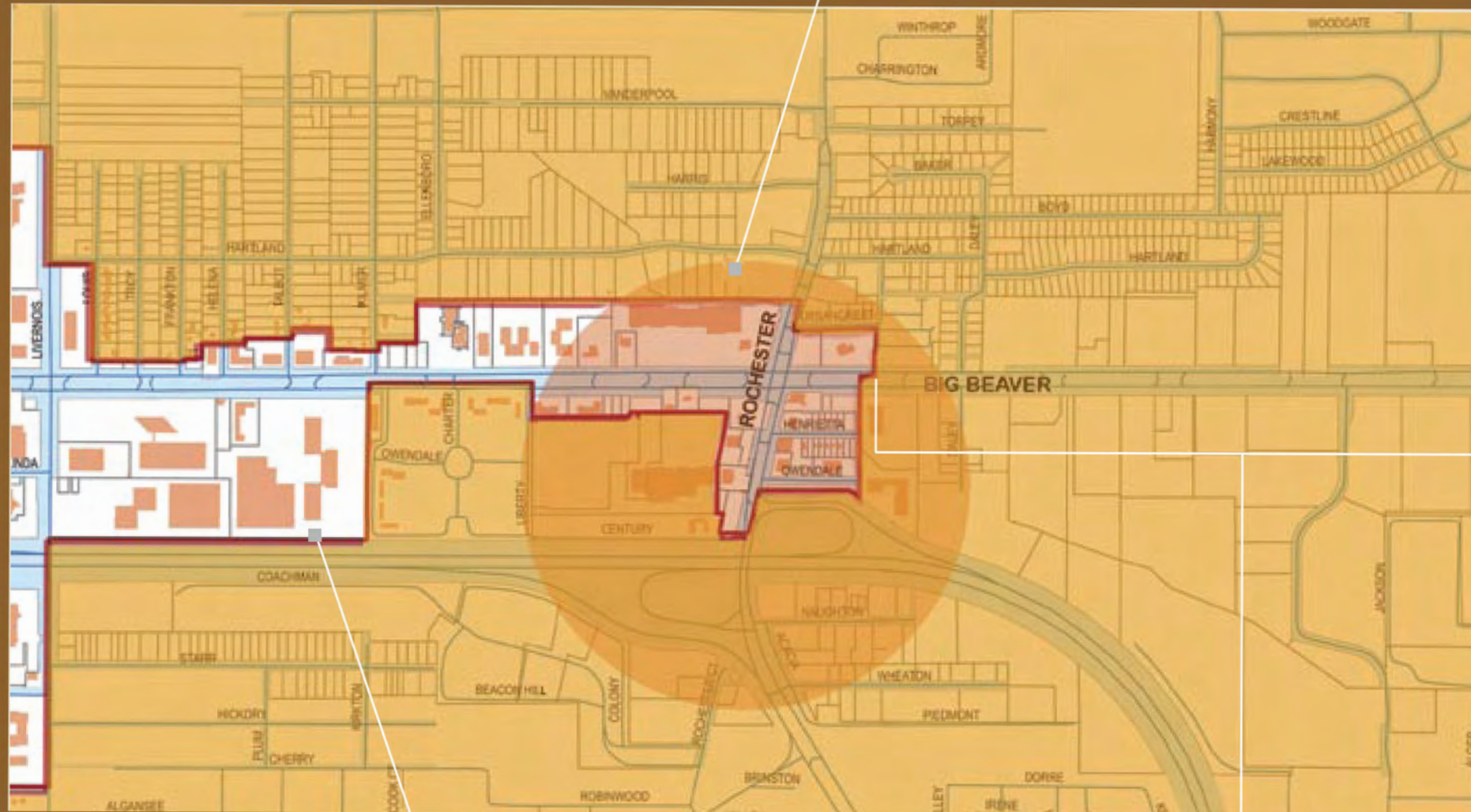
1 miles

2 miles

3 miles

Adams to Dequindre (6 miles)

I-75 Gateway Interchange  
at Rochester Road



DDA District Boundary –  
Primary Area of  
The Corridor study

Secondary Area of  
The Corridor study

## Inventory and Analysis

The Big Beaver Corridor is a major east-west thoroughfare that runs through Oakland County and connects the City of Troy with Macomb County to the east and Woodward Avenue, Bloomfield Township and Birmingham to the west.

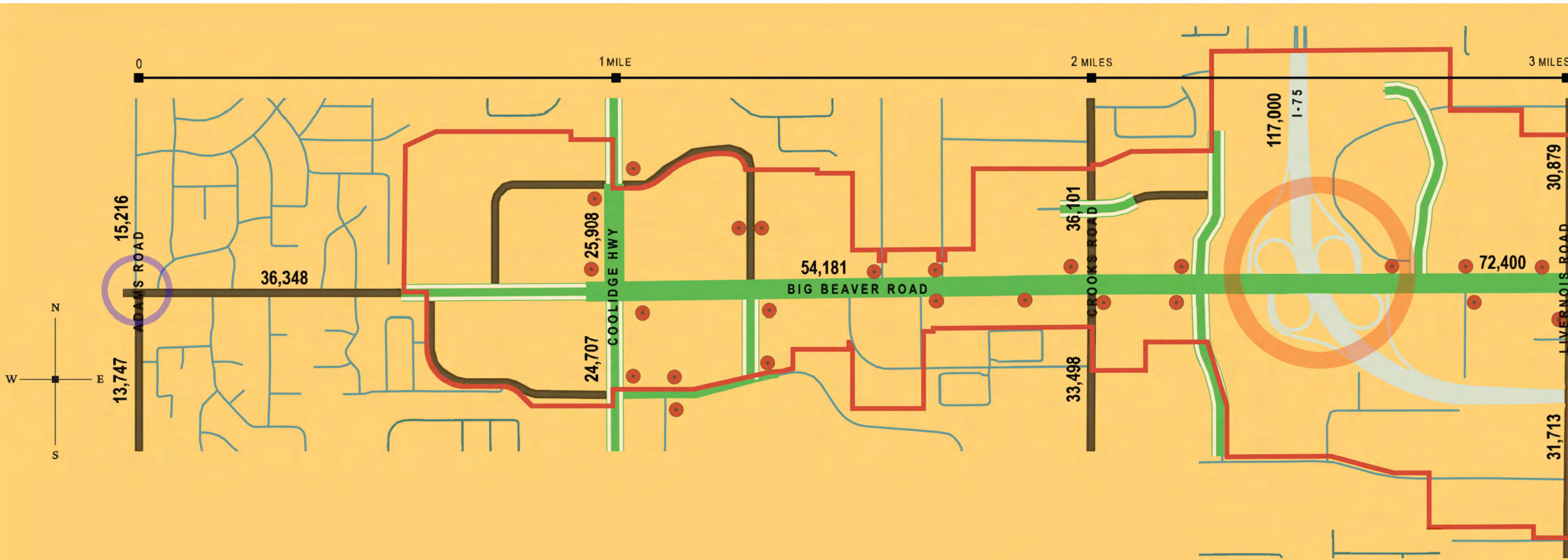
The Big Beaver Corridor Study Area includes a primary study area that matches the boundaries of the Downtown Development Authority (DDA) District and a secondary area that extends to complete the six mile segment along Big Beaver Road from Adams Road to Dequindre Road. Also included are intersections with major thoroughfares such as Coolidge, Crooks, Livernois, Rochester and John R, as well as intersections with a number of collector and local streets within the Corridor.

The following is an inventory of Corridor components for Analysis from which conclusion are offered in the following pages.

- Corridor, streets and traffic
- Pedestrian circulation
- Lighting, landscape and maintenance
- Driveway access
- Parking
- General land use
- Buildings and the Public Space

The Big Beaver Corridor represents a one of a kind premier district in the region but as will be revealed, its suburban planning and development principles severely limit its ultimate potential.



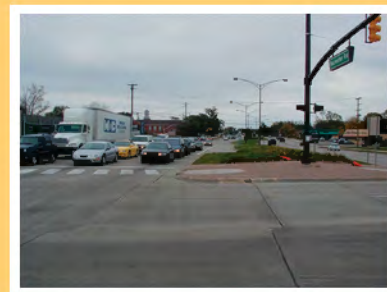


# Corridor, Streets and Traffic

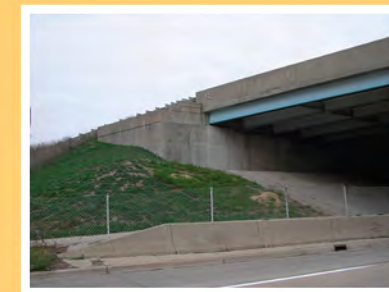
Excellent connector and collector traffic systems define the Corridor as primarily an automobile dominated world.



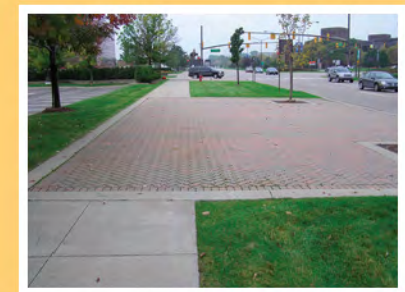
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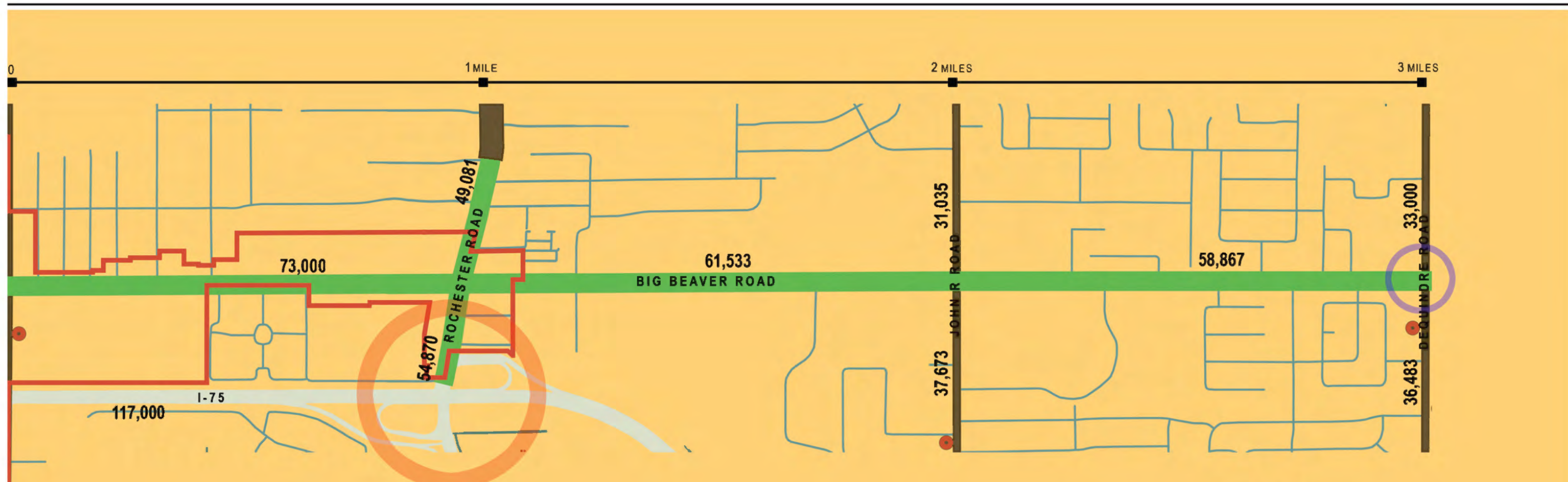
B



C



D



### Analysis

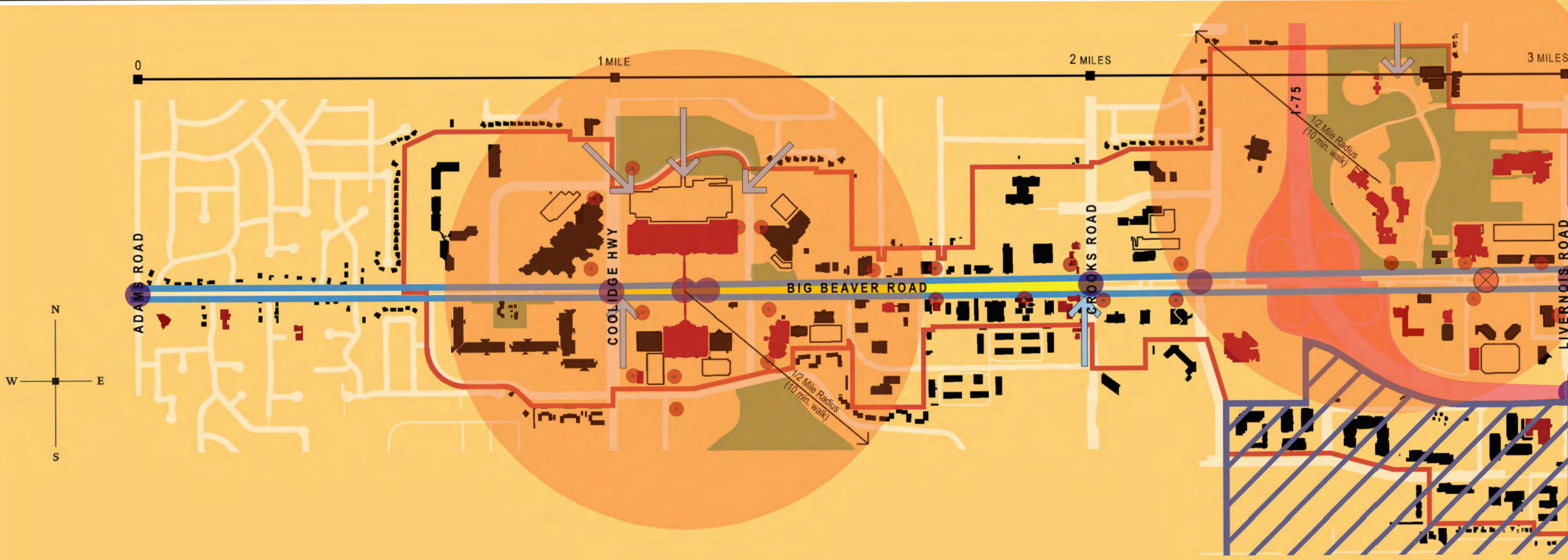
- Traffic volumes on Big Beaver range between 36,000 and 73,000 vehicles per day and are comparable to those along Woodward Avenue through Birmingham, which carries an average of 67,800 vehicles per day.
- As a 6-lane boulevard, Big Beaver Road is designed to function at an acceptable level of service with a traffic volume of 45,000 vehicles per day (level of service degrades as volumes increase).
- The boulevard cross-section of Big Beaver reduces potential conflicts between vehicles by restricting left turning movements. (see image A)
- The intersection of Rochester and Big Beaver Roads is the single most heavily traveled point within the Corridor. (see image B)
- For many visitors, the gateways represent the first impression of the City and the Corridor.
- The I-75 Freeway bisects the Corridor and creates a significant physical and visual barrier. (see image C)
- Bus stops are located primarily between Coolidge and Livernois and lack pedestrian amenities such as shelters and benches. (see image D)

### Conclusions

- Traffic volumes along Big Beaver create opportunities for retail and restaurant uses in the Corridor.
- Traffic management will be a challenge as development intensity increases along the Corridor.
- There is significant opportunity for enhancement of the Big Beaver Corridor and gateways.

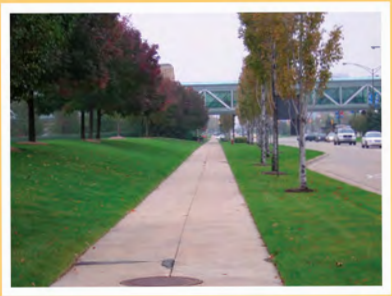
### LEGEND:

- DDA Boundary
- Bus Stop
- 2 Lane Road
- 2 Lane Boulevard
- 4 Lane Road
- 4 Lane Boulevard
- 6 Lane Road
- 6 Lane Boulevard
- Interstate (I-75)
- Major Corridor Gateway
- Minor Corridor Gateway
- 61,533** Daily Traffic (source: City of Troy Engineering Dept.)

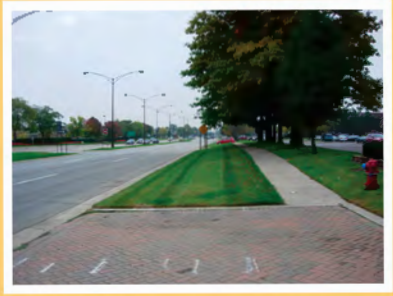


# *Pedestrian Circulation*

Pedestrians out for a stroll is not an experiential feature of the Corridor



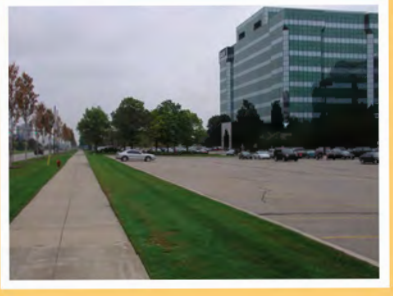
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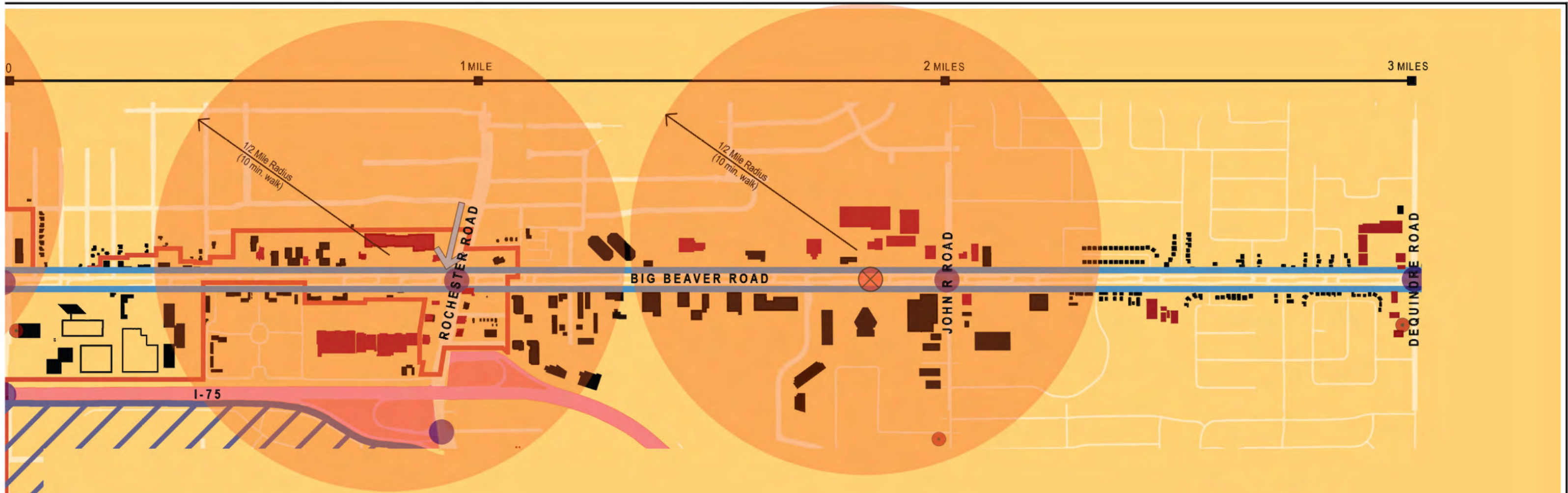
C



D



E



*Analysis*

- The Corridor is primarily designed to service the automobile.
- Pedestrian circulation is largely confined to commercial nodes that offer destination uses - i.e. shopping, services, restaurants and hotels (primarily within a half mile walking distance)
- The majority of the pedestrian activity is within the “primary pedestrian use zone” where quality destinations exist and are of the highest density and proximity.
- Marked pedestrian crossings area very limited (approximately 9 locations) almost one mile apart in some locations. This greatly restricts pedestrian interconnection between north and south sides of the Corridor, and results in pedestrians dangerously crossing in unmarked areas.
- Above grade (bridge) crossing at the Somerset Collection very effectively and safely facilitates pedestrian Corridor crossing. The all-weather protection aspect of the bridge enhances usability.

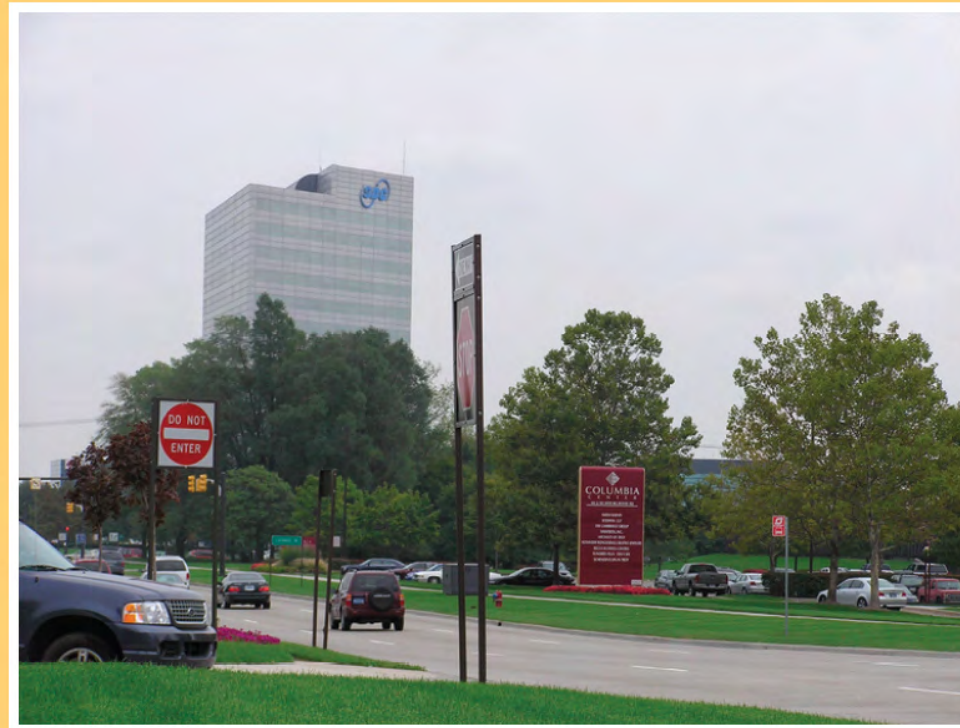
*Conclusions*

- Pedestrian activity is minimal due to lack of residential or mixed uses along or directly adjacent to the Corridor.
- Increasing the number and disbursement of destinations along the Corridor will encourage pedestrian traffic throughout.
- Lack of interconnection between uses and destinations greatly impacts pedestrian activity.

Sidewalks within the Big Beaver Corridor are generally well maintained; however, there are examples throughout the study area of overgrown bushes and untrimmed trees that detract from the pedestrian experience and discourage foot traffic.



One of the most noticeable characteristics is the automobile dominant nature of the Corridor. Currently, Big Beaver Road functions as a high speed thoroughfare, rather than a pedestrian-friendly city core.



Despite the landscaped median and right-of-ways, excess signage and lighting reduce visual quality along the Corridor.

# Lighting, Landscape and Maintenance

Efficient and practical, missing an opportunity to add character and interest to the corridor



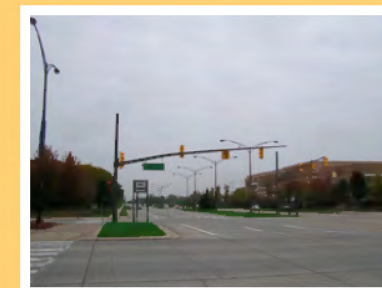
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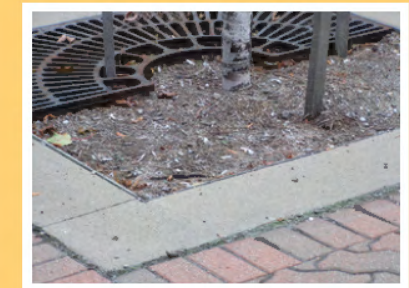
B



C



D



E

The narrow, columnar trees separating the traffic lanes from the sidewalk provide little enclosure for pedestrians. Larger canopy trees would offer the pedestrian a visual and spatial feeling of separation from the nearby traffic.



Light fixtures along the Corridor are the largest and most visually dominant feature, and provide no architectural contribution to the character of the Corridor.

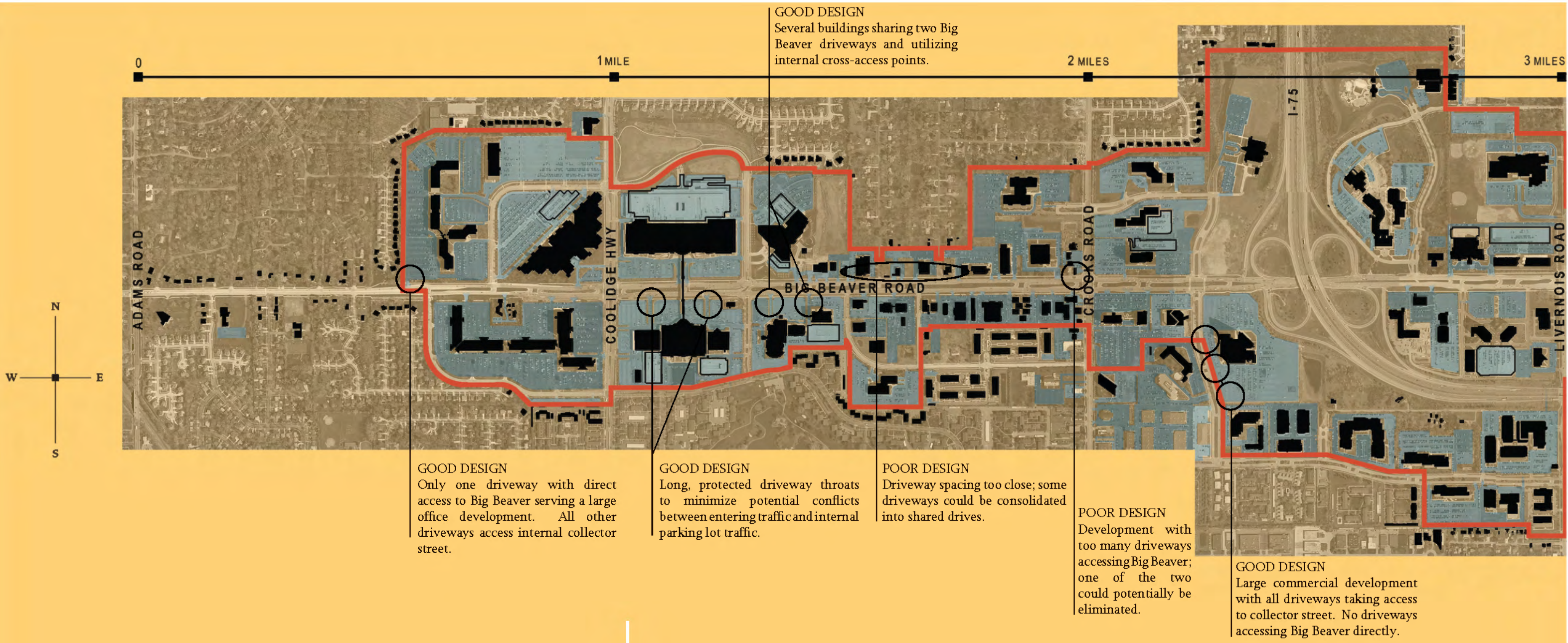
The heavily landscaped median breaks up the expanse of Big Beaver's six lanes of traffic and gives the roadway an attractive suburban appearance. This manicured and maintained boulevard evidences the importance of this Corridor within the City of Troy and the surrounding region.

### *Analysis*

- Attractive and well maintained landscaping throughout the Corridor illustrates a sense of pride among property owners. Perennial and annual beds create beautiful displays of color, while hedgerows shield parking areas from public view. (see image A)
- While pavers mark crosswalk locations for pedestrians along the sidewalk, some crosswalk markings within the roadway require attention and are evidence of an automobile-dominated Corridor. (see image B)
- Areas of the median that are substantially crowned help reduce visual distractions from oncoming traffic. (see image C)
- Existing pole lighting's physical size and style lack human scale, reinforce the highway image and visual dominate the Big Beaver Corridor. (see image D)
- Decorative sidewalk pavers are used along Big Beaver to designate bus stops and crosswalk locations. While the use of pavers generally enhances the streetscape and pedestrian experience, many of these areas are in need of improvement. Amenities, such as plantings and decorative tree gates, must be maintained and replaced when necessary. (see image E)

### *Conclusions*

- The use of human-scaled pole lighting will improve the character and scale of the Corridor and substantially transform and improve the pedestrian character.
- While privately landscaped areas are generally well maintained, Corridor landscape design guidelines can help produce more unified site appearance.
- While maintenance is generally good throughout the Corridor, a well enforced maintenance ordinance will ensure a consistently positive image of the site.

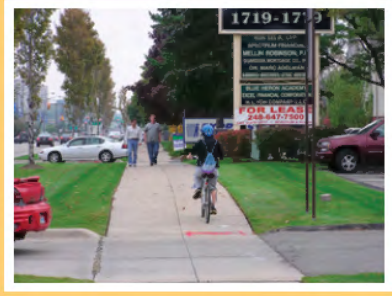


# Driveway Access

Managing highway traffic and property access issues is a planning priority



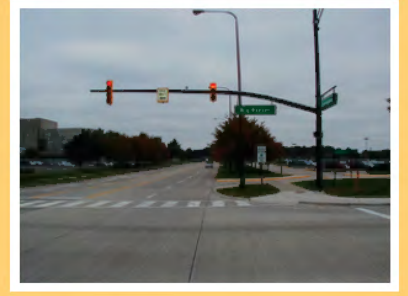
A



B



C



D



**POOR DESIGN**  
Property with too many driveways; single driveway is more appropriate.

**POOR DESIGN**  
Property to the east could be served via existing driveway and cross access. Second driveway is unnecessary.

**POOR DESIGN**  
Driveway too close to street intersection to the east. Building can already be accessed from side road; Big Beaver driveway is unnecessary.

**POOR DESIGN**  
Building to the east could be served via existing driveway and cross access. Second driveway is unnecessary.

**LEGEND:**

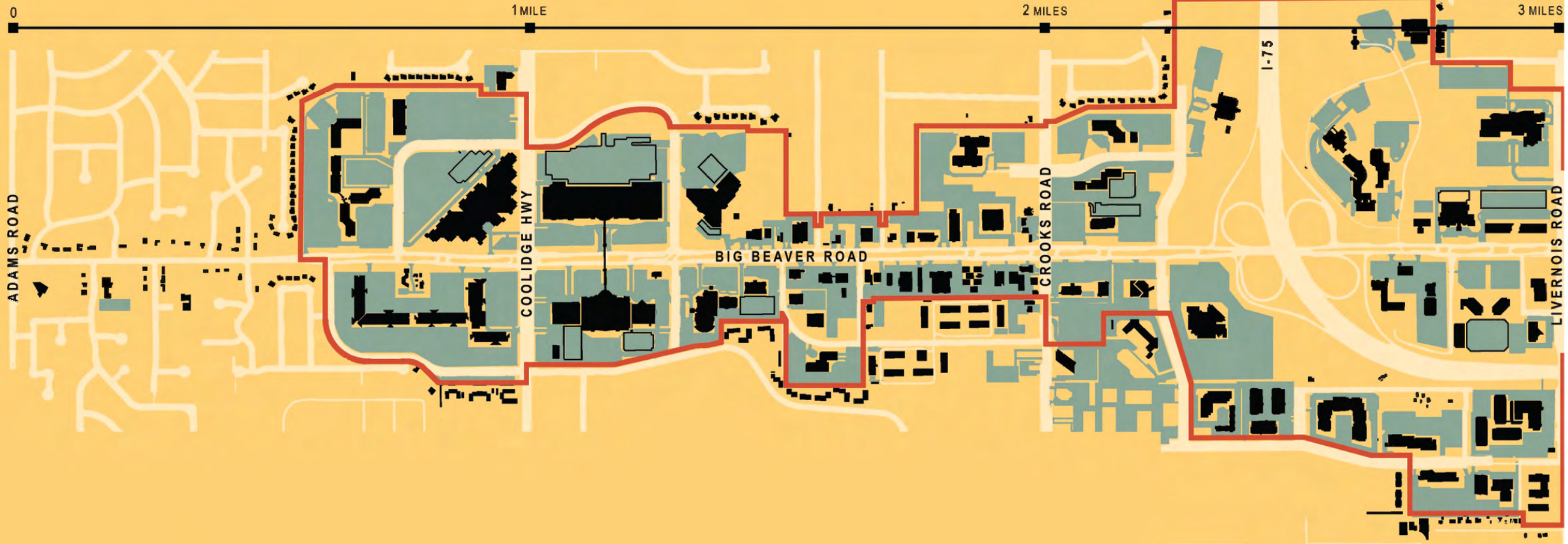
- DDA Boundary
- Parking Fields (including internal and access circulation)
- Parking Decks
- Building Masses

*Analysis*

- There are many examples of commercial properties with an excessive number of driveways, insufficient spacing between driveways, and driveways situated too close to an intersection. These situations can impact traffic safety and interfere with pedestrian and bicycle movements through the corridor. (see images A and B)
- Wayfinding, or the use of directional signs, is very limited along the Corridor. If a sign provides too many “chunks” of information, it increases the amount of time necessary for driver comprehension. (see image C)
- There are several collector streets within the Corridor (e.g., Cunningham, Golfview, Lakeview, Wilshire, Troy Center) that provide access to large commercial developments and minimize driveways onto Big Beaver and other major roads. (see image D)

*Conclusions*

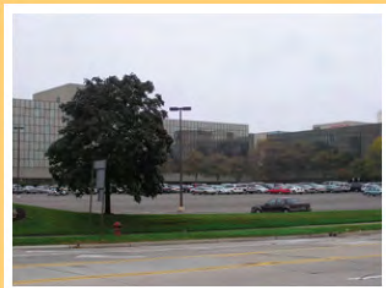
- There is significant opportunity for improved property access within the Corridor.
- Property access and driveway location will continue to be a challenge as development intensity increases along the Corridor.
- A planned system of collector and local streets, as well as private internal access drives, will be important to the success of Big Beaver as a mixed use urban center.



# Parking

The prominent land use component of the Corridor

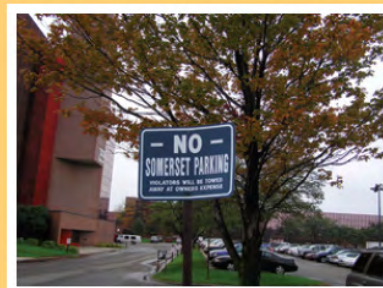
As illustrated by the comparison below, parking structures provide an opportunity for enhanced use of land for development purposes. Somerset Collection North, in particular, maximizes building area on the site by accommodating a substantial majority of the parking needs within a structure.



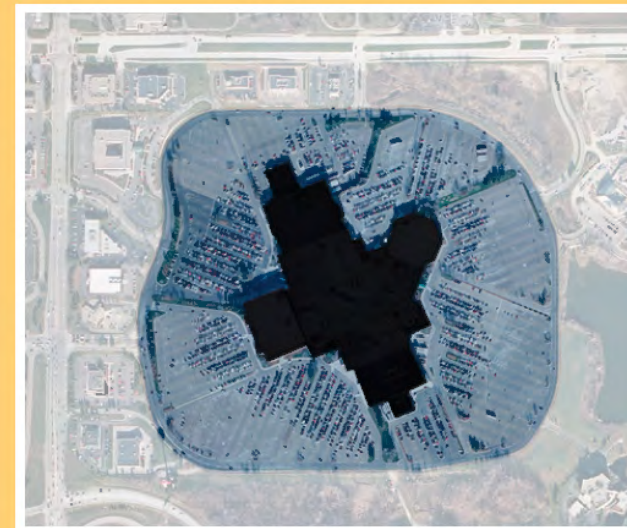
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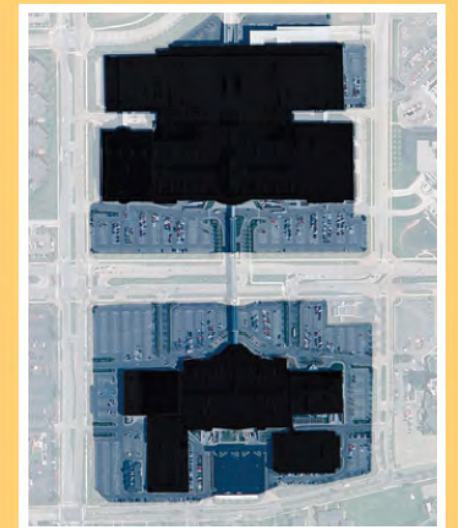
B



C



12 Oaks Mall, Novi (surface parking only)  
Approx. 102 acres of surface parking and access



Somerset Collection (parking structures and limited surface parking)  
Approx. 42 acres of surface parking and access



**LEGEND:**

- DDA Boundary
- Parking Fields (including internal and access circulation)
- Parking Decks
- Building Masses
- Public Roadways

*Analysis*

- 90% of all open space is covered with pavement.
- Green space within the parking fields is merely leftover space providing minimal benefit (i.e. shade, spatial definition, screening, etc). (see image B)
- Parking lots are individual to each development with minimal interconnection forcing traffic to use only main roads.
- Parking is unshared between properties requiring larger parking lots only devoted to its individual development. (see image C)
- Parking lots are largely unscreened. (see image A)
- Most parking is surface lots requiring the most land coverage.
- Large surface parking fields contribute to the lack of linkage between developments limiting pedestrian interconnection.

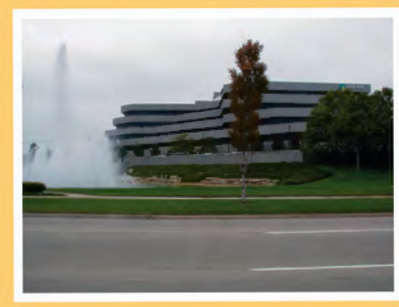
*Conclusions*

- Large parking fields contribute to the visual sprawl and physical separation of buildings and uses, limiting pedestrian interconnection.
- Large distances between uses to accommodate individual parking fields and roadways contribute to the lack of community, neighborhood or of a cohesive urban center.
- Expansive amounts of impervious paved areas increases chemical runoff, and dramatically reduces water quality in the region.



# General Land Use

Autonomous and independent variety of single use parcels



A



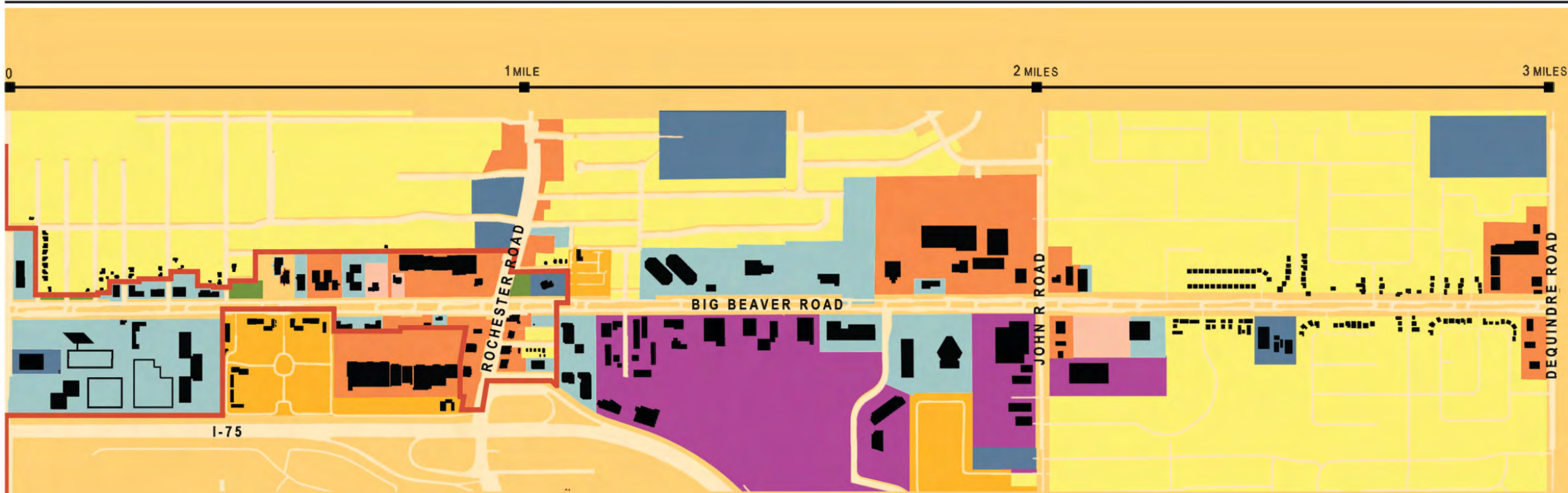
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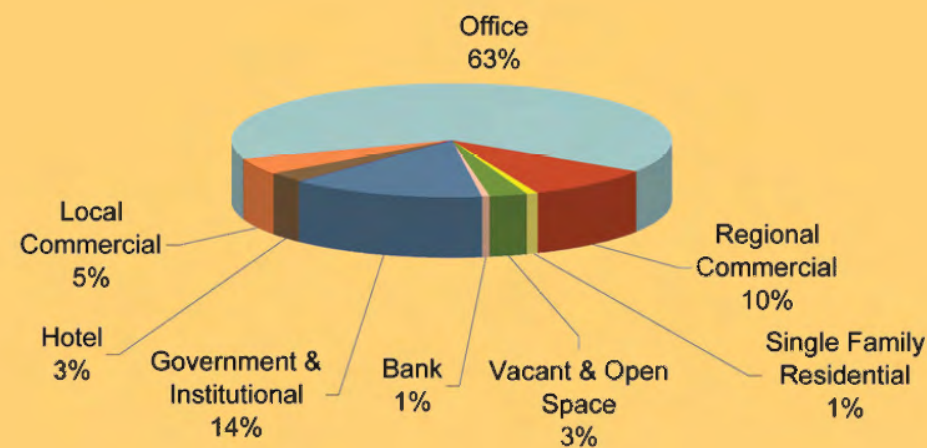


### Analysis

- The Big Beaver Corridor study area contains a mixture of land uses including office, regional and local commercial, public, institutional, light industrial, and residential, that have been developed as independent sites bearing little or no relation to each other.
- The primary study area is predominantly comprised of medical and professional offices, with approximately 64% of the total land area within the DDA District utilized for office uses ranging from single-story and low-rise individual buildings to much larger, mid and high-rise buildings and complexes offering first-class office space. (see Image A)
- Limited suburban strip commercial exists within the primary study area at the intersections of Big Beaver with Crooks and Rochester Roads, as well as several hotels, and a significant amount of regional commercial space within the Somerset Collection. Hotels and local and regional commercial uses comprise approximately 18% of the total land area within the DDA District. (see Image B)
- Residential uses are limited within the Corridor and are mainly located outside of the primary study area.
- A significant amount of underutilized land exists within the Corridor (e.g., large surface parking areas, single family residential lots, and vacant properties). (see images C and D)

### Conclusions

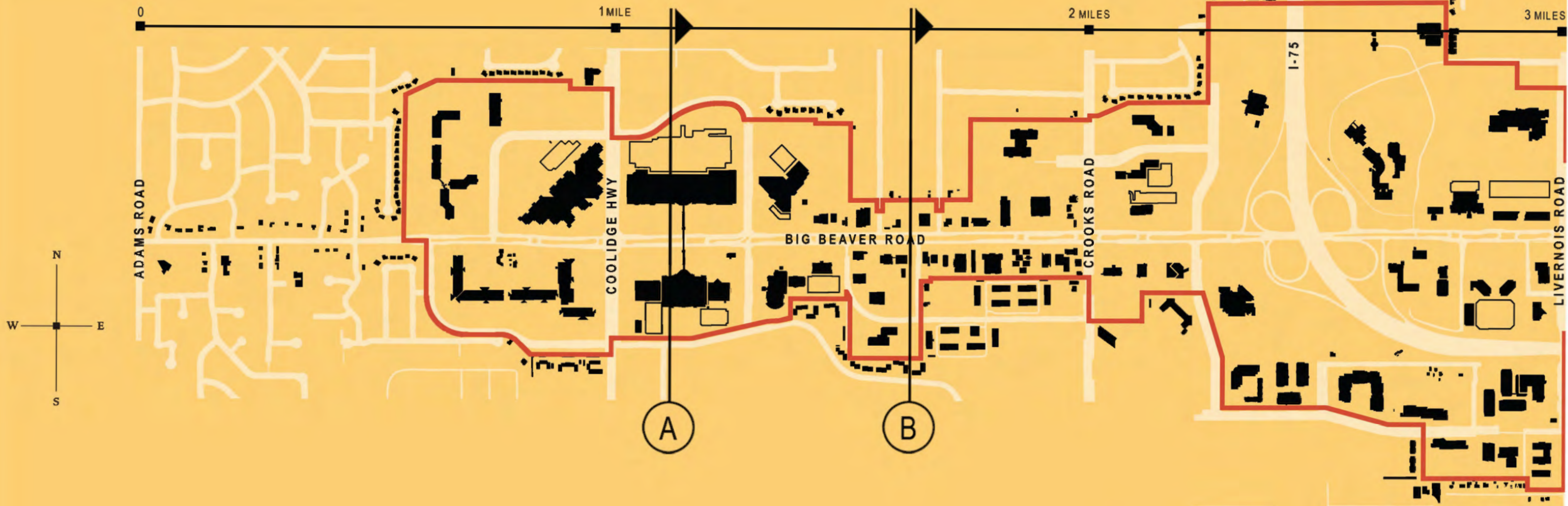
- The Big Beaver Corridor presents immense opportunities for development and redevelopment.
- Residential land uses and changes in the pattern and form of development within the primary study area will be key to the success of Big Beaver as a mixed use urban center.



Land Use of Primary Study Area

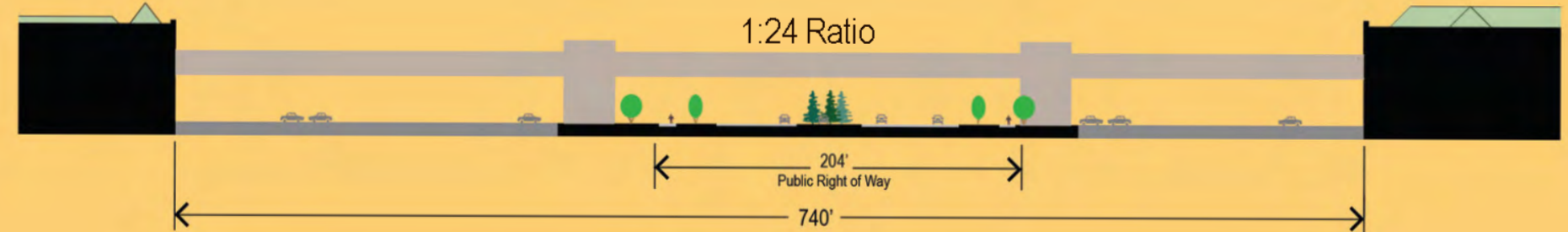
### LEGEND:

- DDA Boundary
- Government & Institutional
- Office
- Bank
- Local Commercial
- Regional Commercial
- Hotel
- Light Industrial
- Multiple Family Residential
- Single Family Residential
- Vacant & Open Space
- Parking Decks
- Building Masses
- Public Roadways

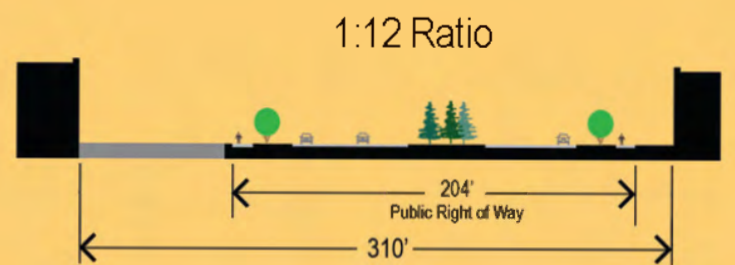


# *Buildings and the Public Space*

Building height, volume and placement reinforce the Corridor's open, unconnected suburban style space



Section A: Existing Corridor Section



Section B: Existing Corridor Section



*Analysis*

- Building massing contributes to street definition by establishing where the edges are. The Corridor lacks or has varying degrees of definition exceeding human comfort scale.
- The Corridor's sense of definition is several times larger than ideal human scale, the ideal being 1 vertical to 4 horizontal.
- The large spacing between buildings also contribute to the Corridor's lack of definition, allowing space to "bleed out."

*Conclusions*

- Corridor massing defines a suburban placement of isolated, individual properties along a thoroughfare axis.
- Edges that define human scaled space and create harmonious proportion are largely unclear.

**LEGEND:**

- DDA Boundary
- Building Mass

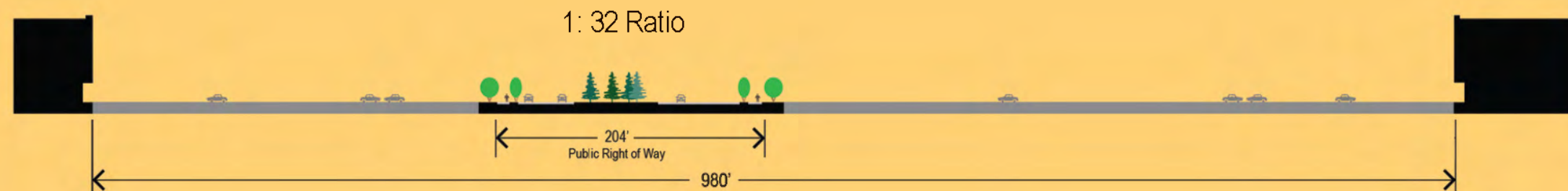


Cross Section of a World Class Boulevard

This cross section defines two important aspects of public space which will be advocated as part of the world class boulevard strategy.

1. A redesigned street system (boulevard style) within the existing 204' Right-of-Way, incorporating formalized tree plantings dividing drive lanes from access and parking lanes, and the sidewalk.
2. Multi-storied buildings close to the sidewalk, along with tree plantings at the curb, create an appropriate scaled space for pedestrians.

This boulevard cross section and the public space it creates is a dramatic departure from the Corridor's existing cross sections shown to the left.

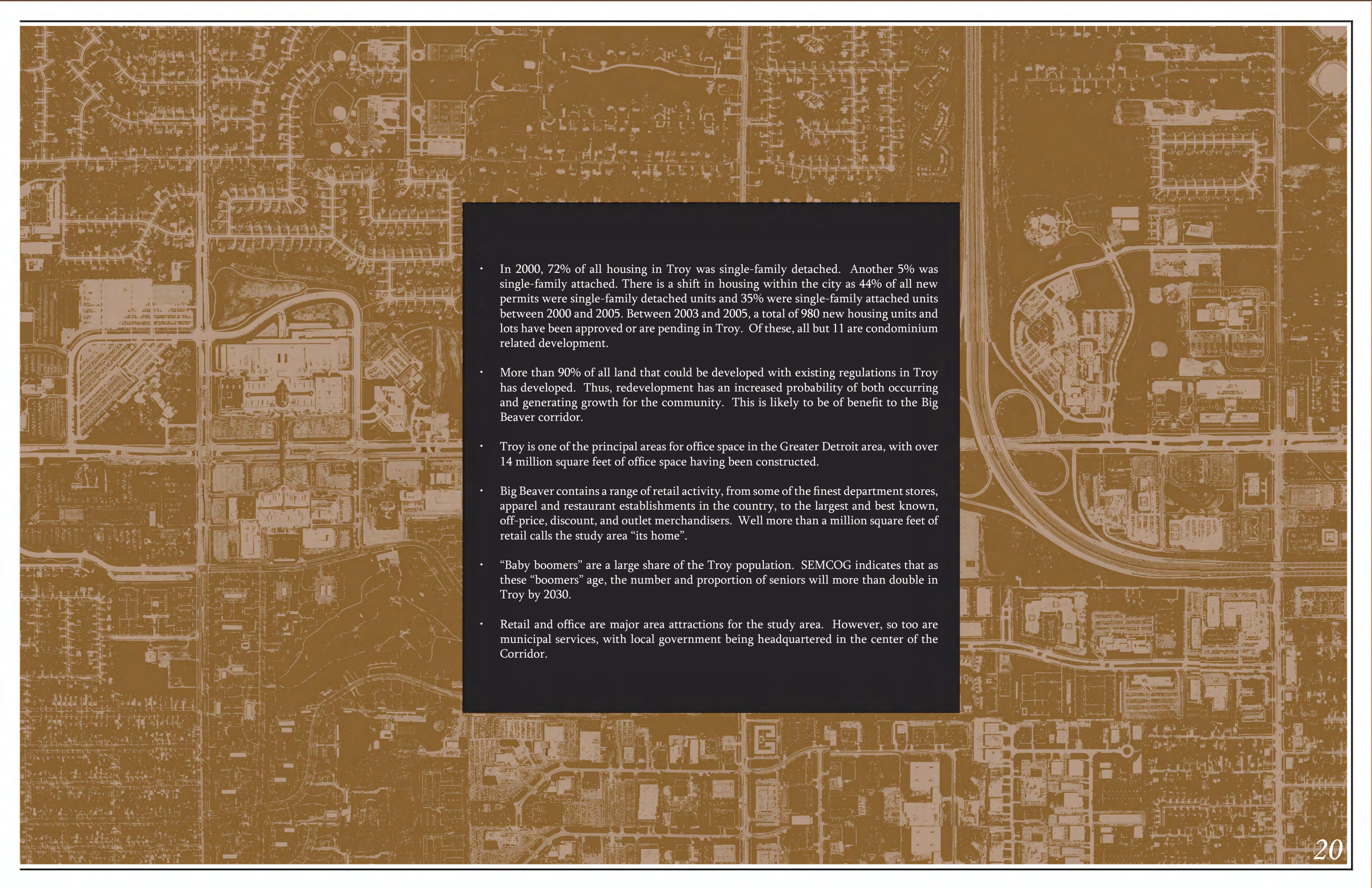


Section C: Existing Corridor Section

# Part One / Economic and Market Context

The residential market in Troy and surrounding areas are the driving force for economic activity. They purchase the retail goods and services, provide the labor force for the office and other activity, and they provide demand for professional and personal services along Big Beaver and in Troy. Furthermore, in viable downtowns, urban centers and mixed-use corridors, residential is a necessary component associated with “24-7” activity. Thus, existing activity along the corridor and trends in residential development are often the cornerstones upon which to build the future.

- Troy has grown significantly in terms of population and households for many years. For example, the population in the city increased from about 67,100 to 80,500 between 1980 and 2000 census periods.
- SEMCOG projects a continued increase in household growth for Troy through 2030 and potentially beyond, with continued declines in the size of the average household.
- More people work in Troy than reside in the city. Troy employment is in excess of 100,000 persons. The 2000 census indicated that 29% of all Troy residents work in the city.
- According to census information, 18% of the population of Troy was non-White in 2000, with 13% of the population being Asian. Of the minority groups, the Hispanic population and those originating in India are the two fastest growing segments.
- The population in the city is highly educated. At least 60% of the city’s adult population has at least a Bachelor’s Degree, and 75% of all residents have some college.
- The population is not only highly educated, but is also relatively affluent. The most recent census indicated that about three-fourths of the households that reside in Troy have annual household incomes in excess of \$50,000. Almost four in ten (37%) of all residents live in households with annual incomes above \$100,000. The median household income for Troy, derived from the 2000 census information, was \$77,500.

- 
- In 2000, 72% of all housing in Troy was single-family detached. Another 5% was single-family attached. There is a shift in housing within the city as 44% of all new permits were single-family detached units and 35% were single-family attached units between 2000 and 2005. Between 2003 and 2005, a total of 980 new housing units and lots have been approved or are pending in Troy. Of these, all but 11 are condominium related development.
  - More than 90% of all land that could be developed with existing regulations in Troy has developed. Thus, redevelopment has an increased probability of both occurring and generating growth for the community. This is likely to be of benefit to the Big Beaver corridor.
  - Troy is one of the principal areas for office space in the Greater Detroit area, with over 14 million square feet of office space having been constructed.
  - Big Beaver contains a range of retail activity, from some of the finest department stores, apparel and restaurant establishments in the country, to the largest and best known, off-price, discount, and outlet merchandisers. Well more than a million square feet of retail calls the study area “its home”.
  - “Baby boomers” are a large share of the Troy population. SEMCOG indicates that as these “boomers” age, the number and proportion of seniors will more than double in Troy by 2030.
  - Retail and office are major area attractions for the study area. However, so too are municipal services, with local government being headquartered in the center of the Corridor.

# Part One/Summary of Inventory and Analysis

The Inventory and Analysis presented on the previous pages tells a classic story of post World War II suburban development. Characterized by a high volume traffic highway and standardized single-use zoning of adjacent properties, it represents the planning philosophy of that era and creates places that seriously limit development potential for the 21st Century.

Enlightened communities and planners now embrace planning concepts with mixed-use form based codes with eons of historical precedent which created places where people have congregated for many years. Part two of this document defines one component of a comprehensive urban plan for the City of Troy – changing Big Beaver from highway to World Class boulevard. This is a strategy advocated by the DDA to reignite the development potential for this premier area in the region.



The Existing Corridor



The Future Boulevard?



# Part One/Conclusions

## Existing Corridor versus Future Boulevard

### Corridor, Streets and Traffic

Traffic volumes along Big Beaver create exciting opportunities; however, they also present significant, but solvable challenges to the world class boulevard idea.

### Pedestrian Circulation

The existing Corridor is about automobiles, not pedestrians; while a world class boulevard is about many things, including an emphasis on the pedestrian.

### Lighting, Landscape and Maintenance

The existing lighting and landscape is designed in context to the Corridor's traffic thoroughfare function. The lighting and landscape of the future boulevard will define a human scale and an attractive place, and will become a major reason why people will want to be there.

### Driveway Access

Existing property access driveways will fundamentally change in response to the future world class boulevard street design.

### Parking

The existing parking fields create an environment of isolated parcels with no opportunity for interaction, civic life or sense of community. The world class boulevard strategy includes, as a requirement, mixed uses and adjacencies, as well as new parking policies to accommodate them.

### Land Use

The Big Beaver Corridor's existing suburban land use pattern offers immense development opportunities if mixed use and residential urban planning principles are introduced as part of the world class strategy.

### Buildings and the Public Space

Existing building heights, volumes, placements, and the zoning requirements that dictate them, severely limit the potential opportunities and implementation of the world class boulevard strategy.

# Part One/Stakeholder Summaries

The Big Beaver Corridor Study process included the following opportunities for public input and comment:

## Web Site

A project web site was maintained at [www.bigbeavercorridor.com](http://www.bigbeavercorridor.com). This site provided project updates, drafts of background materials, stakeholder summaries, and plans. It also provided an opportunity for email input to the City of Troy Planning Department.

## Vision Fair

On January 18, 2006, a Vision Fair open house was held at the City of Troy Community Center. This provided an opportunity for members of the public, Corridor property owners, and interested parties to chat with City staff and provide input via written surveys and informal discussions. A summary of the Vision Fair participant comments is found in the Appendix.

## Stakeholders Meeting

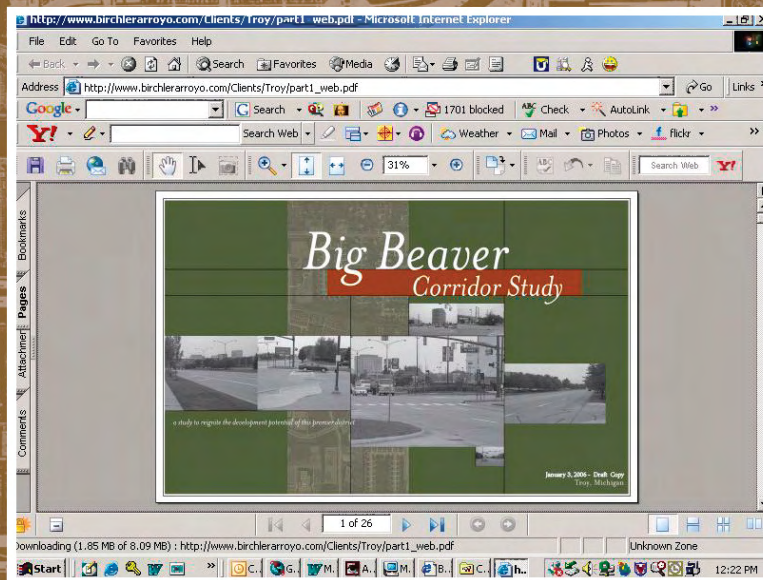
On January 26, 2006, a group of property owners and business representatives from the Big Beaver Corridor were invited to a workshop at the City of Troy Community Center. This workshop provided a roundtable-type discussion of the evolution of the Big Beaver Corridor into a world-class boulevard.

The stakeholders discussed several questions posed by the Consultant Team as part of the process.

Question 1 was, "Identify the existing assets of the Corridor that should be preserved and enhanced within the future World Class Boulevard." The response receiving the most support was "redevelopment opportunities." This was followed by "Somerset Collection" and "presence of major employers."

Question 2 was, "What critical elements should be given high priority to begin the transformation of the Big Beaver Corridor into a World Class Boulevard?" The number one response was "nightlife," followed by "creation of distinct districts," "catalytic uses (public and private)," "convention center," and "walkability."

Question 3 was, "How can the City assist the private sector (property owners, businesses, and developers) in order to achieve the World Class Boulevard vision? Response #1 was, "ordinances that attract and maintain businesses," followed by "form-based code (zoning revisions)," "expand the role of the DDA," and "incentive funding from the DDA."



### Experts Meeting

A meeting with design professionals with experience in world-class development projects was held on February 8, 2006 at the City of Troy Community Center. This workshop included a bus tour of the Big Beaver Corridor and a workshop session on the future of the Corridor.

Experts commented on key results envisioned for the Big Beaver Corridor Study. These included the following:

- Evaluate Business Improvement District
- Empower great design
- Unified vision
- Active first floor spaces
- Predictable outcomes for developers
- Transit service
- Pedestrian connections
- Destination
- New zoning policy
- New master plan
- Experiential place
- Regional destination
- Vision and leadership
- Embrace new development
- Phased approach
- Slow traffic on Big Beaver

### Transportation Stakeholders Meetings

Meetings were also held with representatives of the Road Commission for Oakland County (RCOC) and the Suburban Mobility Authority for Regional Transportation (SMART), to gain input on transportation issues.

### Conclusions

The public input received during the planning process provided the City and Consultant Team with inspiration, enthusiasm, history, and direction.

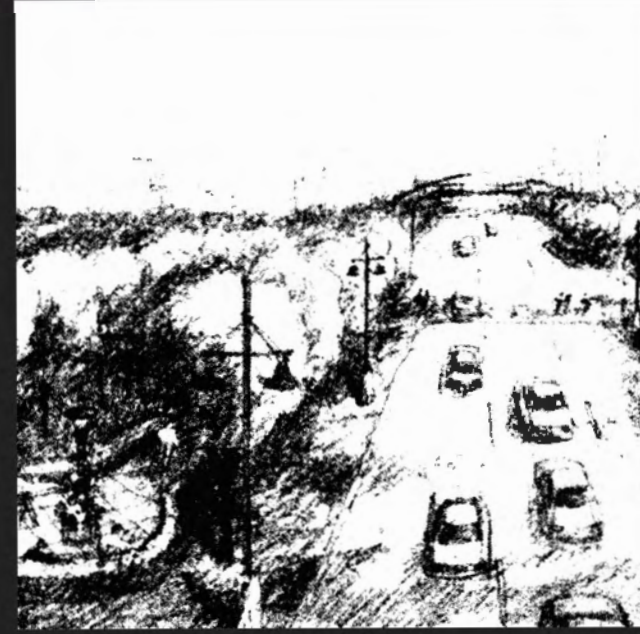
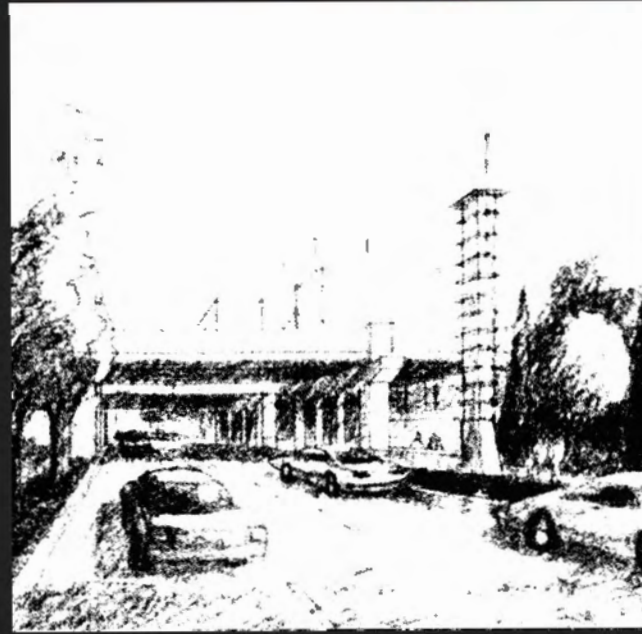


# *“A World Class Boulevard”*



*Part Two*

*Concept Emerges...*”





Champs Elysees - Paris, France



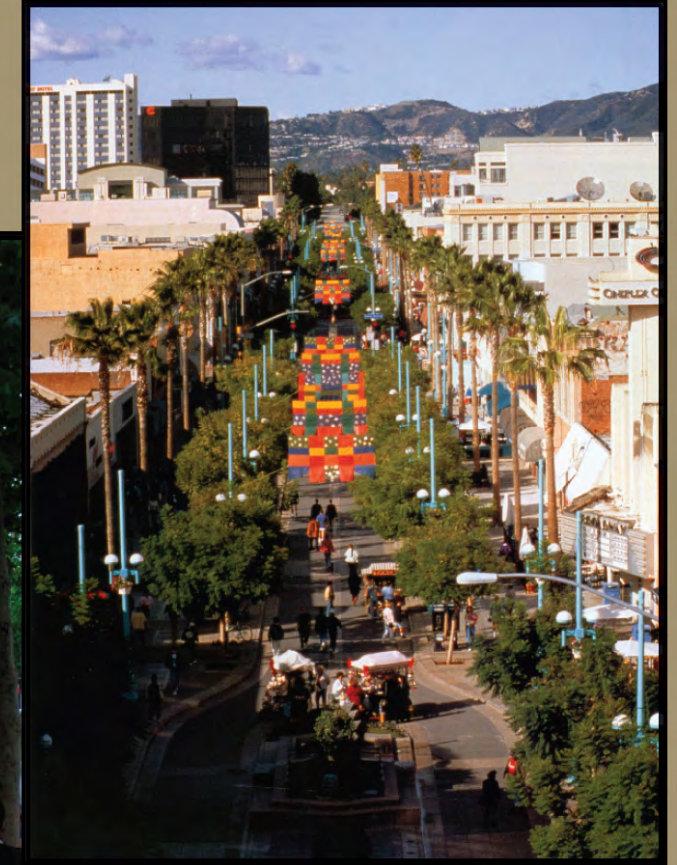
Montmartre - Paris, France



Ponte Vecchio - Florence, Italy



Champs Elysees - Paris, France



Mixed Use Boulevard - Santa Monica, California

# What Makes a World Class Boulevard?

- They are regional, national and worldwide destinations
- They are authentic, timeless and create long term value
- They are vibrant and interactive people places
- They are all season, day and night, working, living, community experiences
- They are a diverse mix of components and shared uses
- They celebrate the role of architecture, landscape and civic art as placemakers
- They generate human interaction
- They are NOT suburban
- They are NOT automobile dominant
- They utilize public transit (of some sort)
- They are simply places people want to be



Outdoor Cafe - Paris, France



Champs Elysees - Paris, France



Michigan Avenue - Chicago, Illinois



Las Vegas Boulevard - Las Vegas, Nevada

# Experiential Moments

- HIGHLIGHTED GATEWAYS - explicit sense of arrival
- DRAMATICALLY STAGED BOULEVARD - formal placement of trees and landscape - flanked by highly energized mixed use community
- ICONIC PEDESTRIAN BRIDGES - important architectural pieces by renowned architects and engineers
- LARGE PUBLIC AREAS - with significant civic art (i.e. fountains, sculpture, etc.)
- NIGHTTIME IS MAGIC - a one of a kind in Metro Detroit
- THE WALK EXPERIENCE IS CELEBRATED - strategic planning utilizing pedestrian scale and intriguing devices promotes the "Boulevard Stroll"
- WORLD CLASS RESIDENTIAL AND RETAIL
- POCKET PARKS AND AMPLE GREENSPACE - provide pacing to the overall experience
- BUILDING ARCHITECTURE DEFINES THE SPACE - both at the Boulevard level and for building occupants as well
- THE I-75 GATEWAY IS A "FORESTED PORTAL" - i.e. The Washington D.C. Beltway



Existing Big Beaver Corridor



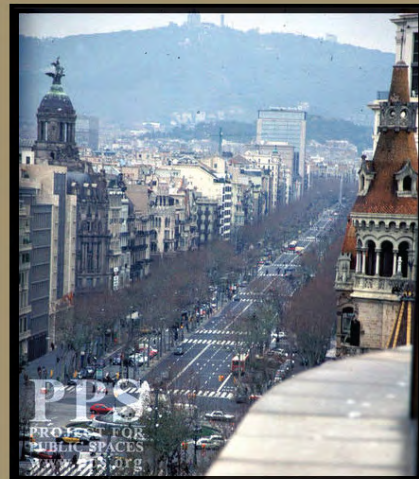
Concept Sketch of Potential Boulevard

# The Existing Thoroughfare vs. A World Class Boulevard

Transforming an automobile based design into a pedestrian-friendly world class boulevard



The Big Beaver Corridor



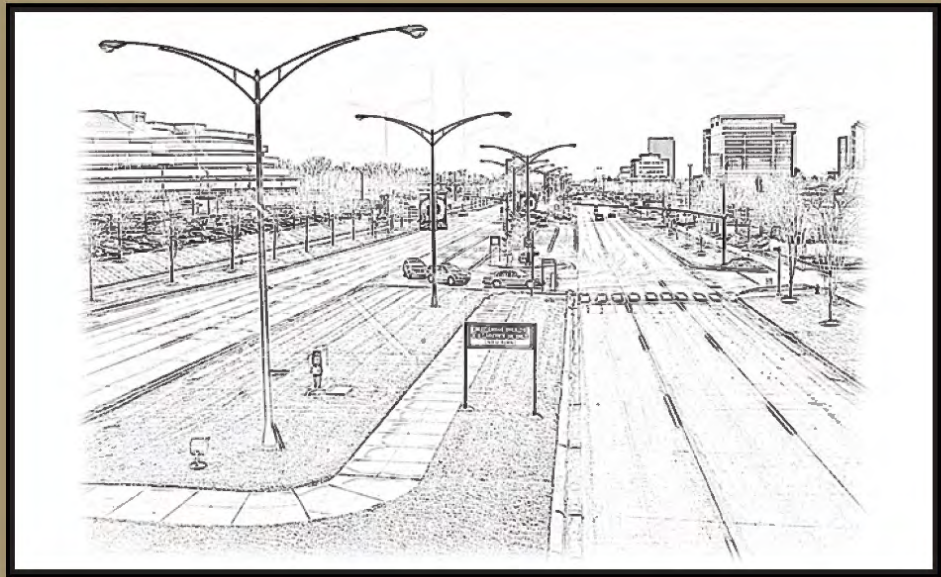
Paris, France



The Big Beaver Corridor



Champs Elysees - Paris



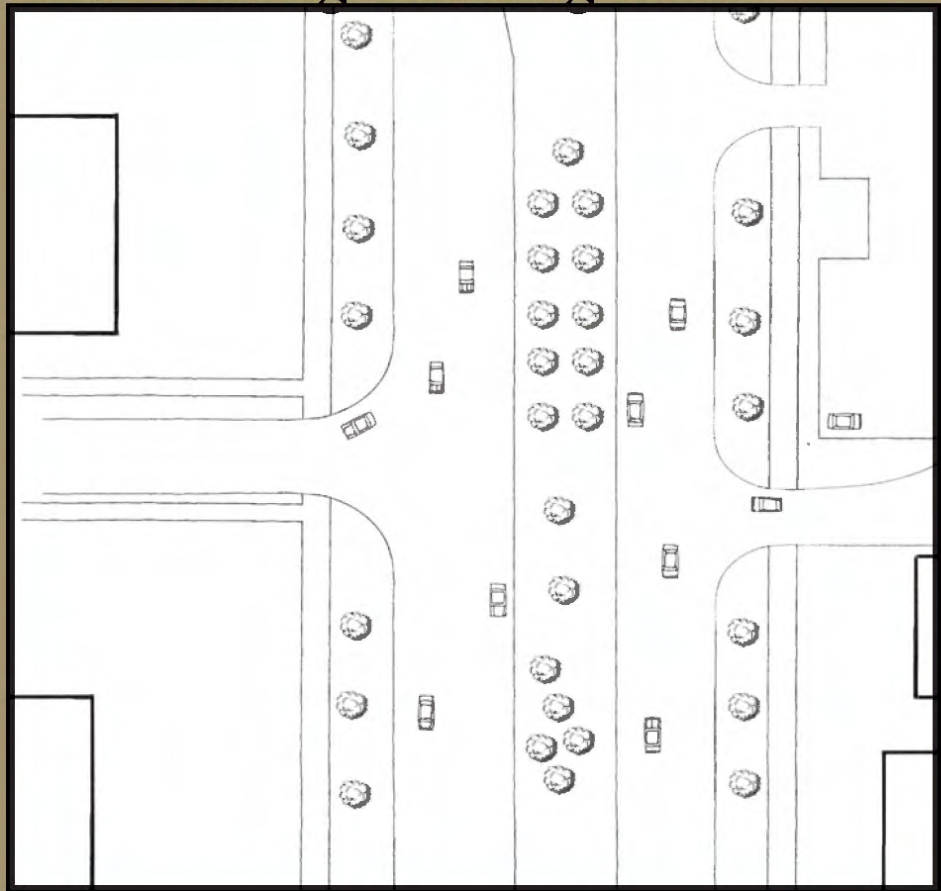
Perspective



Perspective

### The Existing Thoroughfare

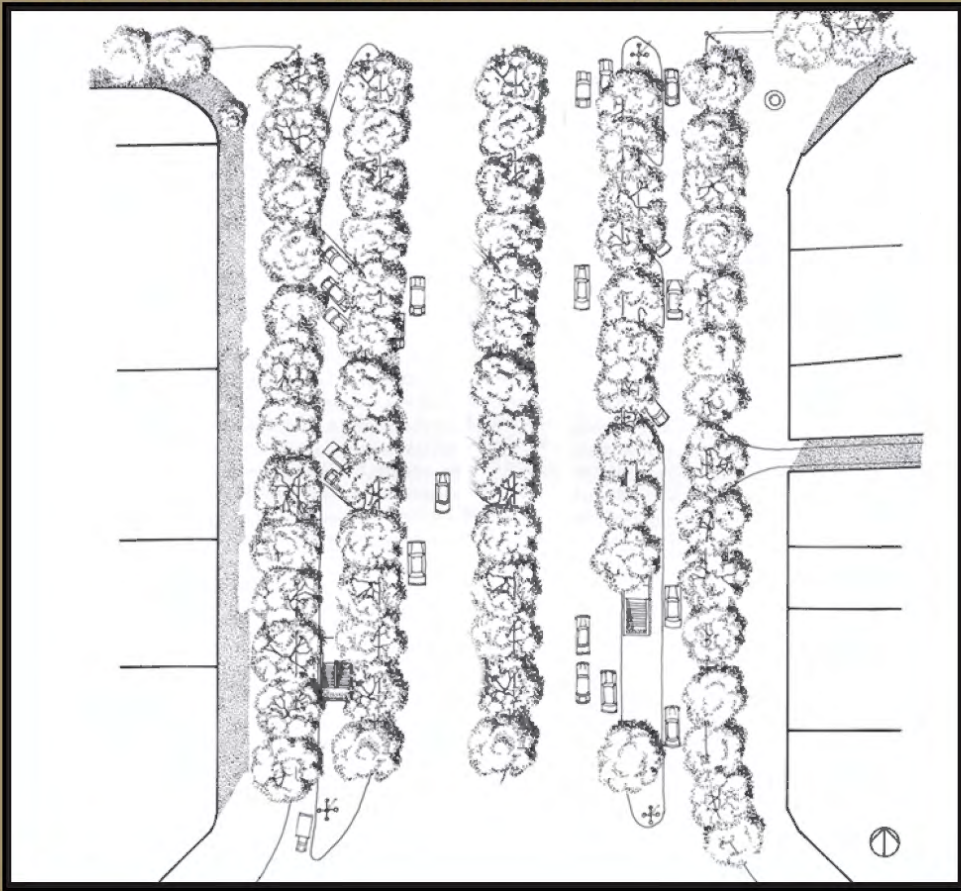
The existing Big Beaver Road was designed to move automobiles and park automobiles to service primarily single use office buildings.



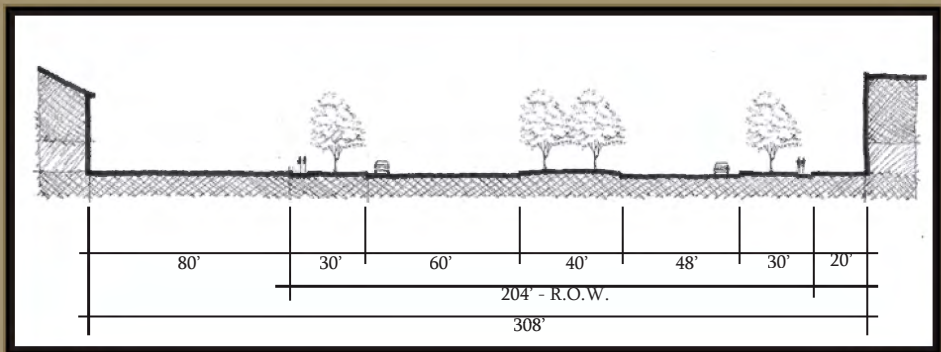
Plan

### The World Class Boulevard

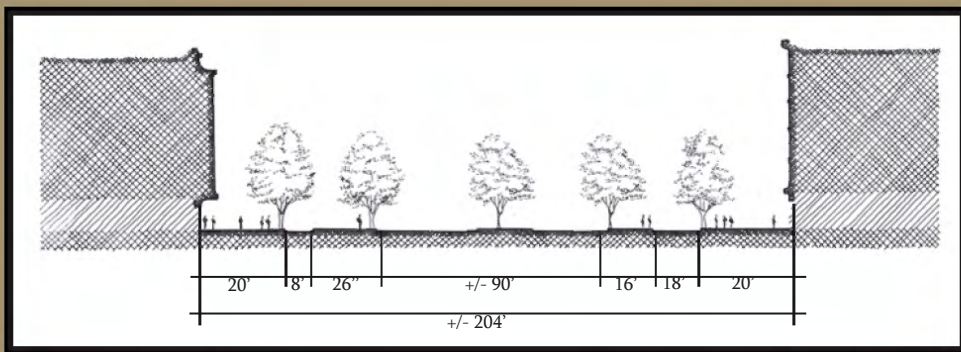
A world class boulevard provides for automobiles but at its core is a mix of uses which interact, in a time tested manner. These uses create a dynamic, flexible and sustainable presence insuring long term value for both the community and the region.



Plan



Section



Section



Stacked Condominiums



Stacked Condominiums



Condominiums over Retail

# *Housing Market Analysis*

10,000 housing units over the next 25 years

Housing projections for the Big Beaver Corridor anticipate that Big Beaver could potentially capture about 10,000 units over the next 25 years. Primary growth opportunities in housing for Big Beaver are derived from two potential sources: existing households in Troy and Oakland County; and future households in both jurisdictions. The complete housing market study is included in the Appendix.

Existing Households

With regard to growth opportunities derived from existing households in Troy and Oakland County, the following projections can be made:

- Of the current households within Troy and Oakland County, as many as 36% can foresee or may move from their current unit to another housing unit within the next five years. A majority of these households—60% for Oakland County and a higher percentage for Troy—are likely to stay in the area. For about 35% of those who may move in the next five years, the reason for the change is one that makes the household likely to seek housing that could be built in the Big Beaver area.
- The majority of those who are likely to move are relatively young (including but not limited to new household formation after finishing education) or relatively old without children or with grown children. The types of amenities sought by these households could, for the most part, be fulfilled by housing associated with Big Beaver.
- About 20% of those who are likely to seek a different housing unit than that which they occupy at present are willing or see themselves capable of paying \$2,500 or more per month or not having any payments, with the unit being paid for by proceeds from their current unit. 30% see themselves paying \$1,000 to \$1,250 per month for housing.
- Based solely on the number of existing households in Troy and Oakland County, a total of 18,123 housing units will be necessary in Oakland County to meet the demand for those that seek a move, wish to stay in the area, and will likely seek alternative housing that could be built along Big Beaver. Of these units, 10,875 are likely to be priced below a level associated with a \$2,500 monthly mortgage or rent payment, and 6,469 would likely be priced above the \$2,500 level.
- Assuming a 50% capture of the units associated with the existing households in Troy that are likely to move (1,951), and a 20% market share for similar households (16,172) in the remainder of Oakland County, Big Beaver could capture as many as 4,200 residential units from existing households in Troy and Oakland County.

Future Households

With regard to growth opportunities derived from future households in Troy and Oakland County, the following projections can be made:

- Troy currently contains about 30,962 households. Over the next 25 years, 1,659 new households are expected, increasing the number of households to 32,621. Oakland County currently has 429,315 households. An additional 152,523 households are expected to be added by 2030, with the number of households reaching 581,838.
- Based solely on the anticipated number of new households associated with Troy and Oakland County over the next 25 years, a total of 5,975 additional units could potentially be added to Big Beaver.

Potential Absorption of New Housing Units

The total number of housing units potentially captured along Big Beaver is about 10,000 units over the next 25 years. The table below is a breakdown of the potential absorption. Of these units, about 2,000 will be priced for payments above \$2,500 (in constant dollars), with 8,000 below this level and most at about half that level (in constant dollars).

Years	Above \$2,500	Below \$2,500	Total
1 to 3	386	1,546	1,932
4 to 5	454	1,814	2,268
6 to 10	480	1,920	2,400
11 to 15	240	960	1,200
16 to 20	240	960	1,200
21 to 25	240	960	1,200
Total	2,040	8,160	10,200

*“Big Beaver could potentially capture 10,000 new dwelling units over the next 25 years.”*



Stacked Condominiums



Loft Housing

Key conclusions of the commercial/business analysis are provided below. The full text of the commercial/business analysis is included in the Appendix.

### Survey of Current Business Operations: Suggested Corridor Enhancements

A survey of current business operations located along the Big Beaver Corridor in the City of Troy resulted in identification of suggested Corridor enhancements, including the following:

- Better traffic patterns and movement, including wider roads, synchronization of traffic lights, fewer left turns, and the use of police to direct traffic when necessary;
- An increase in foot traffic aided by more crosswalks and pedestrian amenities; and
- More and better landscaping and improved landscaping maintenance.

Businesses also identified new businesses, activities or services that they favored as a means to help their specific ventures. These included:

- Research and development and technology-oriented establishments;
- Residential development; and
- Business services such as printing, advertising, computer and office supplies.

### Research and Development Opportunities

Oakland County has been increasingly interested in "Emerging Sectors" as an opportunistic economic growth tool. The commercial/business analysis concludes that three areas are considered to be the best opportunities, or those with the highest probability of success, for Troy and the Big Beaver Corridor:

- Nanotechnologies, specifically nanomedicine, nanopaints, nanoantennas, liquid nanotechnology, and microsensors;
- Polymers; and
- Robotics, specifically service, swarm and modular (autonomous machines) robotics.

There are many companies and other operations that are involved with Research and Development activity in the above areas. These are listed in the Appendix, and include some of the largest corporate entities in the world, universities from outside of Michigan, venture capitalists, and small tech companies.

# Commercial / Business Analysis

Business and commercial growth requires residential growth



Emerging Technology



Emerging Technology



Natural Foods Market

### Forecasting of Demand: Retail Opportunities

Current retail activity is significant both within the Corridor's study area and immediately surrounding it. The interstate access and other arterial connections have made the study area and surroundings a mecca for retail.

Two market areas were used to assess additional retail opportunities for the Big Beaver Corridor: Troy itself and areas in close proximity to it (primary market); and the remainder of Oakland County (secondary market). Estimates of future demand for goods and services are premised upon changes in the markets that are expected to result primarily if not totally from increases in households.

The Appendix includes the following: estimates of sales and space for the primary market, consisting of residents of Troy and surrounding areas, and the anticipated change from 2006 to 2010 and 2006 to 2015; and estimates of sales and space for the secondary market, consisting of residents of the remainder of Oakland County, and the anticipated change from 2006 to 2010 and 2006 to 2015. At a minimum, the primary market—consisting of residents of Troy and surrounding areas—will support another one million square feet of space. At a minimum, the secondary market—consisting of residents of the remainder of Oakland County—will support another 3.6 million square feet of space. These opportunities are directly linked to housing and household growth for the County and Big Beaver.

Penetration of the markets by the Corridor, or the ability of the study area to capture additional retail opportunities, can be summarized as follows: for the primary market, it is assumed that the study area could capture as much as 25% of the growth, or another 250,000 square feet of space. Assuming an environment for the activity is created, at least partially through the addition of residential development in the study area, for the secondary market, a maximum of 400,000 square feet of new retail could be captured.

Growth in retail should not precede growth in housing within the Corridor. New retail associated with the primary market is expected to be largely convenience-goods oriented, or meet the needs of new residents. Uses such as specialty markets, natural food markets, drugstores, bakeries, etc. fall into this category. Some additional restaurant activity could also be attracted as residential uses grow. New retail associated with the secondary market may include ethnic and other restaurants offering evening entertainment.

*“The market analysis shows that the Corridor could capture 650,000 square feet of new retail space over the next 10 years. This growth is directly linked to new housing growth, not from capturing other uses currently located elsewhere.”*

### Forecasting of Demand: Office Growth

Residential growth provides the opportunity for growth in professional and other services. Office growth results from needs generated by residents for services, the growing need for employment in close proximity to the home, the potential to expand the “industrial base” through R&D, and other opportunities.

With the anticipation of about 29,750 additional households in the County by 2015, as much as four million square feet of office space could be required to meet the employment and service needs of residents. Based on the assumption of additional housing units defined for the Big Beaver Corridor, an additional 800,000 to one million square feet of space would be required to meet the needs of R&D activity, expansion of the financial services niche, expanded medical and other professional services, and other activities.

*“Based on new housing growth, Big Beaver could capture up to one million square feet of office and R&D space over the next 10 years.”*

## IMPLEMENTATION

### Models for Pursuing Expansion of the Corridor's Economic Base

While it is recognized that Michigan has defined a “Centers of Excellence” Program, Troy should examine the State of New York's efforts, specifically the “Center of Excellence” effort in Rochester, as one of three potential models for pursuing expansion of the corridor's economic base of activity. That effort is based on very strong private corporate involvement, substantial involvement by an array of higher education institutions from within and outside the area, and, to a lesser extent, government. The program is geared toward R & D.

### Recruitment

Many of the conclusions of this analysis require development of activity and associated space, whether it involves R & D, retail, office, or housing. In a perfect world, this would happen instantaneously. However, unless the proper people become aware of the opportunities that exist, there is a decreased probability that it will happen in the foreseeable future. Thus, much of the success is dependent upon recruitment.

There are two types of recruitment activity suggested. One is developer recruitment while the other is direct business recruitment. The following are “advance steps” for establishing a successful recruitment effort:

- Decide who will administer and provide staff support for the recruitment effort in general.
- Develop marketing materials oriented toward the types of entities to be solicited (many of the materials should be flexible, alterable, and reproducible by the City or other entity).
- Develop lists of those to be solicited.
- Develop a set schedule for phasing of the recruitment process so that the workload is distributed over time.
- Establish a funding mechanism to insure that the effort is continual.

The marketing activities associated with recruitment would include:

- Distribute developed materials via direct mail; advertise in selected professional journals for developers, if affordable; and attend ICSC and other conferences, if affordable.
- Prepare Requests for Qualifications and Proposals.
- Arrange an “open house,” if feasible and interest in attendance is strong.
- Review and evaluate the responses (independent party review is preferred).
- Establish the relationship (such as between the development interest and private property ownership).
- Continue follow-up, acting as an “ombudsman” for the process, at a minimum.
- DDA Board members should act as “Ambassadors,” making themselves available when required to introduce prospects to the corridor. Ambassadors should be rotated in order to avoid placing undue time burden on individuals.

A “sister” effort—developer recruitment—is a business recruitment effort. It is conducted in the same manner as above, but without the RFP/RFQ component. The following is also appropriate for retail or office.

- Assemble local realtors to inform them of the effort. Potentially establish an advisory committee within the DDA or City consisting of the local realtors.
- Develop lists of those to be solicited.
- Distribute developed materials via direct mail; advertise in selected publications, if affordable; and “cold call” door knock for restaurant and other unique, selected interests.
- After initial contact, make follow-up contact via telephone, internet, and site visits to answer questions, gauge interest, etc.
- Establish relationships with landlords, realtors, property owners, or other appropriate parties.

# *Goals and Strategies*



The goals and strategies provide a framework for the Concept Plan. Goals and strategies are policy statements that will guide development of the Concept Plan.

The foundation for the goals and strategies is the preceding Inventory and Analysis and Stakeholder Summaries. Input from the public, stakeholders, and experts, gained at the Vision Fair and workshops, serves as a key contributor to the policy basis from which long-range decisions about Corridor development and redevelopment will be made.

### GOAL: PROMOTE REDEVELOPMENT OPPORTUNITIES ALONG THE BIG BEAVER CORRIDOR.

*Strategy:* Take advantage of opportunities for infill development and redevelopment in underdeveloped areas.

*Strategy:* Increase the Corridor's development potential by establishing a preference for parking decks, rather than surface parking lots.

*Strategy:* Bring buildings closer to the street, with parking to the side or rear.

*Strategy:* In selected areas, refine the road system into a grid, to enable redevelopment at higher densities and to disperse traffic within a street network, rather than concentrating it on Big Beaver.

### GOAL: PROMOTE REDEVELOPMENT WITH A GREATER MIX OF LAND USES, PARTICULARLY NEW RESIDENCES.

*Strategy:* Plan for mixed use development in both a horizontal and vertical form.

*Strategy:* Promote apartments and condominiums over retail in areas where an urban character is planned.

*Strategy:* Promote townhome development as a transition between higher intensity development along the Corridor and adjacent single family residential neighborhoods.

### GOAL: TRANSFORM BIG BEAVER CORRIDOR INTO A DESTINATION OR "PEOPLE PLACE" CHARACTERIZED BY ROUND-THE-CLOCK ACTIVITY AND AN EXCITING NIGHTLIFE.

*Strategy:* In planned areas, promote redevelopment with a greater mix of uses at a higher density, creating a complete live-work-shop environment. In development nodes, plan for new public spaces and active ground-floor retail and restaurant uses, with offices and residences above and nearby.

*Strategy:* In appropriate locations, widen sidewalks to allow for outdoor seating, window shopping, and pedestrian gathering.

*Strategy:* Attract cultural amenities and entertainment uses to the Corridor.

*Strategy:* Promote building siting and design that create a pedestrian-friendly environment. Place buildings close to the sidewalk and street, and encourage architecture that is at a human scale.

### GOAL: MAINTAIN A UNIFIED VISION FOR TRANSFORMING BIG BEAVER ROAD INTO A WORLD-CLASS BOULEVARD, WHILE IMPROVING THE CORRIDOR BY FOCUSING ON EACH OF ITS NEIGHBORHOODS.

*Strategy:* Define Corridor districts, or areas along the Corridor with similar land uses, building scale, landscaping, amenities, and so forth. Establish a unique character for each district, fostering variation in character along the Corridor.

*Strategy:* Define Corridor gateways, creating distinctive transition areas and entry and exit points.

*Strategy:* Enliven or "activate" the Civic Center area.

*Strategy:* Designate appropriate areas for redevelopment as intense, mixed-use nodes of development.

*Strategy:* Designate an area as the City's entertainment village or cultural center.

### GOAL: MAINTAIN AND IMPROVE EXISTING BUSINESSES ALONG BIG BEAVER CORRIDOR.

*Strategy:* Permit continued ease of access to existing businesses, while preserving roadway capacity.

*Strategy:* Promote new residential and office development along the Corridor, providing resident and worker support populations for existing retail uses.

*Strategy:* In defining districts, account for and accommodate existing development and businesses that are an asset to the Corridor, such as the Somerset Collection and light industrial uses east of Rochester Road.

### GOAL: TRANSFORM THE CORRIDOR INTO A PEDESTRIAN-FRIENDLY ENVIRONMENT.

*Strategy:* Plan for new residential uses, mixed use development, and density, to boost pedestrian activity and walkability along the Corridor.

*Strategy:* Add more at-grade and above-grade pedestrian crossings along Big Beaver, making it easier to cross between the north and south sides of the road.

*Strategy:* Along mixed-use blocks with ground-floor retail uses and outdoor cafés, widen sidewalks to accommodate high pedestrian traffic volumes.

*Strategy:* Increase the sense of enclosure and protection for pedestrians, by enhancing planting strips and street furniture zones between the sidewalk and travel lanes, and adding parallel parking where appropriate.

*Strategy:* Site buildings so that they create a hard-edged urban streetscape or street wall.

*Strategy:* Install pedestrian-scale light fixtures and pedestrian amenities such as benches and planters.

*Strategy:* In addition to pedestrian facilities, provide bicycle facilities such as bike racks and bike lanes.

### GOAL: CONTINUE TO PROVIDE CONVENIENT PARKING FOR USES ALONG THE CORRIDOR, BUT PROMOTE PARKING THAT IS UNOBTRUSIVE AND OCCUPIES THE SMALLEST POSSIBLE LAND AREA.

*Strategy:* Accommodate parking behind and to the sides of buildings, rather than in front.

*Strategy:* Promote parking decks, rather than surface lots.

*Strategy:* Promote redevelopment of underutilized surface parking lots.

*Strategy:* Promote shared parking arrangements that allow parking spaces to be shared by multiple users.

*Strategy:* Install appropriate screening for surface parking lots.

### GOAL: PROMOTE TRANSIT USAGE ALONG THE CORRIDOR AND TRANSIT CONNECTIONS TO THE WIDER REGION.

*Strategy:* Partner with SMART to improve existing bus service along Big Beaver Road and to strengthen regional transit links.

*Strategy:* Introduce incentives that promote transit usage.

*Strategy:* Provide attractive, comfortable bus shelters along the boulevard.

*Strategy:* Increase the viability of transit options by allowing redevelopment at higher densities and promoting new residential uses.

*Strategy:* Support the growth of private transportation services, to afford another transportation option.

### GOAL: BEAUTIFY THE BOULEVARD THROUGH THE ADDITION OF NEW LANDSCAPING AND ENHANCEMENT OF EXISTING LANDSCAPING.

*Strategy:* Plan for vibrant parks and public spaces.

*Strategy:* Add more street trees, beautifying the roadway edges and median, and buffering pedestrians from vehicular traffic.

*Strategy:* Enhance and green Corridor gateways.

*Strategy:* Use landscaping to create a unified look for the entire Corridor and/or particular districts within the Corridor.

*Strategy:* Encourage regular maintenance of landscaping by property owners along the Corridor.

### GOAL: EMPOWER GREAT DESIGN.

*Strategy:* Organize design competitions for new structures such as pedestrian bridges, fostering public dialogue in the design process and attracting the best designers from across the globe.

*Strategy:* Create public spaces that are pedestrian magnets, brimming with life and activity.

*Strategy:* Install sculptures and public art in key locations such as public squares and gateways.

*Strategy:* Provide new public parking structures as an incentive for development of a high quality urban environment.

*Strategy:* Select and install attractive, well designed, distinctive street furniture that sets the tone for redevelopment of the entire Corridor.

An aerial photograph of a city grid, overlaid with a semi-transparent dark green filter. A large, solid tan arrow points from the left side of the page towards the right, starting from the bottom edge and extending upwards to encompass the text.

*Key Concepts of the Big Beaver Boulevard*

### 1. GATEWAYS, DISTRICTS AND TRANSITIONS

- organize and contain the Boulevard as a distinct place

- Sensitivity and buffering to existing residential at edges
- Linear parks and landscape buffers as transition
- Variations in building height (massing) from the boulevard to the north and south edges of the Corridor
- Variations in urban form along the Corridor, from district to district

### 2. TREES AND LANDSCAPE AS “CEILINGS AND WALLS”

- plantings symbolize and encapsulate the Boulevard experience

- Boulevard landscaping
- Forested portals
- Linear parks
- Pocket parks
- Large public squares

### 3. WALKING BECOMES ENTERTAINMENT

- Much to observe and engage in

- Sidewalk as gathering place and public space
- Pulses of activity along the boulevard
- Storefronts and streetscape that engage and attract pedestrians
- Iconic pedestrian bridges

### 4. MIXING THE USES TURNS ON THE LIGHTS

- the energetic dynamic of Mixed Uses with a focus on residential

- Infusion of residential units to create lively, vibrant new neighborhoods
- Diverse housing stock with a variety of price points
- Linkages to restaurants, retail, parks, and places of employment

### 5. THE AUTOMOBILE AND PARKING ARE NO LONGER #1

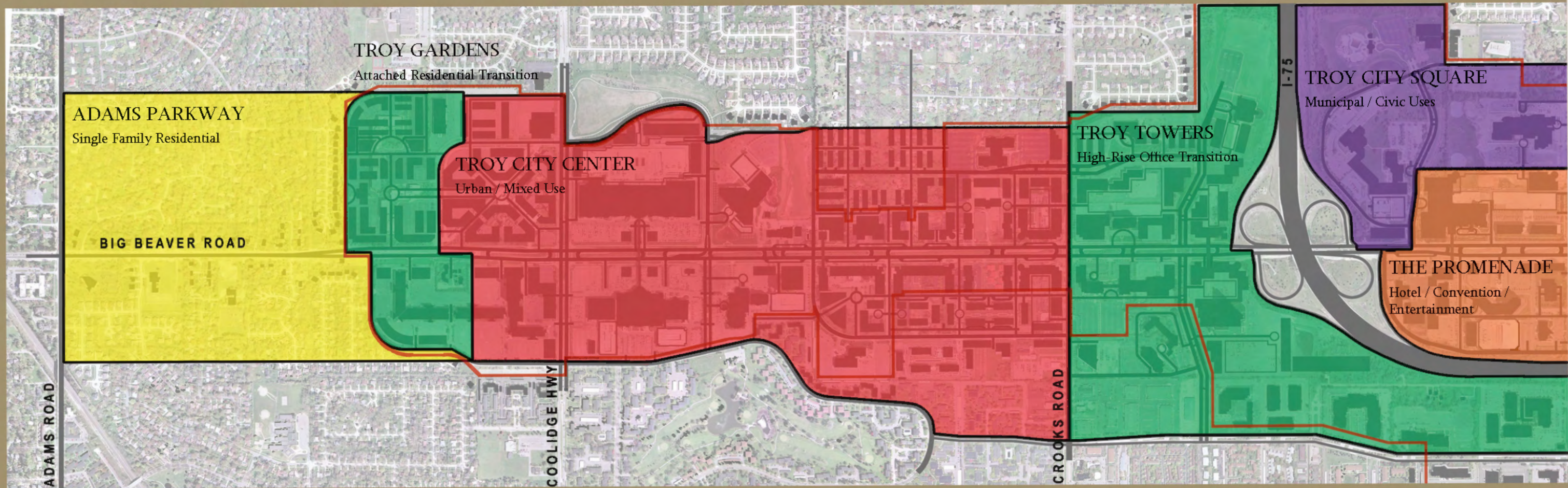
- important components but do not dominate the experience

- Variety of transportation choices including transit, bicycle, pedestrian, and motor vehicle
- Ride sharing and transit incentive programs
- Access management and transportation demand management to improve capacity without widening Big Beaver
- Grid street pattern in urban core to disperse traffic
- Public parking decks, placed along parallel collector and local streets to relieve Big Beaver traffic
- Service lanes with parallel parking in urban core

### 6. CIVIC ART AS THE WISE SAGE OF THE BOULEVARD

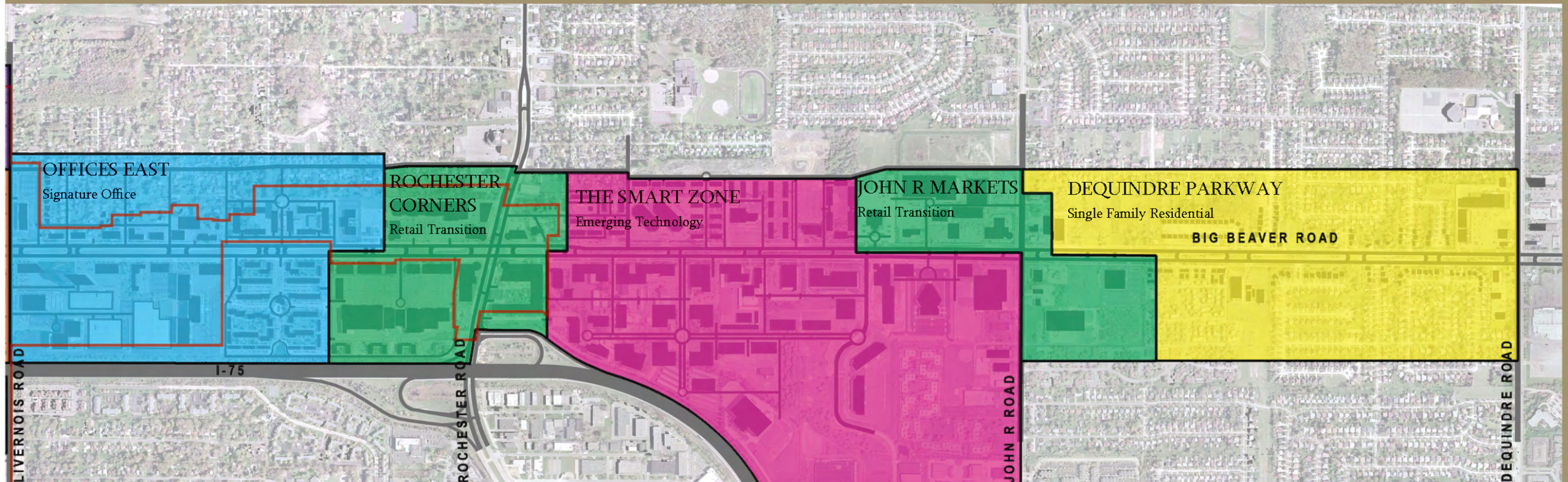
- telling stories, creating memories, making us smile and informing us along the way

- Civic art at Corridor gateways
- Public art at pulse points and in public squares
- Sleek and elegant street furniture
- Iconic footbridges
- Bold design of farmers' market structure



# *District Plan*

Unique districts and pulses of activity define the corridor



The Big Beaver Road Corridor is composed of a number of distinctive areas, which the District Plan identifies. The District Plan calls for variation in character along the Corridor. Along the Corridor, districts range from nodes of urban activity—areas comprised of high intensity, mixed use development—to lower intensity land use and/or open space areas. “Pulses of development density... will create peaks and troughs of... activity that will pump new life into” the Corridor.<sup>1</sup>

**Residential/Parkway Districts: Adams Parkway and Dequindre Parkway**  
Big Beaver is flanked by residential uses at each end. Within these “bookend” districts, dense landscaping along Big Beaver will create a parkway feel.

**Transition Zones**  
These zones occur where one district transitions to the next. Within each transition zone, building heights and uses may change and the character of the landscaping may be modulated, signaling that a transition is occurring.

The transition zones are as follows:

- TROY GARDENS will primarily be comprised of attached residential uses, providing a transition between lower density residential development in the Adams Gateway and higher intensity, mixed use development in Troy City Center.
- TROY TOWERS transitions from Troy City Center to I-75 and the Civic Center and the Promenade beyond. The tower district is the Corridor’s financial district.
- ROCHESTER CORNERS is a retail transition between the Signature Office district and Smart Zone.
- JOHN R MARKETS is, like Rochester Corners, a retail transition. The district bridges the Smart Zone and Dequindre Gateway.

**Urban Mixed Use District: Troy City Center**  
Troy City Center will become the heart of the City, the ultimate “people place.”

**Civic Center: City Square**  
City Square is Troy’s civic core: a district that celebrates civic functions.

**Hotel/Convention/Entertainment District: The Promenade**  
The Promenade is a stylish entertainment hub, hosting visitors to the City.

**Signature Office District: Offices East**  
The Signature Office district has signature corporate sites along the Corridor frontage, while residential uses transition to adjoining neighborhoods.

**Emerging Technology District: Smart Zone**  
Big Beaver’s Smart Zone will host companies at the forefront of new technological developments. As articulated by Michele Hodges, President of the Troy Chamber of Commerce, “When traversing the Corridor, it should be instantly apparent that Troy values innovation, and is progressive in every way.” While the whole Corridor will exemplify these values, the Smart Zone will be most notable as a paragon of innovation.

(Footnotes)

<sup>1</sup> Michael D. Beyard and Michael Pawlukiewicz in *Ten Principles for Reinventing America’s Suburban Strips* (Washington, D.C.: The Urban Land Institute, 2001), page 11.



Adams Road Gateway

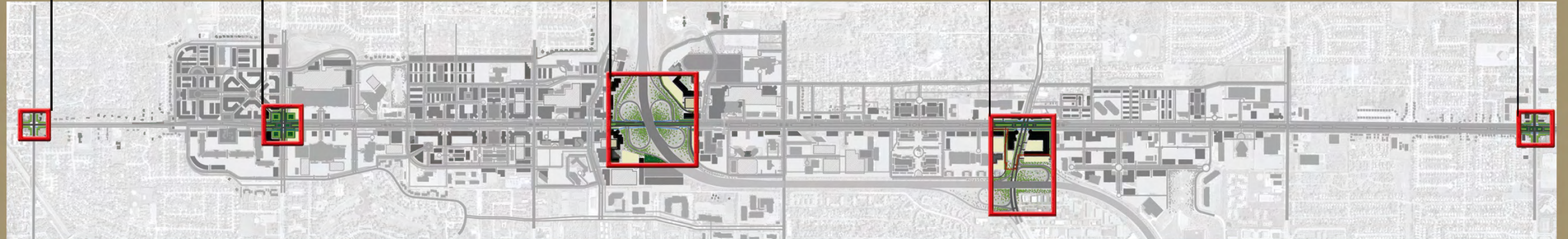


Coolidge Highway Gateway

# Corridor Gateways

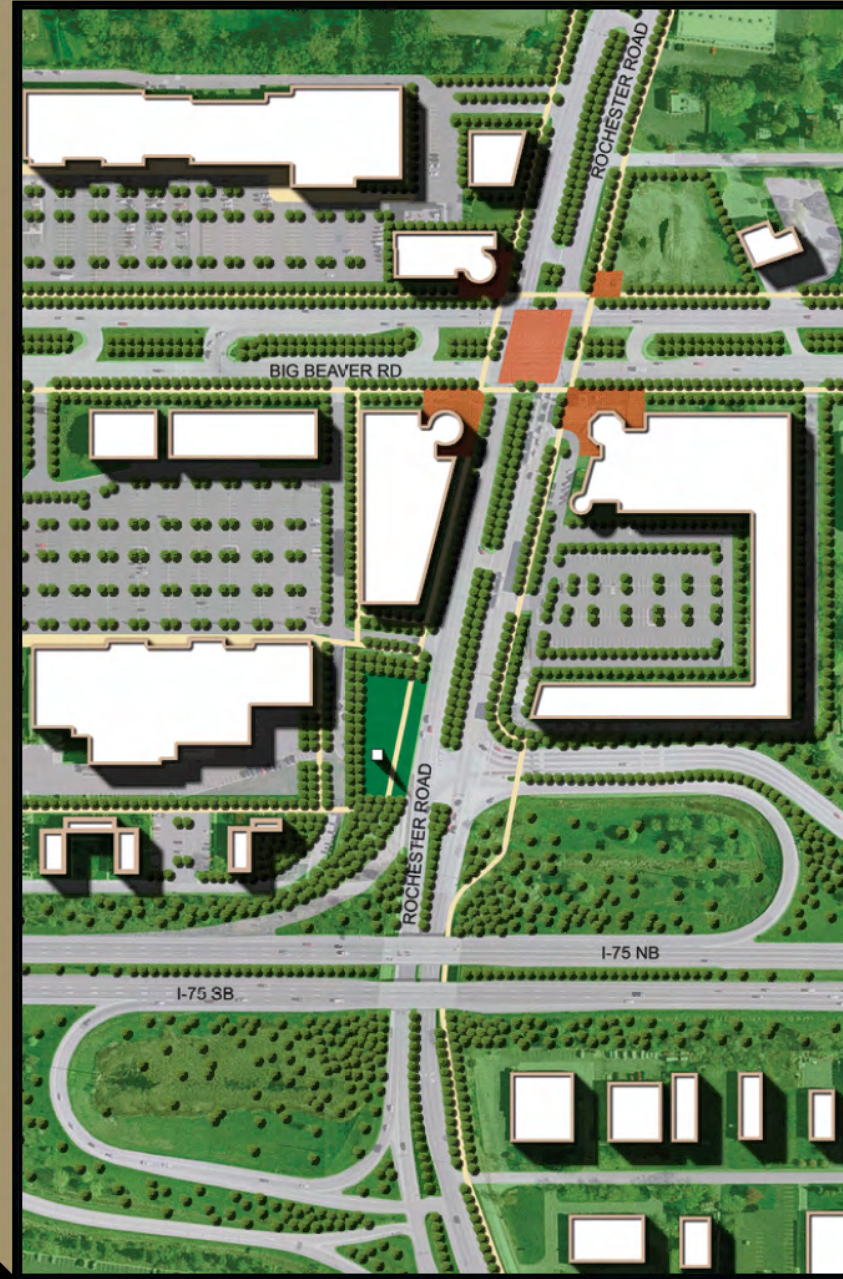
Gateways will announce that you have arrived at a unique place

Key Map





I-75 - Big Beaver Road Exit



I-75 - Rochester Road Exit



Dequindre Road Gateway

- Gateways are planned at key entry points to the Big Beaver Corridor: major gateways include the I-75 interchanges with Rochester Road and Big Beaver Road, while minor gateways include the intersections of Big Beaver Road with Coolidge Highway, Adams Road, and Dequindre Road.
- Gateways will announce to motorists and pedestrians that they have arrived at a unique place. A change in tone occurs at a gateway. Depending upon the gateway, signature architecture, distinctive landscaping and streetscape treatments, public art, or a combination of these elements will be used to create a sense of arrival into the area.

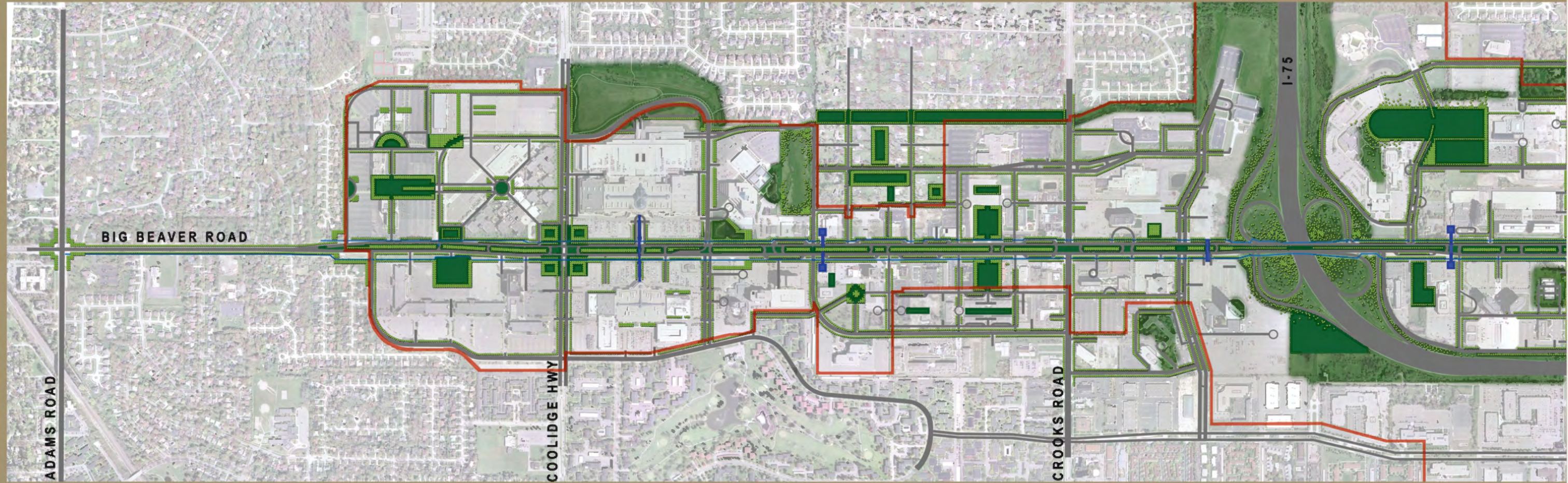
- At the I-75/Big Beaver and I-75/Rochester/Big Beaver interchange gateways, dense stands of trees will create a distinctive, park-like setting. These junctions will be forested portals into the Corridor.
- The Big Beaver and Coolidge gateway will be characterized by green space at all four corners. Trees and park space will border the intersection.
- Landscaping will frame the intersections of Dequindre and Big Beaver and Adams and Big Beaver. The Residential Parkway districts will be linear parks that serve as entry points to more intensely developed areas of the Corridor.



*Typical Boulevard Plan*

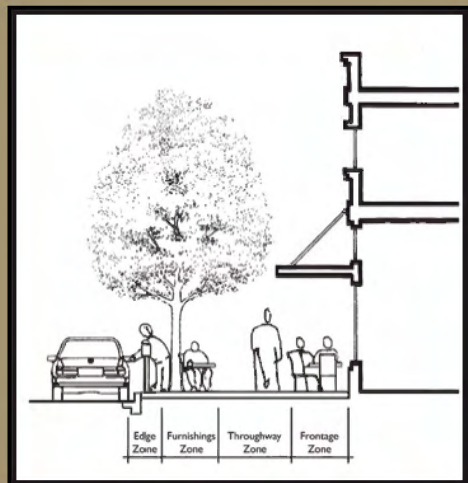


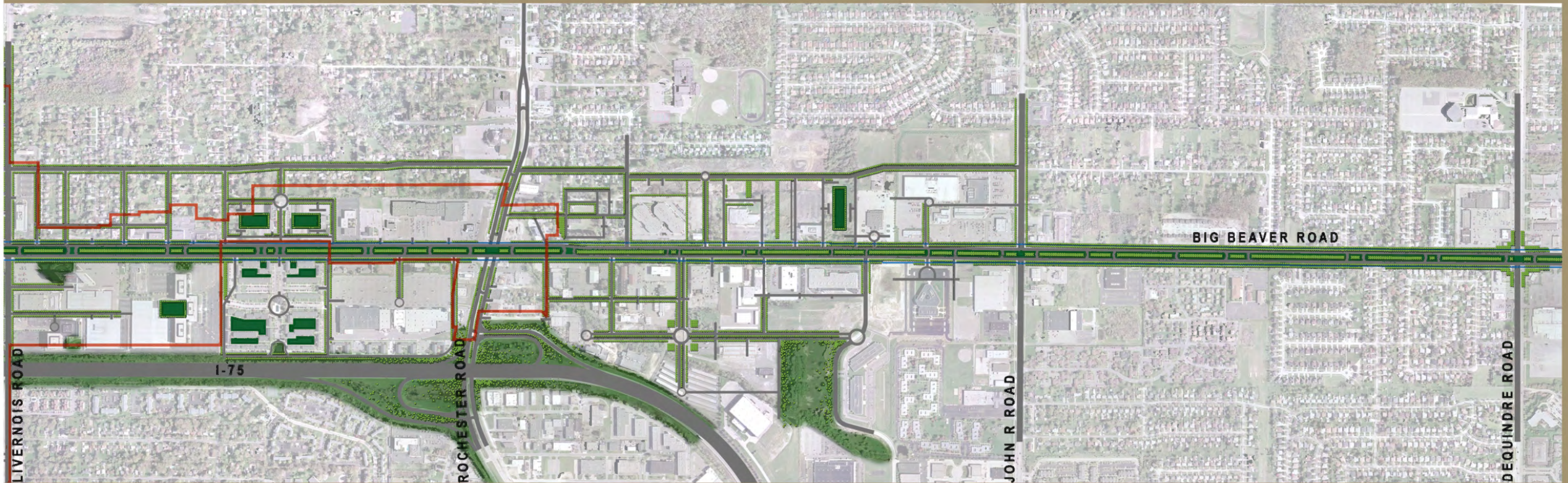
*Typical Boulevard Cross-Section*



# *Pedestrian Circulation and Greenspace*

Pedestrians out for a stroll will be an experiential feature of the Corridor





- An increase in residential uses, mixed use development, and density will boost pedestrian activity and walkability along the Big Beaver Corridor.
- “The sidewalk is the most important public open space and the focal point of community life.”<sup>1</sup> At a minimum, sidewalks along the boulevard will be five feet wide, which is wide enough to permit two pedestrians to comfortably stroll side-by-side. Sidewalk width will, however, be tailored to each specific location: sidewalks that function as gathering places will be wider than those that merely function as pedestrian thoroughfares. Sidewalk width will be greatest along mixed-use blocks with ground floor retail uses, where there will be high pedestrian traffic volumes and café-style seating. In Troy City Center, a 1.5-foot wide edge zone, seven-foot wide furnishings zone, eight-foot wide throughway zone, and five-foot wide building frontage and seating zone would be appropriate. Total sidewalk width in this district will range from 16 to upwards of 20 feet.
- Pedestrian pathways will be separated from traffic by dense landscaping and, in Troy City Center, by on-street parking. Landscaping between the sidewalk and travel lanes will provide a sense of enclosure and protection for pedestrians. Street trees will shade the sidewalk, making it an appealing place to walk.
- Nodes of activity on each side of Big Beaver will be linked by at-grade or above-grade pedestrian crossings. Pedestrian bridges will begin and end at vibrant destinations, pulse points such as restaurants and entertainment venues. Pedestrians will have a compelling reason to use the bridges.
- Pedestrian bridges will be functional, unique, and beautiful. They will become Corridor icons, symbols of Big Beaver as the “place to be.” People will travel to the Big Beaver Road Corridor just to see its extraordinary footbridges. The cutting edge design of the Millennium Bridge, a recently constructed footbridge over London’s River Thames, was the outcome of an international design competition, and a similar approach is advocated for Troy.

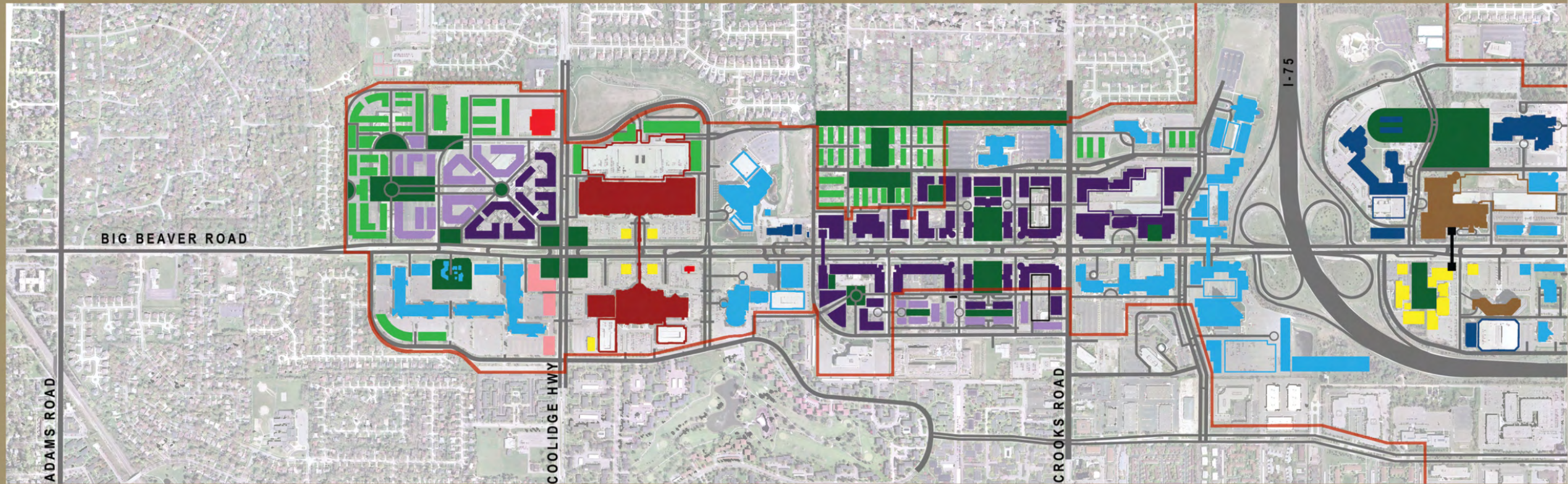
- Pedestrian bridges may be a destination in and of themselves. Like Florence’s famed Ponte Vecchio, a footbridge along Big Beaver could potentially be flanked by shops.
- In many districts, landscaped greens will become focal points amidst denser development. A key feature of Troy City Center will be the City Center Park, two public squares flanking the north and south sides of Big Beaver. These will be areas featuring significant landscaping, gardens, benches, art, and street level shops and restaurants. Seasonal activities will also draw people to these important destination areas.
- The Big Beaver Road Corridor will be greened and beautified through the addition of landscaping. Street trees will create a visual axis along the boulevard, connecting each district to the next, and will define Corridor edges. The Greenspace Plan projects that approximately 5,000 trees will be added within the Corridor right-of-way.
- The I-75/Big Beaver gateway and the I-75/Rochester Road/Big Beaver gateway will become forested portals. Per the Greenspace Plan, more than 900 trees will be added at I-75/Big Beaver and over 400 new trees will be planted at I-75/Rochester.
- A necklace of green will surround the Corridor Study Area. Landscaped ring roads will provide a transition to neighborhoods to the north and south of the Study Area.
- The Residential Parkway districts will be linear parks, introducing visitors to the Corridor.

(Footnotes)

<sup>1</sup> Adrienne Schmitz and Jason Scully, *Creating Walkable Places: Compact Mixed-Use Solutions* (Washington, D.C.: The Urban Land Institute, 2006), page 43.

**LEGEND:**

- DDA Boundary
- Roadway
- Proposed / Existing Pedestrian Bridge
- Major Pedestrian Circulation
- Greenspace
- Trees



# Building Use Plan

The corridor will embrace a variety of land uses and activities

## MIXED USE DEVELOPMENT

The Building Use Plan envisions that the Corridor, particularly Troy City Center, will evolve into an area characterized by a mix of diverse yet compatible uses.

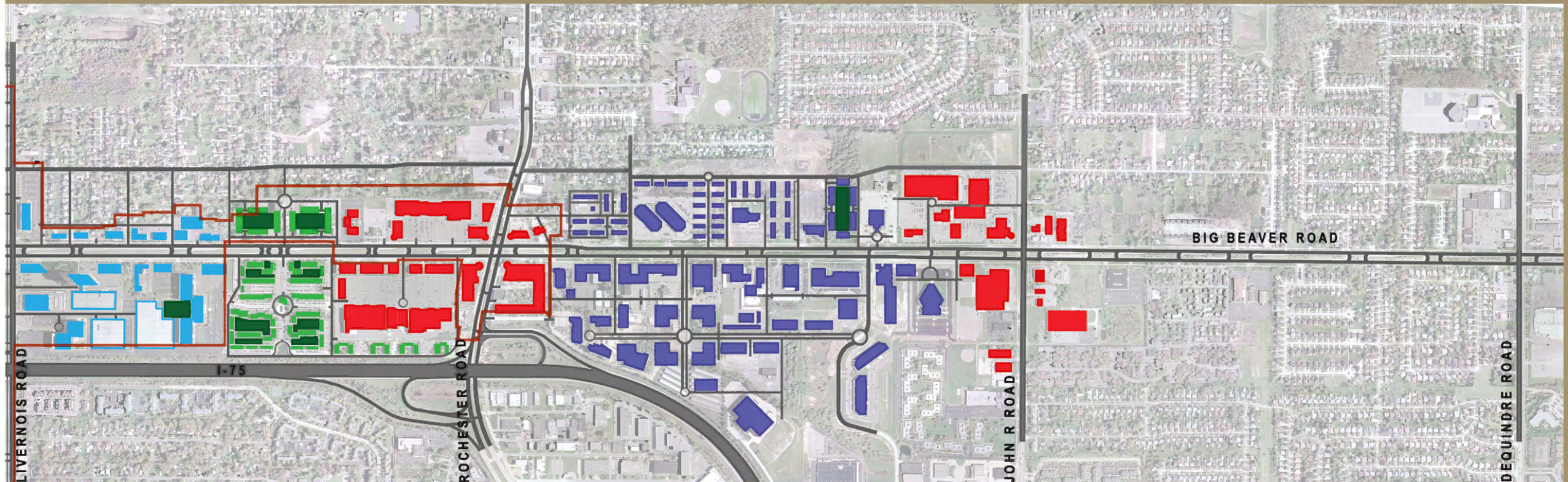
Mixed use development is planned in both a horizontal form (i.e., with a mixture of uses side-by-side) and a vertical form (i.e., residences above office and retail space). The intention is to create synergies or connections between uses. For example, when offices and residences are located above ground-floor retail, workers and residents provide a support population for the retail uses. At the same time, ground-floor retail is an amenity that makes the residential and office space more attractive.

## RESIDENTIAL DEVELOPMENT

It is envisioned that the Corridor and adjoining areas will offer a variety of residential units at different price points. Neighborhoods of single family detached homes adjoin the Study Area and, within the Corridor itself, residential units may range from live/work spaces to townhomes to apartments and condominiums over retail.

A variety of residential units within the Corridor will afford many benefits. Over the course of their lifetime, City residents will have the opportunity to live in different types of neighborhoods that accommodate their changing needs and preferences. Different types of units in close proximity to one another create lively, vibrant neighborhoods. Provision of a mix of housing types, geared toward a range of income groups and lifestyles, broadens the demand for homes and expands market potential.

Higher density housing will be located closest to the boulevard, while attached and detached single family homes will be located farther from the Study Area's core, but generally still within walking distance of Big Beaver. In many cases, residential uses are planned at the edges of the Study Area, to provide a transition to existing residential areas from the more intensive uses planned along the Corridor. Townhouses are planned in locations where they may face existing residential neighborhoods, to help knit new development to established development.



**LAND USES WITHIN EACH DISTRICT**

Residential/Parkway Districts: Adams Gateway and Dequindre Gateway  
 These districts will be linear parks with single family residential development.

Transition Zones

- TROY GARDENS is an attached residential transition zone. Townhomes will transition to neighboring residential uses, while multiple family residential uses will transition to the adjacent Troy City Center. General office uses are also planned within this district, to the south of Big Beaver.
- TROY TOWERS will host general office uses.
- ROCHESTER CORNERS is planned as a retail node. High quality, community retail uses are appropriate in this zone. Many of these uses will serve nearby residential areas.
- JOHN R MARKETS will also be a community retail node.

Urban Mixed Use District: Troy City Center

The majority of Troy City Center is planned for a mix of uses: retail, office, and residential, as well as parks and plazas. Ground-level space in buildings fronting on Big Beaver will be occupied by shops, entertainment, restaurants, and similar uses that stimulate interest and activity. Upper-level floors will be occupied by offices and residences.

Based on market forces, some new buildings along Big Beaver may initially be occupied by exclusively residential uses. However, they should be designed with ground floor ceiling heights that are sufficiently high and infrastructure that is sufficiently sized to accommodate future retail service uses. Buildings should be designed so that they can evolve from accommodating transitional ground-floor residential and/or office uses to retail uses.

The Somerset Collection is designated for future regional retail use, consistent with its current use. General office uses are planned east of Somerset. Townhomes and multiple family residential uses at the district's northern and southern edges provide a transition to adjacent, lower intensity areas.

Civic Center: City Square

The Civic Center is dominated by public uses. A farmer's market will be established in the district, drawing a crowd on weekends and enlivening the district during the week. The farmer's market will be housed within a structure that is sleek, elegant, and contemporary, designed to mirror boulevard amenities. Like the pedestrian bridges, this structure may be a showpiece that is the outcome of an international design competition.

Hotel/Convention/Entertainment District: The Promenade

Hotels, convention centers, restaurants, retail uses, and entertainment uses such as a performing arts center or specialty theater are planned in the Big Beaver Corridor Promenade. Hotel guests may flock to the theater after attending business meetings during the day. Entertainment uses will also draw residents and workers from the Big Beaver Corridor and throughout southeast Michigan. Restaurants will form a "village" that functions as a lively gathering place for residents, workers, and visitors. Restaurants may be oriented around an ice skating rink that becomes a fountain or outdoor seating area in the summer. Office uses above retail and restaurant uses will increase the support population for the Promenade's restaurant, retail, and entertainment uses.

Signature Office District

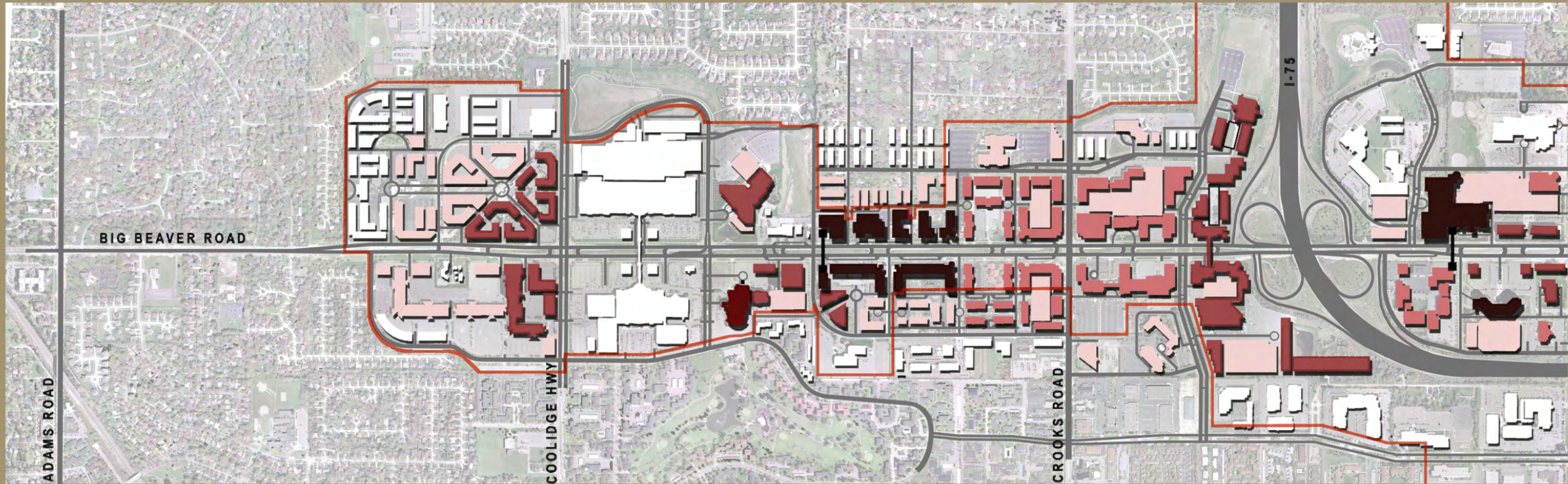
The Signature Office district is primarily comprised of general office uses. Residential uses transition to adjoining neighborhoods.

Emerging Technology District: Smart Zone

The Smart Zone is designated for future emerging technology uses. Between Rochester and John R, Big Beaver affords sites for high-tech, research and development, and light industrial uses such as prototype development. Signature sites for the office, engineering, research, and product development functions of major corporations are envisioned in this district. Tenants may in some cases be located within technology parks characterized by attractive, unified site design elements.

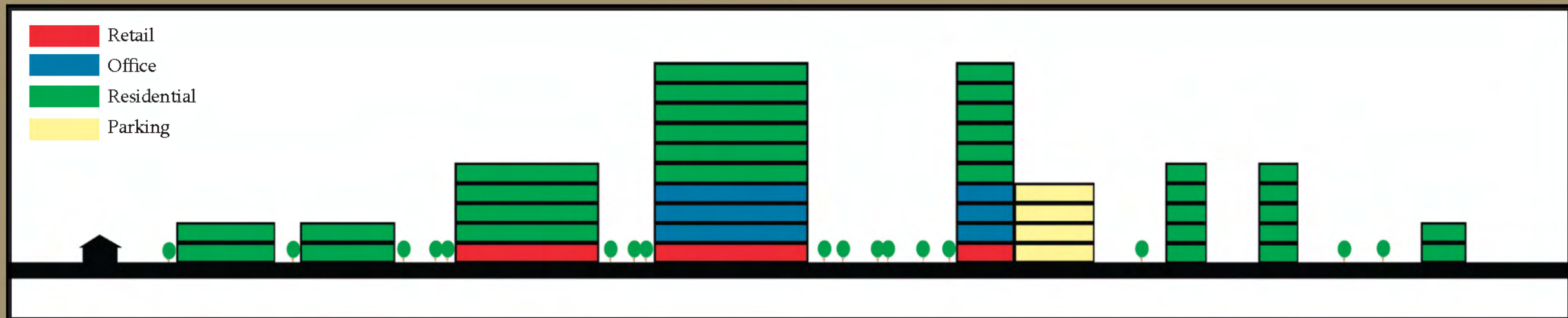
**LEGEND:**

- DDA Boundary
- A - Regional Retail
- B - Community / Local Retail
- C - General Office
- D - Office / Retail
- E - Multiple Family Residential (Townhomes)
- F - Multiple Family Residential
- G - Single Family Residential
- H - Mixed Use: Retail / Office / Residential
- I - Hotel / Convention
- J - Hotel
- K - Restaurant / Retail
- L - Civic Center / Performing Arts
- M - Public Park
- N - Emerging Technology

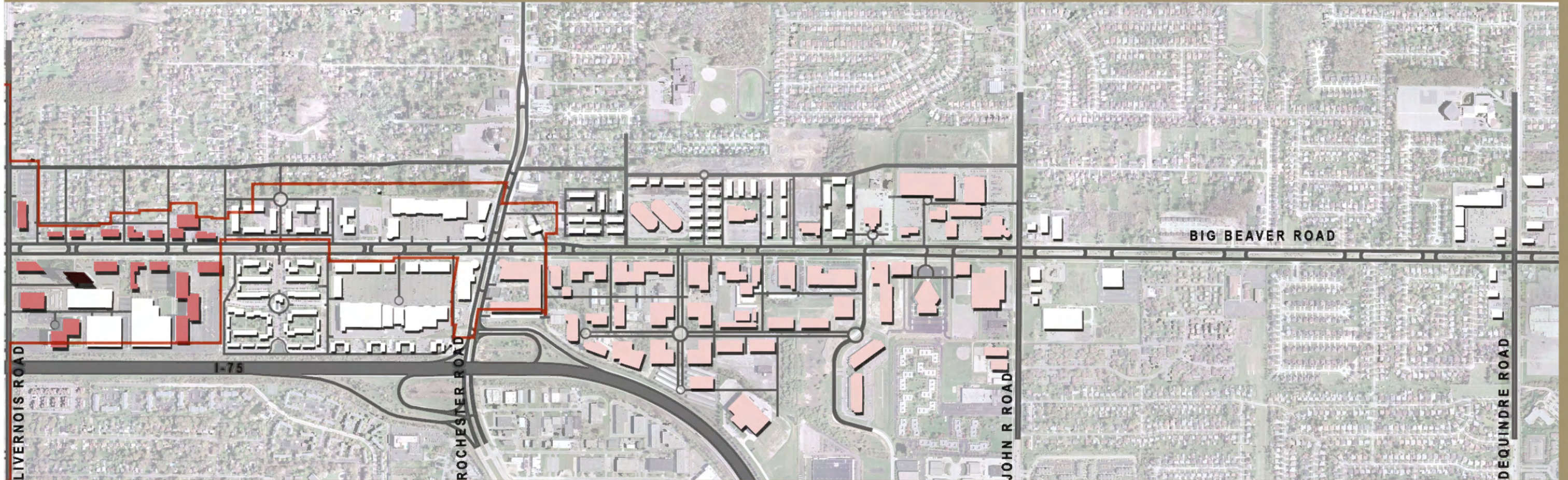


# Building Height Plan

Building height will be modulated North and South, East and West, considering adjacencies



Building Height Section



- The Building Height Plan illustrates modulation in building heights in two respects: 1) building height is modulated along the length of the Corridor, from district to district from east to west, and 2) building height is modulated from north to south, with heights peaking along Big Beaver and stepping down to the north and south, as a transition to adjacent neighborhoods.
- Modulations in building height, planned along the length of the Corridor, result in “development pulsing.” Nodes of development intensity are interspersed with stretches of lower intensity development, creating interest and variation along the corridor.
- Building height peaks in the following districts: Troy City Center; Troy Towers; and the Promenade. Building heights in the Smart Zone are higher than those in adjacent districts. Lower building heights are planned at the western and eastern ends of the Corridor, transitioning to residential areas.
- At the heart of Troy City Center, building heights along Big Beaver are anticipated to be 10 to 12 stories, dropping to four to six stories in intermediate zones to the north and south, and finally decreasing to two to three stories at the district’s northern and southern edges.
- The maximum building height of 10 to 12 stories may be exceeded by planned unit developments and other projects of distinction, if it is determined that the evolution of the transportation and infrastructure system are sufficient and the taller structures are contextually appropriate.
- The ratio of building height to street width will be tailored to foster a sense of enclosure and pedestrian scale, where appropriate (e.g., in Troy City Center). “Buildings are the primary feature

of urban contexts that create a sense of definition and enclosure on a thoroughfare.”<sup>1</sup> Per the Institute of Transportation Engineers, “The threshold when pedestrians first perceive enclosure is a 1:4 ratio of building height to thoroughfare width.... In denser urban contexts, height-to-width ratios between 1:3 and 1:2 create an appropriate enclosure on a thoroughfare.”<sup>2</sup> Other sources concur: a ratio of between 1:2 and 1:2.5 “provides a good sense of enclosure in a street, [while] a street wall height that equals the street width [i.e., a 1:1 ratio] gives [an even stronger] sense of enclosure.”<sup>3</sup>

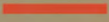





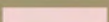
(Footnotes)

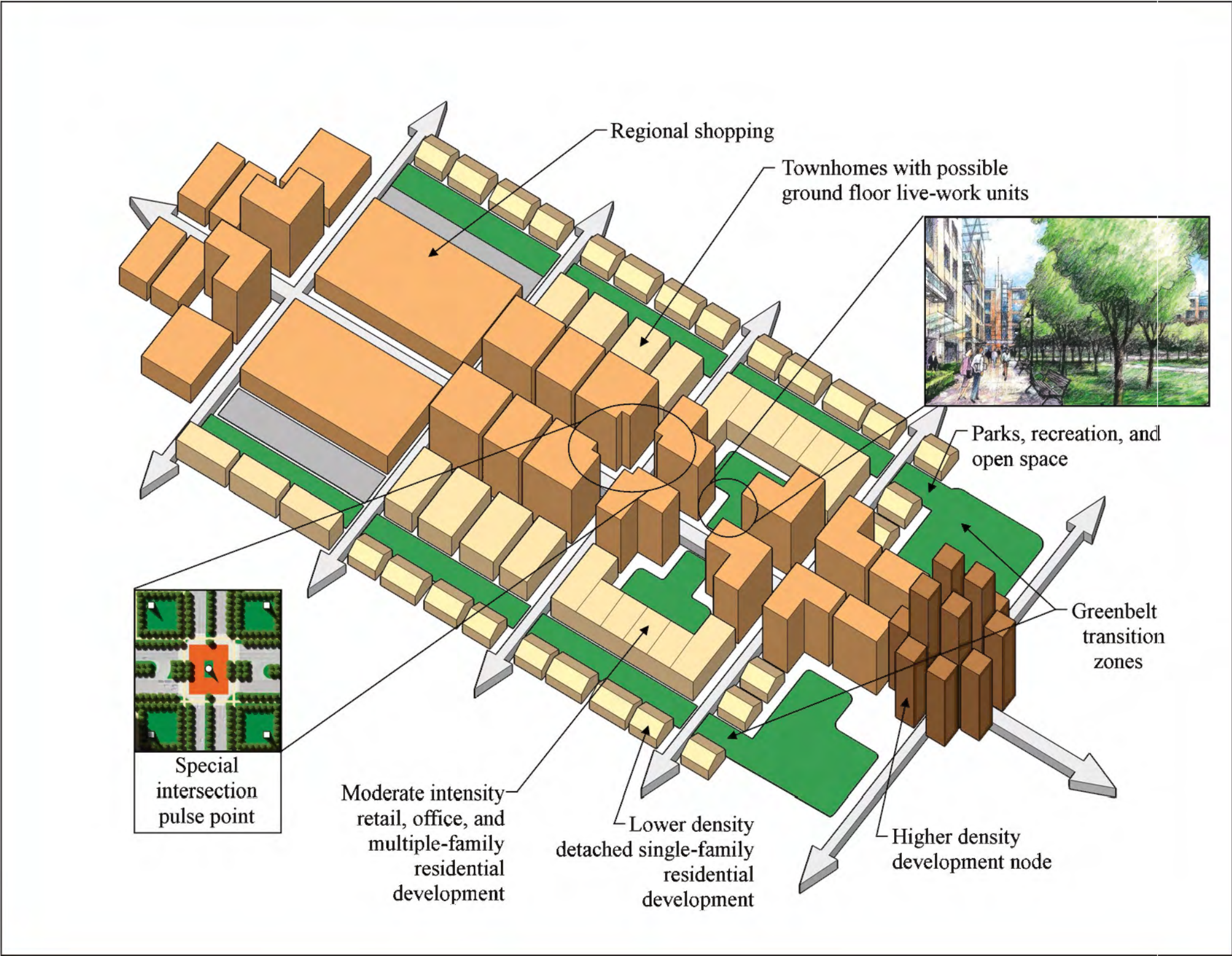
<sup>1</sup> An ITE Proposed Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities (Washington, D.C.: Institute of Transportation Engineers, 2006), page 43.

<sup>2</sup> *Ibid.*, page 43.

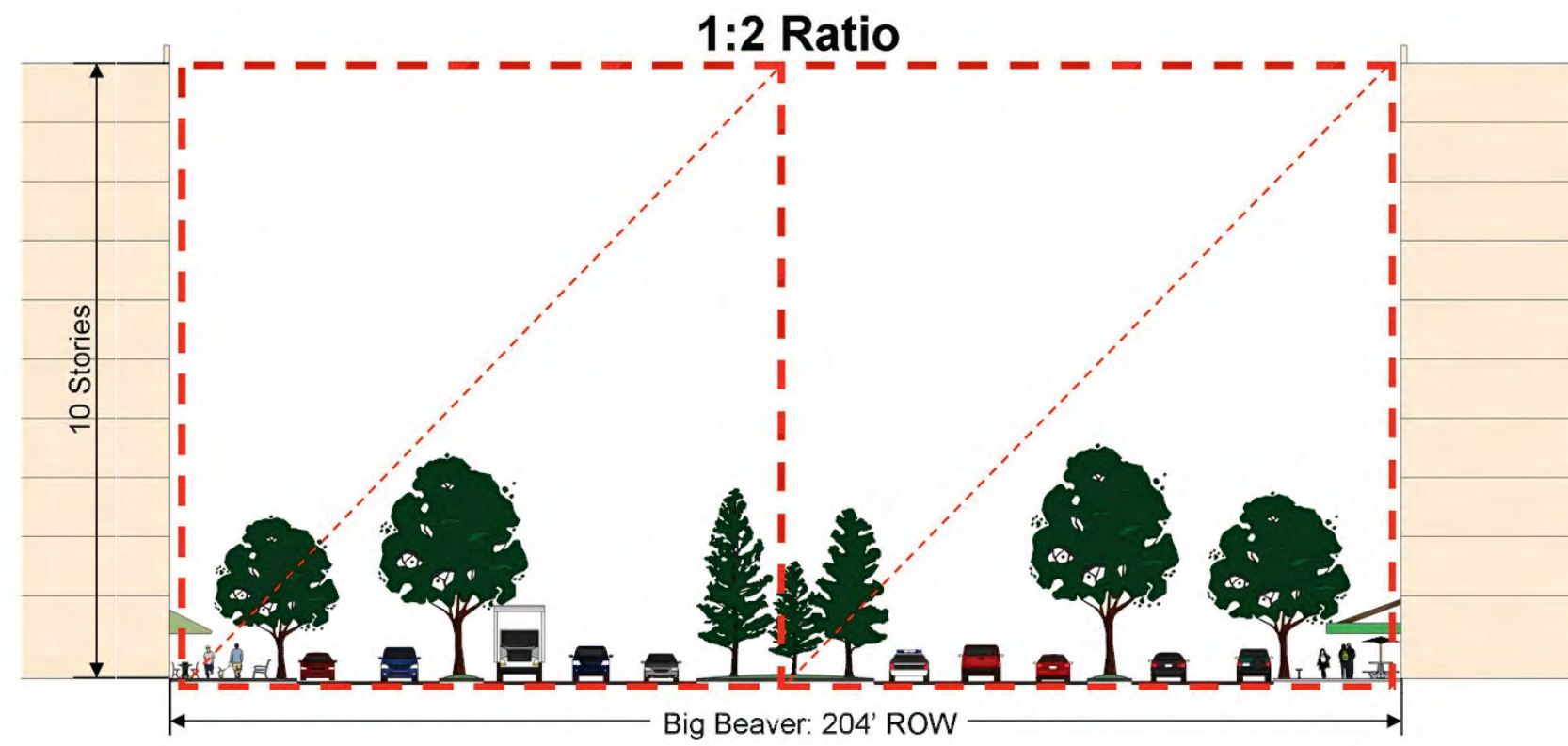
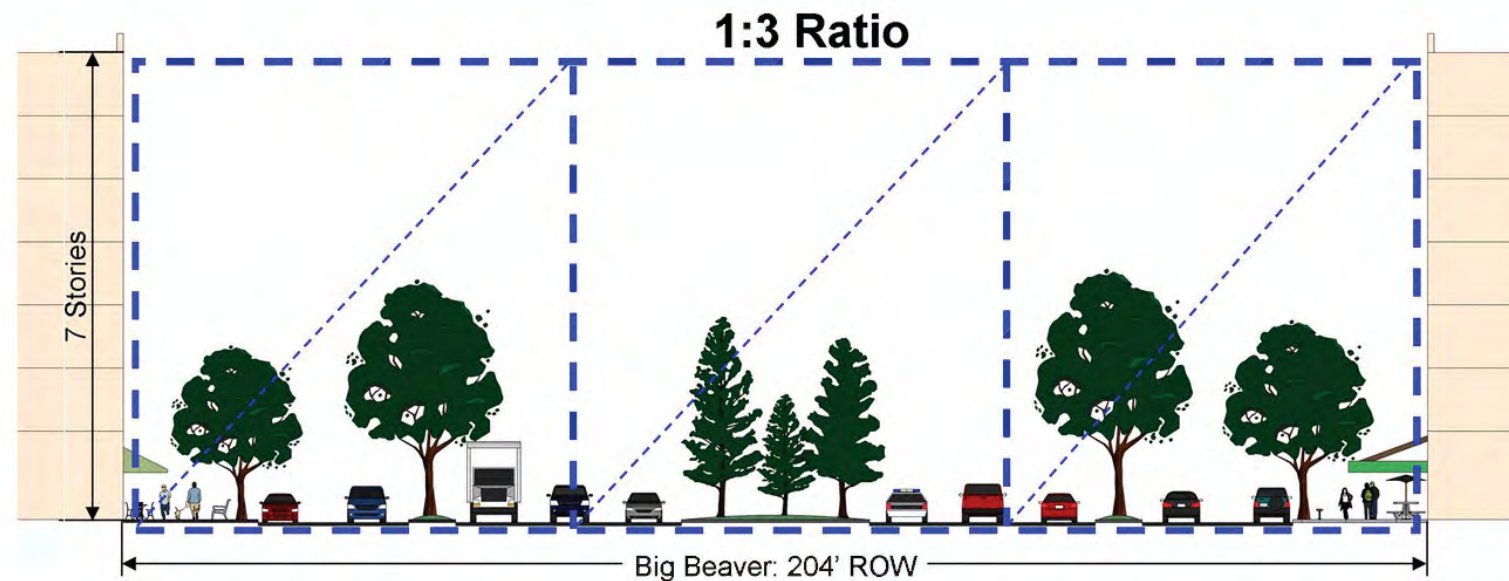
<sup>3</sup> Matthew Carmona, Tim Heath, Taner Oc, and Steve Tiesdell, *Public Places, Urban Spaces: The Dimensions of Urban Design* (Oxford: Architectural Press, 2003), page 147.

## LEGEND:

	DDA Boundary
	10 - 12 Stories
	8 - 10 Stories
	7 - 8 Stories
	6 - 7 Stories
	4 - 6 Stories
	2 - 3 Stories

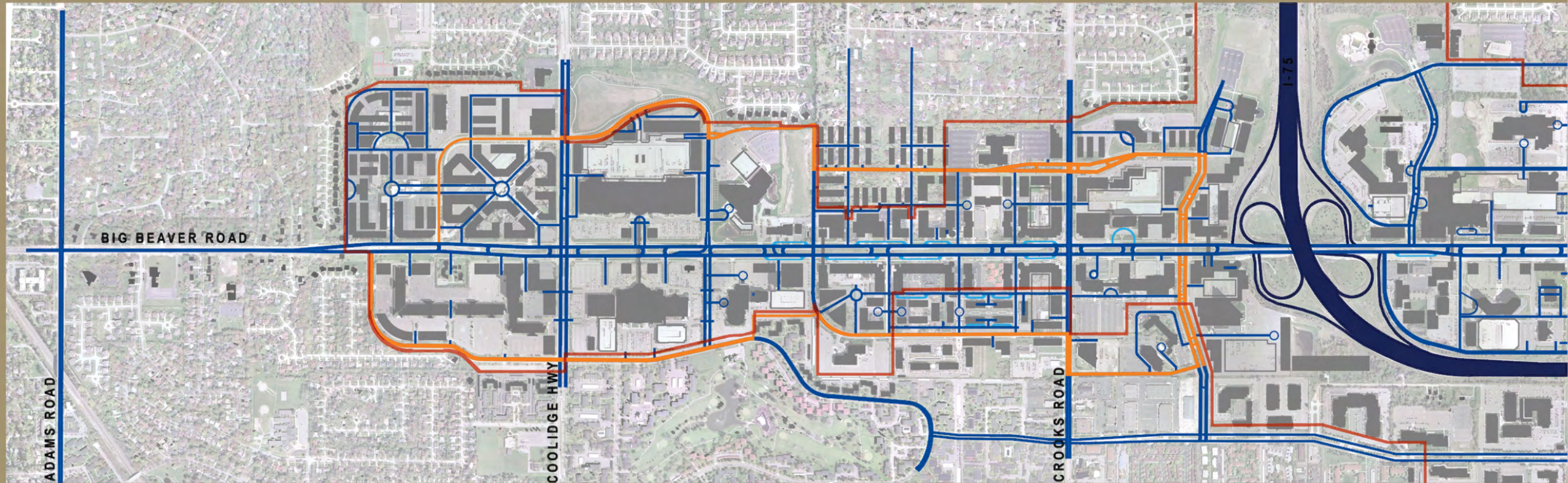


# Development Pulsing



The minimum ratio of building height to thoroughfare width (distance between buildings) necessary for people to have a sense of place is 1:4. The preferred range for a denser, urban context is between 1:3 and 1:2. For the Big Beaver Corridor, the desired ratio is found with a building height ranging from 7 to 10 stories.

# Defining Human Scale



# Traffic Circulation Plan

Traffic will mean pedestrians, bicyclists, buses, automobiles, and other vehicles

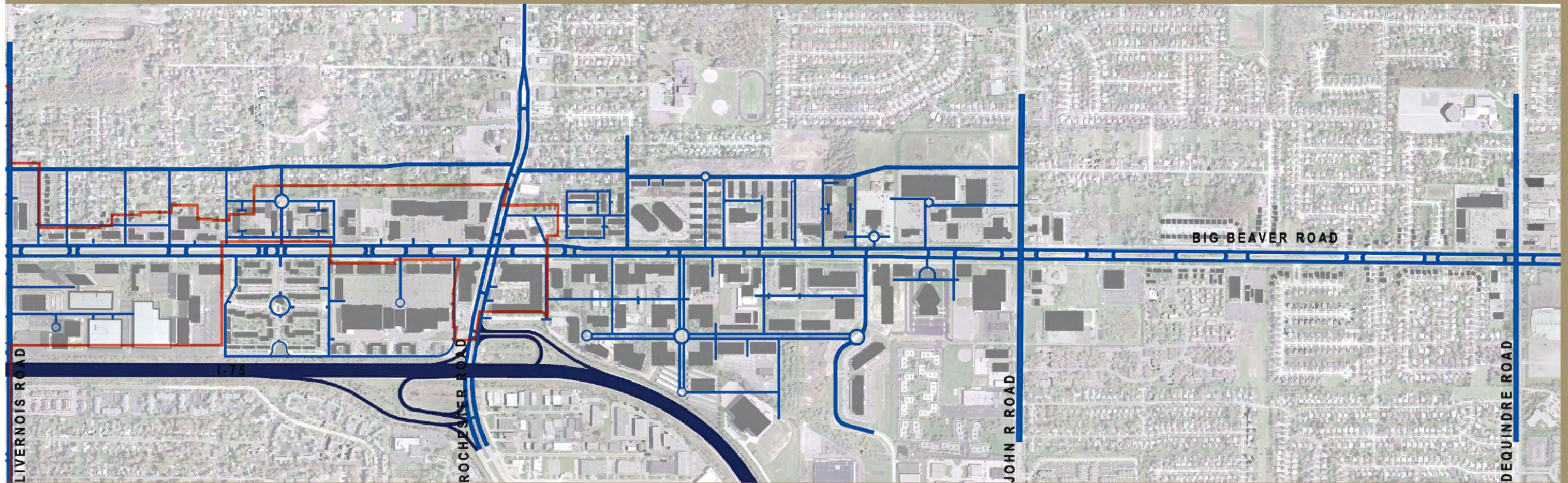
- **IMPROVE THE DDA DISTRICT'S COMPETITIVE ADVANTAGE BY OFFERING AND ENHANCING TRANSPORTATION CHOICES.** A greater range of transportation options and mix of uses along Big Beaver Corridor will enhance the DDA District's competitive advantage: "Suburban business districts that offer a choice of transportation options and more than a 9:00-to-5:00 range of activities—and thus promote travel at other than peak hours—will enjoy a competitive advantage. Leasing agents throughout the United States report that clients view access to mass transportation and rich cultural activities as the two pluses of intown property that are not found in outlying counties. Culture and transportation add value because they attract a young workforce, which employers seek."<sup>1</sup> Pedestrian, transit, and bicycle usage will increase significantly.
- **INCREASE CONTINUITY OF EAST-WEST COLLECTOR STREETS.** A key element of expanding the local street grid along the Corridor will be increasing the continuity of collectors paralleling Big Beaver Road. This increased continuity will provide alternative routes between uses within the Corridor, routes not involving the longer delays associated with entering the Big Beaver traffic flow and passing through major intersections. Such network improvements will especially benefit shuttle bus operations.
- **PROVIDE DENSITY TO SUPPORT TRANSIT USAGE.** Higher density development and an infusion of residential uses are planned along the Corridor, which will make transit more energy- and cost-efficient. As a guideline, "Minimum density to support an hourly local bus is four dwelling units per acre; seven units per acre to support a half-hourly local bus; and over 15 units per acre to support an express bus, [although] average densities will vary."<sup>2</sup> A number of other uses planned along the Corridor, such as conference centers and entertainment venues in the Promenade, will also attract crowds sizable enough to support the transit system.

Beaver area to an area east of Livernois. Ridership will increase with the further development of the world-class boulevard, and it will ideally be supplemented by a Big Beaver Corridor Continuous Bus Loop, which could take the form of a bus trolley or similar decorative vehicle to attract ridership. The Midtown Square Transit Station near Coolidge and Maple Roads will connect the Corridor to many other transit routes and could connect riders to AMTRAK, private transportation services, and a fixed rail commuter line.

Density will add more drivers, but it will also draw people out of their cars. "Density creates choice by providing the ridership needed to make bus... transit a viable and competitive transportation option."<sup>3</sup> Increased reliance on options such as biking, walking, and transit will reduce vehicle trips.

- **PROVIDE SERVICE LANES TO ENHANCE CONVENIENCE PARKING AND PEDESTRIAN ACTIVITY.** To enhance pedestrian activity and foster an in-town shopping experience in Troy City Center, service lanes with parallel parking are envisioned in selected locations. Service lanes would accommodate one-way traffic and parallel parking, with 13-foot wide travel lanes and 8-foot wide parking spaces. On-street parking will supplement other parking options.
- **PROVIDE A GRID STREET PATTERN TO DISPERSE TRAFFIC ON MANY ROUTES, NOT JUST ONE.** The street network within Troy City Center will assume a more grid-like form, with cross streets and rear collector streets. This finer-grained street network will provide motorists and pedestrians with a variety of routes to choose from to reach their destinations. The shorter blocks of the grid system will increase walkability. Corners will provide locations for restaurants and retail stores that cater to pedestrian activity.
- **UNDERSTAND AND PROMOTE THE EVOLUTION OF BIG BEAVER ROAD.** There will be a balance between preserving traffic flow and providing continued ease of access to development along the Corridor. Techniques to achieve this balance include strengthening the supporting road system and increasing opportunities for parallel movement by adding and/or increasing reliance upon service lanes, cross streets,

The Suburban Mobility Authority for Regional Transportation (SMART) currently provides transit service to the Corridor from multiple regional destinations. Service currently begins prior to 6:00 a.m. and continues past 1:00 a.m. seven days a week. The Big Beaver Job Express currently connect riders from the Somerset Collection South transit area to any place of business along the Big Beaver Corridor from the Cunningham / Big



and streets paralleling Big Beaver; enabling motorists and pedestrians to travel between sites without going onto Big Beaver by connecting parking lots, promoting shared parking, limiting access points along the Corridor, and consolidating driveways; and promoting alternative modes of transportation.

The road system is planned to accommodate both through traffic and traffic whose destination is the Corridor. Within Troy City Center, speeds along Big Beaver may be lowered due to the district's urban character. However, motorists who currently use Big Beaver as a through route may seek alternate routes. Cunningham and Wilshire to the north and Golfview and Butterfield to the south will be part of a loop system that allows motorists to reach destinations to the east or west of Troy City Center without having to travel along Big Beaver.

- **IMPROVE THE CAPACITY OF BIG BEAVER ROAD BY CREATING A STREET AND DEVELOPMENT CHARACTER THAT WILL SUPPORT LOWER SPEED LIMITS AND GREATER USE OF ACCESS MANAGEMENT.** A reduction in travel speeds does not mean a reduction of roadway capacity. The American Association of State Highway and Transportation Officials (AASHTO) has documented that streets have a higher capacity at 30 mph than they do at higher speeds. Also, the implementation of a strict access management policy—with greater driveway spacing and use of the benefits of a boulevard cross-section—will lead to greater preservation of road capacity. Implementation efforts will include an access management plan and detailed service lane design plan that is coordinated with the City, Road Commission, and adjacent property owners.
- **PROVIDE NEW PARKING DECKS WITH MULTIPLE ACCESS POINTS.** New parking decks will be located and designed so that they can be accessed directly from north-south arterial streets and/or east-west collector streets, not just Big Beaver Road itself. This will allow traffic entering or exiting the area on north-south streets to enter or exit parking facilities without using Big Beaver or passing through major intersections.
- **PROVIDE BETTER PEDESTRIAN AND BICYCLE FACILITIES.** Wide, continuous sidewalks will be provided along both sides of Big Beaver Road. In addition, the following may be provided to encourage foot and bicycle traffic: pedestrian-friendly street name signing, wayfinding (guide) signing to major attractions, mini-parks with benches and other amenities, and bicycle racks in parking decks, at office buildings, and near retail and restaurant uses. Bicycle routes should be planned along the ring-road system and on local streets, not along

Big Beaver. Bicycle racks should not be placed directly along the Big Beaver frontage because doing so would encourage bicycle – pedestrian conflicts.

- **INTRODUCE RIDE-SHARING INCENTIVES.** Car- and van-pooling by Corridor employees may be encouraged by organizing trip matching services, and by issuing special parking permits to registered pools for spaces more convenient to major destinations.
- **INTRODUCE TRANSIT INCENTIVES.** Transit incentives may take a number of forms. One possibility would be to charge for employee parking, with employees then issued a transportation stipend they are free to use to pay for the parking, apply to the cost of riding transit, or simply pocket if they travel by other means (e.g., carpool or bicycle). Another possibility would be to offer discounts to shoppers showing evidence of arrival by transit.
- **ENCOURAGE STAGGERED WORK HOURS.** To alleviate peak-hour traffic, larger employers may consider either staggered work hours (by department) or flextime, while smaller employers can focus on the benefits of flextime (requiring core-hour attendance but some flexibility on arrival and departure times).
- **IMPROVE CROOKS AND FOURTEEN MILE ROAD CORRIDORS.** Both of these arterials have regional continuity and provide alternative I-75 access points. Improving their physical condition, capacity, efficiency, and attractiveness of use would better facilitate regional travel into and away from the Big Beaver Corridor. Higher priority should be given along these routes to pavement condition, access management, traffic signal coordination, and possible freeway interchange improvements.

## LEGEND:

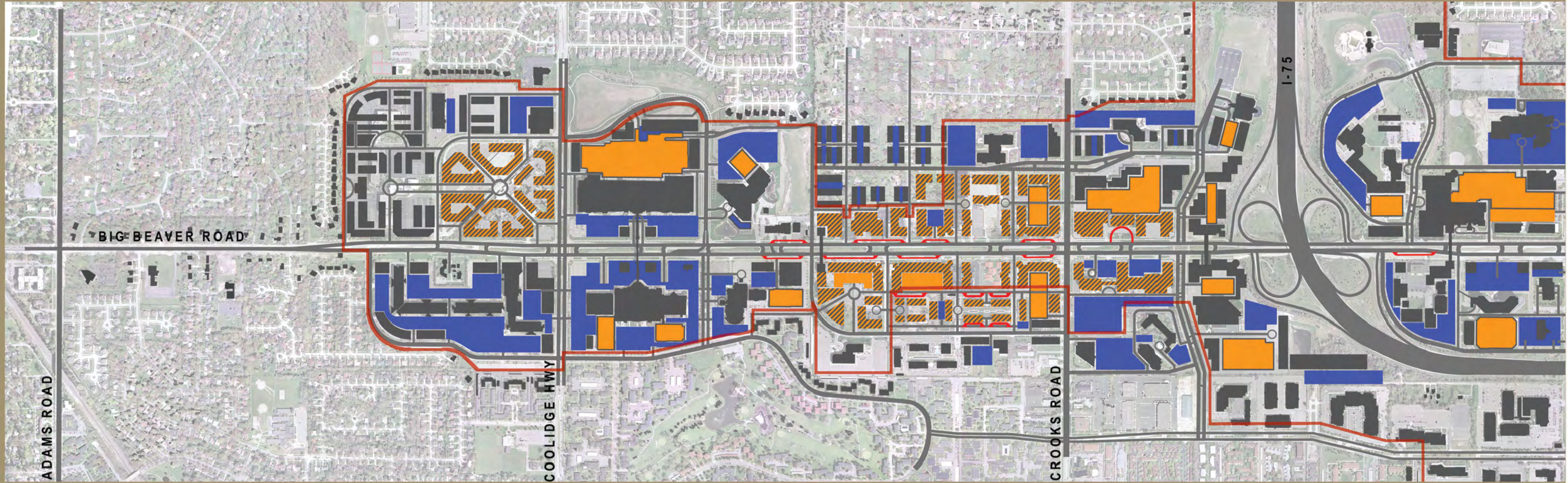
	DDA Boundary
	Interstate (I-75)
	Big Beaver Road
	Secondary / Collector Streets
	Arterial / Minor Roads
	Ring Road
	Parking / Service Lanes

### (Footnotes)

<sup>1</sup> Geoffrey Booth, Bruce Leonard, and Michael Pawlukiewicz, *Ten Principles for Reinventing America's Suburban Business Districts* (Washington, D.C.: The Urban Land Institute, 2002), page 18.

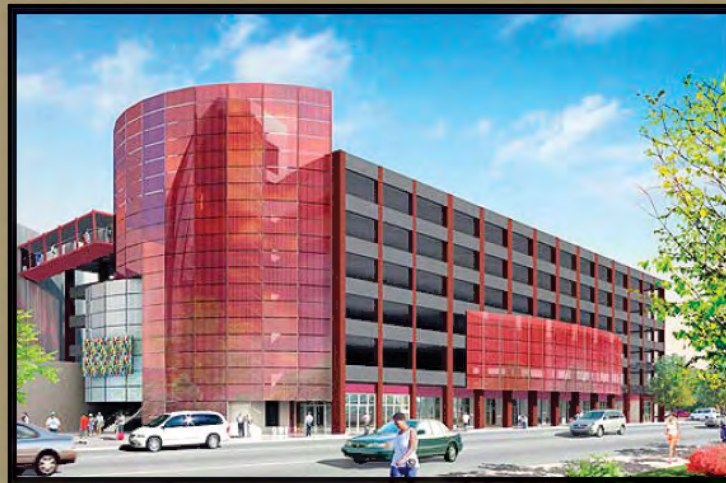
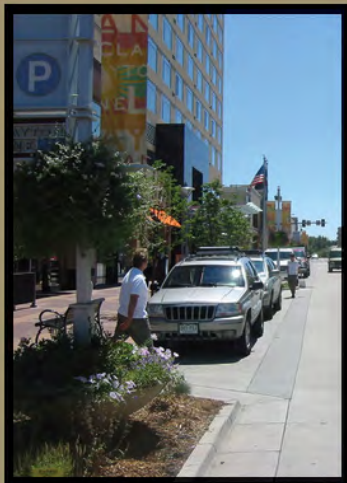
<sup>2</sup> *Ibid.*, page 18.

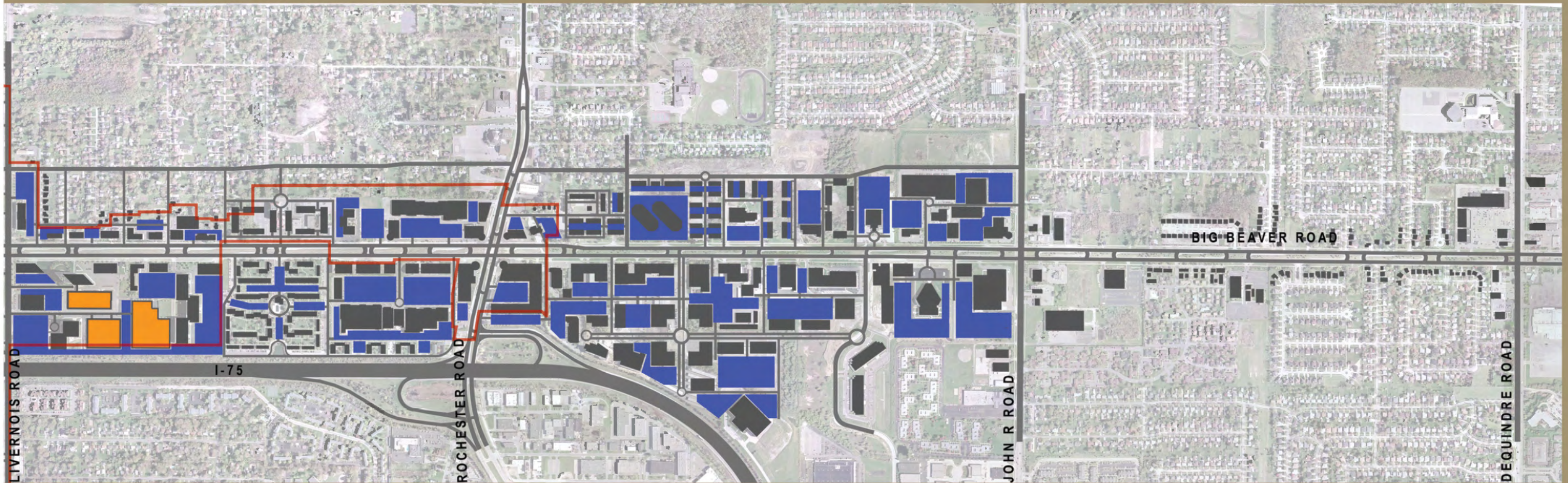
<sup>3</sup> Adhir Kackar and Ilana Preuss, *Creating Great Neighborhoods: Density in Your Community* (Washington, D.C.: U.S. Environmental Protection Agency, 2003), page 5.



# Corridor Parking

Parking will be contained, convenient, accessible and unobtrusive

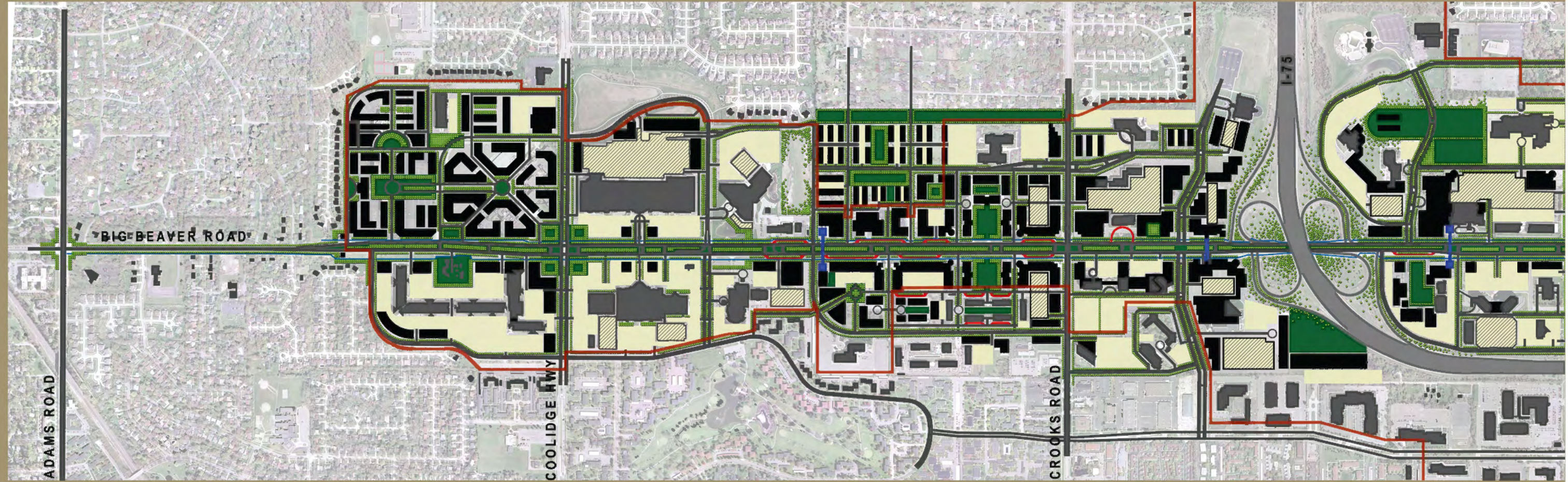




### LEGEND:

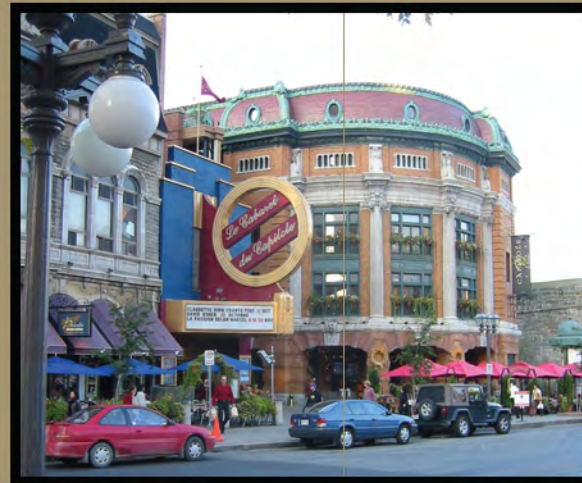
- DDA Boundary
- Surface Parking
- Deck Parking
- Service Lane w/ Parallel Parking
- Building
- ▨ Building with Integral Parking

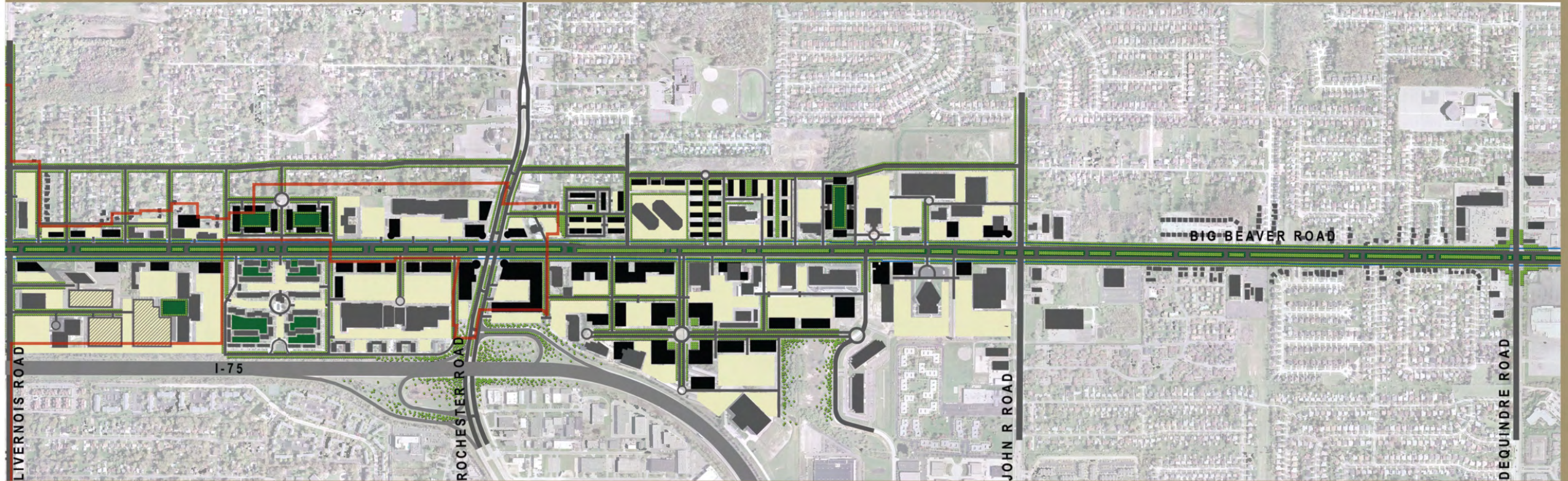
- The Parking Plan envisions that ample parking will be provided along the Corridor, but parking will be unobtrusive, taking a backseat to buildings and green space.
- More structured parking will be provided, both in the form of stand-alone parking decks and new buildings with internal deck parking above or below grade.
- The pedestrian level of parking decks will be animated, where possible. Active uses such as retail and restaurants can be provided at street level, with parking above. Parking structures can also be “wrapped” by buildings.
- Shared parking will be promoted as a means of reducing the size of parking lots and decks. Opportunities to combine parking based on uses with different peak parking demands will be exploited. For example, a cinema could potentially share parking with an adjoining office complex, due to differences in their peak operating hours.
- In many locations along the boulevard, buildings will be pushed to the street and parking will be to the side or rear, creating a hard-edged urban streetscape. Elsewhere, in places where a more suburban character is anticipated, limited front yard parking is accommodated.
- The placement of large public parking decks near the ring road network will encourage more destination traffic to use streets other than Big Beaver. It will also open the Big Beaver frontage to uses and activities that foster pedestrian activities, rather than cater to the automobile.
- In Troy City Center, service lanes with on-street parking will be provided. On-street parking conveniently accommodates customers making quick trips.
- In Troy City Center as well as other development nodes, it is envisioned that the density of development and mix of uses will create an environment in which it is convenient for motorists to park once and walk to all of their destinations.
- Shared parking arrangements, transit usage, and pedestrian travel will be factored into future calculations of required parking spaces, thereby reducing the land area devoted to parking.



# Conceptual Plan

The Corridor will be a sustainable, flexible people place





The Conceptual Plan sets forth a vision of Big Beaver Corridor as a “people place” with an unparalleled quality of life.

The Big Beaver Corridor has been described as “the place to be.” The Conceptual Plan visualizes a Corridor that will not only remain the place to be, but will become even more of a destination than it is today. “Future great streets [are] streets where people will want to be.”<sup>1</sup>

While Troy is already “the Golden Corridor,” there are immense opportunities up and down this important boulevard. It is anticipated that future employers, “faced with a tight labor market, will compete for the best employees by touting the quality of life that distinguishes the areas in and around their place of employment.”<sup>2</sup> The Conceptual Plan provides guidance for the City and DDA in enhancing the Corridor’s appeal and exploiting untapped opportunities. Specifically, the Plan envisions the following:

- Infill development is planned in numerous underdeveloped areas along the Corridor, such as underutilized surface parking lots. Conceptual footprints of proposed buildings illustrate where infill development may occur.
- Along the boulevard, density and building heights vary to provide a range of opportunities, different experiences, and appropriate scale.
- Provision of additional structured parking and replacement of some surface lots with deck parking will also increase the Corridor’s development potential. Further, this will emphasize that the place—the Big Beaver Corridor—is the destination, rather than a parking lot.
- Selected areas of the Corridor will evolve into vibrant, mixed use nodes of development (pulses of activity).
- New residential uses such as townhomes and apartments and condominiums over retail space will enliven the Corridor. An infusion of residential uses will transform Big Beaver into a place to live, and it will serve as a tremendous catalyst for new retail and office development.

- The Corridor will be greened, and landscaping will be used to distinguish each of Big Beaver’s various neighborhoods and the transitions between them. Landscaping may be planted more intensely in some areas and less intensely in others, expanding and contracting along the boulevard.
- In more densely developed areas, the road system will be refined with the addition of new cross streets and parallel streets, and increased emphasis will be placed on existing parallel streets and ring roads. The road system is planned to accommodate both through traffic and traffic whose destination is the Corridor.
- Vehicular travel will become one of a range of transportation options along Big Beaver. Foot traffic and travel by bicycle and bus will become commonplace.
- Increased emphasis will be placed on pedestrian circulation along the full length of the Corridor, and the planned urban core—characterized by compact, mixed use development—will become a pedestrian magnet. This will have a transformative effect: “Imagine walking down a... sidewalk lined with surface parking lots. Now imagine a sidewalk lined with a variety of shops, each with window displays. There might be a coffee shop with two or three outdoor tables, a bench for bus riders to wait.”<sup>3</sup>

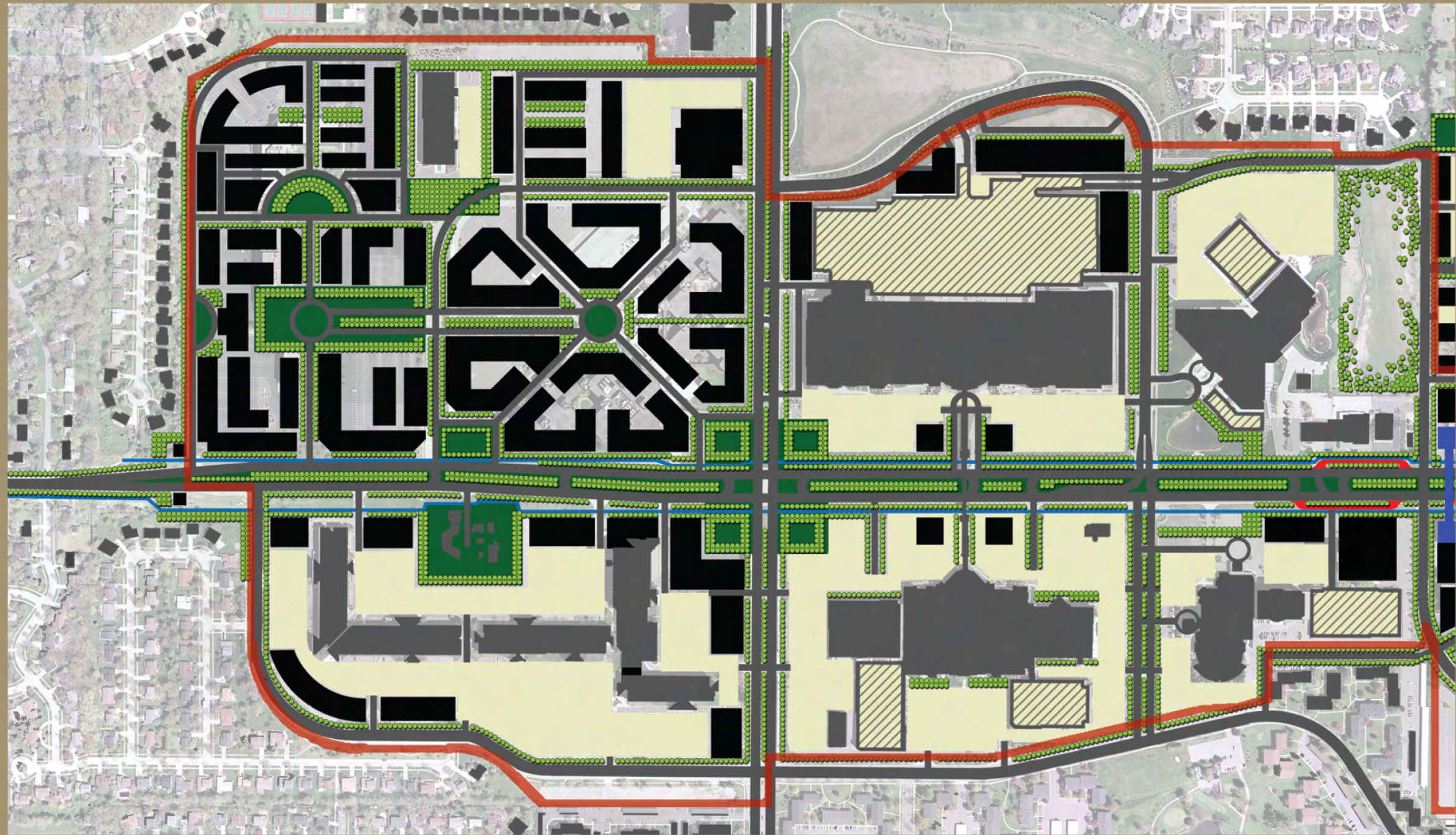
Implementation of the Plan will make Big Beaver even more of a destination of choice than it is today. “There is magic to great streets. We are attracted to the best of them not because we have to go there but because we want to be there.”<sup>4</sup>

(Footnotes)

<sup>1</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), page 3.  
<sup>2</sup> Geoffrey Booth, Bruce Leonard, and Michael Pawlukiewicz, *Ten Principles for Reinventing America’s Suburban Business Districts* (Washington, D.C.: The Urban Land Institute, 2002), page 25.  
<sup>3</sup> Adrienne Schmitz and Jason Scully, *Creating Walkable Places: Compact Mixed-Use Solutions* (Washington, D.C.: The Urban Land Institute, 2006), page 26.  
<sup>4</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), page 11.

**LEGEND:**

- DDA Boundary
- Roadway
- Interstate (I-75)
- Proposed Building
- Existing Building
- Proposed Pedestrian Bridge
- Surface Parking
- Deck Parking
- Greenspace
- Trees



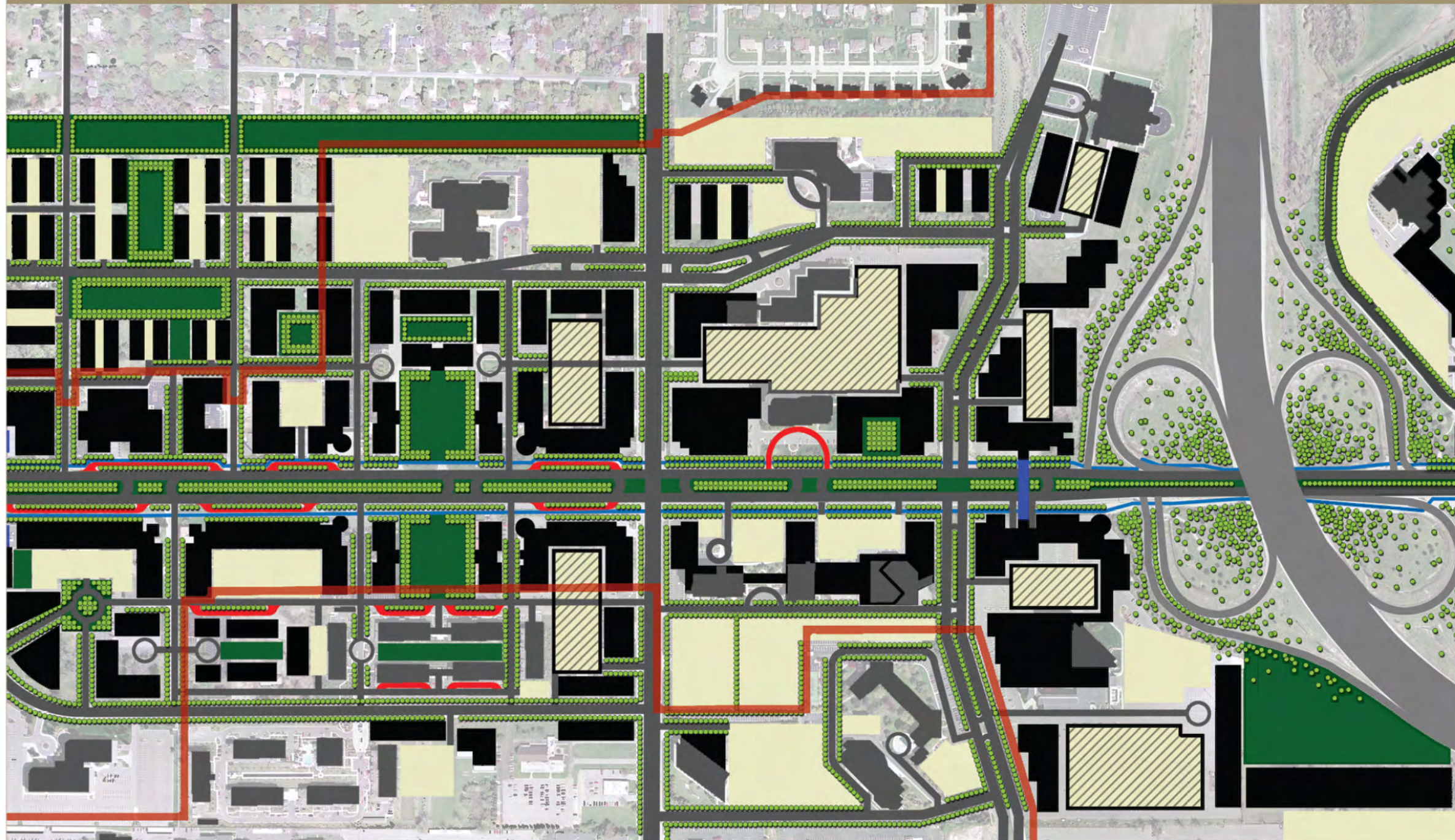
# Troy City Center

The heart of the City

- Troy City Center is planned as a high density urban core, a node of intense activity that will become the heart of the City. The district will be the ultimate “people place.” Its popularity and energy will enable it to attract yet more people: “What attracts people is other people, and the life and activity they bring.”<sup>1</sup>
- The district will evolve into a complete live-work-shop environment, redeveloping at a higher density and with a greater mix of uses. Ground-floor retail and restaurant uses, with outdoor dining, window displays, and entertainment, will create a lively streetscape and generate pedestrian buzz. Offices and residences above retail uses and nearby, in adjacent buildings and neighborhoods, will keep the district active throughout the workday and during evenings and weekends.
- Food vendors, pushcarts, and street performers may add to the dense street life envisioned in Troy City Center. The sidewalk will be a place of commerce and an active public realm where informal social interaction occurs. “The sidewalks [will be] crowded with kiosks, benches, bus

shelters, ... tables and chairs at cafés, light poles, trees, [and] many, many people.”<sup>2</sup>

- Buildings will enclose and frame the street, creating an appealing environment for pedestrians. “Building façades should be designed so that buildings reach out to the street and offer an ‘active’ frontage onto public space, adding interest and vitality to the public realm. ... The more doors and windows onto public space, the better.”<sup>3</sup> Buildings will have refined details and depth and relief in façade surface, fostering a pedestrian scale.
- Destinations will be close enough to one other that people can park once and walk. Parking is primarily envisioned to be behind buildings or in decks, creating an urban character. Pedestrians will stroll past storefronts, rather than surface parking lots. The district’s mix of uses will enable shared parking arrangements that reduce the amount of required parking.



## LEGEND:

	DDA Boundary
	Roadway
	Interstate (I-75)
	Proposed Building
	Existing Building
	Proposed Pedestrian Bridge
	Surface Parking
	Deck Parking
	Greenspace
	Trees

- Planting strips, street trees, street furniture, and service lanes and on-street parking will create a pedestrian-friendly environment, buffering pedestrians from moving vehicles along Big Beaver.
- Service lanes will be provided in locations where buildings have a zero setback and a mix of uses. Service lanes permit on-street parking, buffer pedestrians from the adjacent roadway, and help preserve roadway capacity.
- The entire district will be greened, and several new outdoor spaces will be created. In particular, to the west of Crooks, it is envisioned that two public squares will flank the north and south sides of Big Beaver, creating a City Center Park. The squares will be framed by buildings, with street level shops and restaurants. City Center Park will have programmed activities and events, but will also afford opportunities for relaxation and spontaneity. Ample seating, sunny and shady spaces, gardens, art, and water features will make the plaza a gathering place for the district and the entire City.
- The street network within Troy City Center will assume a more grid-like form. This finer-grained street network will disperse traffic, providing motorists and pedestrians with a variety of routes to choose from to reach their destinations. It will also accommodate higher density development planned within the district. Refinement of the street system will foster a more manageable pedestrian scale, shortening distances between destinations.

- Cunningham and Wilshire to the north and Golfview and Butterfield to the south will be part of a loop system that allows motorists to reach destinations to the east or west of the district without having to travel on Big Beaver. In addition to serving as circulation routes, the ring roads will provide access to parking located to the rear of buildings.
- Pedestrian bridges will link key points on each side of Big Beaver. Restaurants may be developed on each side of the Somerset footbridge: pedestrians could walk right off the bridge into a restaurant.

### (Footnotes)

<sup>1</sup> Matthew Carmona, Tim Heath, Taner Oc, and Steve Tiesdell, *Public Places, Urban Spaces: The Dimensions of Urban Design* (Oxford: Architectural Press, 2003), page 166.

<sup>2</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), pages 56-57.

<sup>3</sup> Matthew Carmona, Tim Heath, Taner Oc, and Steve Tiesdell, *Public Places, Urban Spaces: The Dimensions of Urban Design* (Oxford: Architectural Press, 2003), pages 173-174.

# Key Concepts of the Big Beaver Boulevard

## 1. GATEWAYS, DISTRICTS AND TRANSITIONS

- organize and contain the Boulevard as a distinct place

- Sensitivity and buffering to existing residential at edges
- Linear parks and landscape buffers as transition
- Variations in building height (massing) from the boulevard to the north and south edges of the Corridor
- Variations in urban form along the Corridor, from district to district

## 2. TREES AND LANDSCAPE AS “CEILINGS AND WALLS”

- plantings symbolize and encapsulate the Boulevard experience

- Boulevard landscaping
- Forested portals
- Linear parks
- Pocket parks
- Large public squares

## 3. WALKING BECOMES ENTERTAINMENT

- Much to observe and engage in

- Sidewalk as gathering place and public space
- Pulses of activity along the boulevard
- Storefronts and streetscape that engage and attract pedestrians
- Iconic pedestrian bridges

## 4. MIXING THE USES TURNS ON THE LIGHTS

- the energetic dynamic of Mixed Uses with a focus on residential

- Infusion of residential units to create lively, vibrant new neighborhoods
- Diverse housing stock with a variety of price points
- Linkages to restaurants, retail, parks, and places of employment

## 5. THE AUTOMOBILE AND PARKING ARE NO LONGER #1

- important components but do not dominate the experience

- Variety of transportation choices including transit, bicycle, pedestrian, and motor vehicle
- Ride sharing and transit incentive programs
- Access management and transportation demand management to improve capacity without widening Big Beaver
- Grid street pattern in urban core to disperse traffic
- Public parking decks, placed along parallel collector and local streets to relieve Big Beaver traffic
- Service lanes with parallel parking in urban core

## 6. CIVIC ART AS THE WISE SAGE OF THE BOULEVARD

- telling stories, creating memories, making us smile and informing us along the way

- Civic art at Corridor gateways
- Public art at pulse points and in public squares
- Sleek and elegant street furniture
- Iconic footbridges
- Bold design of farmers' market structure



*Big Beaver Boulevard from Somerset*



*I-75 Gateway*



*Typical Service Lane*



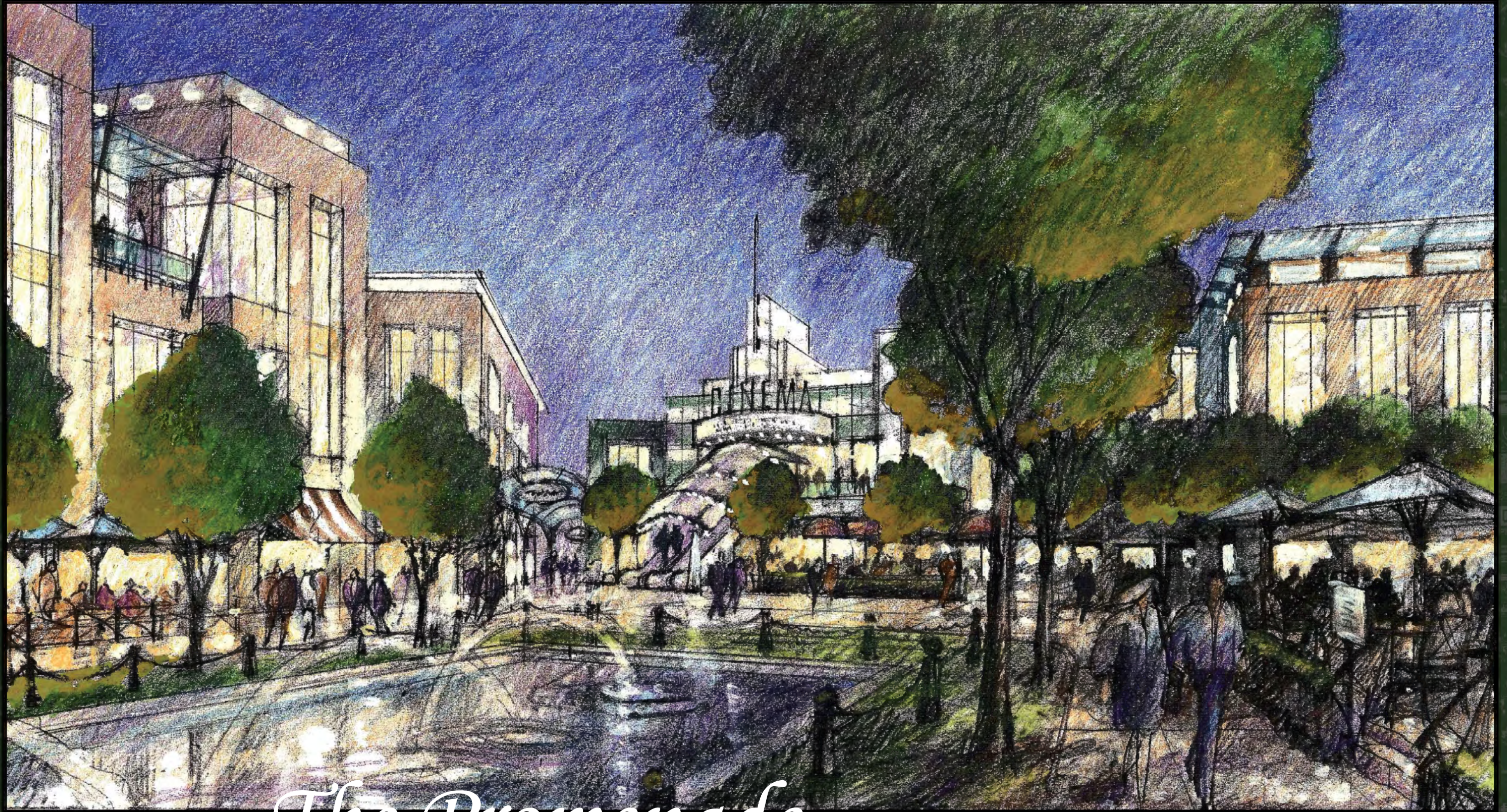
*Typical Streetscape*



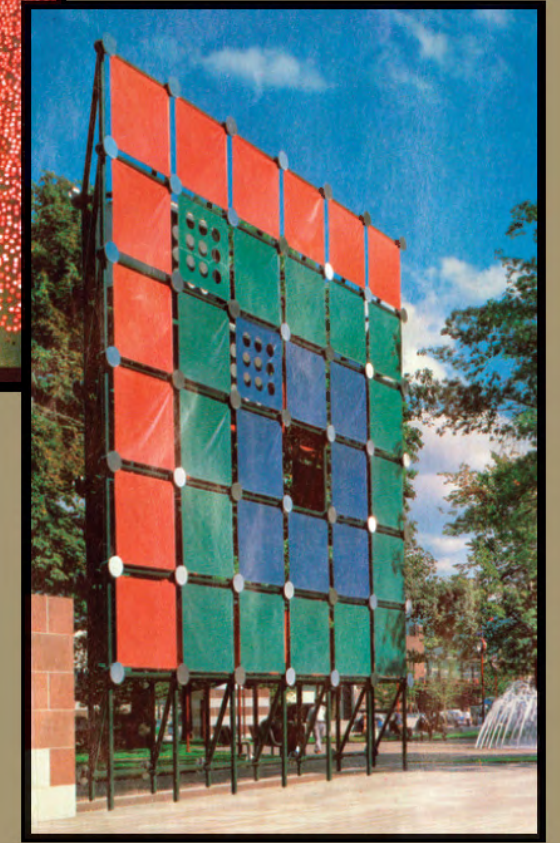
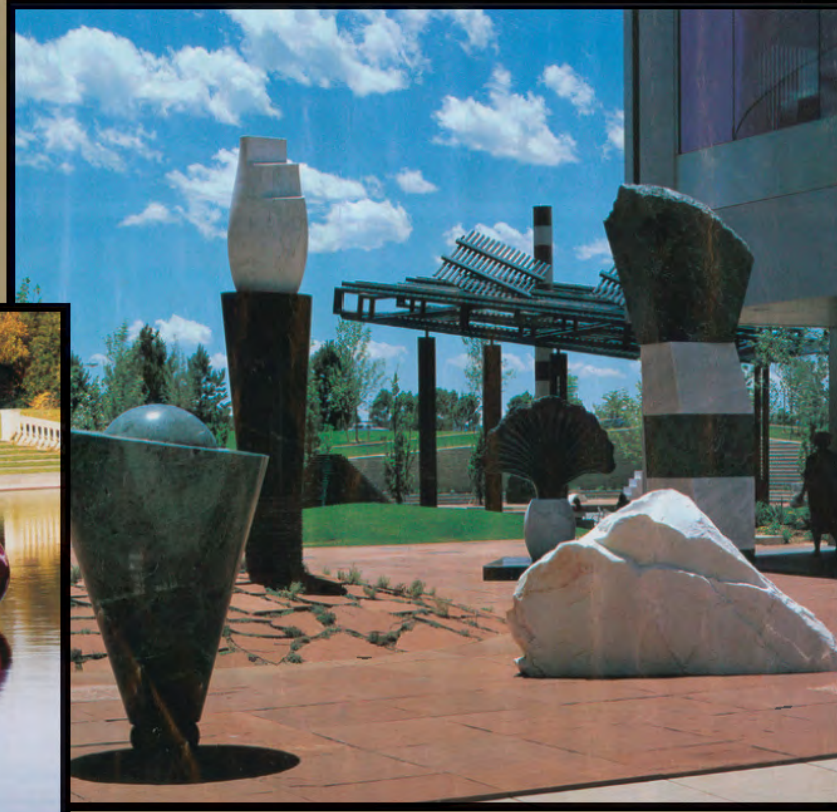
*Urban Park*



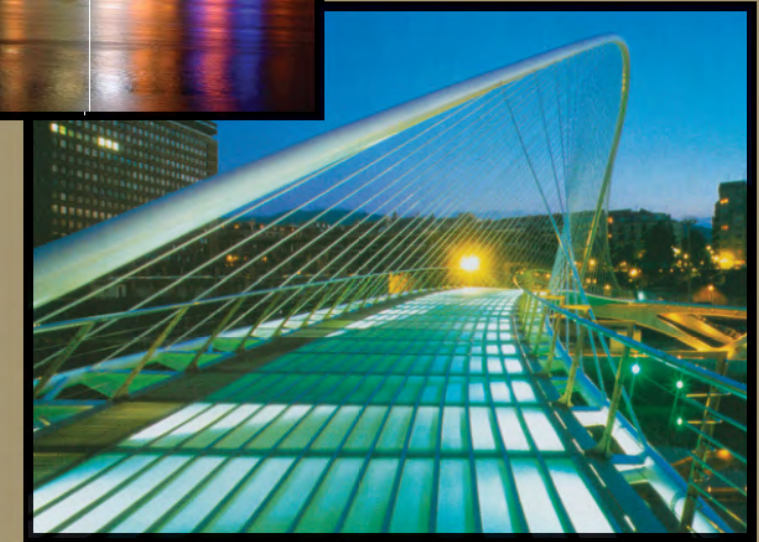
*Farmer's Market*



*The Promenade*



# *Civic Art and Landmarks*



- The Big Beaver Corridor will have an outstanding collection of public art. The Corridor will become a living, outdoor museum, without admission fees, hours, or velvet ropes.
- Public art will be displayed at gateways, in squares and parks, and at pulse points or nodes of high activity.
- Public art will help transform the Corridor into a vibrant, interactive people place, where walking is entertainment and there is much to observe and engage in. Public art will help create beloved, high quality public spaces. Public art will serve a placemaking function, telling a story, celebrating the City and the Corridor, and reflecting the area's history, culture, and identity.
- Public art may include sculptures, statues, mosaics, murals, fountains, and the like.
- Street furniture will be civic art. Amenities such as bus shelters, benches, light fixtures, and even trash receptacles will be both utilitarian and beautiful.
- The farmers' market structure and pedestrian bridges will be public art, with designs generated through competitions attracting internationally renowned architects and engineers.
- Both private donations and public monies will fund public art commissions, bringing local, national, and international artistic talent to the Corridor.
- While most of the boulevard's public art will be permanent, other public art will be temporarily exhibited, encouraging works that are experimental and innovative.



# *Amenity and Signage Benchmarks*

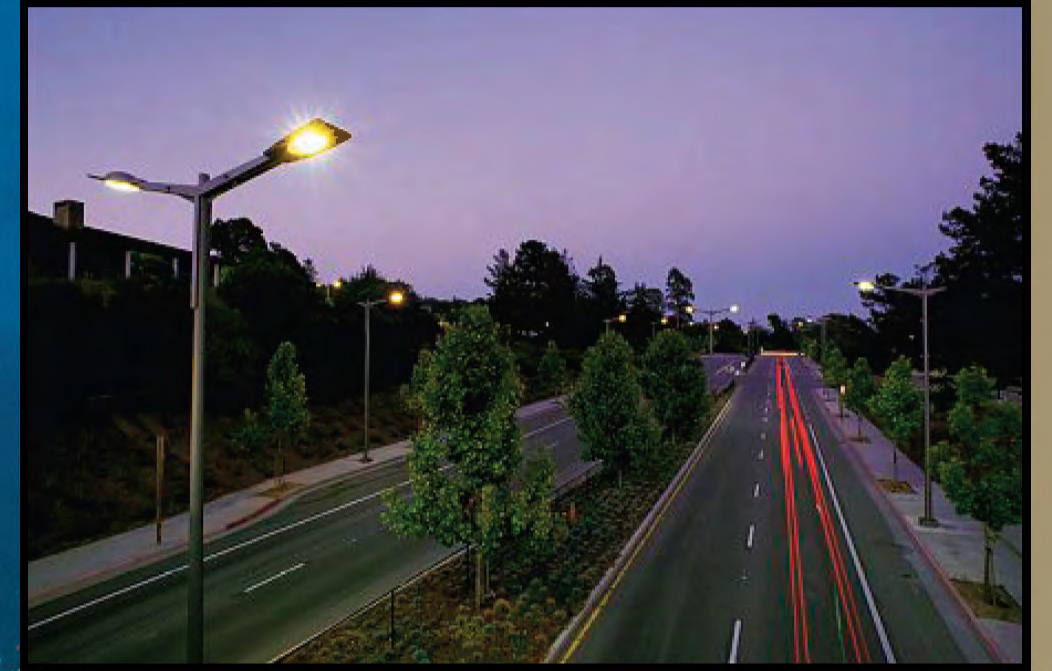
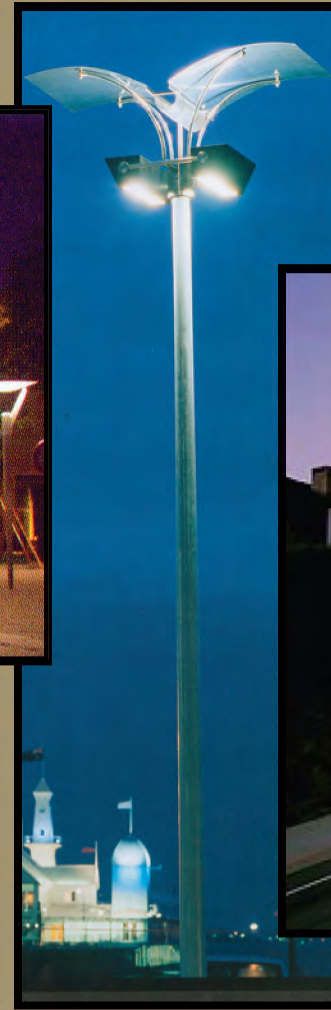


- Amenities such as lighting, landscaping, signage, public art, kiosks, waste receptacles, drinking fountains, bus shelters, bicycle racks, and benches will be provided to encourage pedestrian activity.
- Amenities throughout Big Beaver Corridor will be compatible. They will be coordinated to establish a unified identity for the Corridor and/or selected districts.
- Amenities will be elegant and contemporary in style, reinforcing the boulevard's image as a destination of choice and a place where innovation is prized. They will also be reflective of the design of buildings and pedestrian bridges.
- Street furniture will be low-maintenance and vandal-resistant.
- Seating will be placed near other amenities, and amenities will be clustered for greater impact. Priority locations for placement of street furniture include major building entries, transit stops, restaurants, and retail and mixed-use blocks.<sup>1</sup>
- Site-specific observation will be a major factor in determining where amenities are placed. For example, benches will be placed where they will be used, rather than always being placed at regular intervals.

- To prevent them from becoming obstacles to pedestrian travel, amenities such as street trees and planting strips, poles, bicycle racks, and other street furniture will be consolidated in the furnishings zone of the sidewalk. This zone functions as a buffer between the sidewalk and vehicular travel lanes.
- Like other street furniture, bus shelters will have a sleek, modern design. They will also be comfortable, convenient, accessible, safe, and well lit.
- Wayfinding, directory, and identification signs will be provided in appropriate locations, providing information and directions. They will contribute to the establishment of a pedestrian environment and a sense of place and identity along the boulevard.

(Footnotes)

<sup>1</sup> An ITE Proposed Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities (Washington, D.C.: Institute of Transportation Engineers, 2006), page 109.



# *Lighting Benchmarks*



- Lighting design will be part of an overall streetscape design that includes other amenities such as bus stops, trash receptacles, and benches. Amenities will be coordinated, establishing a unifying identity for a world-class boulevard.
- Streetlights will be used to define Corridor edges. "Because of their regularity and location, streetlights form lines, usually of receding poles marked with a fixture on top, that the eyes grasp and follow. They emphasize the linearity of the street."<sup>1</sup>
- Like other street furniture, light fixtures along the boulevard will have a contemporary, elegant, sleek design.
- Sidewalks will be lit with pedestrian-scaled lights of an identical or similar design to streetlights. Pedestrian lighting will be used to define pedestrian pathways, illuminate pedestrian gathering places, and increase pedestrians' sense of security.
- Lighting will draw attention to focal points such as pedestrian bridges, public art, and landmark buildings.
- Light fixtures, particularly parking lot lightpoles, will be directed and shielded to minimize light pollution, spillover, and glare.

(Footnotes)

<sup>1</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), page 299.



# *Landscape/Hardscape Benchmarks*



- Landscaping will be well designed and will “contribute to the totality of the urban environment. Landscape design strategies [will] be developed before or in parallel with the building design process and [will] play an integral part in an overarching urban design framework.”<sup>1</sup>
- Landscaping will add quality, visual interest, and color to the Corridor environment.
- While a continuity of landscaping along the boulevard will unite the various Corridor districts, landscaping will create a distinctive character for each district. Plantings will be more formally arranged—planted in straight lines or formal geometric patterns—in Troy City Center, the Promenade, and other areas with an urban character. Arrangement of plantings will be more informal, with plantings in picturesque groups, in the Residential Parkway districts and other areas that have a more suburban character. Ground cover, grasses, flowers, and shrubs will supplement tree plantings.
- Street trees will be spaced between 15- and 30-feet on center, depending upon the species. A continuous canopy of trees will line Big Beaver Road: “The tree trunks are like columns, and to walk among them is to be in a tall, lace-ceilinged arcade.”<sup>2</sup> Trees will shade the boulevard and sidewalks.
- The width of the planting strip between the roadway and sidewalk will be at least five feet and preferably eight feet. Within the planting strip, street trees will create a buffer between the traveled way and sidewalk: “Trees added at the curb line, if close enough to each other, create a pedestrian zone that feels safe.”<sup>3</sup> Trees will foster a sense of enclosure or spatial containment for pedestrians.
- Street trees will mark the route, emphasizing the linearity of the boulevard and sidewalks and defining their edges.
- Street trees will primarily be deciduous: “overwhelmingly one finds deciduous trees on great streets.”<sup>4</sup>
- In Troy City Center, where service lanes with parallel parking will be provided, trees will be planted in curb extensions between parking bays. “Put a line of trees one lane *into* a street... to make a parking lane, for example, and that lane becomes a part of the pedestrian lane while still functioning as a place to park cars.”<sup>5</sup>

- Tree branches will be pruned so that they do not interfere with sight distance or pedestrian and vehicular traffic. “The minimum vertical clearance should be eight feet above the pedestrian travel way... and at least 13 feet from the top of curb in the traveled way.”<sup>6</sup>
- Landscaping will be robust and well maintained for decades to come.
- In areas with high pedestrian traffic volumes, raised planters will double as seating.
- Textured, colored paving at intersections and in pedestrian crosswalks will delineate a pedestrian zone. Gateway treatment may also include unique pavers.
- Decorative floorscape will introduce a human scale to public plazas. Non-linear paving patterns may be installed in areas where pedestrians are encouraged to linger, versus linear paving patterns in areas with a sense of motion or movement. Paving patterns such as a circle, rectangle, or oval may be used to organize the center of public plazas, similar to great European squares.

(Footnotes)

<sup>1</sup> Matthew Carmona, Tim Heath, Taner Oc, and Steve Tiesdell, *Public Places – Urban Spaces: The Dimensions of Urban Design* (Oxford: Elsevier Architectural Press, 2003), page 159.

<sup>2</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), page 48.

<sup>3</sup> *Ibid.*, page 273.

<sup>4</sup> *Ibid.*, page 294.

<sup>5</sup> *Ibid.*, page 293.

<sup>6</sup> An ITE Proposed Recommended Practice: Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities (Washington, D.C.: Institute of Transportation Engineers, 2006), page 110.

Immediate Action Items

- Embrace the Plan as the DDA’s mission, and spearhead Plan implementation. As articulated by Planning Director Mark Miller, “The DDA will... garner the momentum to achieve the vision. The study is a tool to help jumpstart that vision.”
- Shepherd the Plan before the City Council, Planning Commission, Chamber of Commerce, Road Commission for Oakland County, DDA District stakeholders, homeowner/condominium associations, other groups/organizations, and the public.
- Engage in dialogue regarding how best to implement the Plan and transform the Corridor into a world-class boulevard.
- Market the vision of the Conceptual Plan through brochures, posters, press releases, and other means.
- Seek out early, tangible successes, as they will be a critical catalyst for generating excitement about the Plan and stimulating further redevelopment. In a selected location along the boulevard, execute a complete transformation in alignment with the Plan’s vision. Big

Beaver Road in the vicinity of the Monarch project might be an ideal location to select. In this segment, install service lanes with on-street parking; enhance landscaping and add large canopy trees in the median and at the roadway edges; install bold, contemporary new streetlights and pedestrian-scaled lampposts; and construct wide sidewalks that include a furnishings zone with sleek, elegant, modern amenities. This area would be a vibrant realization of the Corridor’s redevelopment potential, and would ignite redevelopment of the rest of Troy City Center and indeed the entire Corridor.

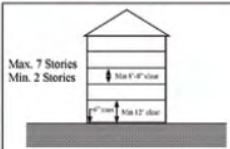

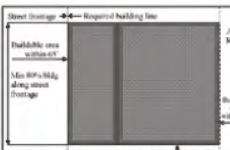
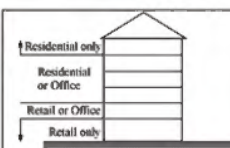

- Proceed with the creation of a detailed urban plan and form-based zoning code for the Urban Mixed-Use district (Troy City Center). The detailed urban plan will transform the Concept Plan in this document into an area plan that serves as a blueprint for development, service lane placement, road alignment and right-of-way requirements, and structure placement. The form-based code codifies the regulatory structure necessary to ensure implementation of the Plan.
- Install new street trees. “Given a limited budget, the most effective expenditure of funds to improve a street would probably be on trees. ... Trees can transform a street more easily than any other physical improvement. Moreover, for many people, trees are the most important single characteristic of a good street.”<sup>1</sup>

# Implementation Plan

City of Troy Big Beaver Corridor Vision

**Troy City Center**  
Form-based code concept

Conventional Zoning: Use  Management   
Form-based Codes:

<b>Height</b>		<ul style="list-style-type: none"> <li>• The building shall be no less than 2 stories and no more than 7 stories tall.</li> <li>• The ground floor elevation shall be no more than 6" above the fronting sidewalk elevation.</li> <li>• No less than 80% of the ground floor shall have at least 12' clear height. No less than 80% of each upper story shall have at least 8'-8" clear height.</li> </ul>	<p><b>Form-Based Codes</b> A form-based code is a regulatory mechanism that seeks to achieve an urban form - a physical outcome. It replaces the traditional zoning ordinance, which is focused more on uses than physical form. The end goal is to create a specific type of place.</p> <p>This graphic is intended to show some of the elements of a form-based code. It would follow the preparation of a detailed urban plan for the City Center area and may also extend to other Big Beaver Corridor Districts.</p> 
<b>Siting</b>		<ul style="list-style-type: none"> <li>• The street façade shall be built-to not less than 80% of the street frontage. The maximum lot width/building street frontage is 100'.</li> <li>• Not less than 10% of the lot area, contiguous with the rear of the building, shall be an open and unpaved back yard area.</li> <li>• There are no required side setbacks.</li> </ul>	
<b>Uses</b>		<ul style="list-style-type: none"> <li>• The ground floor shall be only retail uses.</li> <li>• The second floor shall be retail or office uses.</li> <li>• The third to the sixth floors shall be office or residential uses.</li> <li>• The top floor (seventh or otherwise) shall be only residential uses.</li> </ul>	
<b>Parking</b>		<ul style="list-style-type: none"> <li>• Uncovered and covered parking spaces may be provided within the 3<sup>rd</sup> layer as shown in the diagram.</li> <li>• Trash containers shall be stored within the 3<sup>rd</sup> layer as shown in the diagram.</li> </ul>	

Action Items by Topic

“When a public agency wants to foster the development or redevelopment of walkable destinations, it can make a collection of policy changes that add up to a new personality for [a] district”<sup>2</sup> or Corridor. Implementation of the action items in the table below will, collectively and in partnership with the private sector, create a transformed boulevard. Action items are listed by topic, and the table also notes which body may hold primary responsibility for the action. It should be noted, however, that coordination between organizations will be essential to achieving Plan implementation.

Topic	Action Item	Responsible Body
Land Use & Development Regulations	Incorporate recommendations of the Big Beaver Corridor Study into the City’s Master Plan update.	City
	Develop specific urban plans delineating uses and design guidelines for designated areas, such as Troy City Center. Organize public meetings and charrettes to create consensus and refine the vision for each district.	DDA & City
	Adopt a form-based code to regulate relationships between buildings and public spaces, including the street, in a prescriptive rather than proscriptive manner. Use a form-based code to address building siting and placement; appropriate street and sidewalk cross-sections; design of streetscapes and public spaces; architectural design; and other urban form and design considerations. Tailor regulations to each district along the Corridor. (See graphic example).	DDA & City
	Amend the Zoning Ordinance and Zoning Map as necessary to enable implementation of the Building Use Plan.	City
	Review the various regulatory techniques available to promote mixed use development, such as overlay districts; performance zoning; and mixed-use, planned unit development, and smart growth ordinances. Update City regulations as necessary to promote mixed-use development, and rezone designated areas along the Corridor to allow for mixed use development in both a horizontal and vertical form.	DDA & City
	Embrace mixed use development. This will “involve... encouraging government and community incentive and support for mixed-use development by providing parking garages, public domain improvements, streetscaping, and transportation choices.” <sup>3</sup>	DDA & City
	Promote the development of a variety of residential unit types within the Corridor Study Area. Amend the Zoning Ordinance and Zoning Map as necessary to permit residential development. Along the boulevard, concentrate higher density and mixed use development such as live-work units and apartments and condominiums over retail space; zone for townhomes where a transition to adjacent residential neighborhoods is planned.	DDA & City
	Require new buildings fronting Big Beaver in Troy City Center to be designed with ground floor ceiling heights that are sufficiently high and infrastructure that is sufficiently sized to accommodate future retail service uses. Ultimately, require street level space fronting Big Beaver to be occupied by active uses such as restaurants and retail, in areas specified within the detailed urban plan.	DDA & City
	Tailor building height requirements to each district, to achieve modulation in building height down the length of the Corridor. Require not just a maximum but also a minimum building height within districts. Require building height to street width ratios that create a comfortable pedestrian scale, particularly in areas where an urban character is envisioned.	DDA & City
	Refine building height requirements to ensure that building heights peak along Big Beaver and descend closer to neighborhoods bordering the Study Area, to the north and south.	DDA & City
	Update City regulations to specify maximum building setbacks in areas of the Corridor where an urban character is planned.	DDA & City
	Promote architecture that takes its cues from the exemplary architecture of the corridor.	DDA & City
	Adopt design guidelines that promote buildings designed at a human scale, with ornamentation marking floor height, bay divisions, variations in wall plane, ample windows and doors, and so forth.	DDA & City
Update City regulations to promote outdoor dining and sidewalk cafés, while mitigating their negative impacts.	City	
Develop appropriate standards for food vendors, pushcarts, street entertainment, and the like, envisioned in Troy City Center.	City	
Pedestrian & Bicycle Circulation	Refine the sidewalk system by tailoring widths to each area along the boulevard. In Troy City Center and other areas with a planned urban character, install wide sidewalks that comfortably accommodate pedestrian travel and gathering, café-style seating, and street furniture and street trees.	DDA, City, & RCOC
	Add at-grade and above-grade pedestrian crossings, fostering greater connectivity between the north and south sides of the boulevard.	DDA, City, & RCOC
	Organize an international pedestrian bridge design competition, and construct footbridges that are iconic of Big Beaver as world-class boulevard.	DDA, City, & RCOC
	Amend City regulations as necessary to require pedestrian connections between adjacent properties. Foster greater connectivity between individual development sites.	DDA & City
	Perform routine maintenance on Corridor sidewalks. In areas where bushes are overgrown and trees are untrimmed, prune vegetation along the sidewalk.	DDA, City, & RCOC
	Repair and/or repaint existing crosswalk markings, and replace decorative sidewalk pavers, as necessary.	DDA, City, & RCOC
	Install a pedestrian-friendly street name signing system. Establish a system of pedestrian wayfinding signing to major attractions.	DDA, City, & RCOC
	Construct bicycle routes along the ring road system and on local streets, to encourage bicycle travel in the Study Area. Amend City regulations to require that bike racks be provided in key locations such as new parking decks and adjacent to new office buildings, shops, and restaurants. Prohibit placement of bike racks directly along Big Beaver, instead focusing on making Big Beaver a pedestrian-friendly environment.	DDA & City

Topic	Action Item	Responsible Body
Transportation	Prepare detailed street cross-sections, with required dimensions for travel lanes, medians, sidewalks, and planting strips, to guide the development of new streets and modification of existing roadways in the Study Area.	DDA, City, & RCOC
	Increase the continuity of collectors paralleling Big Beaver. Focus efforts on the loop ring road system in Troy City Center, including Cunningham, Wilshire, Golfview, and Butterfield.	DDA, City, & RCOC
	Add new cross streets in Troy City Center, refining the road network into a grid.	DDA, City, & RCOC
	Improve the Crooks and Fourteen Mile Road corridors through road repair and/or repaving, coordination with adjacent communities and the Road Commission, implementation of access management techniques, traffic signal coordination, and freeway interchange improvements.	DDA, City, RCOC, & Adjacent Communities
	Prepare and adopt a Big Beaver Road Corridor access management plan that is coordinated with the City, Road Commission, and property owners.	DDA, City, & Property Owners
	As part of the access management plan, prepare a detailed service lane design plan. Install service lanes with single-direction travel lanes and adjacent parallel parking spaces along Big Beaver in Troy City Center.	DDA, City, & RCOC
	Amend the City's Zoning Ordinance and other regulations as necessary to implement the access management plan, and work to achieve access management objectives during the site plan review process. Require adequate driveway spacing; limit future driveways to the minimum number necessary; consolidate driveways; require shared parking arrangements; and promote internal cross-access. Encourage and/or require new driveways to be accessed via the ring road system and local streets, rather than Big Beaver.	DDA, City, RCOC, & Property Owners
	Prepare and adopt a Transportation Demand Management (TDM) plan to develop specific strategies fostering more efficient use of the Corridor's transportation resources.	DDA, City, RCOC, & SMART
	Supplement current transit service with a Big Beaver Corridor Continuous Bus Loop, potentially serviced by a bus trolley or similar decorative vehicle.	DDA, City, & SMART
	Establish and promote connections between the Midtown Square Transit Station and Amtrak, private transportation services, and, if implemented by others, a fixed rail commuter line.	DDA, City, SMART, Amtrak, & Private Transportation Services
	Add bus shelters and benches to increase the appeal of existing transit stops. Designate appropriate areas for new transit stops. Select a new bus shelter, to be erected throughout the Study Area, with a contemporary design reflective of the design of other Corridor amenities. Incorporate a designated City color scheme into designs.	DDA, City, & SMART
	Introduce and promote transit incentives.	DDA, City, & SMART
	Encourage companies to adopt staggered work hours, reducing the boulevard's peak hour traffic volumes.	DDA
	Introduce and promote ride-sharing incentives, such as trip matching services and special parking permits.	DDA & City
Establish a coordinated snow removal system for pedestrian paths and service lanes along Big Beaver.	DDA & City	

# Implementation Plan

Topic	Action Item	Responsible Body
Parking	Restrict access to parking from Big Beaver, instead requiring that access be via side or rear streets.	DDA & City
	Prohibit front yard parking in Troy City Center and other districts where a more urban character is desired. Limit front yard parking to one or two rows in other areas of the Corridor.	DDA & City
	Strengthen the Zoning Ordinance's screening requirements for surface parking lots.	City
	Construct service lanes with on-street parking at designated points in Troy City Center.	DDA, City, & RCOC
	Construct new public parking decks in Troy City Center, spurring the area's redevelopment as a node of activity. Significantly, in transforming the Corridor, "the place-making dividend [will] accrue to both the developer and the community," <sup>4</sup> justifying public expenditure. Target parking decks to the ring road system to discourage use of Big Beaver Road by automobiles.	DDA & City
	In areas of the Corridor where an urban character is envisioned, require and/or encourage construction of structured parking for new development.	DDA & City
	Require and/or encourage animation of parking decks at street level or wrapping of parking decks by buildings. Establish standards that call for high quality parking structure design.	DDA & City
	Review the Zoning Ordinance to ensure that shared parking arrangements are accommodated and promoted.	City
	Review and amend the Zoning Ordinance as necessary to ensure that parking space numerical requirements may be reduced to account for shared parking and travel by alternative modes. Allow shared parking reductions along with site plan review and approval.	City
Landscaping	Develop detailed plans for treatment of gateways, including landscaping and other improvements.	DDA, City, & RCOC
	Install additional landscaping at the I-75/Big Beaver and I-75/Rochester interchanges, creating forested, park-like settings within the bounds of MDOT requirements. In developing the Big Beaver/I-75/Rochester gateway, take advantage of City-owned property at the northeast corner of Rochester and Big Beaver.	DDA, City, RCOC, & MDOT
	Establish green space at the four corners of Big Beaver and Coolidge.	DDA, City, & RCOC
	Intensify landscaping at the intersections of Big Beaver and Dequindre and Big Beaver and Adams.	DDA, City, & RCOC
	Install denser landscaping along Big Beaver in the Adams Gateway and Dequindre Gateway, creating the character envisioned for the Residential Parkway districts.	DDA, City, & RCOC
	Establish linear parks and greenbelts in transition areas north and south of the Corridor (i.e., at the edges of the Study Area).	DDA & City
	Establish a public-private partnership to spearhead development of City Center Park—two squares flanking the north and south sides of Big Beaver, in Troy City Center.	DDA, City, & Developers
	Install large canopy trees along Big Beaver Road, within the median and in the planting strip between vehicular travel lanes and sidewalks. Supplement and/or replace existing trees, as necessary. Use street trees to create a strong visual axis along the Corridor.	DDA, City, & RCOC
	Repair and/or replace existing decorative tree grates along the Corridor, as necessary.	DDA, City, & RCOC
	Adopt landscape design guidelines for the entire Corridor and/or selected districts.	DDA, City, & RCOC
	Adopt and enforce a maintenance ordinance to ensure that property owners maintain existing and future landscaping.	City
Amenities & Lighting	Adopt and/or amend regulations as necessary to require provision of parks, plazas, open space, and/or pedestrian gathering areas in conjunction with new development or redevelopment in the Corridor.	DDA & City
	Select new street furniture—benches, trash receptacles, planters, and the like—that is low-maintenance, vandal-resistant, and sleek, elegant, and modern in design. Incorporate a designated City color scheme into designs. Install sidewalk furnishings throughout the Corridor, but focus on key locations/districts for siting of amenities. Cluster amenities, and place them based on observation of how they will be used. Replace and augment existing street furniture on a systematic basis until it matches Corridor design standards. Require new development to use City benchmark amenities as a part of new or redevelopment proposals.	DDA & City
	Adjust sidewalk widths as necessary to ensure that sidewalks include an adequate furnishing zone.	DDA, City, & RCOC
	Install a pedestrian-friendly street name signing system. Establish a system of pedestrian wayfinding signing to major attractions.	DDA, City, & RCOC
	Encourage the placement of pedestrian-oriented projecting signs along all street frontages in Troy City Center and promenade areas.	DDA & City
	Select and install new streetlights that are stylistically similar to other amenities: bold, contemporary, and beautiful.	DDA, City, & RCOC
Civic Art	Install pedestrian-scaled lampposts along sidewalks and in pedestrian gathering places. Add and/or strengthen regulations that require developers to install pedestrian-scaled lighting along sidewalks and in pedestrian areas, for new development or redevelopment along the Corridor.	DDA, City, & RCOC
	Amend Zoning Ordinance standards for parking lot lighting as necessary to ensure that light fixtures are directed and shielded to minimize light pollution, spillover, and glare.	City
	Install public art at pulse points, gateways, and in public parks, squares, and plazas.	DDA & City
	Install accent lighting to draw attention to pedestrian bridges, public art, and other landmarks along the world-class boulevard.	DDA & City
	Construct attractive new public parking decks that are wrapped by buildings, animated at street level, disguised as commercial buildings, or otherwise exhibit high quality design.	DDA & City
	Install new street furniture, bus shelters, and streetlight fixtures with a cutting edge, beautiful design, setting the tone for Corridor redevelopment.	DDA, City, RCOC, & SMART
Organize an international pedestrian bridge design competition, and construct footbridges that are iconic of Big Beaver as world-class boulevard.	DDA, City, & RCOC	
Host an international competition to generate a design for the Civic Center farmer's market structure.	DDA & City	

(Footnotes)

<sup>1</sup> Allan B. Jacobs, *Great Streets* (Boston: Massachusetts Institute of Technology, 1996), page 293.

<sup>2</sup> Adrienne Schmitz and Jason Scully, *Creating Walkable Places: Compact Mixed-Use Solutions* (Washington, D.C.: The Urban Land Institute, 2006), page 53.

<sup>3</sup> Geoffrey Booth, Bruce Leonard, and Michael Pawlukiewicz, *Ten Principles for Reinventing America's Suburban Business Districts* (Washington, D.C.: The Urban Land Institute, 2002), page 15.

<sup>4</sup> *Ibid.*, page 20.



## CONSULTANT TEAM

Birchler Arroyo Associates, Inc.

Urban Planning and Transportation

Rodney L. Arroyo, AICP, Project Director

Rebecca D. Bessey, AICP

Jocelyn H. Wenk, AICP

Grissim Metz Andriese Associates

Landscape Architecture

Randall K. Metz, ASLA, Project Director

John N. Grissim, FASLA

David Peterhans - C3 Community Core Creators

John Law

The Chesapeake Group, Inc.

Market Analysis

Howard S. Kohn, Project Director

*The Team*



CITY OF TROY

John M. Lamerato, Acting City Manager  
Brian Murphy, Assistant City Manager, Services Division  
Douglas J. Smith, Real Estate and Development Director

Downtown Development Authority

Alan Kiriluk, Chairman  
G. Thomas York, Vice Chairman  
Louise E. Schilling, Mayor  
Michael Culpepper  
Stuart Frankel  
David Hay  
Michele Hodges  
William Kennis  
Daniel MacLeish  
Carol Price  
Ernest Reschke  
Douglas Schroeder  
Harvey Weiss

City Council

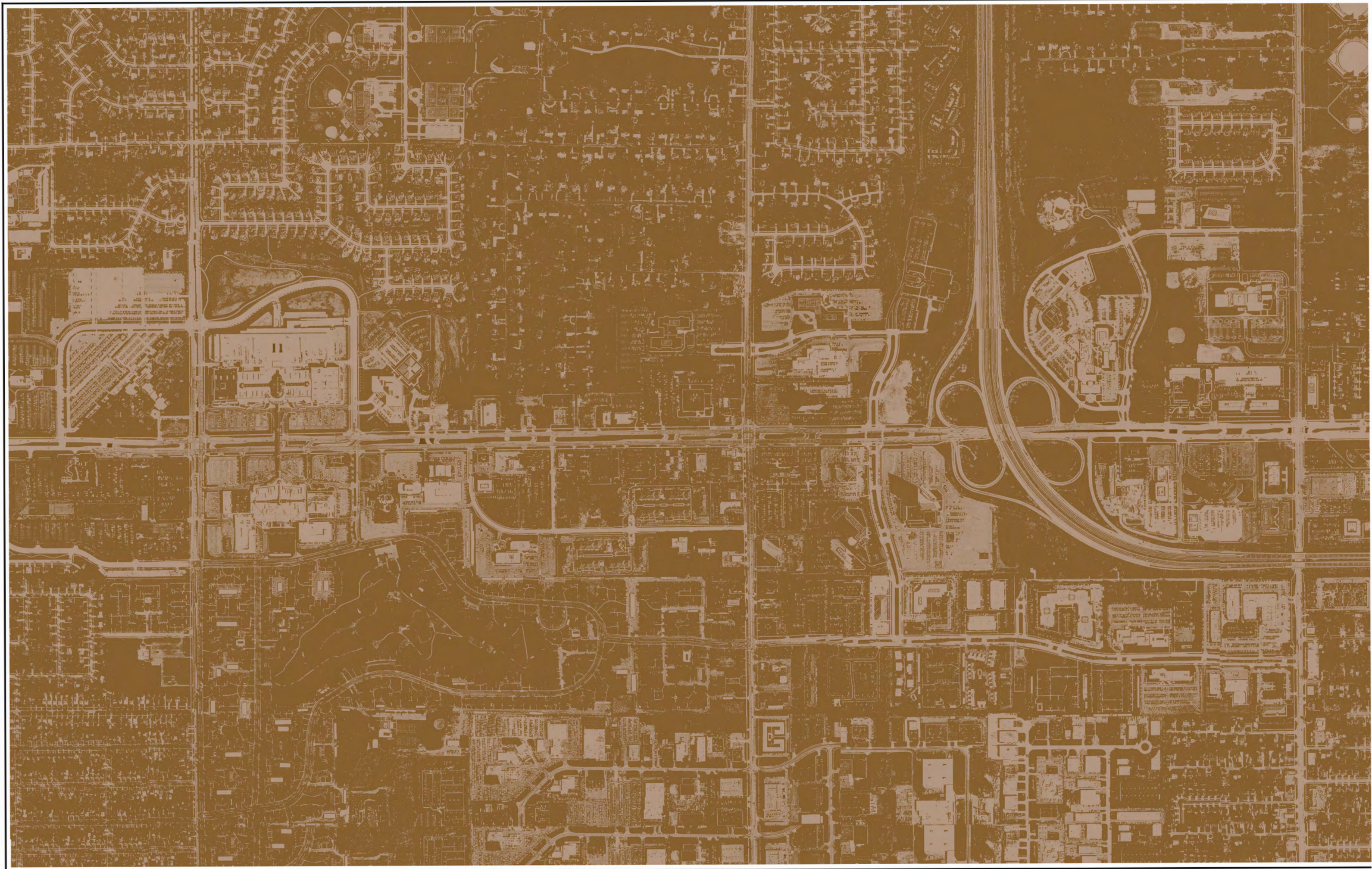
Louise E. Schilling, Mayor  
Cristina Broomfield, Mayor Pro Tem  
Robin E. Beltramini  
Wade Fleming  
Martin Howrylak  
David A. Lambert  
Jeanne M. Stine

Planning Department

Mark F. Miller, AICP, PCP, Planning Director  
R. Brent Savidant, AICP, PCP, Principal Planner  
Richard K. Carlisle, AICP, PCP, Carlisle/Wortman Associates, Inc.

Planning Commission

Thomas Strat, AIA, Chairman  
Robert Schultz, Vice Chairman  
Lynn Drake-Batts  
Mary Kerwin  
Fazal Khan, P.E.  
Lawrence Littman  
Mark J. Vleck  
David T. Waller  
Wayne Wright



# *Appendix*

Vision Fair Discussion Topics	pp. i - v
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Topic: General Land Use

1. Please identify features and/or characteristics of the existing land uses within the Big Beaver Corridor that you consider to be positive and that should be maintained in the future.

- All properties developed by Sam Frankel still maintain their beauty
- Somerset Collection
- The Monarch
- National City Bank
- City Center
- Columbia Center
- Nothing comes to mind
- The retail is a positive
- Lots of positive – shopping, business area and more
- Somerset
- This is about Station #1, which showed multiple pictures of “world class” cities. Moving Troy in this direction is (or would be) moving it from a suburban area to an urban community. I think this is fine as long as this is what the voters want to see happen. Therefore my two concerns are: 1) How can the question of whether the voters want an urban or suburban community be answered? How can the residents be polled on this specific question? 2) I have concerns that the scale (i.e., “world class” cities) is too grandiose for Troy and am concerned about whether we are being realistic and whether we can afford the plans that we come up with.
- Love the attractive medians – the flowers and banners – the smooth surfaces – the cleanliness
- The secondary areas need to be upgraded, not just the DDA area
- Keep the current high traffic capacity road. Do not increase the time it takes to drive from Coolidge to Dequindre.
- A variety of architecture styles
- A mix of retail, office, service and residential uses
- Adequate parking for those who drive to the area
- Office and some retail, not too far from each other
- I'd like to see the Yamasaki Building and grounds be preserved and a pier structure built over (for Marriott) starting 3 floors up– then an art and science museum addition with an entrance facing the library and an entrance from the hotel as an added attraction to the hotel, preserving and restoring a world creative source
- I think a moratorium should be put on all single family construction in the downtown area ¼ mile north of Big Beaver. We need that space for redevelopment and future expansion.
- I feel that Somerset Mall has a very positive influence on the Big Beaver Corridor. Also, many of the hotels and restaurants along the corridor are positive, in the respect that they draw people to the corridor after the office buildings clear out at the end of the day.
- Good office space
- Good retail space
- Lots of parking just the wrong type: surface versus parking deck
- The upcoming PUD's that will have residential and retail will be positive
- The current setup of office, stores and restaurants between Coolidge and Rochester Rd. is ideal. Any new condos/apartments should be west of Coolidge and east of John R.
- Business high rises are good
- Restaurants are fine

2. With respect to land use, what improvements and/or changes (e.g. new uses, change of uses) do you believe are needed to transform the Big Beaver Corridor into a World Class Boulevard?

- A new Master Plan needs to be developed and implemented
- Parcels should be assembled to create like-sized buildings per mile
- We should eliminate parking between sidewalk and buildings. Need more greenbelt. Hide parking
- Make buildings have uniformity in address numbers and location on buildings
- Lush landscaping
- Pedestrian access when crossing Big Beaver
- More intense land uses

- Structured parking
- More pedestrian and bike friendly including crossing the corridor! Big Beaver is a major problem for cyclists wanting to ride north and south. I cannot recommend a single safe crossing within the study area. Big Beaver is a designated Troy bike route. The existing median landscaping makes mid-block crossing difficult to impossible. Traffic control devices are not pedestrian/bike friendly. e.g., Giving green signals to cars turning through crosswalks with walk signal.
- Poor water sidewalk drainage near Bellingham on south side
- Keep the big offices off the road. Add mixed-use development along the right-of-way. Retail/residential office in smaller bldgs. (3 stories max.) Too much office land use within center of DDA District.
- We need more of the boulevard feel and less of a major thoroughfare feel. More park area, more “classy” restaurants, not chain restaurants, more pedestrian walkways, more art – sculpture, etc.
- This area should be interspersed with cultural spots – small galleries – small museums too. Sculptures and other art and music (jazz perhaps) cafes – NOT JUST RETAIL. Young people want places to meet and hang out together – not just a shopping place.
- We need more residences mixed in
- Parking decks with 2-hour free parking
- Exuberant landscaping needed
- Possibly move parking behind buildings or in decks, so that storefronts can come closer to the street. The shopping venue in Rochester Hills (on Adams) has a real “downtown” feel which would be a nice complement to Somerset. Would like to see an AMC movie complex planned in the rear of the K-Mart property. Definitely need to consider how to make the boulevard more “walkable.” With cars blowing by at 45 mph, it is too dangerous now.
- I believe that the area from Rochester Road to John R is the most underdeveloped section and is in the most need of improvement or transitional planning. However, since it's not in the DDA District, it is neglected to a secondary focus by the study groups. I would urge that this section be elevated to at least equal with the section that is within the DDA area. Actually, I think it should be the primary area of focus, as it demonstrates the most need. Another advantage of focusing on this mile (Rochester – John R) is that the taxes garnered from redevelopment would wash into the general fund and be available to redevelop other areas of the City.
- Add right-turn lanes to all intersections
- Restaurants, clubs, entertainment accessible to pedestrians
- Small “interesting” shops
- Sidewalks interconnecting businesses away from traffic
- Convenient, but unobtrusive parking
- The zoning plan needs to be thought about. The present one does nothing to encourage a people-friendly corridor.
- Personally, I feel we should have less traffic and development, rather than more, which seems to be the case at present. Maybe we may have to decrease some of the free services offered by the City in order to keep taxes as low as possible for the residents, but I feel the residents I know would rather have less city services offered in order to avoid having Troy turn out to be another Southfield someday. More attractive landscaping, fountains, etc. would help make Troy more attractive for retaining both business and residents, not more businesses. Concerned about the lack of tenants in the office buildings on Stephenson and 15 Mile to 14 Mile. Nice-looking buildings which the City should concentrate on helping the building owners make their buildings more desirable for tenants rather than focusing so much on Big Beaver Rd. I think the value of the DDA for business development is questionable.
- I think a people mover – tram (but upscale) short run – down the center of the boulevard – I see a sky limo to Somerset, from Coolidge to Rochester, highly developing both ends. May create more walking traffic.
- In an effort to draw more people to the area, I think that restaurants, shops, offices as well as residential/mixed use buildings should be placed along the corridor, close to the road. As of now, it seems as if parking lots, typically empty after business hours, line the corridor, and give it an empty feeling. Placing mixed-use buildings along these areas may help to bring “action” and activity to the area after business hours. I also see a need for “affordable” residential areas along the corridor in an effort to attract younger crowds, which will be key in the future of the city.
- Need Nightlife!!! Bars/clubs, more restaurants, movie theatre.
- Need to add some more small retail shops along and close to Big Beaver. Lots of surface parking and that part close to Big Beaver would be available if some parking decks were constructed. Also need pocket parks, so that when people walk they have an opportunity to rest and relax, would be nice to see some sculptures even in the boulevard areas.
- Don't change a good thing as currently exists. Nice to see openness.
- Monarch Condo's and the like zoned as mixed use residential and business. Businesses on main floor and residential above would be neat.
- More areas to walk with trees. Small cafes with outdoor seating. Variety of shopping, park areas, separate bike lanes, coffee shops, ice cream shop, etc. No tall buildings like Top of Troy near residential areas. More spaces with parks, trees to blend in between commercial and residential. No more office buildings. There seem to be so many lease signs on every office building!

Topic: Lighting, Landscaping, and Maintenance

1. Please identify features and/or characteristics of the lighting and landscaping within the Big Beaver Corridor that you consider to be positive and that should be maintained in the future.
  - Flowers and shrubs
  - Maintenance of existing landscaping is one positive
  - Light poles as they are today are monumental in scale. They scream to drive fast. There's nothing to slow down for, besides a red light.
  - Troy banners are a positive. They aid in the community character/feel – just put them on shorter poles.
  - Current lighting is excellent. Retain this type of lighting in the changes.
  - Lighting is effective, but extremely unattractive
  - Lighting should be “pedestrian in scale,” even if only for appearance
  - Big Beaver landscaping that was planted as part of the road improvement is not maintained – let's maintain the existing vegetation before we plant more to be neglected
  - Establish an “endowment” for the preservation and maintenance of all improvements
  - The large, heavily landscaped medians are nice in breaking up the busy road. Also, the brick pavers at the crosswalks add a nice feature, large plantings of color in the summer are also very effective in making the area look nice and enjoyable.
  - Median plantings
  - We have very attractive landscaping. I don't think it needs to get “fancy.” Keep what exists trimmed and neat.
  - Lighting is good
  - I'd like to keep the medians – lights are high and bright, banners make a powerful statement. Landscaping is beautiful.
  - The flowers on the islands are wonderful. Lighting is good on islands, but sidewalks need more light.
  
2. With respect to lighting and landscaping, what improvements and/or changes do you believe are needed to transform the Big Beaver Corridor into a World Class Boulevard?
  - More landscaping and lights on pedestrians' side rather than in boulevard
  - More shade trees in the boulevard
  - Bring the lighting down to a pedestrian scale
  - Narrow the road, widen the sidewalk
  - Add more buffer space between walk and parking/walk and curb, with landscaping
  - Median landscaping would make L-turns impossible
  - Existing landscaping is fabulous!
  - Eliminate annual flowers. They are too expensive to maintain.
  - Plant evergreens, ornamental grasses, perennial flowers, etc.
  - The more landscaping the better!!
  - Replace the industrial-type lighting fixtures with more people-friendly lampposts closer to the sidewalks. All down the corridor, the sidewalks border parking lots; they need to be next to the buildings in the future, with the parking lots behind the buildings.
  - I agree that smaller lighting along pedestrian walkways would add to the cosmetic beautification of the corridor
  - Add some small pocket parks, appropriately landscaped, and even some sculptures
  - Lower the speed limits between I-75 and Coolidge as the area becomes more pedestrian- friendly
  - As stated on the boards, the road is well lit, but the lights have no architectural interest whatsoever. Replacing the existing lighting with more “detailed” architectural lighting would create great improvement.
  - As much landscaping as possible
  - Distinctive “Troy” lighting with a motif
  - Keep it simple, attractive, neat and as cheap as possible!!
  - We need some beauty. Every landscape along 16 Mile is quite utilitarian and practical.
  - Consistent, attractive landscaping – a unifying look to the entire corridor
  - If more pedestrians were drawn to shops or outdoor eating along the street, it would be nice to cover some trees with twinkling lights and to have some other side lighting
  - Attractive gateway features to welcome people into the corridor
  - Many trees
  - Attractive lighting features
  - When plantings are in, they need to be weeded much better, and litter needs to be picked up more
  - Closer attention to sprinkler heads and watering patterns
  - Pull weeds in brick pavers
  - Sweep cigarette butts near curbs more often
  - Trees, trees and more trees. Lighting that fits into surroundings. No tall bright lights.

Topic: Parking

1. Please identify features and/or characteristics of the parking opportunities within the Big Beaver Corridor that you consider to be positive and that should be maintained in the future.
  - Somerset structure and any other parking structure is a good thing!
  - Plenty of parking but the form should change
  - Somerset N. Parking
  - Parking seems to be enough for the existing businesses
  - Parking should be transformed over time to minimize level parking to evolve to multi-level "high rise" parking
  - Adequate parking, even when stores are busy
  - Parking is very accessible
  - Efficient and convenient to the buildings, but not attractive
  - Somerset parking garage, as well as other parking garages located at hotels and offices along the corridor
  - Personally, I like the current parking lot in front of Bede Concept. I believe it enhances safety greatly. Parking behind buildings may be more visually appealing, but I feel it diminishes parkers' safety.
  - More structures, less surface lots
  - Allowing greater property utilization
  - Reduce parking space width to 9'
  - Ideal is lots of parking but it needs to be in a structure not surface
  - Maintain existing parking structures that exist off street – e.g., Somerset parking structure, parking structure behind SBC building
  - Parking at Somerset North with its layered decks behind Nordstrom etc. is much more preferable than say parking at Oakland Mall
  - All current parking structures need to be maintained and even added on to, to keep the visual of parking away from street
  
2. With respect to parking, what improvements and/or changes do you believe are needed to transform the Big Beaver Corridor into a World Class Boulevard?
  - Fill in parking lots with pocket parks, condos, shops, out at the street. Trees, sidewalks.
  - Some form of mass transit offered along Big Beaver with feeder routes on Rochester, Livernois, etc.
  - Move the parking off Big Beaver, behind buildings; bring the buildings closer/develop closer to the road. Add more structures to reduce the number of surface lots.
  - Reduce surface parking by building parking decks in the back lot and utilize the front part of the lots for small retail. This would facilitate making the area more pedestrian-friendly by giving reasons for individuals to walk, as there would be storefronts that they could window shop. Unless you have the retail close to Big Beaver, who is going to walk?
  - Create shared parking decks, as Birmingham has done. Include 2-hour free parking.
  - New parking should consist of "high-rise" parking structure. World class boulevards and/or golden corridors need to have high-rise in all respects. There is not enough land for parking as well as building without going vertical.
  - Promote underground parking
  - The photograph speaks for itself. This parking is completely underutilized, and Troy's parking requirements need to be rethought. Stack lots and move them back, instead of fronting the boulevard.
  - Parking would need to be somewhat away from primary pedestrian walkways
  - Parking should be unobtrusive
  - There needs to be parking near each of the businesses in the corridor to serve customers during bad weather, when customers aren't so inclined to walk
  - Parking areas should be well landscaped to maintain a pleasing appearance
  - Parking behind the buildings not in front of them, maybe multi-level parking. I didn't realize that 90% of Big Beaver corridor is paved areas until now.
  - Large parking lots between the street and the entrance of buildings must be eliminated, or at least broken up with landscapes. While they are expensive, parking garages may be necessary along the corridor, behind businesses. I fear that when the K-Mart property is redeveloped, parking for Somerset may become an issue, as Somerset often uses K-Mart's extra parking. Also, if the corridor project is successful, the City may be forced to incorporate public parking, for those attending possible restaurants, shops and other attractions.
  - I do not recommend any changes. I do not like parking structures; again they detract from safety even though they protect parkers from the weather elements.
  - More structures, less surface lots
  - Allowing greater property utilization
  - Reduce parking space width to 9'
  - Parking structures and all high-rise features. People need to feel safe to park and not have a long way to walk.
  - Create parking for casual visitors on both ends of the corridor with public transit running along the corridor. Businesses should create parking for their employees in a structure to cut down on the number of lots. Eliminate remaining surface lots and create business space that reaches pedestrian walkways.
  - I always feel sad to see acres and acres of cement with land covered up by parking lots. It's unhealthy for the environment. The land cannot return the rainwater – salts and oils and pollutants running off all the cement only end up polluting our lakes and rivers.
  - All future buildings should have standards that hide parking – underground, behind buildings or in structures
  - Buildings will have higher density, so proper parking per square foot ratios need to be maintained

Topic: Pedestrian Circulation

1. Please identify features and/or characteristics of the pedestrian amenities (e.g., sidewalks, paths, gathering spaces) and experience within the Big Beaver Corridor that you consider to be positive and that should be maintained in the future.
  - Sidewalks and walkways on both sides of street are good
  - Pedestrians have some difficulty when attempting to cross from north to south (and vice versa). Crossings could be more user-friendly to pedestrians.
  - Civic Center area provides wonderful walking venues
  - Lighting should be “pedestrian scale”
  - Speed enforcement
  - Ability for pedestrians to cross the “freeway”
  - We need walking/running and biking paths all through Troy. Destination spots at which to stop and benches like near the “heron rookery” near 19 and John R. I just stop and think of all the fun places to go in other cities, and Troy could have them.
  - I wouldn’t consider any aspects of pedestrian circulation positive. No one walks the corridor. It’s a vehicular corridor and unsafe for pedestrians. If one were to walk from an office building to a restaurant on the other side of Big Beaver, it would take 30 minutes or more, mid-block to mid-block.
  - The crossing at Somerset is a better direction to go in, as opposed to surface crosswalks. The distance between buildings are too far to create a comfortable pedestrian atmosphere.
  - The street center islands offer a welcoming feeling while on the corridor
  - Too few to really provide much. The benches by Somerset, the fountains by LaSalle Bank. Need more of both.
  - Need to find a space for bicyclists, too
  - Currently, I do not think Big Beaver is pedestrian-friendly. The traffic speed and volume of automobiles is not conducive to safe foot travel.
  - The existing landscaping such as the trees should be maintained and sidewalks also
  - Wide sidewalks along the entire corridor
  - Somerset crosswalk...not much else
  - The width of sidewalks are good and conducive to pedestrian traffic. During the day I observe families and seniors walking.
  - Lunch time is mostly workers exercising by walking at lunch
  - People smile when they walk at lunch. They enjoy uninterrupted sidewalks.
2. With respect to pedestrian circulation and experience, what improvements and/or changes do you believe are needed to transform the Big Beaver Corridor into a World Class Boulevard?
  - I think a “downtown” with residential housing (high density) should be built on the east side of Livernois across from the Civic Center, so there are people within walking distance of the Civic Center. Shops, bakeries, etc. that would appeal to these residents and people working/visiting/coming to the center.
  - Tree-lined sidewalks; Helsinki’s Esplanade has a park that runs between its boulevard and shops along street
  - Could use a traffic light for pedestrians who need to cross from north side at City Hall (particularly Library users) who need to catch eastbound bus. Now some of these individuals feel the need to walk to Livernois in order to have a traffic light to assist in crossing safely. Perhaps hand-operated to access green to cross when needed.
  - Lighting should be “pedestrian-scale”
  - Speed enforcement
  - Ability for pedestrians to cross the “freeway”
  - Generally speaking, traffic is always moving too fast on Big Beaver, which is good and not so good. Pedestrians really take their lives in their hands with the current high-speed vehicles whose drivers have no clue that there ever might be a pedestrian. A shuttle bus during busy daytime hours might alleviate some of this problem?
  - We, of course, need what we don’t have, a “CBD”. Troy is all spread out 35 miles square. All the following is just my own very uneducated opinions. The Big Beaver Corridor is very exciting but to make a more “central business district,” I believe, the north-south crossroads also need developing for a least a ½ mile either side of Big Beaver and/or create 3 or 4 more Multi-use Villages like Madison Marquette is going to create. The “village” up in Rochester is dedicated to retail shopping but a village could have ethnic restaurants for a main theme. We have such cultural diversity – we should have places to meet and share it. We could have entertainment villages as a theme, or a sports and arts village as a theme with a big outdoor amphitheater for plays, theatre, orchestra during the summer and take the seats out and turn it into a ½ block long outdoor skating rink in winter with shops around, and hot chocolate booths. Need internet cafés. We need a cultural center for the theatre and the arts. Pedestrian destinations – food, entertainment, shops. Separate these (3 or 4) destinations and give each a different flavor. Provide free trolley transport between these destinations

- Landscape extravagantly
- Provide some covered walkways
- Lower speeds, which means narrow the drive lanes, eliminate at least 1 drive lane in each direction
- Develop the corridor with retail/mixed use on the inside of the office building, closer or against the right-of-way
- Bring it down to pedestrian scale, shorter light poles, soften the boulevard/pedestrian area – add more landscaping, less pavement, maybe some gathering spaces at key spots/intersections or in front of larger retail developments
- Make the pedestrian more important than the car!
- Add more places to cross. Every mile doesn’t cut it. Maybe an overpass every ½ mile or so.
- We need more pedestrian destination points. Make people want to walk instead of getting in their car. Right now it’s just too dangerous to walk.
- More restaurants utilizing the parking in front of the office buildings
- Bridge overpasses above the corridors or redesigned crosswalks to create a main street image
- New facelifts for existing (older) buildings
- Provide some pocket parks interspersed between areas that pedestrian uses are major. Put some benches along the route, so people could just sit and meditate a few moments.
- Provide retail – small shops closer to the pedestrian walkways
- How will you get us across all those I-75 crossovers?
- Motorists frequently exit driveways without looking in both directions – they are not attuned to sidewalk use
- Need to connect somehow the north and south sides of Big Beaver for pedestrian traffic
- Multiple overpasses would possibly solve the problem, but would be very expensive. Does anyone have a creative idea on how to solve this problem, because without it how can we create a downtown?
- Might consider overpasses (like Somerset’s), signals which respond to buttons pushed by pedestrians, or a trolley
- Move sidewalks away from Big Beaver, closer to the buildings
- Encourage property owners to build covered walkway
- Promote the use of 1 or 2 passenger electric scooters. Allow Jitney Services by private operators. Encourage business to provide them for use by employees. Provide north and south access paths to the neighborhoods.
- More landscaping and your vision of a boulevard are great. Perhaps some type of transit system to service the corridor, i.e., a bus or monorail, etc.
- The addition of family restaurants would be welcomed also
- Bicycle paths
- Pedestrian walkways that are more user-friendly
- I would like to see a very solid planting of greenery on both sides of Big Beaver. Then, the area on the side of the greenery opposite the traffic and up to the beginning of the private commercial businesses could be developed with sidewalk cafés, gardens, art, boutiques, etc. It would be vital to insulate the lanes of traffic from these pedestrian areas, which would exist on both sides of Big Beaver. The Champs Elysees, Paris, is the model for this. That boulevard has 10 lanes of traffic and with this technique, they have created a vibrant pedestrian environment.
- Attractive landscaping along the sidewalks
- Many trees covering sidewalks in places
- Seating and gathering areas
- Some fountains or water features along the sidewalks
- Decorative pavement
- Pedestrian overpasses crossing Big Beaver at regular intervals
- Moving sidewalks in some areas
- More walkways over Big Beaver, which could be landscaped and have benches for reading or relaxing. Gardens between the street and sidewalk benches and pocket parks along the sidewalks.
- Buildings are setback so far from the road by massive parking lots that they do not seem approachable by anything more than a vehicle. Buildings, such as restaurants, shops, residential and offices must be placed closer to the road, with parking behind, in an effort to attract people to walk around, rather than drive around. Also, additional crosswalks and a lower speed limit in areas would help to increase the flow of pedestrian traffic. Wide sidewalks with noticeable crosswalks must be included not only along the sides of the road, but the median as well.
- Sidewalks must be well maintained at all times
- I would like to see the police bike squad occasionally travel down sidewalks at non-peak hours for safety
- There should not be bushes too close to sidewalk – perfect hiding place
- Not have high-speed traffic next to pedestrian walkways. For example, where Caswell and Big Beaver are. We need more scenic walkways with trees and landscaping next to walkways. More walkways over traffic.

Topic: Streets and Traffic

1. Please identify features and/or characteristics of the streets and traffic patterns within the Big Beaver Corridor that you consider to be positive and that should be maintained in the future.
  - The intersection each direction at Crooks, Livernois and Rochester are very functional
  - It is a nice, wide boulevard with well-regulated traffic flow
  - The boulevard character is positive
  - Easy access to the area
  - Easy entrance and exit from the corridor to the buildings
  - There is growing need to provide pedestrian crossing signals along Big Beaver, between the major north/south Mile Roads
  - I feel that the median dividing the road is good, and could be a good landscaping opportunity along the corridor
  - Traffic flow and width of Big Beaver
  - Traffic configuration is well arranged. Right-turn lanes help greatly.
  - Wide boulevard streets are good
  - Keep the roads full! Without the traffic, Troy is in big trouble.
  
2. With respect to streets and traffic, what improvements and/or changes do you believe are needed to transform Big Beaver into a World Class Boulevard?
  - The intersection at Coolidge and Big Beaver is bad. Southbound and northbound Coolidge narrows too soon.
  - By incorporating the Monarch project, Big Beaver will have to become more pedestrian-friendly. If outdoor areas are located along Big Beaver, as many World Class Boulevards feature, the lane closest to the curb will have to offer cars a considerably slower rate of speed than is currently featured on Big Beaver. Perhaps Madison-Marquette will offer pedestrian-friendly opportunities for residents, workers and visitors.
  - More attention to cycling facilities on-road and crossings and bike racks
  - Lower speeds, reduce lane width, and reduce number of lanes, if traffic loads allow
  - Less through traffic on Big Beaver
  - Keep pedestrians away from heavy traffic
  - Some gentle curves in Big Beaver could make it more attractive
  - Maybe have 2 high-speed lanes, and between the boulevard and the sidewalk slower speed lanes. More walkways over the corridor.
  - I think the density of traffic created by development of Big Beaver should always take into consideration the fact that after Adams Road, Big Beaver becomes a 2-lane road. As a result, traffic even at present flows into my neighborhood (Wendover Woods) because of the bottleneck at Big Beaver and Adams. If the density of traffic should be increased, it will only mean that more traffic will flow into my neighborhood, which has many young children. This should be taken under serious consideration re: the development of the K-Mart property.
  - In an effort to attract people to the corridor, I feel that many things need to be done with respect to traffic, but more importantly, pedestrian traffic. I feel a World-Class boulevard requires space for people to walk and feel safe. Adding more sidewalks and safer crosswalks would be helpful in creating an environment where traffic and pedestrians are able to get along together without the fear of safety issues between them. Reducing the speed limit through some of the corridor may be necessary in order to accomplish this, as many cities such as Royal Oak and Birmingham have slower speed limits through their "corridors."
  - Free trolley
  - People mover system
  - Access roads along Big Beaver
  - Lots of great landscaping
  - If at all feasible...it would be nice to have a left-turn between Civic Center Drive (where there was one at one time) and Crooks Road. Drivers exiting the Civic Center must drive all the way to Crooks in order to be able to turn east.
  - Monorail or trolley from Rochester Road to Coolidge or from Dequindre to Adams. Should encourage more foot traffic.
  - My concern is that we already have great problems with infrastructure deterioration without funds to adequately address the problem. Additionally, we already have extreme traffic congestion during peak hours. Increased density and increased business development will bring increased revenues, but also will bring increased traffic congestion. If we are already faced with the inability to resolve these problems, how will increasing the problems be handled? I would not want to hear the answer: "Add more lanes." I would not want to see more concrete being poured. Is there another solution?
  - Enough traffic lanes to handle the volume of traffic. As a resident, there's nothing more annoying than it taking 25 minutes to go 2 miles to drive my daughter to swim lessons, between 5:00 and 6:00 p.m.. I'm concerned about the backup on Big Beaver during rush hours between Coolidge and Adams, because it goes down to 1 lane to go under the train bridge. It's already intolerable. More walkways over traffic.

List of Attendees

- Tom York, Forbes Company
- Beth Barnes, Walsh College
- David Cesario, Troy Marriott
- Amy Coleman, The Kresge Foundation
- Olaf Maly, Behr America
- Bob Dudick, JFA
- Tony Antone, Kojaian Cos.
- Alan Kiriluk, Kirco
- David Hay, Kelly Services
- Kevin Shea, Cushman and Wakefield, Troy Chamber of Commerce
- David Brainerd, Madison Marquette
- Hunter Richardson, Madison Marquette
- Gary Steven Jonna, Whitehall Real Estate
- John Szerlag, City of Troy
- John M. Lamerato, City of Troy
- Doug Smith, City of Troy
- Nino Licari, City of Troy
- Mark Miller, City of Troy
- Brent Savidant, City of Troy
- Dick Carlisle, Carlisle/Wortman Associates, Inc.
- Randy Metz, Grissim Metz Andriese Associates
- John Law, Grissim Metz Andriese Associates
- Dave Peterhans, Grissim Metz Andriese Associates
- Rod Arroyo, Birchler Arroyo Associates, Inc.
- Rebecca Bessey, Birchler Arroyo Associates, Inc.

1. What existing assets within the Corridor should be preserved and enhanced within the future World Class Boulevard?

Comment	Dots
Retail	
Somerset Collection	3
Pedestrian bridges	1
Presence of major employers	2
Lodging and meeting facilities	
Civic Center Complex	
Restaurants	
Clearly defined corridor	
Access to I-75 (Regional connection)	1
Quality office buildings	
Landmark buildings	
Diversity of ownership	
DDA	1
Zoning Flexibility / PUD Option	
Tax Increment Financing	
Redevelopment opportunities	5
Location / Proximity to affluent communities	1
Quality infrastructure	
Existing right-of-way width	
Existing landscaping	1
Location in Troy (Safest city, good reputation)	
Surrounded by quality housing	
Great public services	

2. What critical elements should be given priority to begin the transformation of the Big Beaver Corridor into a World Class Boulevard?

Comment	Dots
Additional residential units along corridor	1
Establishing multiple activity areas	
Increasing access to existing residential	
Walkability	2
Intermittent pedestrian destinations	
Draw people onto corridor	
Mass transit	
Creation of distinct districts	3
Emphasize regional transit	
Encourage coordination between adjacent properties	
Sculpture / Civic Art	
Identify public spaces	
Need to evaluate codes/ordinances	1
Wireless Internet availability	
Continuity of scale	1
Create a visual impact	
Catalytic uses (public and private)	3
Luxury hotel	
Define "gateways"	
Convention center	3
Performing arts facility	1
Signature / Landmark facility	
Create distinct activity areas	
Continuity of architecture	
Historic preservation	
Conservative / sustainable development	
Models / benchmarks for new development	
Creation of roundabouts	
Prevent "artificial" places	
Need to establish sustainability	1
Nightlife	4
Diversity of users	
Variety of residential types	
Establish secondary collector streets	
Access management and relation to pedestrian uses	
Regional cooperation (to enhance traffic flow)	1
Re-assess gas stations	
Alternative fuel stations	
Promote high-tech corridor – emphasize communications	
Promote corridor as financial hub	
Attract emerging industries and provide necessary infrastructure	

3. How can the City assist the private sector (property owners and developers) in order to achieve the World Class Boulevard vision?

Comment	Dots
Expand the role of DDA	2
Incentive funding from DDA	2
Design guidelines	1
Form based code – Zoning revisions	3
Ordinances that attract and maintain businesses	5
Encourage redevelopment	
Flexible zoning districts	1
Communicate with residents about benefits of vision	1
Create web-based platform	
Improve transitions to low-density residential	
Address skepticism of businesses	

BIG BEAVER CORRIDOR STUDY  
EXPERTS WORKSHOP COMMENTS  
FEBRUARY 8, 2006

List of Attendees

Matt Rosetti, Rosetti Associates  
 Jim Eppink, J. Eppink Partners  
 Mike Pudists, Yamasaki Associates, Inc.  
 Doug Smith, City of Troy  
 Mark Miller, City of Troy  
 Dick Carlisle, Carlisle/Wortman Associates, Inc.  
 John Grissim, Grissim Metz Andriese Associates  
 Dave Peterhans, Grissim Metz Andriese Associates  
 John Law, Grissim Metz Andriese Associates  
 Rod Arroyo, Birchler Arroyo Associates, Inc.  
 Rebecca Bessey, Birchler Arroyo Associates, Inc.

- Destination
- Vitality
- Energy
- New zoning policy
- New master plan
- Experiential place
- Urbanization
- Regional destination
- Vision and leadership
- Embrace new development
- Phased approach
- Slow traffic on Big Beaver
- Evaluate Business Improvement District
- Empower great design
- Unified vision
- Active first floor spaces
- Predictable outcomes for developers
- Transit service
- Pedestrian connections

The housing info is based on the telephone survey findings of residents in Troy and surrounding area in Oakland County and SEMCOG estimates of household growth. The following is a synopsis of the findings and conclusions.

- Primary growth opportunities in housing for Big Beaver are derived from two potential sources. One source is the existing households in Troy and Oakland County. The other source is future households in both jurisdictions.
- Troy contains about 30,962 households and is expected to grow over the next 25 years to 32,621 households. Thus, 1,659 new households are expected to be added to the jurisdiction.
- Oakland County currently has 429,315 households. An additional 152,523 households are expected to be added by 2030, with the number of households reaching 581,838.
- Of the current households within the jurisdictions as many as 36% can foresee or may move from their current unit to another housing unit within the next five years.
- Of the 36%, for about 35%, the cause of or reason for the change is one that makes them are likely to seek housing that could be built in the Big Beaver area. A majority of these (60% for Oakland County and higher percentage in Troy) are likely to stay in the area.
- Fortunately, the majority of those that are likely to move fall into demographic groups. These are relatively young (including but not limited to new household formation after finishing education) and relatively old without children or with grown children.
- The types of amenities sought could, for the most part, be fulfilled in housing associated with Big Beaver.
- About 20% of those that are likely to seek a different housing unit than that which they occupy at present, are willing or see themselves capable of paying \$2,500 or more per month or not having any payments, with the unit being paid for by proceeds from their current unit. 30% see themselves as paying \$1,000 to \$1,250 per month for housing.
- Between 2000 and 2005 a total of 1,746 new units were built in Troy. About 40% of these units were defined as "attached condos".
- Based solely on the number of existing households in Troy and Oakland County, a total of 18,123 housing units will be necessary in Oakland County to meet the demand for those that seek a move, wish to stay in an area, and will likely seek alternative housing that could be built along Big Beaver. Of these units 10,875 are likely to be priced below a level associated with a \$2,500 monthly mortgage or rent payment and 6,469 would likely be priced above the \$2,500 level.
- Assuming a 50% capture of the units associated with the existing households in Troy that meet the characteristics and are likely to change units (1,951), and a 20% market share for similar households (16,172) in the remainder of Oakland County, Big Beaver could capture as many as 4,200 residential units from existing households in Troy and Oakland County.
- Based solely on the anticipated number of new households associated with Troy and Oakland County over the next twenty-five years, a total of 5,975 additional units could potentially be added to Big Beaver.
- The total number of housing units potentially captured along Big Beaver is about 10,000 units over the next 25 years. The following is a breakdown of the potential absorption. Of these units, about 2,000 will be priced for payments above \$2,500 (in constant dollars) with 8,000 below this level and most at about ½ that level in constant dollars).

Years	Above \$2,500	Below \$2,500	Total
1 to 3	386	1,546	1,932
4 to 5	454	1,814	2,268
6 to 10	480	1,920	2,400
11 to 15	240	960	1,200
16 to 20	240	960	1,200
21 to 25	240	960	1,200
Total	2,040	8,160	10,200

The commercial/business analysis is based on the business survey conducted along the corridor and in Troy, telephone survey findings of residents in Troy and surrounding areas in Oakland County, SEMCOG estimates of household growth, substantial research in the areas of Research & Development using assets in or near Troy and the Big Beaver corridor, and two methodologies employed to determine opportunities for the corridor. The two methodologies involve a comparative assessment and forecasting of demand. The following is a synopsis of the methodologies, where appropriate; findings; and conclusions.

- Several surveys were conducted as part of this analysis to generate critical information and a new data base not found elsewhere. One of those was a survey of current business operations located along the Big Beaver Road corridor in the City of Troy. The businesses were identified and contacted through the combined efforts of the Downtown Development Authority and The Chesapeake Group, Inc.
- A variety of assets associated with the corridor were identified by the current business operators along Big Beaver. Those deemed most important are: vehicular traffic volume and access; proximity to other businesses or the critical mass in the area; the quality character of the buildings in the area; and the proximity to residential activity. Others identified by lesser proportions of operators include the proximity to manufacturers, suppliers, or corporate entities; the proximity to executive's homes; and opportunity to build or own buildings. It is noted that several of these suggest that the inclusion of a greater mix of activity along the corridor, most notably housing, would potentially further enhance viability.
- The average number of year-round employees per business in the area is thirty-three. The average number of full-time workers is slightly more than 29 per operation. Only 7% of the operations identify the majority of their employees as living in Troy. Most that do not identify the employees as living in Troy define their employees as living elsewhere in the county, generally nearby.
- Less than one-fourth of the operations identify their sales or revenues as having increased over the last two to three years. About one-half say that sales or revenues have been stagnant. The types of operation ranged from retail and food service institutions; to real estate development and management; to personal services; to professional services; to a full range of financial services; to medical and health care services; to a mixture of Research & Development and manufacturing; to lodging; to communications services; etc.
- Those businesses reporting a decline in sales or lack of growth attributed the situation to:
  - Poor economic conditions, particularly in relationship to the auto industry.
  - The loss of manufacturing jobs.
  - Difficulties related to construction activities.
- Those firms reporting an increase in sales activity attributed their success to:
  - The introduction of new products and advancements in technology.
  - Improved advertising and promotions.
  - Long-term customer relations.
- Enhancements suggested by businesses included:
  - Better traffic patterns and movement, including wider roads, the synchronization of traffic lights, fewer left turns, and the use of police to direct traffic when necessary.
  - An increase in foot traffic aided by more crosswalks and pedestrian amenities.
  - More and better landscaping and improved landscaping maintenance.
- Businesses also identified new businesses, activities or services that they favored as a means to help their specific ventures. These included:
  - Research and development and technology oriented establishments.
  - Residential development.
  - Business services such as printing, advertising, computer and office supplies.
- About one-third of the operations need to expand or change their physical facilities. Importantly, 29% of those establishments that require or desire physical change feel that their current location would not be able to accommodate such a change. One-half 50% of those whose facilities within Troy would not accommodate an expansion do not have an alternative location within the City.
- In an effort to assure that both opportunities or gaps are identified for businesses that will serve a very local market as well as those that will serve a larger market, two comparative assessments were done. The first compared the business structure of Oakland County to other similar counties while the second compared the City of Troy to other similar municipalities. The identified business gaps defined through this process may or may not be appropriate for the City of Troy or the Big Beaver corridor because of the nature of operations, scale, or other factors.

A comparative assessment requires comparing the business structure of one community with the structures in "like" or "similar" communities. In the initial assessment, the Oakland County structure is compared to business structures associated counties that are "similar". Based on the criteria, a total of seven counties throughout the country were identified as "like" counties for which the comparison in economic structure was made. These seven counties are:

Nassau, NY  
Cuyahoga, OH  
Franklin, OH  
Sacramento, CA  
Allegheny, PA  
Hennepin, MN  
Middlesex, MA

Under-represented "industries" were then defined as those where Oakland County had a lesser number of businesses than at least five other counties. Thus, the number of businesses in Oakland County compared to the other communities was below what might be expected.

The following are the "industries" or businesses identified as being under-represented in Oakland County. About 135 are identified. Highlighted in grey in this and the next chart are retail operations.

Type of Business
Farm Labor Contractors and Crew Leaders
Hydroelectric Power Generation
Fossil Fuel Electric Power Generation
Natural Gas Distribution
Water Supply and Irrigation Systems
Glass and Glazing Contractors
Siding Contractors
Dog and Cat Food Manufacturing
Chocolate and Confectionery Manufacturing from Cacao Beans
Confectionery Manufacturing from Purchased Chocolate
Frozen Specialty Food Manufacturing
Fluid Milk Manufacturing
Cheese Manufacturing
Meat Processed from Carcasses
Commercial Bakeries
Frozen Cakes, Pies, and Other Pastries Manufacturing
Cookie and Cracker Manufacturing
Dry Pasta Manufacturing
Soft Drink Manufacturing
Ice Manufacturing
Broadwoven Fabric Finishing Mills
Canvas and Related Product Mills
Wood Container and Pallet Manufacturing
Corrugated and Solid Fiber Box Manufacturing
Folding Paperboard Box Manufacturing
Commercial Lithographic Printing
Digital Printing
Plastics Bag Manufacturing
Steel Wire Drawing
Ornamental and Architectural Metal Work Manufacturing
Construction Machinery Manufacturing
Printing Machinery and Equipment Manufacturing
Radio and TV Broadcasting & Wireless Communications Equip. Manufact.
Electromedical and Electrotherapeutic Apparatus Manufacturing
Prerecorded Compact Disc (except Software), Tape & Record Manufact.
Motor Vehicle Body Manufacturing
Metal Household Furniture Manufacturing
Mattress Manufacturing
Surgical and Medical Instrument Manufacturing
Musical Instrument Manufacturing
Tire and Tube Merchant Wholesalers
Roofing, Siding, and Insulation Material Merchant Wholesalers
Coal and Other Mineral and Ore Merchant Wholesalers
Refrigeration Equipment and Supplies Merchant Wholesalers
Women's, Children's and Infant's Clothing & Accessories Wholesalers
Confectionery Merchant Wholesalers
Fish and Seafood Merchant Wholesalers
Fresh Fruit and Vegetable Merchant Wholesalers
Petroleum Bulk Stations and Terminals
Wine and Distilled Alcoholic Beverage Merchant Wholesalers
Farm Supplies Merchant Wholesalers
Business to Business Electronic Markets
Used Car Dealers
Furniture Stores
Camera and Photographic Supplies Stores
Paint and Wallpaper Stores
Confectionery and Nut Stores
News Dealers and Newsstands
Gift, Novelty, and Souvenir Stores
Used Merchandise Stores
Electronic Shopping
Mail-Order Houses
Scheduled Passenger Air Transportation
Scheduled Freight Air Transportation
General Freight Trucking, Local
Used Household and Office Goods Moving
Specialized Freight (except Used Goods) Trucking, Local
Bus and Other Motor Vehicle Transit Systems
Interurban and Rural Bus Transportation

Charter Bus Industry
Scenic and Sightseeing Transportation, Water
Freight Transportation Arrangement
Couriers
Local Messengers and Local Delivery
General Warehousing and Storage
Refrigerated Warehousing and Storage
Motion Picture Theaters (except Drive-Ins)
Internet Publishing and Broadcasting
Paging
Credit Card Issuing
Other Activities Related to Credit Intermediation
Miscellaneous Financial Investment Activities
Direct Title Insurance Carriers
Passenger Car Rental
Passenger Car Leasing
Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing
Formal Wear and Costume Rental
Title Abstract and Settlement Offices
Geophysical Surveying and Mapping Services
Other Management Consulting Services
Environmental Consulting Services
Research and Development in the Social Sciences and Humanities
Collection Agencies
Convention and Visitors Bureaus
Armored Car Services
Hazardous Waste Treatment and Disposal
Remediation Services
Junior Colleges
Cosmetology and Barber Schools
Offices of Optometrists
Family Planning Centers
Kidney Dialysis Centers
Blood and Organ Banks
Continuing Care Retirement Communities
Child and Youth Services
Services for the Elderly and Persons with Disabilities
Other Individual and Family Services
Temporary Shelters
Other Community Housing Services
Emergency and Other Relief Services
Vocational Rehabilitation Services
Theater Companies and Dinner Theaters
Dance Companies
Musical Groups and Artists
Promoters of Performing Arts, Sports, and Similar Events with Facilities
Museums
Zoos and Botanical Gardens
Hotels (except Casino Hotels) and Motels
Rooming and Boarding Houses
Drinking Places (Alcoholic Beverages)
General Automotive Repair
Communication Equipment Repair and Maintenance
Barber Shops
Nail Salons
Funeral Homes and Funeral Services
One-Hour Photo Finishing
Parking Lots and Garages
Grantmaking Foundations
Human Rights Organizations
Environment, Conservation and Wildlife Organizations
Other Social Advocacy Organizations
Civic and Social Organizations
Business Associations
Professional Organizations
Political Organizations

A second set of comparisons was also made. This required comparing the business structure of the City of Troy to other cities that are

“similar”.

Based on the criteria, a total of five cities throughout the country were identified as being “like” cities for which the comparison in economic structure was made. These five cities are:

Livermore, CA  
Roswell, GA  
Newton, MA  
Cary, NC  
Farmington Hills, MI

Under-represented “industries” were then defined as those where Troy had a lesser number of businesses than at least four of the other five cities. Thus, the number of businesses in Troy compared to the other communities was below what might be expected. The following are the “industries” or businesses identified as being under-represented in Troy. Twenty-eight (28) are identified.

Type of Business
New Single Family Housing Construction (except Operative Builders)
New Multi-Family Housing Construction (except Operative Builders)
Land Subdivision
Construction and Mining Machinery & Equip. Merchant Wholesalers
Outdoor Power Equipment Stores
Beer, Wine, & Liquor Stores
Musical Instrument and Supplies Stores
Warehouse Clubs & Supercenters
Used Merchandise Stores
Art Dealers
Used Household and Office Goods Moving
Lessors of Residential Buildings & Dwellings
Offices of Real Estate Agents & Brokers
Veterinary Services
Locksmiths
Carpet & Upholstery Cleaning Services
Sports & Recreation Instruction
Diagnostic Imaging Centers
Nursing Care Facilities
Continuing Care Retirement Communities
Vocational Rehabilitation Services
Golf Courses & Country Clubs
Fitness & Recreational Sports Centers
Hotels (except Casino Hotels) and Motels
Car Washes
Barber Shops
Nail Salons
Drycleaning & Laundry Services (except Coin-Operated)

- There are a few critical implications from the comparative assessment including:
  - There are a number of industries where the County is under-represented, but Troy either is not or is, in fact, over-represented.
  - Few retail opportunities or gaps are identified.
  - There are substantial “gaps” identified that are most likely associated with future use of office space.
- Across most industrial classes, employment within Troy has declined. On average for the most recent reported years, Troy employment levels had fallen about 2% per year. Manufacturing, Information, Financial Services, and Professional and Business Services have each fallen in greater proportions than the average. Information and Financial Services have seen the greatest declines. Moving in a different direction, the employment activity encompassed by Education and Health Services has seen a substantial increase.
- The County has been increasingly interested in “Emerging Sectors” as an opportunistic economic growth tool. The County has defined these sectors as those with: a high 4-year growth rate; exponential market segment growth; revolutionary technologies; investment in the form of high risk venture capital; a highly-skilled labor pool; a strong educational framework; and a “great” business/government climate. Ten areas are also defined by the County as those that are part of the “Emerging Sectors”. These areas of concentration are: advanced electronic & control systems; advanced materials and chemicals; alternative energy and power generation; biotechnology; communications and information technology; homeland security; medical devices and instruments; micro/nanotechnology; robotics and automation; and top-growth business sectors.
- Within the context of the above and with the intent to define activity for which human, physical and natural resources are found in Troy, nearby, or with in the Big Beaver corridor, substantial further research was conducted to define the “best” opportunities, or those with the highest probability of success, based on the noted factors and the current business composition. After the extensive research, three areas are considered to have significant potential for Troy and the Big Beaver corridor. These are:
  - Nanotechnologies, specifically nanomedicine, nanopaints, nanoantennas, liquid nanotechnology, and microsensors.
  - Polymers.
  - Robotics, specifically service, swarm and modular (autonomous machines) robotics.

Some of the noted activity is related to homeland security as well.

There are many companies and other operations that are involved with Research and Development activity in these areas. These include those that follow. It is important to note that the list includes some of the largest corporate entities in the world, universities from outside of Michigan, venture capitalists, and small tech companies.

Ecology Coatings  
 National Institute of Standards and Technology  
 Applied AI Systems  
 Arrick Robotics  
 Autonomous Intelligent Systems  
 BotBoards  
 J HVW Technologies Oker Robotics  
 Inuktun Candadian Robots  
 Khepera Maker  
 Peter Anderson  
 The Product Finder  
 SolarBotics  
 Terra Aerospace Corporation  
 Yahoo Electronic Suppliers  
 Video and Robots  
 Wirz Electronics  
 Zagros Robotics  
 International Foundation of Robotics Research  
 Carnegie Mellon University  
 AbioCor  
 Active Corporation  
 Advanced Brain Monitoring, Inc.  
 Advanced Medical Electronics Corporation  
 Advectus Life Sciences, Inc.  
 Affymetrix  
 Algenix, Inc.  
 The Alin Foundation  
 AorTech Biomaterials  
 Applied Digital Solutions  
 Applied Medical Technology Ltd  
 BioKey  
 H2OIL Corporation  
 The Institute for Molecular Manufacturing  
 Pacific Nanotechnology  
 Infrared Identification, Inc.  
 TechGuard Security LLC  
 Varian Medical Systems  
 Southwest Research Institute  
 MFIC Corporation  
 State University of New York  
 Yole Développement  
 Lumileds, Osram, Nichia or Cree  
 Agilent Technologies  
 Asylum Research  
 Carl Zeiss - Microimaging  
 Credence Systems Corp.  
 Danaher Corp.  
 FEI Company  
 Evex Analytical  
 Hitachi  
 Hypervision Inc  
 Hypres Inc  
 McAllister Technical Services  
 Micromanipulator Company Inc  
 Obducat AB  
 OMICRON NanoTechnology  
 Quesant Instrument Corp  
 Seiko Corp

TNP Instruments Inc  
 Topcon  
 Veeco Instruments  
 WITec Instruments  
 Xanavi Informatics Corporation  
 AISIN AW Co., Ltd  
 SANYO Electric Co  
 Sony  
 ROBOSOFT  
 Macroswiss S.A.  
 University of Pennsylvania  
 Cognex  
 Warwick Effect Polymers  
 Union Chemical Laboratories  
 Teledyne Microelectronic Technologies  
 E Ink Corp.  
 Plastic Logic Ltd  
 InPhase Technologies  
 Optware Corp.  
 Colossal Storage Corporation  
 Bayer MaterialScience  
 Fujitsu  
 Siemens  
 SPARTA Inc.  
 Terahertz Technologies Inc.  
 Abaxis  
 Univet Eyeware  
 Bath Iron Works  
 Northrop Grumman  
 Edison Welding Institute  
 ManTech International Corporation  
 LightMachinery Inc.  
 Optics for Research  
 Novellus  
 Bio-D Plastics  
 ATP Engineered Rubber & Plastics Group

- Demand for retail goods and related services is based on the market's ability to purchase the goods or services. Two market areas were used to assess additional retail opportunities for the Big Beaver corridor. These are: Troy itself and those in close proximity to it; and the remainder of Oakland County. As defined in the estimates of housing growth, these areas were selected because of the significant "rooftop" growth opportunities presented.

There is no reason to believe that the corridor does not attract residents of other nearby communities outside of the county. However, any sales derived from this latter group have not been considered in this analysis, tending to potentially understate retail demand opportunities. It is further noted that employees of offices and other businesses are most often subsets of these markets, generally with higher market penetration capabilities.

- Estimates of future demand for goods and services are premised upon changes in the markets. Those changes are expected to result primarily if not totally from increases in households and not income. The estimates are based on constant dollars, excluding inflation.

- Aggregate retail goods and related services sales generated by residents of the primary market or Troy and its immediate surroundings are estimated at \$2.8 billion in 2006. The secondary market's sales or those generated by the remainder of the county's residents are estimated at \$18.8 billion in 2006. Aggregate retail sales figures represent a compilation of sales associated with ten major categories. The ten major categories of retail goods and related services are:

- Food, such as groceries and related merchandise generally purchased for home preparation or consumption.
- Eating and drinking, consisting of prepared food and beverages generally consumed on the premises or carried to another location.
- General merchandise, including variety stores, department stores and large value oriented retail operators.
- Furniture and accessories, including appliances and home furnishings.
- Transportation and utilities, including the sale of new and used automotive and other personal vehicles and parts and basic utilities for the home.
- Drugstores, including those specializing in health and beauty aids or pharmaceuticals.
- Apparel and accessories.
- Hardware and building materials, including traditional hardware stores and garden and home improvement centers.
- Auto services, including gasoline and vehicle repair.
- Miscellaneous, which includes a plethora of retail goods and services ranging from florists to paper goods.

Some operations fall into more than one category. For example, many of the general merchandisers associated with the “big box” stores, such as Meijer, have more or less traditional supermarket components within their operations.

- There are sub-categories, generally associated with particular types of businesses, found within each retail category. While not necessarily the largest in terms of sales, the miscellaneous category contains more sub-categories or types of establishments than any other major retail category. It is noted that irrespective of the strength, location factors, mass, or other issues, no community is able to attract all of the sales generated in a primary market area. As examples, people employed elsewhere often spend resources at or near their employment. At other times people make visits and spend money with relatives and friends living elsewhere or while on vacations.
- Retail sales and related services revenues are converted to supportable space through the application of sales or revenue productivity levels. A sales or revenue productivity level is the level of sales or revenues per square foot at which it is assumed that the business will generate sufficient revenue to cover all costs of operation as well as provide a reasonable return on investment for the ownership or operating entity. As might be expected, sales or revenue productivity levels vary, sometimes greatly, for each sub-category, type of business operation, or store-type. The productivity levels vary from very low figures for bowling centers to hundreds of dollars for other users. Supportable space is derived by dividing the amount of sales by a sales productivity level.
- From a public policy perspective, growth opportunities are critical. By focusing on opportunities that result from growth and assuming reasonable competitive positions, no sales or revenues are extracted from existing operations to create or attract new business or businesses. Thus and theoretically, expansions or new businesses do not come at the expense of existing operations.

The table that follows contains the estimates of sales and space for the primary market, consisting of residents of Troy and surrounding areas, and the anticipated change from 2006 to 2010 and 2006 to 2015. At a minimum, the market will support another 1 million square feet of space. It is important to note that this opportunity is directly linked to housing and household growth and assumes that Big Beaver will add housing units in significant numbers. Should this not occur, the growth opportunity is likely to be much smaller. Furthermore, this space is not “new” space in the region, but because of the housing growth, stimulated by shifts in population in the region, the space is essentially “relocated” from other jurisdictions than Troy and Oakland County. The ten categories are highlighted in light grey.

Primary Market 2006 Estimated Demand for Retail Activity and Changes in Demand for 2006 to 201 and 2006 to 2015 (Space in Square Feet)\*

Sub-category	2006 sales	2006-2010 sales	2006-2015 sales	2006 space	2006-2010 space	2006-2015 space
<b>Food</b>	\$129,471,000	\$7,109,000	\$15,995,000	241,794	13,277	29,877
Supermarkets	108,108,285	5,936,015	13,355,825	183,234	10,061	22,637
Independents	10,357,680	568,720	1,279,600	25,894	1,422	3,199
Bakeries	2,818,362	156,398	351,890	9,495	521	1,173
Dairies	1,683,123	92,417	207,935	4,675	257	578
Others	6,473,550	355,450	799,750	18,496	1,016	2,285
<b>Eat/Drink</b>	252,164,000	12,747,000	28,681,000	580,410	31,868	71,703
<b>General Merchandise</b>	888,001,000	52,285,000	72,641,000	1,918,004	105,310	236,948
Dept. Stores	214,620,365	11,784,025	26,513,965	715,401	39,280	88,380
Variety Stores	42,336,072	2,424,820	5,230,152	169,831	8,940	20,116
Jewelry	40,372,069	2,227,665	5,012,229	87,144	4,438	7,059
Sporting Goods/Toys	64,092,109	3,519,065	9,178,669	213,640	11,730	26,393
Discount Dept.	214,032,364	11,751,740	26,441,324	713,441	39,172	88,138
Antiques, etc.	2,940,005	161,425	363,205	12,383	702	1,579
Others	9,408,016	516,560	1,162,256	47,764	2,348	5,283
<b>Furniture</b>	220,569,000	12,111,000	27,249,000	692,609	38,030	85,564
Furniture	52,054,284	2,858,196	6,430,764	167,917	9,220	20,744
Home Furnishings	76,758,012	4,214,628	9,482,652	219,309	12,042	27,093
Store/Office Equip	48,084,042	2,640,198	5,940,282	160,280	8,801	19,801
Music Instr./Subpl	9,484,467	520,773	1,171,707	47,422	2,604	5,859
Radios/TV, etc.	34,188,195	1,877,205	4,223,595	97,681	5,363	12,067
<b>Transportation &amp; Utilities</b>	680,480,000	57,362,000	84,066,000	1,980,705	108,719	244,621
New/Used Vehicles	238,168,000	13,076,700	29,423,100	595,420	32,692	73,258
Tires, Bait, Pts.	300,091,680	16,476,640	37,079,106	1,000,306	54,924	127,577
Marine, Sales/Rentals	36,065,440	1,980,186	4,455,498	97,474	5,332	12,042
Auto/Truck Rentals	106,154,880	5,828,472	13,114,296	286,905	15,733	35,444
<b>Drugstore</b>	118,152,000	6,487,000	14,596,000	256,304	12,974	29,492
<b>Apparel</b>	220,361,000	6,609,000	14,869,000	574,529	20,565	46,268
Men's and Boy's	15,767,291	865,779	1,947,839	39,418	2,164	4,870
Women's and Girl's	39,959,852	2,194,188	4,936,508	108,000	5,930	13,342
Infants	2,527,581	138,789	312,249	8,425	463	1,041
Family	33,460,358	1,837,302	4,133,582	111,535	6,124	13,779
Shoes	25,155,449	1,381,281	3,107,621	91,474	5,023	11,300
Jeans/Leather	481,444	26,436	59,476	1,605	88	198
Tailors/Uniforms	2,166,498	118,962	267,642	10,832	595	1,338
Others	842,527	46,263	104,083	3,240	178	400
<b>Hardware</b>	157,628,000	8,655,000	19,473,000	670,073	36,792	82,779
Hardware	76,291,952	4,189,020	9,424,932	305,168	16,756	37,700
Lawn/Seed/Fertil	2,994,932	164,445	369,987	8,809	484	1,088
Others	78,341,116	4,301,535	9,678,081	356,096	19,552	43,991
<b>Vehicle Service</b>	140,237,000	7,700,000	17,325,000	341,404	18,746	42,177
Gasoline	47,680,580	2,618,000	5,890,500	32,883	1,806	4,062
Garage Repairs	92,556,420	5,082,000	11,434,500	308,521	16,940	38,115
<b>Miscellaneous</b>	373,505,000	20,508,000	46,142,000	1,442,594	79,207	178,216
Advert. Signs, etc.	5,976,080	328,128	738,272	21,731	1,193	2,685
Barber/Beauty shop	22,783,805	1,250,988	2,814,662	113,919	6,255	14,073
Book Stores	17,181,230	943,368	2,122,532	46,436	2,550	5,737
Bowling	8,590,615	471,684	1,061,266	85,906	4,717	10,613
Cig./Tobacco Dealer	2,614,535	143,556	322,994	5,229	287	646
Dent./Physician Lab	14,940,200	820,320	1,845,680	45,970	2,524	5,679
Florist/Nurseries	28,012,875	1,538,100	3,460,650	65,913	3,619	8,143
Laundry Dry Clean	12,699,170	697,272	1,568,828	42,331	2,324	5,229
Optical Goods/Opt	8,964,120	492,192	1,107,408	25,612	1,406	3,164
Photo Sup./Photo	25,771,845	1,415,052	3,183,798	73,634	4,043	9,097
Printing	30,253,905	1,661,148	3,737,502	110,014	6,041	13,591
Paper/Paper Prod	16,060,715	881,844	1,984,106	80,304	4,402	9,921
Gifts/Cards/Novel.	53,411,213	2,837,844	6,598,406	178,047	9,792	21,994
Newsstands	2,988,040	164,064	369,136	9,276	328	738
Video Rent/Sales	48,555,650	2,666,040	5,998,460	242,778	13,330	29,992
Others	74,701,000	4,101,600	9,228,400	298,804	16,406	36,914
<b>TOTAL</b>	\$2,760,568,000	\$151,573,000	\$341,037,000	8,477,826	465,488	1,047,340

\*Developed by The Chesapeake Group, Inc., 2006.

The table that follows contains the estimates of sales and space for the secondary market, consisting of residents of the remainder of the county, and the anticipated change from 2006 to 2010 and 2006 to 2015. At a minimum, the market will support another 3.6 million

square feet of space. It is also assumed that this opportunity is directly linked to housing and household growth for the county and assumes that Big Beaver will add housing units in significant numbers. Once again, this space is not “new” space in the region, the space is essentially “relocated” from other jurisdictions than Oakland County.

Secondary Market 2006 Estimated Demand for Retail Activity and Changes in Demand for 2006 to 201 and 2006 to 2015 (Space in Square Feet)\*

Sub-category	2006	2006-2010	2006-2015	2006	2006-2010	2006-2015
Food	\$1,829,688,000	\$52,429,000	\$117,966,000	3,417,045	97,914	220,308
Supermarkets	1,527,789,480	43,778,215	98,501,610	2,589,474	74,200	166,952
Independents	146,375,040	4,194,320	9,437,280	365,938	10,486	23,593
Bakeries	40,253,136	1,153,438	2,595,252	134,177	3,845	8,651
Dairies	23,785,944	681,577	1,533,558	66,072	1,893	4,260
Others	91,484,400	2,621,450	5,898,300	261,384	7,490	16,852
Eat/Drink	1,816,498,000	52,051,000	117,116,000	4,541,245	130,128	297,790
General Merchandise	2,379,913,000	68,196,000	153,441,000	7,763,053	222,449	500,510
Dept. Stores	868,668,245	24,891,540	56,005,965	2,895,561	82,972	186,687
Variety Stores	171,353,736	4,910,112	11,047,752	659,053	18,885	42,491
Jewelry	164,213,997	4,705,524	10,587,429	231,487	6,627	14,912
Sporting Goods/Toys	259,410,517	7,433,364	16,725,069	864,702	24,778	55,750
Discount Dept.	866,288,325	24,823,344	55,857,524	2,887,628	82,744	186,175
Antiques, etc.	11,899,565	340,980	767,203	51,737	1,483	3,336
Others	38,078,608	1,091,136	2,455,036	173,085	4,960	11,159
Furniture	1,279,463,000	36,663,000	82,491,000	4,017,642	115,125	259,031
Furniture	301,953,268	8,652,468	19,467,876	974,043	27,911	62,800
Home Furnishings	445,253,124	12,758,724	28,706,868	1,272,152	36,453	87,020
Store/Office Equip.	278,922,934	7,992,534	17,983,038	929,743	26,642	59,943
Music Instr./Suppl.	55,016,909	1,576,509	3,547,113	275,085	7,883	17,736
Radios, T.V., etc.	198,316,765	5,682,765	12,786,103	566,619	16,236	36,532
Transportation & Utilities	5,059,436,000	144,977,000	326,199,000	14,727,276	421,863	949,196
New/Used Vehicles	1,770,802,600	50,741,950	114,169,650	4,427,007	126,855	285,424
Tires, Batt. Pts.	2,231,211,276	63,934,857	143,853,759	7,437,371	213,116	479,513
Marine, Sales/Rentals	268,150,108	7,683,781	17,288,547	724,730	20,767	46,726
Auto/Truck Rentals	789,272,016	22,616,412	50,887,044	2,133,168	61,125	137,533
Drugstore	994,978,000	28,509,000	64,146,000	1,989,856	57,018	128,292
Apparel	871,569,000	23,542,000	52,969,000	2,556,493	73,257	164,824
Men's and Boy's	107,625,539	3,084,002	6,938,939	269,064	7,710	17,347
Women's and Girl's	272,760,908	7,815,944	17,585,708	737,192	21,124	47,529
Infants	17,252,949	494,382	1,112,349	57,510	1,648	3,708
Family	228,396,182	6,544,676	14,725,382	761,321	21,816	49,085
Shoes	171,707,921	4,920,278	11,070,521	624,392	17,892	40,256
Jeans/Leather	3,286,276	94,168	211,876	10,954	314	706
Tailors/Uniforms	14,788,242	423,756	953,442	73,941	2,119	4,767
Others	5,750,983	164,794	370,783	22,119	634	1,426
Hardware	1,075,955,000	30,831,000	69,370,000	4,575,856	131,062	294,890
Hardware	520,762,220	14,922,204	33,575,080	2,083,042	59,689	134,300
Lawn/Seed/Fertil.	20,443,145	585,789	1,318,030	60,127	1,723	3,877
Others	534,749,635	15,323,007	34,476,890	2,430,680	69,650	156,713
Vehicle Service	957,242,000	27,430,000	61,717,000	2,330,389	66,778	150,249
Gasoline	325,462,280	9,326,200	20,983,780	224,457	6,432	14,472
Garage Repairs	631,779,720	18,104,800	40,733,220	2,105,932	60,346	135,777
Miscellaneous	2,678,646,000	75,525,000	169,478,000	10,152,656	290,920	654,579
Advert. Signs, etc.	42,058,336	1,205,168	2,711,648	152,939	4,382	9,861
Barber/Beauty shop	160,347,406	4,594,703	10,338,158	801,737	22,974	51,691
Book Stores	120,917,716	3,464,858	7,955,988	326,805	9,364	21,070
Bowling	60,458,858	1,732,428	3,897,994	604,589	17,324	38,980
Cig./Tobacco Dealer	18,400,522	524,421	1,186,346	36,801	1,055	2,373
Dent./Physician Lab	105,145,840	3,012,920	6,779,120	323,526	9,271	20,859
Florist/Nurseries	197,148,450	5,649,225	12,710,850	463,879	13,292	29,908
Laundry, Dry Clean	89,373,964	2,560,982	5,762,252	297,913	8,537	19,208
Optical Goods/Opt.	63,087,504	1,807,752	4,067,472	180,250	5,165	11,621
Photo Sup./Photog.	181,376,574	5,197,287	11,693,982	518,219	14,849	33,411
Printing	212,920,326	6,101,163	13,727,718	774,256	22,186	49,919
Paper/Paper Prod.	113,031,778	3,238,889	7,287,554	565,159	16,194	36,438
Gifts/Cards/Novel.	375,896,378	10,771,189	24,235,354	1,252,988	35,904	80,785
Newsstands	21,029,168	602,584	1,355,824	42,058	1,205	2,712
Video Rent/Sales	341,723,980	9,791,990	22,032,140	1,708,620	48,960	110,161
Others	325,729,200	15,064,600	33,895,600	2,102,917	60,258	135,582
TOTAL	\$18,843,338,000	\$539,951,000	\$1,214,895,000	56,064,511	1,606,514	3,614,669

\*Developed by The Chesapeake Group, Inc., 2006.

- Current retail activity is significant both within the corridor's study area and immediately surrounding it. The interstate access and other arterial connections have made the study area and surroundings a mecca for retail. The Big Beaver corridor includes the highest end retailers in the country as well as large “box” discounters. It includes many high end restaurant chains. There is essentially nothing that anyone would want that cannot be found in the corridor in a reasonable fashion at this time, with the exception of a variety of entertainment.
- Penetration of the markets by the corridor is an important determining factor in the ability of the study area to capture additional retail opportunities derived from growth. For the primary market, it is assumed that the study area could capture as much as 25% or one-fourth of the growth. However, this growth in retail should not precede growth in housing within the corridor. New retail associated with this market is expected to be largely convenience goods oriented, or meet the needs of the new residents. Uses such as specialty markets, natural food markets, drugstores, bakeries, etc. fall into this category. In addition some additional restaurant activity could be attracted as the residential grows. Yet, the niche for such activity is likely to be “family-priced” operations.

Market penetration levels in the secondary market are lower than in the primary market. The table that follows contains the penetration level demand that could potentially be captured within the corridor. Assuming the environment for the activity is created, at least partially through the addition of residential development in the study area, a maximum of 400,000 square feet of new retail could be capture. Included would be ethnic and other restaurants offering evening entertainment at least on weekends and limited engagements during the week.

Penetration Level Secondary Market 2006 Estimated Demand for Retail Activity and Changes in Demand for 2006 to 201 and 2006 to 2015 (Space in Square Feet)\*

Sub-category	2006	2006-2010	2006-2015	2006	2006-2010	2006-2015
Food	\$201,266,000	\$5,767,000	\$12,976,000	375,876	10,770	24,234
Supermarkets	168,057,110	4,815,445	10,834,960	284,843	8,162	18,364
Independents	16,101,280	461,360	1,038,080	40,233	1,153	2,595
Bakeries	4,427,852	126,874	285,472	14,760	423	952
Dairies	2,616,458	74,971	168,688	7,268	208	469
Others	10,063,300	288,350	648,800	28,752	824	1,854
Eat/Drink	199,815,000	5,726,000	12,883,000	499,538	14,315	32,208
General Merchandise	261,790,000	7,507,000	16,878,000	853,935	24,470	55,054
Dept. Stores	95,553,850	2,738,230	6,160,470	318,511	9,127	20,535
Variety Stores	18,848,880	540,144	1,215,216	72,426	2,077	4,674
Jewelry	18,063,510	517,638	1,164,584	75,442	2,229	5,040
Sporting Goods/Toys	28,535,110	817,718	1,839,702	95,117	2,726	6,132
Discount Dept.	95,291,560	2,730,728	6,143,592	317,639	9,102	20,479
Antiques, etc.	1,308,950	37,510	84,390	5,691	163	367
Others	4,188,640	120,032	270,048	19,039	546	1,227
Furniture	140,741,000	4,033,000	9,074,000	441,941	12,664	28,493
Furniture	33,214,876	951,788	2,141,464	107,145	3,070	6,908
Home Furnishings	48,977,868	1,403,484	3,157,752	139,937	4,010	9,022
Store/Office Equip.	30,681,538	879,194	1,978,132	102,272	2,931	6,594
Music Instr./Suppl.	6,051,863	173,419	390,182	30,259	867	1,951
Radios, TV, etc.	21,814,855	625,115	1,406,470	62,328	1,786	4,018
Transportation & Utilities	556,538,000	15,948,000	35,882,000	1,619,450	46,407	104,413
New Used Vehicles	234,788,388	5,581,800	12,828,700	486,971	13,955	31,397
Tires, Batt. Pts.	24,433,288	7,031,068	15,823,962	818,111	23,444	52,447
Marine Sales/Rentals	29,496,514	845,244	1,901,746	79,720	2,284	5,140
Auto/Truck Rentals	86,819,928	2,487,888	5,597,592	234,648	6,724	15,129
Drugstore	109,442,000	3,136,000	7,056,000	218,884	6,272	14,112
Apparel	90,375,000	2,590,000	5,877,000	281,215	8,059	18,133
Men's and Boy's	11,838,863	339,290	763,337	29,597	848	1,908
Women's and Girl's	30,003,836	859,880	1,934,564	81,091	2,324	5,229
Infants	1,897,833	54,390	122,367	6,326	181	408
Family	25,123,694	720,020	1,619,906	83,746	2,400	5,400
Shoes	18,887,957	541,310	1,217,843	68,683	1,968	4,429
Jeans/Leather	361,492	10,360	23,308	1,205	35	78
Tailors/Uniforms	1,626,714	46,620	104,886	8,134	233	524
Others	632,611	18,130	40,789	18,730	540	1,187
Hardware	118,335,000	3,391,000	7,661,000	519,433	14,445	32,439
Hardware	57,283,820	1,641,244	3,693,404	229,135	6,565	14,774
Lawn/Seed/Fertil.	2,248,745	64,422	144,989	6,614	189	426
Others	58,802,435	1,685,327	3,292,607	267,375	7,661	17,239
Vehicle Service	105,767,000	3,017,000	6,789,000	256,343	7,344	16,238
Gasoline	35,800,980	1,025,780	2,308,260	24,690	707	1,592
Garage Repairs	69,496,020	1,991,220	4,480,740	231,633	6,637	14,936
Miscellaneous	789,151,000	8,786,000	18,643,000	1,116,791	32,004	72,004
Advert. Signs, etc.	4,626,416	132,576	298,288	16,823	482	1,085
Barber/Beauty shop	17,638,211	505,446	1,137,223	88,191	2,527	5,686
Book Stores	13,300,946	381,156	857,578	35,949	1,030	2,318
Bowling	6,650,473	190,578	428,789	66,505	1,906	4,288
Cig./Tobacco Dealer	2,024,057	58,002	130,501	4,048	116	261
Dent./Physician Lab	11,566,040	331,440	745,720	35,588	1,020	2,295
Florist/Nurseries	21,686,325	621,450	1,398,225	51,027	1,462	3,290
Laundry/Dry Clean	9,831,134	281,724	633,862	32,770	939	2,113
Optical Goods/Opt.	6,939,624	198,864	447,432	19,827	568	1,278
Photo Sup./Photog.	19,951,419	571,734	1,286,367	57,004	1,634	3,675
Printing	23,421,231	671,166	1,510,083	85,168	2,441	5,491
Paper/Paper Prod.	12,433,493	356,298	801,649	62,167	1,781	4,008
Gifts/Cards/Novel.	41,348,598	1,184,898	2,665,949	137,829	3,950	8,886
Newsstands	2,313,208	66,288	149,144	4,626	133	299
Video Rent/Sales	3,389,630	1,077,188	2,423,590	18,948	538	1,218
Others	57,830,200	1,657,200	3,728,600	231,321	6,629	14,914
TOTAL	\$2,072,768,000	\$59,396,000	\$133,659,000	6,167,097	176,720	397,618

\*Developed by The Chesapeake Group, Inc., 2006.

- Residential growth provides the opportunity for growth in professional and other services. Office growth results from needs generated by residents for services, the growing need for employment in close proximity to the home, the potential to expand the "industrial base" through R & D, other opportunities defined in the comparative assessment, etc. The following are factored into the estimates of office space opportunity for the Big Beaver corridor:
  - The average amount of square feet per office employee is estimated at about 250. This is a gross figure, including corridors, entrances, etc.
  - A reasonable proportion of the new households in Troy and the corridor will be headed by those seeking retirement or semi-retirement in the near future.
  - The average new household in the county is expected to have 1.1 employees. Based on current employment patterns and changes in the industrial base in the region, about 50% of the employees are likely to be in or require office space.
- With the anticipation of about 29,750 additional households in the county by 2015, as much as 4 million square feet of office space could be required to meet the employment and service needs of residents. Based on the assumption of additional housing units defined for the Big Beaver corridor, an additional 800,000 to 1 million square feet of space would be required to meet the needs of R & D activity, expansion of the financial services niche, expanded medical and other professional services, and any other activity.
- While it is recognized that Michigan has defined a "Centers of Excellence" Program, Troy should examine the State of New York's efforts associated with the specific "Center of Excellence" effort in Rochester as one of three potential models for pursuing expansion of the corridor's economic base of activity. That effort is one based on very strong private corporate involvement, substantial involvement by an array of higher education institutions from within and outside the area, and, to a lesser extent, government. It is also noted that the program is geared toward R & D which is not likely to have short-term returns, but long-term returns, if any, that do not justify solely private investment in the short-term (since there are no immediate or other returns (revenue streams) that can be initially identified).
- Much of the indicated analysis conclusions and requires development of activity and associated space, whether it involve R & D, retail, other office, or housing. In a perfect world, this would happen "instantaneously". However, unless the proper people become aware of the opportunities that exist, there is a decreased probability that it will happen in the foreseeable future. Thus, much of the success is dependent upon recruitment.

There are two types of recruitment activity suggested. In either case, it should be done for the corridor by Troy interests independent of other jurisdiction interests or in addition to activities carried on with and through the other entities. One is developer recruitment while the other is direct business recruitment. The following are "advance steps" for establishing a successful recruitment effort.

- Decide who will administer and provide staff support for the recruitment effort in general.
- Develop marketing materials oriented toward the types of entities to be solicited. (Much of the materials should be flexible, alterable, and reproducible by the City or other entity.)
- Obtain the ability to reproduce the materials on demand internally. (Acquire color laser printing capabilities if not available through the City or other entity.)
- Develop lists of those to be solicited.

- Develop a set schedule for phasing of the recruitment process so that the work load is distributed over time.
- Establish a funding mechanism to insure that the effort is continual.

The marketing activity associated with recruitment would include:

- Distribution of developed materials via direct mail; advertising in select professional journals for developers, if affordable; and ICSC and other conference attendance, if affordable.
- Preparation of Request for Qualifications and Proposals.
- An “open house” could be arranged if feasible and interest in attendance is strong.
- Review and evaluation of the responses. (Independent party review is preferred).
- Establishment of the relationship (such as between the development interest and private property ownership).
- Continue follow-up, acting as an “ombudsman” for the process, at a minimum.
- DDA Board members should act as “Ambassadors”, being available, when required to introduce prospects to the corridor. Ambassadors should be rotated in order to avoid placing undue time burden on individuals.

A “sister” effort developer recruitment is a business recruitment effort. It is conducted in the same manner as above, but without the RFP/RFQ component. The following is also appropriate for retail or office.

- Assemble local Realtors to inform them of the effort. Potentially establish an advisory committee within the DDA or City consisting of the local Realtors.
- Develop lists of those to be solicited.
- Distribution of developed materials via direct mail; advertising in select publications, if affordable; and “cold call” door knocking for restaurant and other unique, select interests.
- After initial contact, follow-up contact via telephone and internet and site visits to answer questions, gauge interest, etc.
- Establish relationships with landlords, Realtors, property owners, or other appropriate parties.

BIG BEAVER CORRIDOR STUDY  
DDA MEETING MINUTES, JUNE 21, 2006

A meeting of the Downtown Development Authority was held on Thursday, June 21, 2006 in the Lower Level Conference Room of Troy City Hall, 500 W. Big Beaver, Troy, Michigan. Alan Kiriluk called the meeting to order at 7:30 a.m.

PRESENT: Stuart Frankel, David Hay, Michele Hodges, Alan Kiriluk, Daniel MacLeish, Ernest Reschke, Louise Schilling, Douglas Schroeder, Harvey Weiss, G. Thomas York (departed 8:51 a.m.)  
ABSENT: Michael Culpepper, William Kennis, Carol Price  
ALSO PRESENT: John M. Lamerato, Brian Murphy, Lori Bluhm, Mark Miller

APPROVAL OF MINUTES

Resolution: DD-06-26  
Moved by: Hodges  
Seconded by: MacLeish

RESOLVED, That the minutes of the June 1, 2006 regular meeting be approved.

Yeas: All (10)  
Absent: Culpepper, Kennis, Price

OLD BUSINESS

None

NEW BUSINESS

A. Big Beaver Corridor Study  
Rodney L. Arroyo of Birchler Arroyo Associates, Inc. reviewed the final draft of the Big Beaver Corridor Study.

Resolution: DD-06-27  
Moved by: Schilling  
Seconded by: Hodges

RESOLVED, That the DDA Board endorse and embrace the key concepts of the Big Beaver Corridor Study.

Yeas: All (10)  
Absent: Culpepper, Kennis, Price  
Resolution: DD-06-28  
Moved by: Schilling  
Seconded by: Weiss

RESOLVED, That the next steps in moving the study forward is to meet and make presentations to City Council, Planning Commission, Chamber of Commerce, Road Commission and stakeholders.

Yeas: All (10)  
Absent: Culpepper, Kennis, Price

B. Bylaw Change – Quorum Language

The Board felt this was an onerous provision to require a majority of the entire DDA membership to approve resolutions. There could be some support for certain types of action items such as (bond issues, plan revisions, etc.) of City Council's provision.

EXCUSE ABSENT MEMBERS

Resolution: DD-06-29  
Moved by: Weiss  
Seconded by: Schilling

RESOLVED, That Culpepper, Kennis and Price be excused.

Yeas: All (9)  
Absent: Culpepper, Kennis, Price, York

PUBLIC COMMENT

One visitor in attendance addressed the Board.

MEMBER COMMENT

One member addressed the Board.

The meeting was adjourned at 8:58 a.m.