
TRIANGLE DISTRICT URBAN DESIGN PLAN



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Adopted by Planning Board Jul. 11, 2007
Adopted by City Commission Aug. 20 2007



Planning Process and Acknowledgements

The City of Birmingham would like to recognize and thank all the members of the public that participated in this planning effort. This effort could not have been a success without your involvement.

The planning process involved a series of public meetings preceding the public hearings held by the Planning Board and City Commission. In addition, a Discussion Group was established, comprised of representatives of various City boards, and commissions, staff, development professionals and area business owners, and residents. The group served as an intermediary between the Planning Board and the public to provide feedback on the plan concepts.

A two-day design charrette was held in the Triangle District to develop the goals, objectives, concepts and recommendations of this plan. During the charrette the design team interviewed key stakeholders, toured the District with members of the public, and City staff and developed design concepts. Activities were scheduled throughout the day including individual and group interviews, focus groups dedicated to special topics like traffic, and parking and a roundtable discussion with developers. Input was also gathered throughout the process from the City Commission, Planning Board, Discussion Group, City planning staff, business and property owners, residents, and the general public.

In addition to the parties listed by name, the City would like to extend special thanks to those others who participated in the design charrette and other meetings. Special thanks are extended to the following public officials, staff, and members of the public for their hard work and dedication.

Additional thank you to David Goldberg for arranging the venue where the charrette was held (a former restaurant slated to become the new Mayfair project depicted on page 25).

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View south to Worth Plaza

A Vision for the Triangle

Imagine the Triangle District as a vibrant, mixed-use neighborhood of homes, shops, restaurants, offices and public plazas. There is a mixture of housing ranging from single family homes along tree-lined streets, to brownstones and townhomes along local streets, to apartments and condominiums above offices and storefronts on the primary commercial corridors. The centerpiece of the Triangle is Worth Plaza, south of Bowers Street. As a lively triangle-shaped place it is a metaphor for the District as a whole, lined with shops, residences, and sidewalk dining.

The Triangle District is a walkable neighborhood. It features wide, tree-lined sidewalks along comfortable streets that are safe for pedestrians and bicyclists as well as automobiles. Roadways are designed so traffic flows calmly through the District. Narrow streets are lined with pedestrian-oriented buildings that reveal plazas filled with gathering spaces, greenery and public art.

Instead of acting a barrier, Woodward Avenue is a grand, tree-lined boulevard, lined with distinctive buildings and a streetscape that welcomes both vehicles and pedestrians. Rather than a hard edge that divides the Triangle from downtown, Woodward is the spine that joins the City together.

The Triangle District is a stage for bold and distinctive architecture that creates a unique identity for the neighborhood and City. Building masses are the primary features, replacing the bleak parking lots that currently dominate the landscape. To accommodate the increase in activity, inefficient surface parking will be replaced by well-organized parking structures integrated into the streetscape.

This vision for the Triangle District creates a vibrant, mixed-use neighborhood filled with interesting destinations that attract people from across the region and provide Birmingham residents with an integrated neighborhood in which to live, work, shop and recreate.



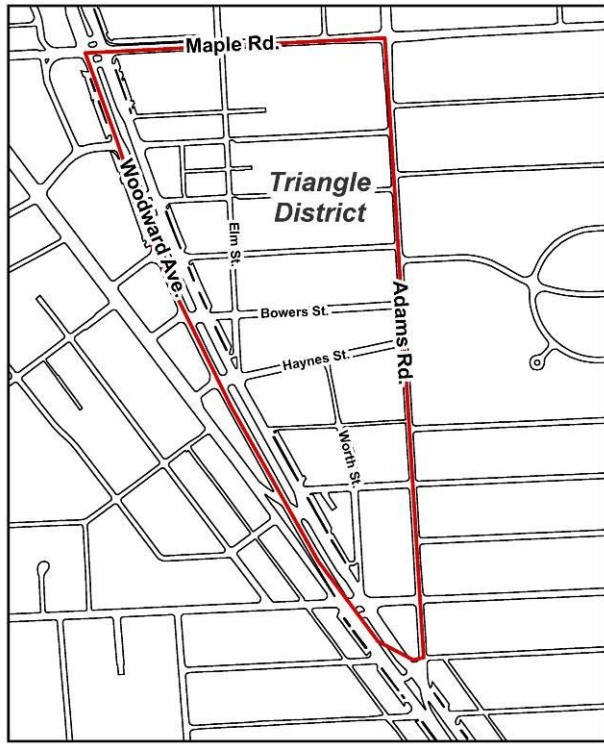
View south down Woodward from Maple



Overview of Triangle District



Regional Map



District Map

Introduction

The City of Birmingham is one of the premier suburban communities in metropolitan Detroit. Birmingham's Triangle District is physically in the center of the City, but is not well connected to the synergy that surrounds it (see Regional Map). To the west lies the vibrant downtown, filled with shops, restaurants, movie theaters, offices and homes – close but cut off from the Triangle by the wide, high-trafficked Woodward Avenue. Maple Road, north of the Triangle, is lined with both successful businesses and underutilized properties and provides the primary pedestrian and vehicular connection to downtown Birmingham. East of the Triangle is the redeveloping Eton Road/Railroad District that hosts landmark restaurants, new live-work condominiums, indoor recreation facilities and a wide variety of unique, clustered uses such as home furnishing shops, dance and art studios, and industrial uses.

Centered amidst these distinctive places, the personality of the Triangle District has bits and pieces of its surroundings, with a quality neighborhood and some fine stores and offices. But the area is also characterized by unorganized streets, parking, and loading; a hodgepodge of building arrangements; and a general lack of visual continuity and coherence. The disjointed arrangement of buildings and parking does not create the physical context for a strong synergy between the various uses in the area.

Generally bounded by Woodward Avenue on the west, Maple Road on the north and Adams Road on the east, the Triangle District serves as a transitional growth area between Birmingham's central business district and the residential neighborhoods to the east (See District Map). This plan sets forth a new vision for the District and identifies guidelines, and recommendations to achieve that vision. Endorsed by the City's Planning Board and City Commission, this Plan is designed to guide development decisions in the Triangle District over the next 20 years. The City's role will be to adopt the new zoning regulations for the triangle, coordinate changes to the street system and develop parking structures. The private development community will also play a central role in implementing the plan through redevelopment.

Goals and Objectives

An analysis of conditions and goals of the community was conducted through a two-day intensive design charrette, with acknowledgement to existing City plans (see sidebar). The process involved the Planning Board, City staff, Triangle District business and property owners, residents and the general public in a public forum that included a walking tour of the District, one-on-one and group interviews, and topic-specific focus groups. The outcome was a set of policy objectives and physical plan concepts to guide public and private decision-making in the Triangle District as follows:

- Improve the visual appearance of the area, its streets, alleys, public spaces, and buildings by establishing guidelines for design and implementation of public and private projects.
- Improve the economic and social vitality by encouraging diversity of use and opportunities for a variety of experiences.
- Better utilize property through more compact, mixed-use development.
- Link with Downtown across Woodward's high traffic barrier.
- Improve the comfort, convenience, safety, and enjoyment of the pedestrian environment by create an inviting, walkable, pedestrian neighborhood and setting aside public plazas.
- Organize the parking and street system to facilitate efficient access, circulation, and parking to balance vehicular and pedestrian needs.
- Encourage sustainable development.
- Protect the integrity of established residential neighborhoods.

This plan is intended to provide a general framework for the redevelopment of the Triangle District. While some of the plan graphics show specific road alignments and development scenarios, these are illustrative of desired development form. The plan should be considered flexible in its implementation to reflect and respond to site-specific conditions and opportunities on a case-by-case basis.



Charrette Participants

The goals and objectives of this plan were developed through a process of public participation and are built upon the goals and objectives of the following preceding plans:

- General Village Plan (1929)
- Birmingham Design Plan (1963)
- Urban Design Plan (1993)
- Downtown Birmingham 2016 Plan (1996)
- Eton Road Corridor Plan (1999)





Triangle District Urban Design Plan

Development Plan Summary

Infill development and redevelopment is recommended to create a distinct character for the Triangle District while complementing the Downtown and surrounding neighborhoods. Redevelopment of the Triangle should create an urban environment that is inviting and walkable. There should be mixed-uses within buildings to create a strong synergy of multiple uses with 24-hour/7-day-a-week activity.

The area should become a self-sufficient neighborhood with mutually supportive residential and commercial uses. While commercial uses along Woodward Avenue could be more general, community service, commercial uses in the heart of the Triangle and along Adams should be oriented more towards serving the immediate neighborhood. Residences and offices should be located in the upper floors above the shops and offices at street-level. Attached single-family, live-work, and other residential uses should also comprise a portion of street-level uses, especially along Elm Street and adjacent to existing single family residences. First-floor retail, especially restaurants, bistros, and cafés, should be encouraged but not required in the heart of the District.

Building Design and Placement. Buildings should be designed in a contemporary style and oriented toward their primary street. Designs should incorporate sustainable building elements for the site and the structures. Scale, and size should be compatible with adjacent structures, and facades and rooflines should vary to create relief from continuous surfaces. Pedestrian friendly features should be incorporated.

Building Height. Varied building heights are recommended to properly frame the streets and provide the massing necessary to relate to the scale of the streetscapes. The hierarchy of height ranges from taller mixed-use buildings along Woodward Avenue that are seven stories and higher, medium height mixed-use buildings of 4-5 stories in the District's interior

and along Maple to create a more intimate urban neighborhood, and structures at a smaller scale of three stories when abutting existing residential neighborhoods. Buildings should step back from the street at the higher stories.

Public Open Space. Opportunities are created for integrating public plazas and open space as part of any redevelopment. This includes small plazas on individual sites and larger open spaces that serve as neighborhood focal points. Recommended realignment of Worth Street creates the opportunity for a triangular plaza, referred to as “Worth Plaza,” as the primary focal point for the redevelopment of the Triangle.

Identity and Wayfinding. Architectural designs will differentiate the Triangle from the rest of the City. A coordinated system of public and private signs will uniquely identify and direct visitors around the District. Signs will complement the City’s established Signage and Wayfinding Program.

Circulation. Improvements to streets and intersections highlighted in this plan will help to reduce speeds on local streets, improve safety for vehicles and pedestrians, and ensure proper access to residences and business.

Parking. Parking needs to be provided more efficiently than the current configuration of disjointed surface parking lots. Redevelopment should incorporate multi-level parking structures and maximize the use of on-street parking. More efficient use of shared parking facilities will allow for redevelopment that is more pedestrian oriented and less dominated by parking lots.

The development plan is a long-term vision for the Triangle District; the pace and order of which is dependent on a variety of factors. To facilitate the orderly and successful implementation of the plan, a phasing plan has been developed. (See the Implementation section.)



Sample Building Design



Sample Townhouse District



Walkable Streetscape



Contemporary Mixed-Use Building

Design Guidelines

A goal for the Triangle District is to create and enhance its character in a way that complements Downtown Birmingham and creates a transitional development pattern blending the higher density of downtown to the west with the more residential character towards the east. These guidelines are a tool to augment the architectural character, identity and scale of the Birmingham Triangle District, encourage sound development decisions, create an identity for the Triangle District in relation to its surroundings, and reinforce the City's theme as a "walkable community." These guidelines will assist the City in making informed decisions for invigorating existing character, guiding future developments, and providing information for property owners, business owners, developers, and residents so they can understand the City's expectations for the area.

Application of design guidelines for the Triangle District will create an identity and sound transition within adjacent neighborhoods. As a result, the following key design elements have been incorporated into the plan:

- Buildings should demonstrate a "bold" architectural quality that is visually distinct from those in Downtown.
- Buildings should incorporate a mixture of uses, including a variety of housing types designed to accommodate different types of households.
- Buildings should be compatible in size, proportion and scale with planned surrounding structures.
- Development should utilize context sensitive sustainable design standards with emphasis on environmentally sensitive design solutions.
- Gateway announcements, signs and wayfinding efforts should support the development of a unified brand identity for the Triangle District.
- The buildings and streetscape should emphasize beauty, aesthetics, human comfort, and the creation of a sense of place.

Building Design and Placement

The Triangle District is currently an automobile-oriented environment with large surface parking lots and a low building mass compared to the space dedicated to automobiles. Creating the proper building mass and scale is necessary to create an environment that is more comfortable to pedestrians and helps bridge the gap to the Downtown across Woodward Avenue.

New buildings should move away from existing architectural styles and instead evolve toward a “bold” approach to contemporary design through the use of massing, colors, façade treatments, etc. Pedestrian-scale features should be incorporated on the first floor of buildings and at entrances to help relate buildings to the streetscape. These features include entrance canopies, storefront awnings, sidewalk dining areas, landscaping, lighting and signs. All design factors should also be respectful of energy conservation techniques with proper use of building materials, color, doors, and windows and proper utilization of building mass to create shade.

Buildings should be oriented toward principal streets while service areas and parking lots should be located at the rear of the structures. Main access to the buildings should be from the first floor located in the front, which is easily recognizable from the street.

Parking structures should be integrated into the design of the buildings with parking decks wrapped by usable floor space to achieve the desired pedestrian-oriented streetscapes.

Energy efficiency should also be considered when locating and orienting buildings on a site. Green building practices, which minimize the environmental impact of buildings both in the construction phase and throughout the life of the building, are encouraged in the construction of new facilities as well as in the adaptation of existing uses.

The Height Plan dictates the massing and scale of new buildings. The following design techniques should be incorporated to strengthen relationships with adjacent buildings:

- The scale of the urban form gradually decreases eastward from Woodward Avenue toward Adams to conform to the intent of the Height Plan and to be compatible with existing single-family residences.
- Stepping back of upper floors of buildings as it increases in height.
- Breaking up surface planes of the building to create depth and remove the monotony of unvarying surface facades.
- Breaking up roof lines to create features congruent to adjacent buildings.
- New and renovated structures should be designed in a contemporary architectural style.



Current Triangle District Building Design



Triangle District Height Plan

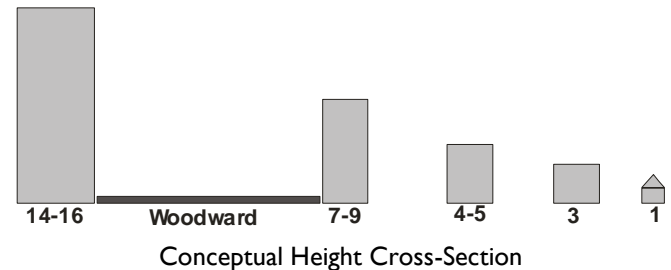
Building Heights

A hierarchy of heights is recommended between Woodward Avenue and the adjacent single-family residential neighborhoods. Taller buildings at least seven stories are needed to properly define the scale of Woodward Avenue's wide right-of-way and the taller buildings on the west side of the road. Building height should then step down to 4-5 stories in the interior of the Triangle District along the narrower streets. Buildings adjacent to single-family residential neighborhoods should be limited to three stories.

Height bonuses of up to an additional two stories will be allowed for developments that offer certain public amenities. These could include making public parking available in private parking structures, providing public open spaces, improvements to the public streetscape or incorporating energy-efficient green building design into structures. Payments to an escrow account designated for off-site amenities should be accepted in lieu of providing them.

New construction should create architectural variety by stepping back upper floors and varying the massing of buildings. Taller building should also be setback from nearby residential neighborhoods.

In order for the Triangle District to efficiently redevelop, parking will need to be provided with multi-level parking structures. The largest public parking structure will be required in the vicinity of Worth Plaza and should be located between the plaza and Woodward to take advantage of the highest allowable heights and best access.



Height Defines Streetscape

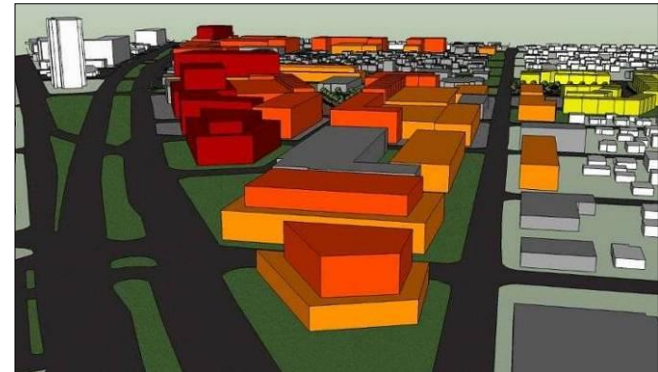
Recommended building heights will help to define streetscapes and create a strong sense of enclosure. This enclosure is a vital component to creating a more human-scale environment that is inviting to pedestrians and induces automobile traffic to slow down.

Currently, automobiles dominate Woodward Avenue, with its wide right-of-way of approximately 200 feet. This vast expanse of highway is open and uninviting to the pedestrian. The buildings on the west side of Woodward are taller, with the tallest being the 555 building at 15 stories. The plan recommends taller buildings on the east side of Woodward Avenue to create a better sense of enclosure. Buildings should range from between five and nine stories. With the tallest buildings ranging in height between 90 and 114 feet, this is half the distance across Woodward Avenue, which is an appropriate scale to create the desired sense of enclosure.

With the tallest buildings along Woodward Avenue, the heights will transition down to a level more compatible with the single-family residential neighborhoods and more appropriate to create the desired sense of enclosure for the narrower rights-of-way of the Triangle District's internal streets. In most cases, buildings in the interior should range between three and five stories. Those buildings within a minimum distance to existing single-family residential homes are limited to three stories. Shorter building heights are appropriate to frame the smaller scale of single-family residential streets.



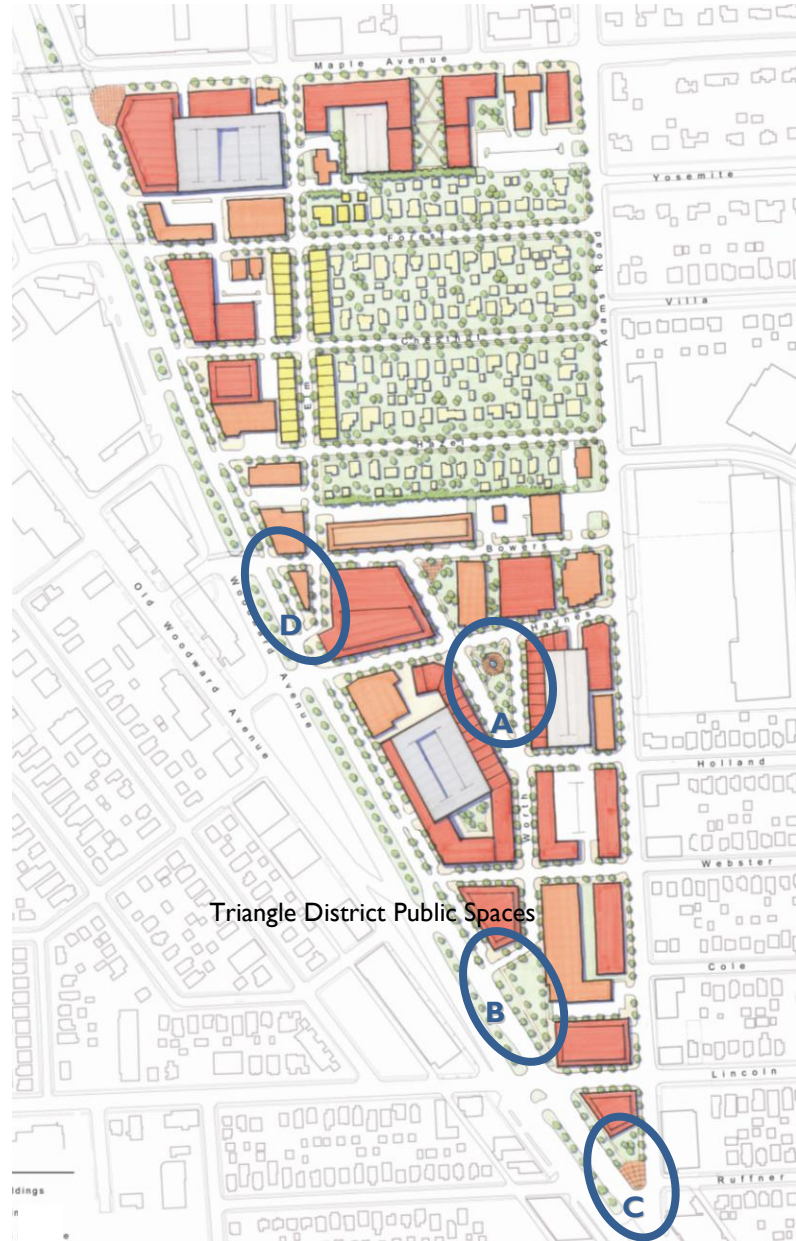
Height/Massing Model – South down Woodward



Height/Massing Model – North down Woodward/Adams



Height/Massing Model – West down Bowers



Public Spaces

Worth Plaza. In order to create a focal point for development in the heart of the Triangle District, a new open space called Worth Plaza will be created from the realignment of Worth Street recommended in the plan (A). This urban plaza will be an island of activity bounded by tree-lined sidewalks and brick-lined local streets, and enclosed by five- to seven-story buildings. While the plaza will be modest in size, it can be designed to create an intimate public space and serve as a focal point for surrounding development. Areas for sitting will be located throughout the plaza which will feature a characteristic element such as a fountain. This space will also be enhanced with the pedestrian oriented-streets that surround it and wide sidewalks in front of the adjoining uses. For special events like festivals or farmers' markets, one or more of the streets surrounding the plaza can be closed to vehicular traffic with removable bollards, expanding the public space to include the public streets.

Woodward Gateways. Several small open spaces are proposed along Woodward Avenue to provide relief to the building mass and serve as gateways into the Triangle District. The most significant of these will be created from the recommended realignment of Worth Street at Woodward (B). Another significant open space will be the plaza and landmark, perhaps a sculpture or other public art, proposed at the Triangle District's southern gateway of the intersection of Woodward and Adams (C). A smaller gateway open space is created by the proposed realignment of Elm Street at Woodward (D). These open space gateways at to the District must be carefully designed with landscaping and wayfinding signs to provide a welcoming effect.

Open Space Design Guidelines. All the proposed public open spaces the ability to attract and entertain visitors, access and connectivity to surrounding areas, safety and comfort. Specific design will vary for individual open spaces but should respond to the following general characteristics:

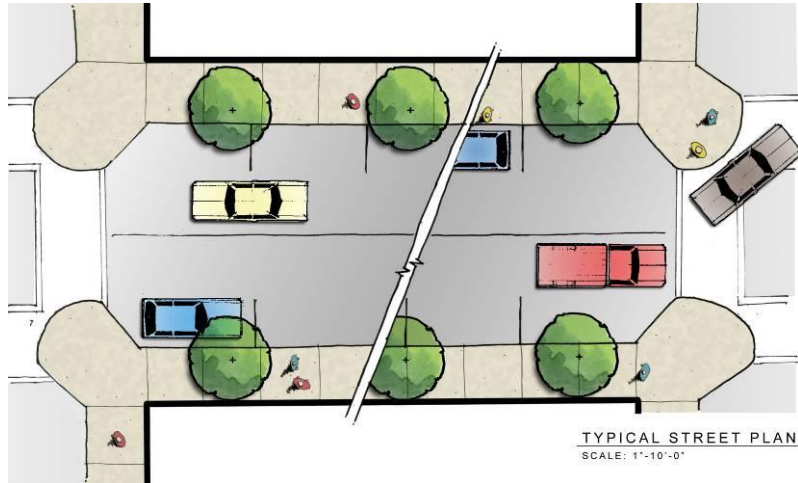
- Pedestrian connectivity within the open space and to the surrounding area should be achieved.
- A preference should be given toward materials and construction techniques which improve energy efficiency and water/soil quality.
- Landscaping materials should be carefully chosen to blend with the adjacent and proposed properties and streetscape.
- Lighting and landscaping should allow for surveillance and policing activities, but should be designed primarily to accommodate the intended use of the park.



Worth Plaza



Plaza Amenities



Walkability and the Streetscape

The Triangle District is intended to be redeveloped as a pedestrian-oriented neighborhood that is comfortable and inviting to pedestrians. Sidewalks should be lined with interesting buildings, and spaces and the area should have a rich mixture of uses that give people somewhere to go. All development must be pedestrian-friendly in its orientation and relationship to the sidewalk. The streets need to be designed to accommodate multiple uses, including vehicles, pedestrians and bicyclists.

Streetscape elements that can be used to create such environments include inviting building facades, landscaping, sidewalks, street paving, street furniture, signs, awnings, and street lighting. Simple improvements to the streetscape will significantly improve the pedestrian environment and further emphasize the intended district character. Recommended physical design elements to be incorporated to achieve the purpose of this Urban Design Plan for the Triangle District are as follows:

- The sidewalk environment should accommodate ample space for many pedestrians, street furniture and prominent storefronts. In addition there should be space for sidewalk cafes, street trees and other elements that create a comfortable separation between parking and drive lanes and the pedestrian areas. These 'human-scale' elements improve the personal experience for people walking along the sidewalk and are recommended throughout the Triangle District.
- On-street parking and pedestrian crossings should be used extensively to enhance the streetscape and delineate an edge between sidewalks and the street.
- Service and utility lines should be located underground or behind buildings - not along the public streetscape.

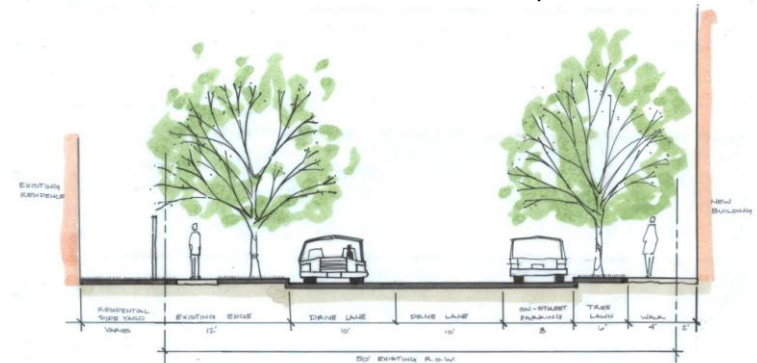


Walkable Streetscape

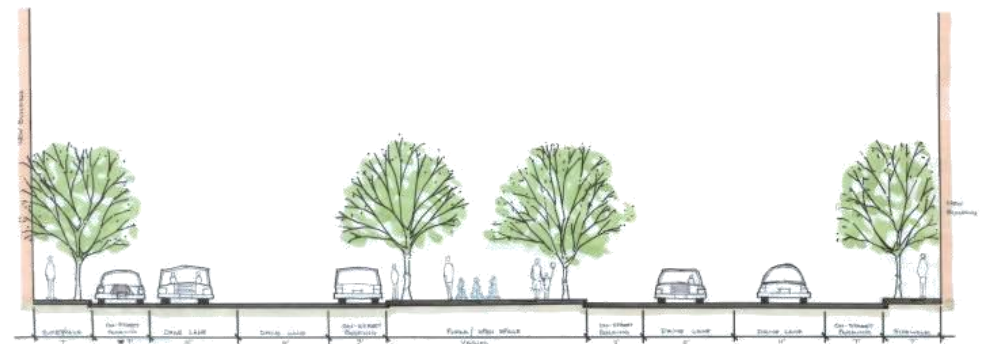
- Use of pavers should be integrated into the sidewalk and street crossing designs to accentuate the streetscape.
- Landscaping and street tree placement should be respectful of storefronts and building entrances.
- Curb extensions or bump-outs should be included in the overall design of the District. They are important because they create a larger, safer pedestrian area for gathering and waiting to cross the street. The use of bump-outs reduces the length of time a pedestrian has to walk across traffic lanes, which reduces accident potential and increases the feeling of safety. Also, it creates areas of on-street parking away from the intersections to help reduce conflicts with traffic operations.
- The streetscape should include benches, trash receptacles, planters, pedestrian-scale lighting, and other such amenities throughout the Triangle District. Newspaper boxes should be placed into clusters using the standard Birmingham newspaper racks.
- To encourage alternative forms of transportation, bike lanes should be integrated into the road designs. To augment the use of bikes, bike racks can also be provided on the sidewalks near the entrances to public buildings.
- Streetscape improvements should include transit-friendly elements such as bus stops and shelters to support the existing bus service operating in the Triangle District. Worth Plaza should be added as a transit stop in future transportation plans.



Streetscape with Bike Lane



Elm Street Cross-Section



Worth Street Cross-Section



Wayfinding Sign

Identity & Wayfinding

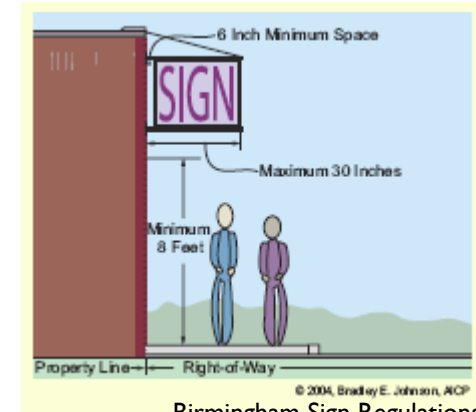
To develop an identity for the Triangle District it is important to create a unified theme for the District which complements Downtown while helping residents, visitors, and property and business owners efficiently utilize the public amenities and developing a sense of place. Although the identity can be developed through proper streetscape elements, signs have a profound effect on the visual impression and character of a community. Gateway signs, directional signs, and business signs for individual stores, offices, and other uses can be instrumental in creating a sense of place in the Triangle District.

Public Signage

- Consistent public signage should be developed to promote the branding of the Triangle District.
- Gateway signs should be implemented announcing the welcome to the District, one near the intersection of Woodward Avenue and Adams Road at the southern tip of the District. The other should be located near the intersection of Woodward Avenue and Maple Road. These signs should be dramatic and include landscape and special pavement to alert the driver.
- Directional signs should be located throughout the Triangle District to help direct vehicular and pedestrian traffic flow towards parking and destinations within the District.
- Freestanding signs should be landscaped with appropriate deciduous and evergreen shrubs, ground cover plantings, annuals and/or perennials.

Property and Business Signs

- The size and height of signs should be pedestrian in scale but should also be visible to slow moving vehicular traffic.
- Storefront signs should enhance buildings rather than overwhelm them. Signs should complement the architecture and be integrated into the facade design in a sign band.
- Illumination of signs should be limited to external means such as decorative down-directed lighting. Sign types to be encouraged include wall signs, awning signs and window signs. Rooftop signs, billboards, and signs attached to rocks, trees, poles, benches, and trash receptacles should be prohibited.
- Projecting signs or special architectural features should be encouraged at a pedestrian scale.
- Signage should not be internally lit, but lit from an indirect source.



Birmingham Sign Regulations





LEED Certified Building

What is LEED?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. LEED provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle.

Source: US Green Building Council

Sustainable Design

Sustainable design identifies ecological, infrastructural, and cultural characteristics of a site and/or building and its related open spaces which result in harmonious integration with the natural environment. The intent is to encourage optimal use of natural or existing features in architectural and site design such that a building's energy use is reduced and the natural environment is thereby enhanced. The goals of the Triangle District's sustainable design standards are:

- Reduce the energy use required for lighting, heating, and cooling of structures.
- Reduce the energy use required for transportation within the Triangle District and the extended area.
- Encourage design that promotes non-motorized transportation alternatives like walking and biking.
- Reduce on-site water usage.
- Reduce the off-site runoff of stormwater.
- Protect existing trees and vegetation.
- Promote higher density infill development where the infrastructure capacity exists.

The United States Green Building Council's Leadership in Energy and Environmental Design (LEED) provides the benchmark for the design, construction, and operation of high performance green buildings and site design. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. A rating system has been developed and is continually updated through an open consensus-based process which is the standard for environmentally healthy neighborhoods around the nation. New developments and revitalization of

existing ones can be LEED-certified based on qualifying guidelines. It has been tested and seen that LEED-certified buildings have lower operating costs, promote healthier neighborhoods, and conserve energy and natural resources which lead to development that is sustainable over the long term.

The use of LEED-designed buildings should be encouraged in the Triangle District. To achieve the maximum benefits of environmental sustainability in the Triangle District, the following should be carefully evaluated by developers, property and business owners and public officials of the City:

- The use of general guidelines of LEED certification programs, including the Neighborhood Development Rating System for site design and Existing Buildings and New Construction Rating System.
- Guiding development to environmentally appropriate infill areas.
- Placing, orienting, and configuring buildings on site to minimize energy use by means of day light, solar heating, natural ventilation, and shading from vegetation or other buildings.
- The use of a density credit system to render flexibility to site design through set development rights.
- Use of pervious pavers in surface parking lots along with sustainable design concepts like rain gardens in open spaces and landscaped areas to improve stormwater quality and reduce stormwater quantity.
- Use of shade trees and native-landscaped areas.



LEED Certified Building



Green Roof in Chicago



Inset of Worth Realignment

Circulation Recommendations

Circulation

To supplement the streetscape and walkability improvements, there are a number of roadway improvements recommended through the Triangle District. Some will enhance traffic operations and safety, while others are intended to make the district more walkable.

Maple Road (A). Maple Road between Woodward and Adams should be converted from two lanes in each direction to an imbalanced roadway configuration, for example with two westbound lanes, one eastbound lane and a center turn lane, as depicted in A1. This configuration would improve access into the Triangle along Elm Street and to the businesses along Maple without widening. Additionally, intersection improvements should be made at Elm and Maple to better emphasize this entrance to the Triangle District.

Hazel Street (B). The segment of Hazel between Woodward and Elm could be closed to minimize the number of access points along Woodward Avenue and minimize cut-through traffic in the residential neighborhood. The new space could be used as open space or could be conferred to a property owner or developer in a beneficial exchange.

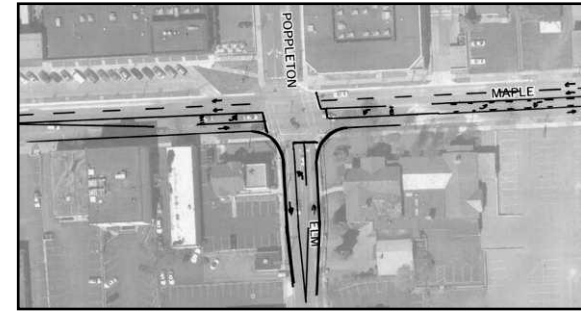
Woodward/Elm (C). There are a number of options for the short block of Elm Street between Bowers and Woodward Avenue (C). Because of the slight angle from Woodward Avenue, traffic on Woodward Avenue tends to enter Elm at high speeds. In addition, the intersection with Bowers has limited sight distance because of building placements and a narrow right-of-way. The intersection of Elm at Woodward should be reconfigured to require traffic entering the District at Elm to make a right turning movement rather than merely veering right (C1). This would slow traffic and improve safety for pedestrians and motorists. Additionally, this portion of Elm south of Bowers could be converted to southbound traffic only with the former northbound lanes converted to angled street parking (C2). Alternatively, this segment could be vacated altogether and used as open space or developable land for an adjacent parcel (C3).

Woodward/Worth (D). The intersection of Worth Street at Woodward Avenue shares many of the same problems as Bowers discussed above. It is recommended that this intersection be reconfigured to form a right angle, greatly slowing traffic and creating the opportunity in the vacated right-of-way for a small greenspace with public art, landscaping, and wayfinding signs.

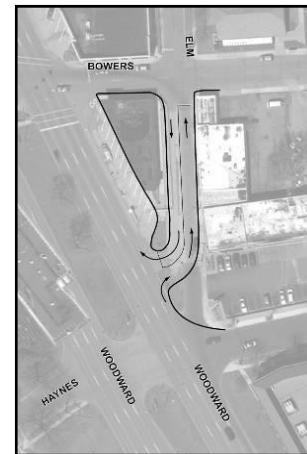
Worth Street (E). Currently Worth Street ends at Haynes Street. This prevents circulation between the Triangle District's northern and southern halves. Worth should be realigned parallel to Woodward Avenue and extended to Bowers. This will improve north/south interior connectivity within the Triangle District and better link the north and south halves of the District, which will help support redevelopment of this area. This road reconfiguration will also allow the creation of Worth Plaza in the heart of the Triangle District. The alignment of Worth Street will be through the rear of the Boarder's parking lot and buildings currently located between Bowers and Haynes. Therefore Worth Street realignment will need to be done in conjunction with the development of a parking structure and redevelopment of the properties on the north side of Haynes. The specific alignment shown on this plan is conceptual and could be varied, provided the ultimate alignment created Worth Plaza.

Bowers Street (F). Bowers Street should also be emphasized as an east/west connector corridor that connects the residential areas east of Adams to the Triangle District and Downtown.

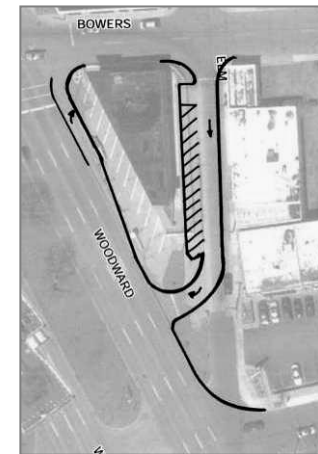
Additional traffic modeling and detailed geometric designs will need to be evaluated further by the City's traffic engineer prior to implementing these recommendations.



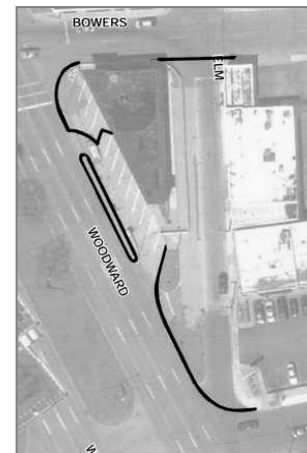
Maple Road (A1)



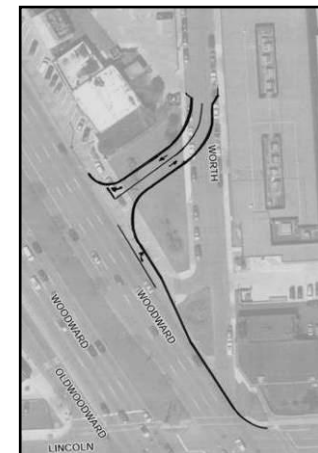
Woodward/Elm (C1)



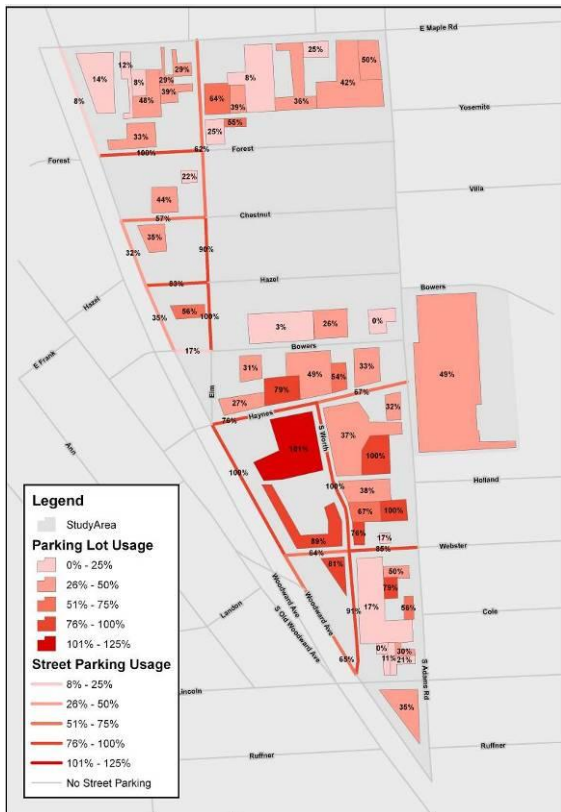
Woodward/Elm (C2)



Woodward/Elm (C3)



Woodward/Worth (D1)



Existing Surface and On-Street Parking Use



Integrated Building & Parking Structure

Parking

The City of Birmingham has implemented an extensive parking program for the Downtown, with several public parking structures and metered on-street parking. This has permitted significant development without requiring onsite parking for each property. The Triangle District, however, relies on individual private surface lots. Use of private, single-use parking lots is an inefficient system that results in parking shortages at certain locations with simultaneous surpluses at other locations. Surface parking lots consume a large area, are inefficiently used and contribute to the automobile-dominated character of the Triangle District.

On a typical day, parking use is generally well under the capacity. Certain parking lots, though, are at capacity during peak times at high demand uses such as the Border's Books and Papa Joe's Market. But generally overall, private lots are underutilized, with only 50% of the parking in use.

A more efficient means of accommodating parking is needed in the Triangle District. In the short term, a shared parking program may reduce parking demand. As the Triangle District redevelops, this plan recommends a managed parking system with a combination of parking on-street, in structures and in limited surface lots to ensure that convenient parking is provided to the uses with the greatest demand and that there is efficient use of land. Construction of a parking structure is an imperative element of the plan and should be implemented during the first phase.

At this plan's full potential build-out, an estimated 4,000 to 4,500 parking spaces will be required to accommodate the residences, offices, and shops proposed. Demand in the southern portion of the Triangle District will account for approximately 65% of needed spaces. Approximately 400 spaces will be available on-street, leaving the balance to be provided in public and private structures. Public structures should accommodate a portion of the retail parking demand, while private structures should accommodate the remaining retail parking demand, as well the residential and office demand. A number of alternative locations for parking structures are shown on the plan with two preferred locations (A and B), based upon accessibility from Woodward, proximity to uses and minimum recommended dimensions.

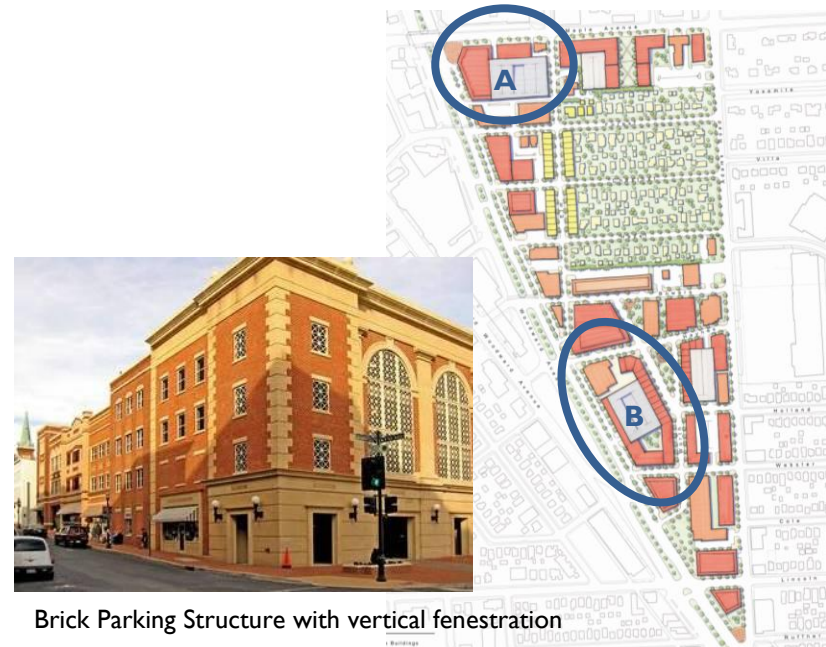
Minimum desirable area for a two-bay single helix parking structure is 124 feet wide by 200-270 feet long. These can be designed to handle 500 to 750 parking spaces. Minimum desirable area for a three-bay, side by side helix parking structure is 175 feet wide by 250-270 feet long. These can be designed to handle 750 to 1,100 parking spaces. In order to maximize efficient use of land, underground parking should also be incorporated.

New parking structures, whether public or private, should be integrated into mixed-use buildings with parking discouraged at ground level. This should be accomplished by providing retail at the grade level, wrapping the parking structure with other uses, or integrating parking with other uses vertically. Parking structures should be well-designed, incorporating architectural elements such as brick panel openings and vertically proportioned openings.

A public parking structure could be financed through a special assessment district or as a public/private partnership. Temporary parking should be arranged during construction. A new public parking structure would serve as a stimulus for additional development and could generate revenue through a payment-in-lieu parking program. As an incentive for contributing towards public parking, the Zoning Ordinance could grant height bonuses for either providing public parking in a development's private deck or contributing towards construction of a nearby public parking structure.

Changes to the City's parking regulations are recommended in order to better accommodate the character of development desired in the Triangle District (see table). Provisions for shared parking between multiple uses should be utilized to the maximum extent possible.

Parking needs to be monitored and managed to limit negative impact on nearby residential neighborhood streets. On-street parking should be metered to ensure turnover.



Brick Parking Structure with vertical fenestration

Recommended Changes to Parking Regulations

Use	Zoning Ordinance	Typical peak parking demand (1)	Recommendation
Retail	3.3 spaces per 1000 sq. ft.	Retail shopping centers: 3-3.5 spaces per 1000 sq. ft. Super markets: 6.7 spaces per 1000 sq. ft.	Current ordinance standard is appropriate.
Restaurants	13.3 spaces per 1000 sq. ft.	14 – 20 spaces per 1000 sq. ft.	Current ordinance standard is appropriate Peak parking demand for restaurants will be at different times than the other uses.
General office	3.3 spaces per 1000 sq. ft.	3 spaces per 1000 sq. ft.	Current ordinance standard appropriate. Allowance for shared parking, particularly in mixed use buildings should be fully utilized.
Medical office	6.7 spaces per 1000 sq. ft.	4.3 spaces per 1000 sq. ft.	Medical office should be reduced to 1 space per 250 sq. ft. (4 spaces per 1000 sq. ft.)
Residential	1 to 1.25 spaces per unit	1.4 spaces per unit	Eliminate standards based on number of rooms, reducing residential to 1 space per unit minimum and allowing market to dictate Shared spaces between multiple uses can be applied to guest parking.

(1) Based on Institute of Transportation Engineers Parking Generation Manual, Second Edition



Woodward Corridor Improvements

Woodward Avenue is the principal roadway that passes through the City and links Birmingham to the other communities along the corridor from Downtown Detroit to Pontiac. This roadway has been designed and improved to handle large volumes of traffic and currently carries approximately 65,000 vehicles per day with four lanes in each direction. As this roadway was modified to handle increasing volumes of traffic, its suitability for pedestrians diminished. This plan recommends potential changes to Woodward Avenue to become a grand, tree-lined boulevard, lined with distinctive buildings and a street design that accommodates vehicles, but also would be more inviting for pedestrians to cross and walk along the roadway.

Alternatives for improving Woodward Avenue are listed below:

- Create a stronger sense of enclosure along the corridor to help contain the large scale of the wide right-of-way, make the environment more comfortable for pedestrians, and induce traffic to drive slower. This can be achieved by the combination of taller buildings along the corridor and more street trees in the medians and along sidewalks.
- Eliminate some of the driveways and intersecting streets along Woodward that create conflict points for through traffic and local traffic. This will help improve vehicular and pedestrian safety and alleviate conflicts.
- Reduce the speed limit to 35 mph to make it safer for pedestrians and for drivers and their passengers.
- North of the Maple intersection, shorten the northbound u-turn lane to increase the width of the median for pedestrians. The southbound u-turn may be eliminated to increase the median for pedestrians; however this would need to be studied further to determine the impact to southbound to northbound movements.

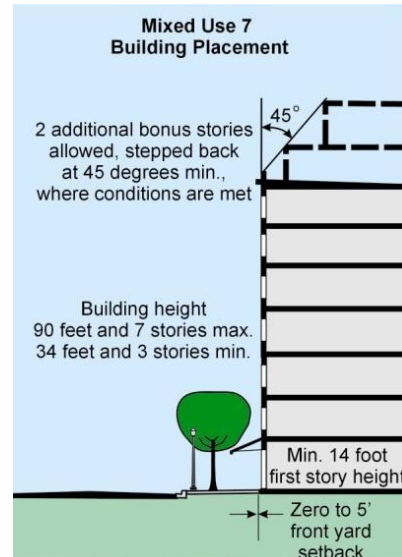
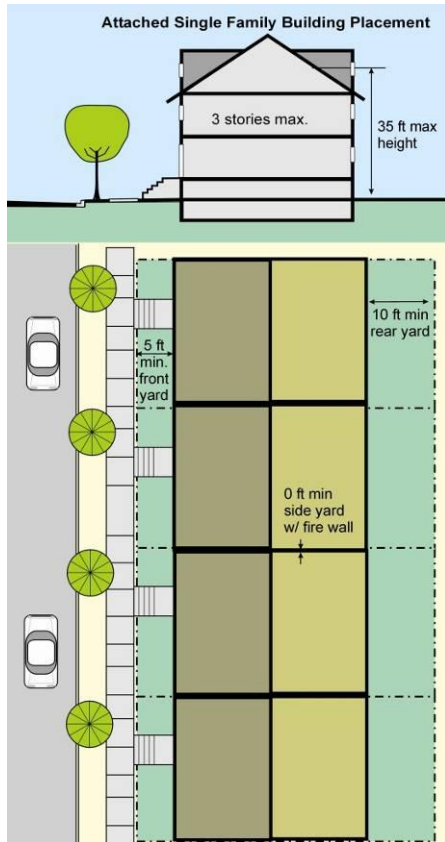
- North of the Maple intersection, remove southbound right turn lane into Downtown and convert the westernmost travel lane to a right turn lane to reduce distance a pedestrian must travel to cross the roadway.
- Move northbound median south of Maple further away from the intersection to reduce the potential conflict with pedestrians in the median.
- Add a northbound signal at Forest to facilitate pedestrian crossing at the crosswalk. A signal already exists in the southbound direction and MDOT should consider the additional signal if it is timed to operate with the one at Maple.
- Shorten southbound u-turn lane south of Forest to increase the distance between pedestrians in the crosswalk and vehicles.
- Upgrade the Maple-Woodward intersection signals to mast-arm signals to improve the visual character of the area.
- Add pavers to crosswalks the existing crosswalks at Maple, Forest, and Bowers to improve the visual character of the area, to more clearly identify the pedestrian zone to drivers, and to enhance the secondary crossings of Forest and Bowers.
- Improve the existing at-grade crossing at Maple by adding to the median pedestrian elements such as a shelter depicted to the right. Such improvements can provide a resting place for pedestrians who cannot cross the entire extent of Woodward at once. A structure would also protect pedestrians from vehicles, induce vehicles to slow down, and provide some comfort to pedestrians standing in the median of a busy intersection.
- An above-grade crossing of Woodward not recommended at this time, given the construction and maintenance costs and the lack of large “anchor” destinations to serve as terminating points. Some type of elevated crossing could be worth reconsideration if conditions change in the future.

In the long term...

As a long-term goal, the City should pursue a reduction in the number of lanes to three in each direction for through-traffic. A fourth lane could be a separate service drive that functions as a local street with on-street parking. Access points to the main through lanes would be minimized to improve the efficiency of traffic flow. Local service drives can be used to access the businesses that line Woodward Avenue. This would make additional right-of-way available for wider sidewalks in front of businesses and would reduce the distance pedestrians must travel to cross the main throughway. This recommendation must be carefully considered and requires further investigation. It must be modeled by the City’s traffic engineer to ensure that traffic will not spill over to secondary streets like Adams and Maple. It also would require significant coordination with MDOT.



Illustrative Concept of Woodward Avenue Pedestrian Improvements



Form-Based Code Building Placement Regulations

Implementation

Implementation of the Triangle District Plan will be accomplished through a variety of means, including public capital improvements such as parking structures or roadway realignment. Many of these can be accomplished through public/private partnerships as redevelopment of the Triangle District occurs. Coordination will also be required to facilitate the complicated processes of land assembly and cooperation between adjacent landowners is necessary to enable development of the Triangle District plan, especially to extend Worth Street and form Worth Plaza.

A key regulatory element that the City can adopt to help implement the plan is a form-based code. A form-based code is a zoning tool that regulates development to achieve a specific urban form. Form-based codes create a predictable public realm by controlling physical form primarily, with a lesser focus on land use. It creates a physical framework wherein a mixture of uses can be allowed and enables an area to evolve over time, because the form will conform to the planned context of the neighborhood.

The form-based code will regulate both the minimum and maximum building height based upon the Regulating Plan. Setback requirements are replaced with build-to lines that require buildings be built up to the sidewalk to create a continuous street edge with parking located in the rear. The form-based code includes functional design elements to ensure that buildings relate to the street at a pedestrian scale and orientation.

While conventional zoning limits regulation to individual sites, a form-based code ties together the site and the streetscape. Building regulations relate to design requirements for streets, sidewalks, on-street parking, street trees and public spaces.

A form-based code should replace the current method of regulating Floor Area Ratio (FAR) in the Triangle District, as outlined in the Zoning Ordinance. FAR is unpredictable in what the form of the resulting development will be, because it only regulates the mass of the building and not the location or orientation of the building.

The code should provide incentives for development that follows the plan by permitting additional building height. The form-based code will regulate height and incorporate additional height bonuses to provide incentives for providing public parking, sustainable building practices, public streetscape improvements and public spaces.

Consideration should also be given to the zoning regulations for the single family residential neighborhood that is to remain in the Triangle District. The plan recommends continuation and strengthening of this neighborhood. One method to encourage neighborhood reinvestment would be to relax some of the dimensional requirements and Floor Area Ratio restrictions. Given the recommendation of the plan to allow an intensification or more urban form of development in the Triangle District, it would be appropriate to allow a greater bulk of residential structures in this neighborhood to reinforce it as an enclave of high-end housing in an urban center.

Phasing

This plan was developed with a 20-year time frame in mind. Newer commercial structures, including some currently in development like the Mayfair project, are unlikely to change over the time frame and are considered fixed. Single-family homes along Hazel, Chestnut, and Forest are generally considered fixed as well for the purposes of this plan. Older commercial structures are more likely to face redevelopment pressure and are represented in this document by planned uses and a conceptual building form that are deemed appropriate at the end of the 20-year period.



Mayfair Project



Triangle District
Single-Family Homes





Worth Plaza (Phase I)

Implementation of this plan will occur over time based on factors such as property owners' individual plans, economic and real estate market conditions, public investment, and the political environment. Some redevelopment in the District is already occurring as of this plan's adoption. This development pressure is creating a sense of urgency to adopt policies that will ensure the desired future character of the District.

Phase I. The centerpiece of this plan is the Worth Plaza area with its public open space, street-level shopping, and upper-level residences. Implementation of this part of the plan is vital in creating a vibrant, mixed-use Triangle District. The Worth Plaza area is identified as Phase I of the plan to highlight its role as the heart of activity and the geographic center of the District.

There are two key improvements that will be necessary precursors to the successful implementation of Phase I. They are the realignment of Worth Street to create the Worth Plaza open space and a substantial public or public-private parking deck. The reconfiguration of Worth Street requires public acquisition of additional roadway right-of-way and includes the extension of Worth Street to Bowers.

The significant increase in retail and residential square footage proposed in Phase I of this plan requires careful attention to the availability of parking. A parking structure is essential to realize the vision of the plan. Construction of a parking structure, either wholly or partially financed with public funds, is a significant public investment that is strongly recommended. The ideal location for such a structure is between Worth Street and Woodward Avenue. This location takes advantage of the higher permitted heights along Woodward and is conveniently located in the heart of the Triangle District. The structure should be timed to precede other development of Phase I to spark private development that conforms to the plan and to preempt redevelopment of parcels that are necessary to accommodate a deck of sufficient size to serve the area.

The City should actively begin the process of planning for the financing and land acquisitions. Minimum desirable area for a two-bay parking structure is 124 feet wide by 200-270 feet long. The Advisory Parking Committee will need to work with the Planning Board and staff to further study the best location, design, and costs and make a recommendation to the City Commission for a special assessment district and start the design and construction process.

The parking structure can be constructed as part of a mixed use building that contains ground level retail and integrated vertically with other uses. Other uses such as office or residential could wrap the exterior of the parking structures or be added to floors above the parking levels.

Key circulation and streetscape improvements highlighted above should be completed in Phase I, including the lane reconfiguration of Maple, the reconfiguration of the intersections at Woodward and Elm and Woodward and Worth, the construction of curb bump-outs and pedestrian crosswalks, and the incorporation of bike lanes and on-street parking into the streetscape.

Infrastructure improvements will likely be needed to support the higher density land uses and ensure that aging infrastructure is replaced. The City should analyze the capacity of sewer and water systems to determine where capacity improvements are needed. This will allow for upgrade or replacement of systems concurrent with redevelopment.

Phase 2. A secondary centerpiece of this plan is the improvement of the Maple and Woodward corridors within the Triangle District, especially at the intersection of these two major roads. A key element of this phase is improving pedestrian access across Woodward Avenue, at Maple and at other cross-streets into the Triangle District such as Bowers and Forest. Development of a second parking structure near this area would be needed to support the increased activity of new construction planned in this area. Several new developments are currently underway or planned for this area. A coordinated plan will ensure it develops in a manner consistent with the



Southeast corner of Woodward & Maple (Phase 2)



Triangle District overview (Phase 3)

long-range vision for the Triangle District. As in Phase 1, the parking structure in this phase can be financed either with a public-private partnership or entirely with public funds. The location of the structure indicated in the plan is one of the few suitable sites with a high potential for available land of sufficient size.

Redevelopment of the southernmost tip of the Triangle is anticipated to take place during Phase 2. This includes acquisition of open space at the southern corner of the Triangle District and development of an iconic monument or sculpture to identify the Triangle's southern gateway.

Phase 3. The completion of the first two phases will create the demand for the full build-out of the plan. This will include final infill development along Adams and Woodward Avenue with mixed use buildings providing a continuous pedestrian-oriented environment throughout the Triangle District. Surrounding neighborhoods will be protected with compatible transitions in terms of use, building height, setback, and scale. Final infill development also includes the development of attached single-family residences along the eastern side of Elm Street, to assist in preserving the existing single-family neighborhood within the Triangle District.

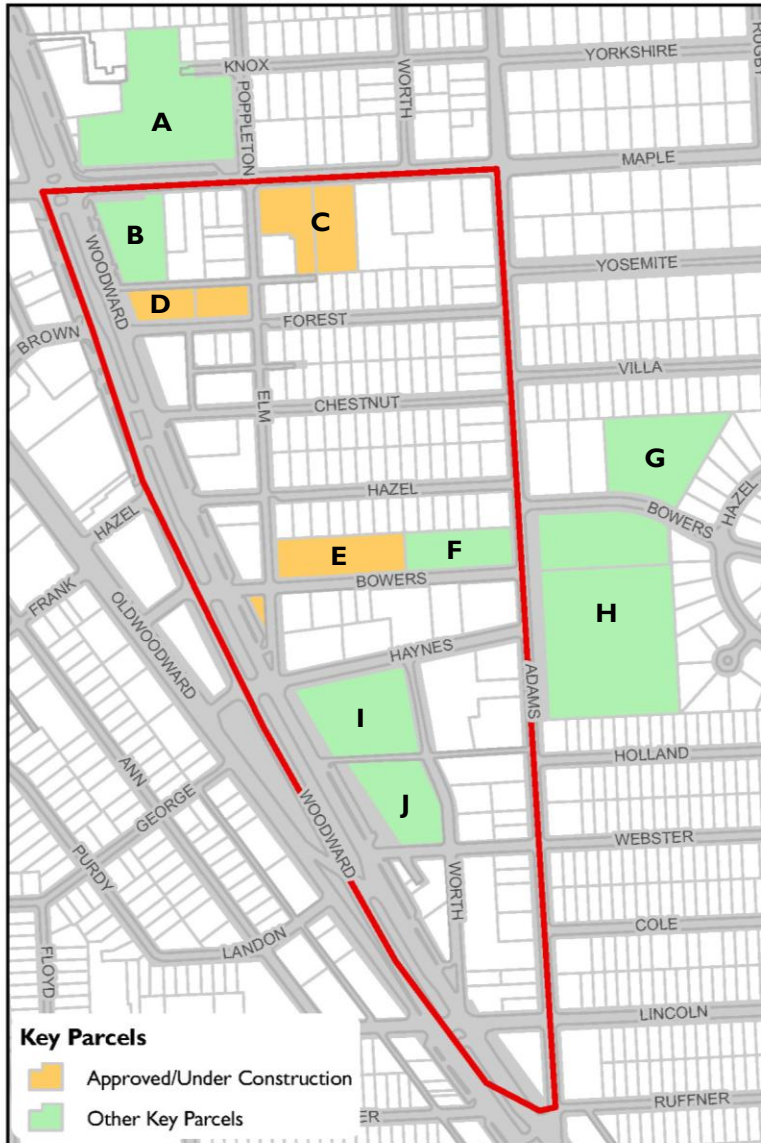
As a long range vision for the City, major changes to Woodward Avenue to reduce to the main roadway to 3 lanes in each direction with the additional of local streets with parking along storefronts will be part of the final phase of the plan. However, the City should start a dialog with MDOT, Oakland County and other communities along the corridor in the short term.

Market Conditions

While the plan includes a number of recommendations that the City will be responsible for implementing, much of the land in the Triangle District is privately owned. The overall Triangle District is divided into approximately 75 lots with numerous private owners. Therefore, the development community will take a major role in implementing the vision in the plan as properties redevelop.

As part of this planning process, a market summary was prepared to identify the potential demand for various uses based on results from the market study and input from developers in the process. The conclusion was that there is a demand for up to 600,000 square feet of retail, commercial services and restaurants in the trade area and that the Triangle District could accommodate up to one-half of this development. While there is demand for uses in the trade area that may not be appropriate in the Triangle District such as big boxes retail centers, there are a number of uses appropriate for the Triangle District that were determined to be underrepresented in the current market. Underrepresented uses include restaurants, specialty food retail, hotels, furniture retail and office supply. There is also the opportunity for up to 500 new residential units of various price points in the Birmingham area, many of which can be located in the Triangle District. A study conducted by the Planned Shopping District (PSD) reiterated that Birmingham is underrepresented in restaurants compared to other successful downtowns.

The City should work to market the Triangle District to the development community. This may be a role for economic development personnel or the boundaries of the PSD could be expanded to include the Triangle District. The City should use this plan as a tool to recruit developers and inspire the development community to help the City achieve the vision laid out in this Plan.



Appendix I – Key Triangle District Parcels

The sites listed below and highlighted on the accompanying map are key parcels that are mentioned by name in this plan, new projects approved or under construction in the Triangle District, or other key identifiable sites.

- A – Kroger
- B – Barclay Inn
- C – New Residential Building
- D – New AAA Building
- E – New Mayfair Building
- F – Fire Department
- G – Post Office
- H – Adams Square
- I – Borders
- J – Papa Joe’s Market

Appendix 2 – Triangle District Urban Design Plan



