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20th Street Streetscape Plan

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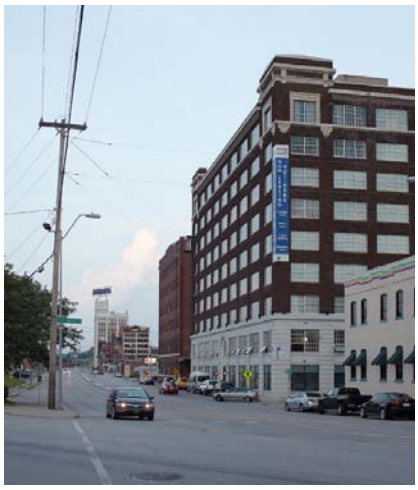
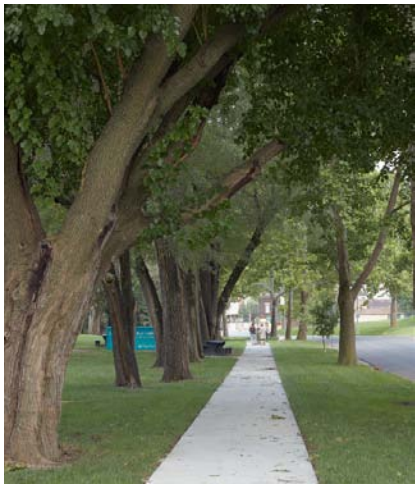


Introduction

The 20th Street Streetscape Project is an implementation measure of the Greater Downtown Area Plan (GDAP) and the result of a Request for Qualifications issued by the City of Kansas City Missouri Planning & Development Department on May 18th, 2010. A primary goal of the GDAP was to make walkability the highest transportation priority in the downtown area, and Project 1-N, a specific action step within the GDAP, called for a "road diet" and associated streetscape improvements for 20th Street.

Planning Process



The 20th Street Streetscape Plan was designed to be a public planning process involving area residents, businesses, property owners, institutions, and city agencies. The decision making body was made up of a citizen steering committee and a technical committee, both appointed by the Mayor. The consultant team and members of City Staff provided technical support in this process.

To ensure the broadest possible awareness of the project and to encourage participation there were a number of neighborhood-specific public interactions. These included public meetings, a temporary First Friday installation called *Limelight*, a photo essay by a well-regarded Kansas City artist and an interactive project website/blog.

Plan Purpose

The 20th Street Streetscape Plan will:

- Serve as a comprehensive guide for future streetscape improvements along the 20th Street right-of-way from West Pennway Street to McGee Street.
- Focus on specific streetscape improvements, including cost estimates, from Central Street to McGee Street.
- Outline future phases of work to fully implement the 20th Street Streetscape Plan, from West Pennway Street to McGee Street.

← NORTH

Any recommendations made in this document will be more fully defined during subsequent phases of work. The purpose of this document is to initiate Project 1–N in the GDAP's implementation matrix and create a unified, cohesive streetscape framework that supports the five primary goals of the GDAP:

- Create a walkable downtown.
- Double the population downtown.
- Increase employment downtown.
- Retain and promote safe, authentic neighborhoods.
- Promote sustainability.

Project Study Area

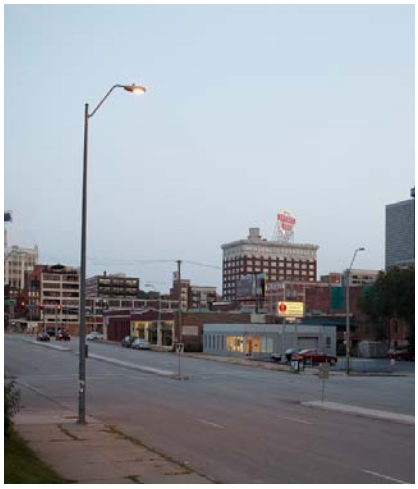
The 20th Street Streetscape Master Plan study area was originally defined in the Request for Qualifications as 20th Street from I-35 to McGee Street. However, due to planned improvements by Parks and Recreation on West Pennway Street, as well as by Public Works and Missouri Department of Transportation on I-35 and surrounding on/off ramps, it was agreed to redefine the overall study area as: 20th Street from West Pennway Street to McGee Street, with a more detailed focus on the area from Central Street to McGee Street.

The study area is mostly public right-of-way, but it does include considerations for reconfiguring both public right-of-way and private property for mutual benefit. These areas include the “Bow Tie Park” at Southwest Boulevard and 20th Street and “Walnut Flyway” at Walnut Street and 20th Street.

Plan Organization

The 20th Street Streetscape Master Plan is divided into four (4) sections:

- 1.0: Existing Condition Analysis
- 2.0: General Goals and Recommendations
- 3.0: Concept Plans
- 4.0: Implementation



1.0 Existing Condition Analysis

An existing condition survey was completed to assess the physical state of the project area, with a focus on 20th Street, from Central Street to McGee Street. Broadly speaking, the corridor is a patchwork of minor repairs made over the years, either by various public agencies or private interests. Utilities will be selectively relocated pending further design development and coordination with the various utility agencies.

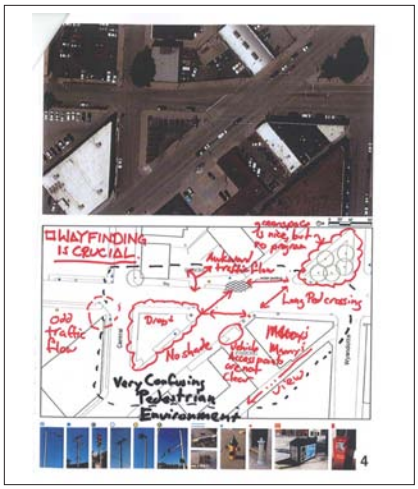
GIS information was analyzed to provide a preliminary understanding of stormwater surface volumes and directional flows. This information provided guidance for sizing and locating proposed stormwater BMP catchments.

The following items were evaluated:

- Surfaces
- Storm Utilities
- Utilities
- Water Lines
- Traffic
- Parking
- Vaults
- Existing Buildings
- Environmental Observations

Surfaces

The street surface appears to be adequate throughout the corridor, though potholes and metal plates are common. For the purposes of this plan we have assumed that all surfaces and subsurfaces will be improved to create a unified public space and multi-modal transit corridor.



Sidewalks in the corridor are serviceable. They are frequently cracked and uneven. ADA curb cuts at intersections are sporadic, and abandoned curb cuts create steep cross slopes and uneven sidewalk surfaces.

Storm Utilties

All sewer main lines within the project area are combined storm and sanitary. Less than ten years ago the sewer lines were lined by the Water Services Department to improve functionality.

Many catch basins are below the surface of the road and pose a tripping hazard. Subsequent analysis of the overall functionality of the existing stormwater system and the impact of proposed stormwater BMP's is needed.

Utilities

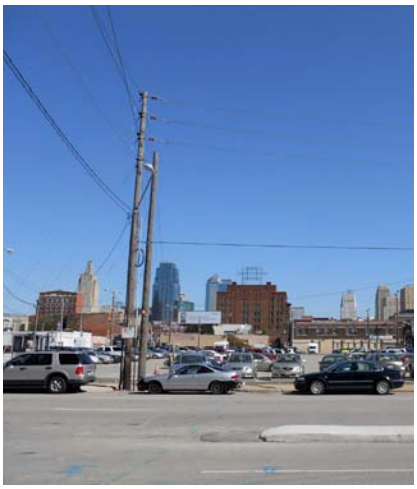
Kansas City Power and Light and the City of Kansas City, Missouri provided subsurface utility location information. The area's electrical distribution is primarily above ground and can be visually identified. Current streetscape work at 20th Street and Wyandotte Street provided actual locations of certain key utilities: sewer, electrical, gas and telecommunications.

Water Lines

The condition of the water main in the study area is unknown. However, during the course of this project the water main just west of Grand Boulevard broke repeatedly. A more thorough analysis, working with the Water Services Department, is needed to determine the extent of needed improvements. Any substantial subsurface utility work ought to take place before or concurrently with 20th Street Streetscape improvements.

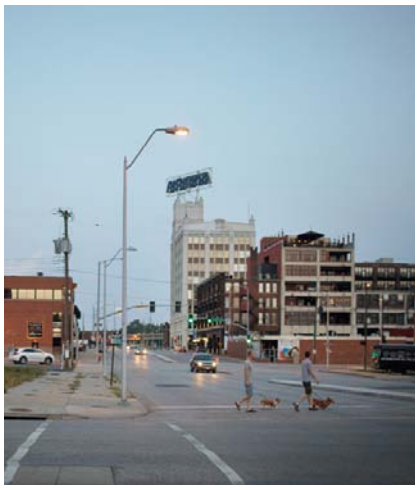
Traffic

Per the recommendations of the 22nd/23rd Street Connector Plan, adopted by Resolution 060189 on May 18, 2006, as well as suggestions in the Request For Qualifications, we are exploring the possibility of a "road diet" for the 20th Street corridor from Southwest Boulevard to McGee Street. The conceptual plans have been discussed with major stakeholders in the area including Crown Center Redevelopment, the Freighthouse Development and business/property owners along the corridor.



Parking

With the increase in both residents and retail/restaurant businesses along 20th Street in recent years the demand for parking is high. Diagonal parking just north of 20th Street on McGee Street was recently completed to increase the number of parking stalls in the public right-of-way. Given the stakeholder-defined prioritization of walkability and devoting more right-of-

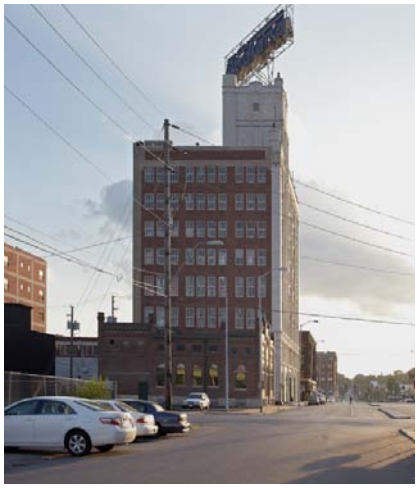


way space to a broader northern sidewalks it was determined not to propose diagonal parking along 20th Street. However, the conceptual plans do illustrate an increase in the number of on-street parking stalls from 65 to 70.

Transit

20th Street is a major bus corridor with a number of routes running through it and crossing it, including the Main Street MAX line. It crosses both Grand Boulevard and Main Street, the City's designated fixed guideway transit corridor. The corridor also serves a number of regional bus lines.

Vaults



The southern sidewalk along 20th Street from Southwest Boulevard to McGee Street is replete with existing building vaults. At least half of the larger the buildings are known to have them. In addition, KCPL has a major underground vault just north of the southern curb line from Main to Grand. The streetscape improvements take a conservative approach towards vaults, leaving the southern sidewalk free of any plantings or alterations that would compromise the current conditions.

Existing Buildings

The 20th Street corridor from Southwest Boulevard to McGee Street is lined with some of the area's most significant buildings, historical warehouse structures and office buildings from the early 20th century. Many on are the National Register of Historic Places. It will be essential to leverage these cultural assets by establishing an urban space-defining balance of buildings to the south and landscape to the north.

Environmental Observations

Over the course of this project the design team spent many hours walking the project area, observing the site at different times of day and throughout the week. Subtle, but important information about the corridor was gained, including ambient summer temperatures impacted by building shading and summer breezes, as well as where vehicular behavior negatively impacts the pedestrian experience.

2.0 Goals and Recommendations

The 20th Street Streetscape Plan is one of the first projects to be explicitly implemented as a result of the Greater Downtown Area Plan (GDAP). It is intended to support the five primary goals of the plan as well. They are:

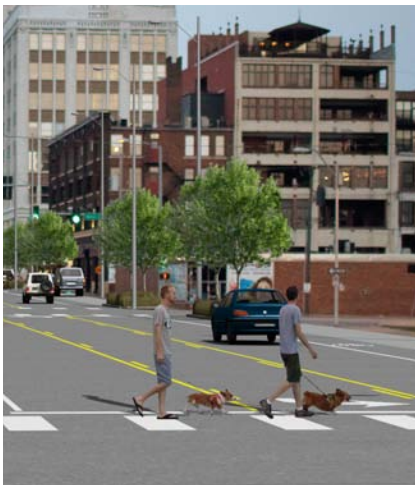
Create a walkable downtown.
Double the population downtown.
Increase employment downtown.
Retain and promote safe, authentic neighborhoods.
Promote sustainability.

The recommendations within the plan are organized around each of these goals, though many of them support more than one GDAP goal. Further details about specific recommendations and how they are applied on a block-by-block basis can be found in section 3.0 Concept Plans.

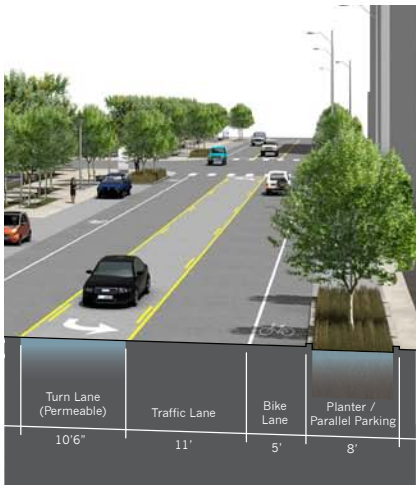
Goal 1: Create a walkable downtown.

Recommendation 1A: Put 20th Street on a "road diet."

The 20th Street Streetscape Plan supports this goal in a number of ways. First, by proposing a "road diet" for the entire length of 20th Street from Southwest Boulevard to McGee Street, 12 to 20 feet of roadway on the north side of 20th Street will be re-purposed as sidewalks, landscape, streetscape amenities and stormwater BMP's.



More detailed analysis is required to confirm that road functionality is not compromised by the "road diet," however significant stakeholders in the area, including Crown Center Redevelopment, the Freighthouse Development and individual business and property owners along the corridor, support the idea. The idea was first introduced as part of the City's 22nd/23rd Street Connector and Crosstown Circle Planning Study, Resolution 060189 adopted on May 18, 2006.

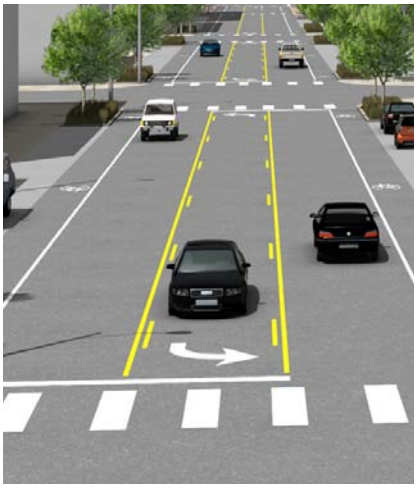


Recommendation 1B: Slow traffic through narrower lanes and planted curb extensions.

The current corridor is a wide open roadway facilitating fast moving vehicles. The introduction of these traffic calming measures will help establish the corridor as a pedestrian friendly, walkable corridor, while maintaining a functional, safe roadway for vehicular traffic.

Recommendation 1C: Provide pedestrian orientation through appropriate signage and wayfinding.

Currently the signage along 20th Street is focused exclusively on vehicular orientation. We recommend first taking an inventory of existing signage, then incorporating appropriately scaled signage and wayfinding to help orient visitors to neighborhood destinations and amenities.



Recommendation 1D: Create wider than standard crosswalk striping.

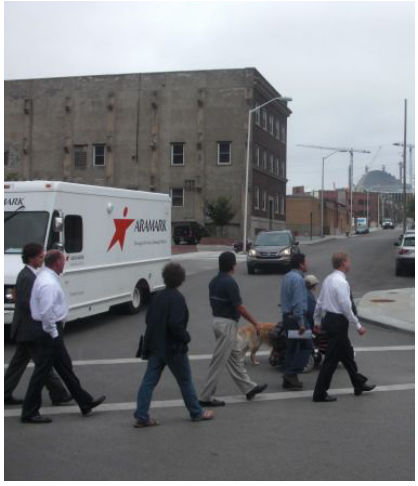
Given the current volume of visitors to the Crossroads on First Fridays and other programmed event days (like Second Saturdays to support retail businesses in the neighborhood) we recommend 10' crosswalks at all intersections along the 20th Street corridor. As development and density in the area increase, the crosswalks will accommodate the larger population and improve livability for residents.

Recommendation 1E: Install pedestrian friendly signalization.

Drivers are used to taking cues from traffic signals. In the next phase of work, we recommend exploring a range of integrated pedestrian signals that recognize this fact and will help establish the corridor as a pedestrian friendly corridor.

Recommendation 1F: Support all forms of transit.

It is our goal to make 20th Street a complete street that will accomodate all forms of transportation, including bicycles,

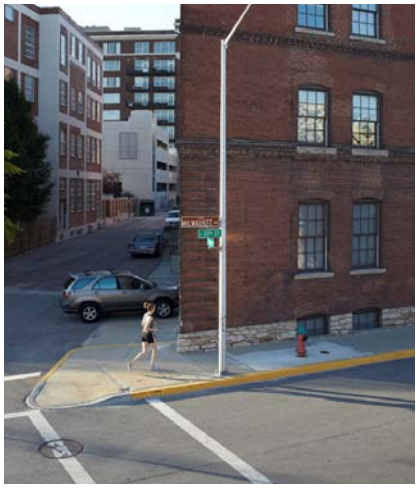


pedestrians, cars, current public transportation and future bus and transit routes.

Recommendation 1G: Replace sidewalks and curb cuts in the project area, with the exception of recent improvements. Install ADA ramps at all intersections.

Given the popularity of the area as an arts and cultural district, highlighted by the hundreds of people regularly attending First Fridays, it is proposed to replace all of the sidewalks and curbs in the project area, recent improvements being the exception. We propose eliminating unused curb cuts as well.

Goal 2: Double the population downtown.



This project cannot directly address this goal. However, by creating quality public spaces that support the desires and needs of urban residents currently dwelling along the 20th Street corridor this project indirectly supports this goal.

Recommendation 2A: Discuss and promote the 20th Street Streetscape Plan as a development tool to attract new and support existing residents downtown.

There are already large concentrations of residents on the east and west ends of the project area, with affordable housing developments being planned near 20th Street and Wyandotte Street. The improvements to 20th Street will make the corridor more livable and will attract future residents. Pre and post implementation census data should be tracked for accurate accounting of the impact.

Recommendation 2B: Increase the availability of public green space.

Green space is scarce in the downtown area. Planted areas in a hard, urban environment, give residents and visitors places to gather together, stop and rest, or walk dogs. They also reduce heat gain and stormwater runoff. It is recommended to create a "Bow Tie Park" from Central Street to Wyandotte Street, where 20th Street crosses Southwest Boulevard, expanding existing green space.

Goal 3: Increase employment downtown.

Recommendation 3A: Recognize that it's already happening.

Design and construction work is supporting and will continue to support a number of professional and construction firms located in Kansas City's urban core. The Downtown Council's report entitled "Economic Impact of Downtown Kansas City, Missouri," projected a 10% growth in jobs located in the area from the years 2000 to 2010.

Recommendation 3B: Track pre and post-implementation job statistics within 3 blocks of 20th Street, including the number of business and number of jobs.

Compare census data collected before and after the project is completed. Coordinate with various organizations like the City Planning and Development Department, Mid-America Regional Council and Downtown Council, all of whom track this information.

Recommendation 3C: Discuss and promote the 20th Street Streetscape Plan as an economic development tool to attract new and support existing businesses downtown.

The 20th Street Streetscape Plan will assist the Economic Development Corporation of Kansas City, the Downtown Council and the staff of the future Crossroads CID in attracting and supporting local businesses.

Recommendation 3D: Introduce signage and wayfinding in accordance with the City's existing wayfinding system.

An often-heard complaint from business owners and guests to the Crossroads is the difficulty of finding smaller, tucked away destinations. It is recommended to integrate business-supportive signage along the corridor to provide orientation. There are also a large number of not-for-profits in the immediate vicinity of 20th Street. The signage would help identify them to the public as well.

Goal 4: Retain & promote safe, authentic neighborhoods.

Recommendation 4A: Keep the materials simple, durable and easy to maintain.

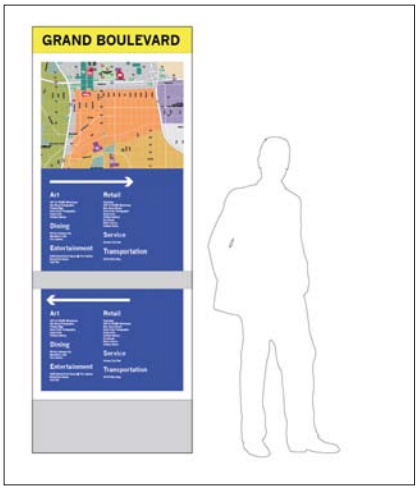
The Crossroads prides itself on being a little rough around the edges. We have translated this idea into an approach emphasizing straightforward materials like City standard concrete for all of the sidewalks and curbs. Another example is the staggered continental crosswalk that takes into consideration the wear patterns of vehicles.

Recommendation 4B: Incorporate public art.

The Crossroads is home to a number of art galleries and artists' studios. It is also home to the soon-to-open Kauffman Center for the Performing Arts. This project will set a clear tone of contextual sensitivity by incorporating public art. But it needs to be done thoughtfully, via a process that is both respectful of best practices and respected by the art community.

Recommendation 4C: Create flexible space.

Repeatedly throughout the conceptual design process we heard from stakeholders that they wanted flexible outdoor, public space. 20th Street and Baltimore Avenue has become the central location for First Fridays given the concentration of galleries here. Events have spilled out of the buildings and into the streets, all along the corridor. A large promenade on the northern edge of 20th Street and a curbless profile also on the northern edge will help facilitate this desire.



Recommendation 4D: Create Crossroads specific amenities (benches, trash cans, bike racks, pedestrian lighting, public art, wayfinding, etc).

The Crossroads prides itself on being unique. It is recommended to develop a suite of Crossroads-specific streetscape amenities. Some might be drawn from existing projects like the "martini" lights from the Freighthouse streetscape work. Others might be new for this project, but will be designed with an eye towards

durability and ease of maintenance. These amenities will be maintained by the future Crossroads CID.

Recommendation 4E: Respect the architectural heritage of the corridor.

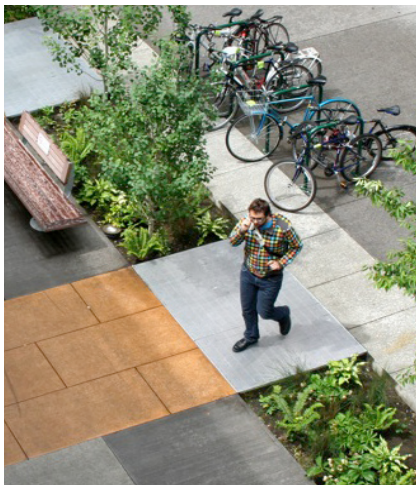
A high number of large, historically significant buildings line the southern edge of 20th Street from Southwest Boulevard to McGee Street. They form a very distinctive urban edge, in contrast to the surface parking lots and the wide setbacks along the northern edge of the corridor. Minimal tree planting is recommended along the southern edge of the street, due to the presence of vaults and the desire to maintain visibility of the structures. Along the northern edge of the street, we recommend strategically planting trees to create a clearly defined urban space.

Goal 5: Promote sustainability.

Recommendation 5A: Implement extensive stormwater BMP's.

All of the proposed landscape improvements serve double duty. First the trees and planted beds visually soften an otherwise hardened urban environment. Second the planted beds and bulb outs also function to slow down and cleanse storm water captured from adjacent parking lots and streets.

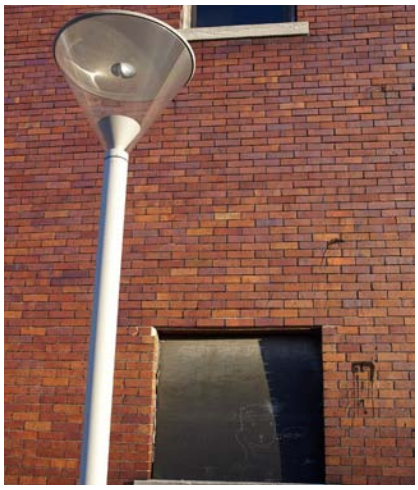
Recommendation 5B: Use pervious pavement where practical.



In the on street parking stalls and in the center turn lane at minor intersections we propose using pervious asphalt to allow additional surface stormwater to be slowed down before it enters the hard-piped stormwater system.

Recommendation 5C: Plant an abundance of deciduous trees.

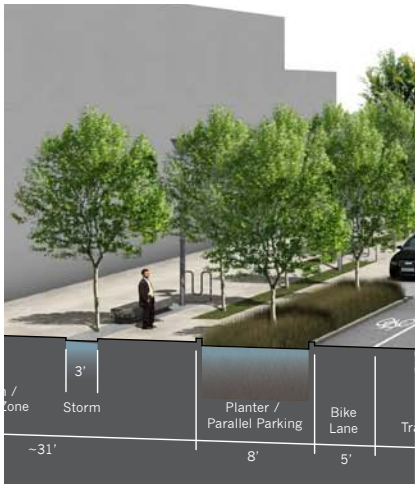
Deciduous trees improve air quality, provide a canopy in the summer to reduce the Urban Heat Island Effect and allow passive heating in the winter when they lose their leaves. A specific tree and plant palette will be determined in the detailed design phase of this project and approved by the City Forester.



Recommendation 5D: Create a truly multi-modal street.

Dedicated bike lanes indicate a commitment to alternative means of circulation downtown and promote a more healthy lifestyle. Southwest Boulevard and 19th Street are future bike routes on Bike KC, the City's comprehensive bicycle plan. The City's Bicycle/ Pedestrian Coordinator supports the recommendation to add bike lanes to 20th Street and connect to Southwest Boulevard and 19th Street's approved routes.

Recommendation 5E: Utilize energy efficient roadway and pedestrian fixtures.



It is recommended that city-approved LED roadway fixtures be used throughout the corridor. An energy efficient fixture that is already part of the adjacent Freighthouse Streetscape standards is recommended for pedestrian lights. This fixture utilizes indirect down-lighting, efficiently directing light where it's needed and reducing light pollution in support of the Dark Sky Initiative.

Recommendation 5F: Use sustainable construction materials and methods.

Materials and methods will be researched and specified in greater detail during the next phase to ensure compliance with best practices, guided by LEED construction standards.

Recommendation 5G: Use passive irrigation.

Through a series of interconnected curb extensions and planted beds on the northern side of 20th Street, collected stormwater will be used to irrigate plant material, simultaneously cutting down on the need to water and cleaning stormwater.

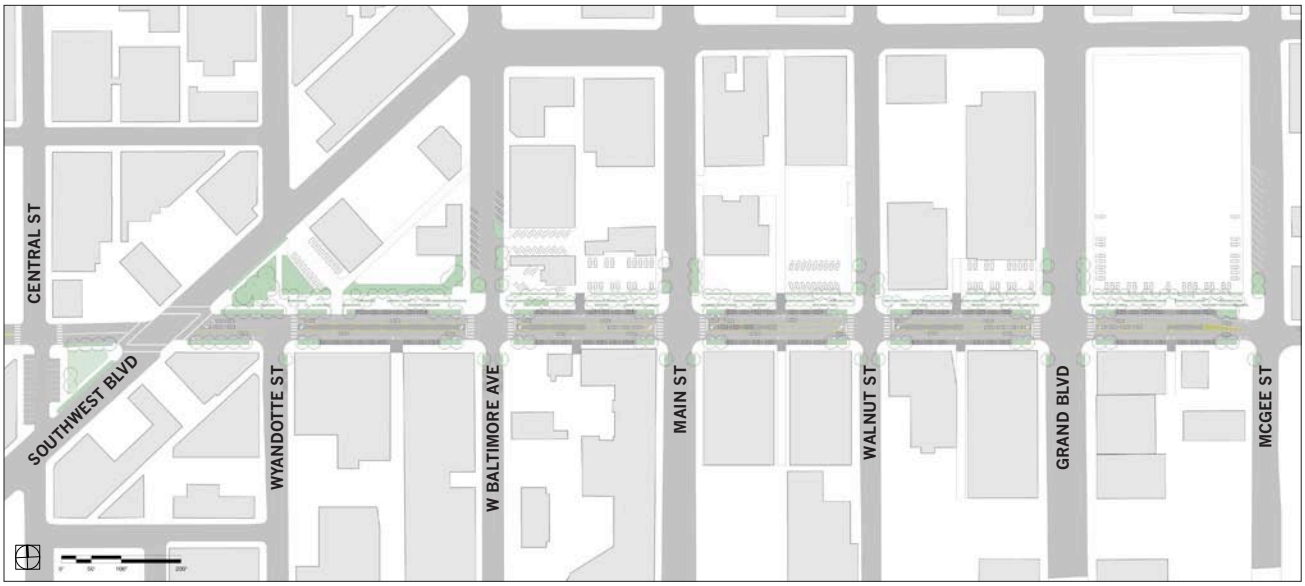
Recommendation 5H: Prepare for public/private maintenance.

In addition to assisting in the creation of a Crossroads CID, we recommend the development of clear roles and responsibilities in the maintenance of the 20th Street improvements, formalized through a signed agreement between the CID and the City.

See 3.0 Concept Plans for illustrations of these recommendations being applied to specific blocks along 20th Street.

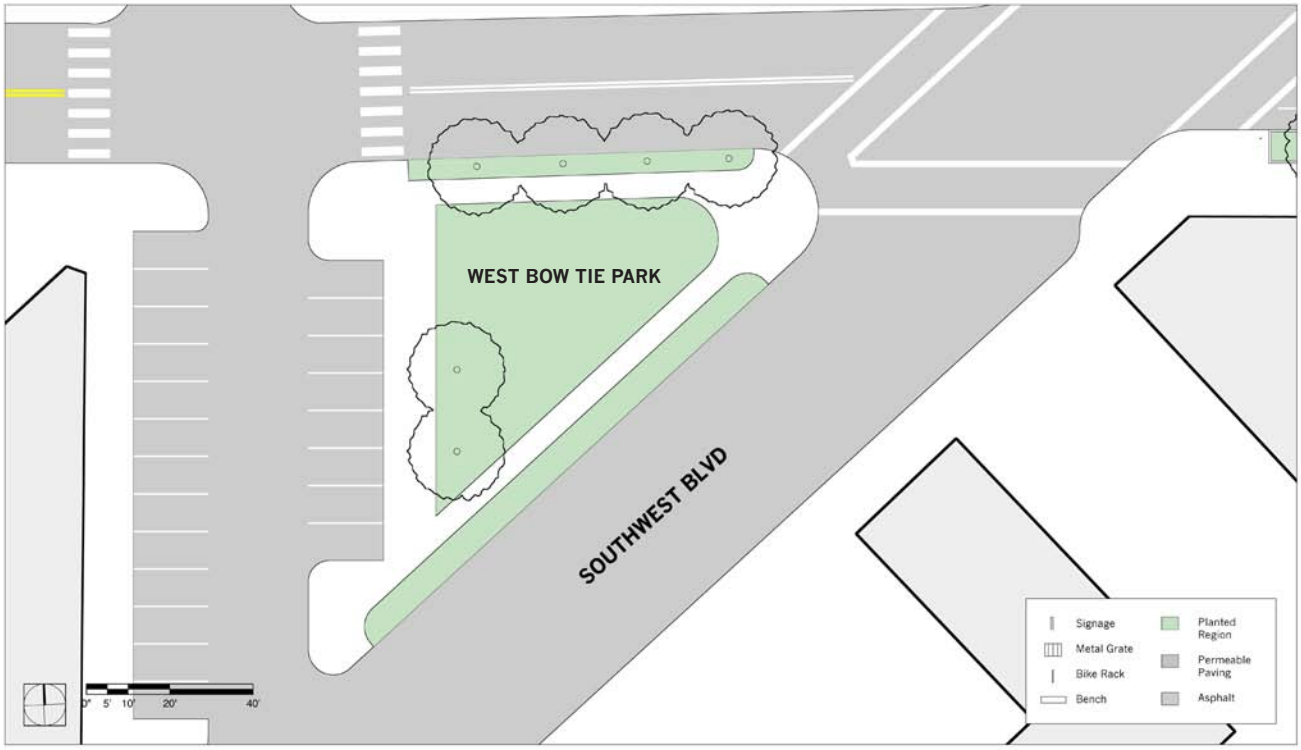
3.0 Concept Plans

The 20th Street Streetscape Plan proposes a complete, block-by-block public right-of-way transformation from Central Street to McGee Street. Given the road geometry reconfiguration and extensive utility work anticipated we recommend doing the Phase 1 work all at once, structured in a way to minimize negative impact to local businesses and residents.

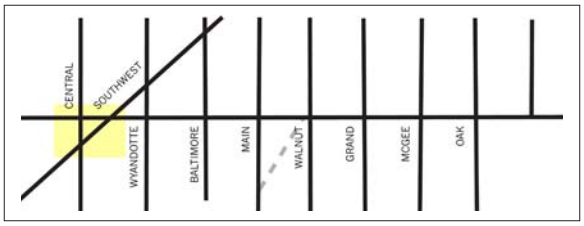


The proposed improvements on 20th Street are an opportunity to restore a balance between pedestrian and vehicular movement for an area that needs quality public right-of-way (ROW), and to set the stage for economic productivity. As it exists today, 20th Street is characterized by auto-dominated movement, lack of green space, excessive impervious area and a bleak pedestrian environment. At the same time there is a strong desire to engage the public space through art, restaurants and retail. By redesigning the right-of-way to be a multifunctional pedestrian and green space, the streetscape will function as a destination for the community.

Our concept plans indicate an attempt to standardize an approach along the entire corridor from Southwest Boulevard to McGee Street. However, there are block-specific modifications to this approach. For example, depending on the amount of stormwater flowing into 20th Street from the north, curb extensions and the area of landscape strips can be adjusted to recognize differences. The “Bow Tie Park,” which will be located from Central Street to Wyandotte Street, where 20th Street crosses Southwest Boulevard, is a stand alone concept based on the unique geometry of the urban grid along this section of 20th Street. Curb extensions to the north of 20th Street are tailored to the specific curb cut situation of each side of the street.

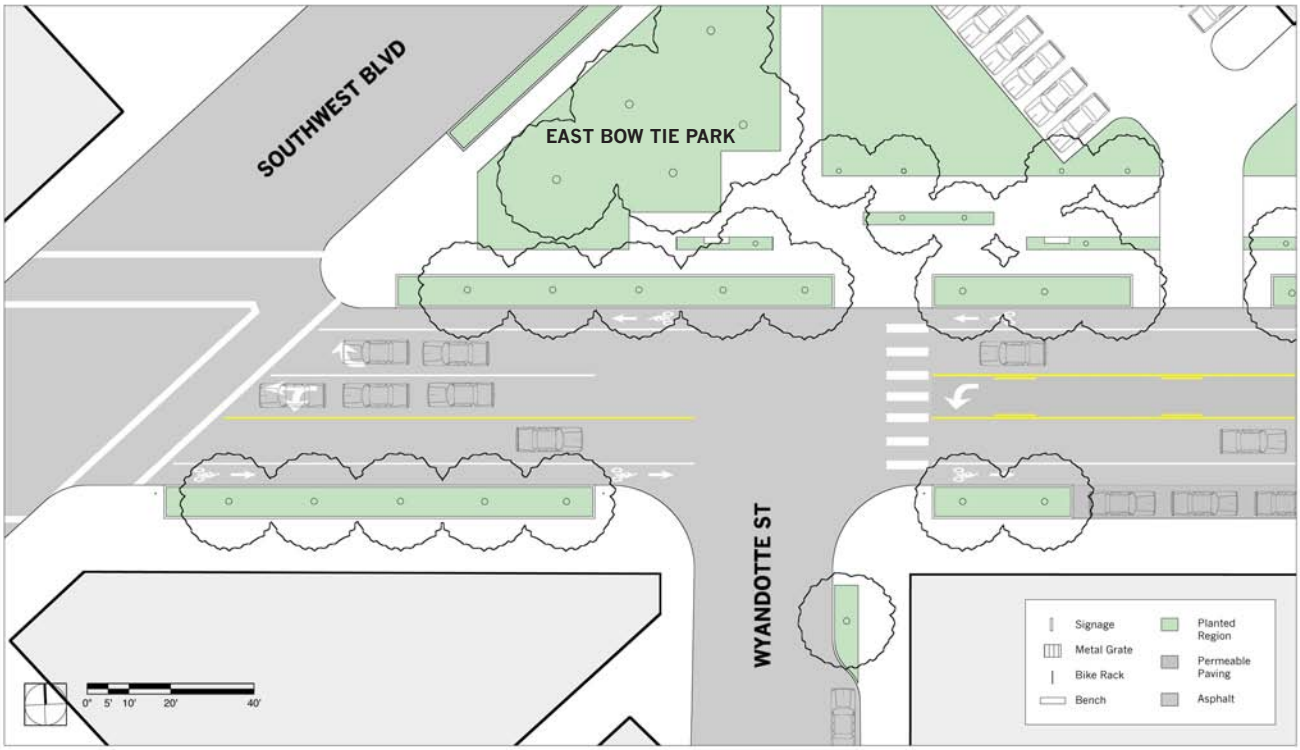


3.1 Central Street to Wyandotte Street

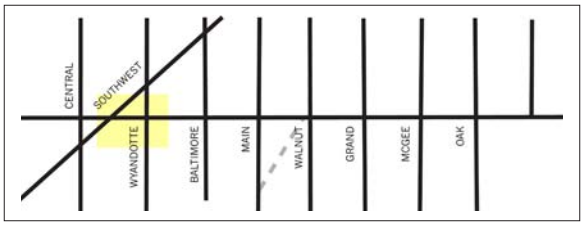


Proposed streetscape elements:

- West Bow Tie Park created by relocating parking lot at 207 Southwest Boulevard to Central Street and vacating Central from north/south public access.
- Curb extensions with infiltration planters along Southwest Boulevard and 20th Street
- Improved crosswalks
- Ground level plantings
- Street trees along 20th Street
- 2) 5' bike lanes west of Southwest Boulevard
- New roadway striping
- New curbs and sidewalks, south side of 20th Street
- Curbless sidewalk on the north side of 20th Street, east of SW Boulevard
- Bollards on north side of 20th, located at on-street parking
- Re-purposing of Wyandotte as green space
- Large caliper trees in East and West Bow Tie Park
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Improved signalization
- Utility improvements and re-location

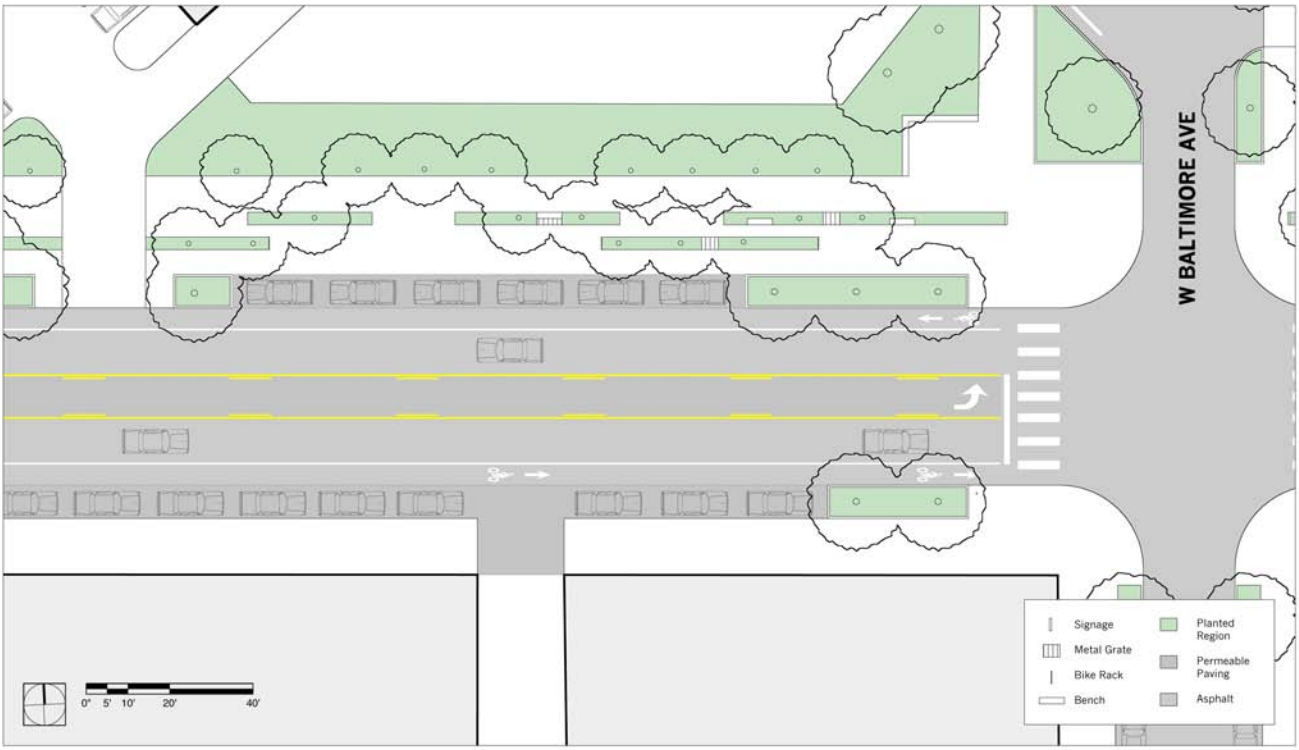


3.1 Central Street to Wyandotte Street

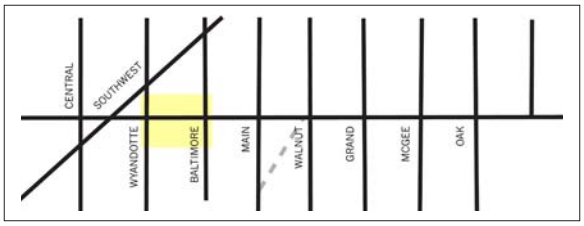


Proposed streetscape elements:

- West Bow Tie Park created by relocating parking at 207 Southwest Boulevard to Central Street and vacating Central Street from north/south public access.
- Curb extensions with infiltration planters along Southwest Boulevard and 20th Street
- Improved crosswalks
- Ground level plantings
- Street trees along 20th Street
- 2) 5' bike lanes west of Southwest Boulevard
- New roadway striping
- New curbs and sidewalks, south side of 20th Street
- Curbless sidewalk on the north side of 20th Street, east of SW Boulevard
- Bollards on north side of 20th, located at on-street parking
- Eliminate vehicular traffic on Wyandotte Street between 20th Street and Southwest Boulevard, re-purposing it as green space.
- Large caliper trees in East and West Bow Tie Park
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Improved signalization
- Utility improvements and re-location

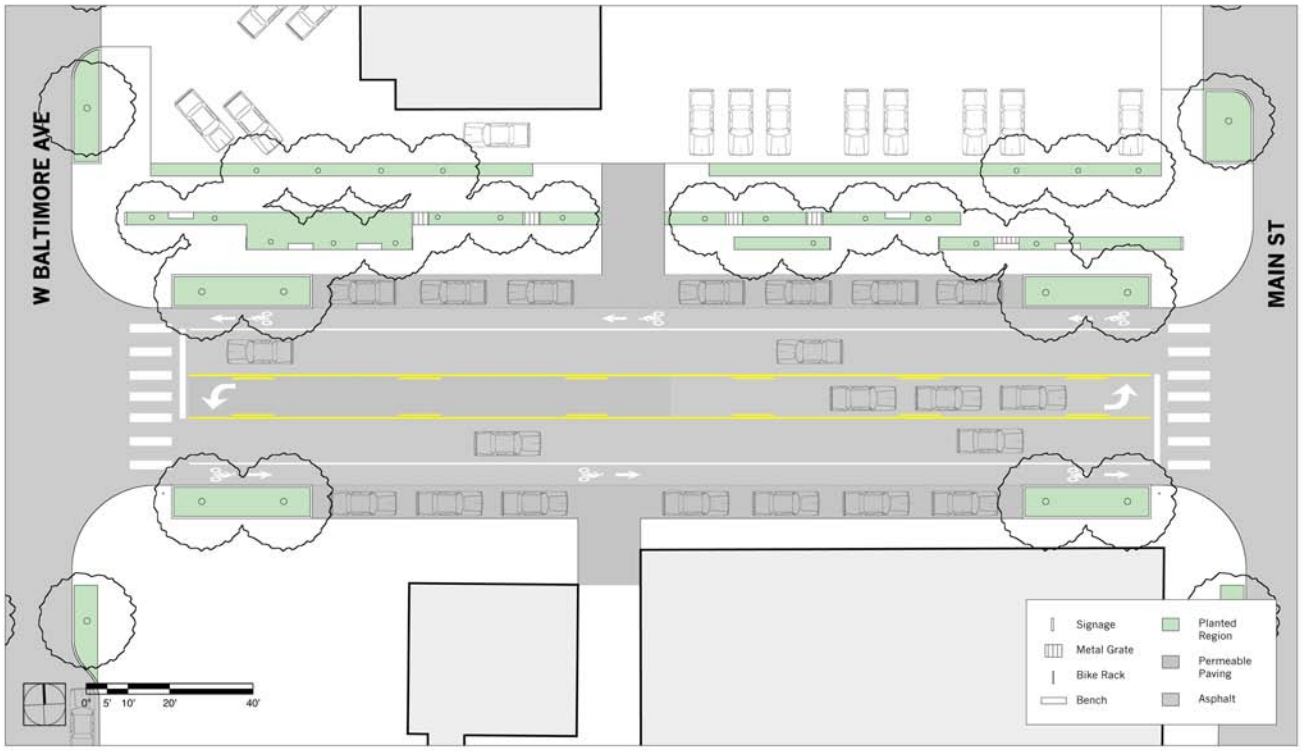


3.2 Wyandotte Street to Baltimore Avenue

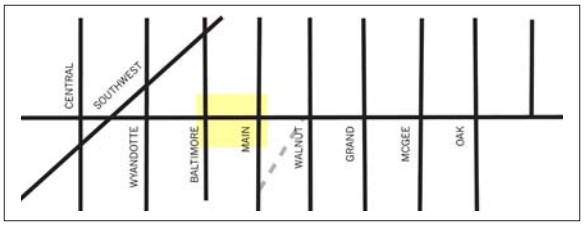


Proposed streetscape elements:

- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons

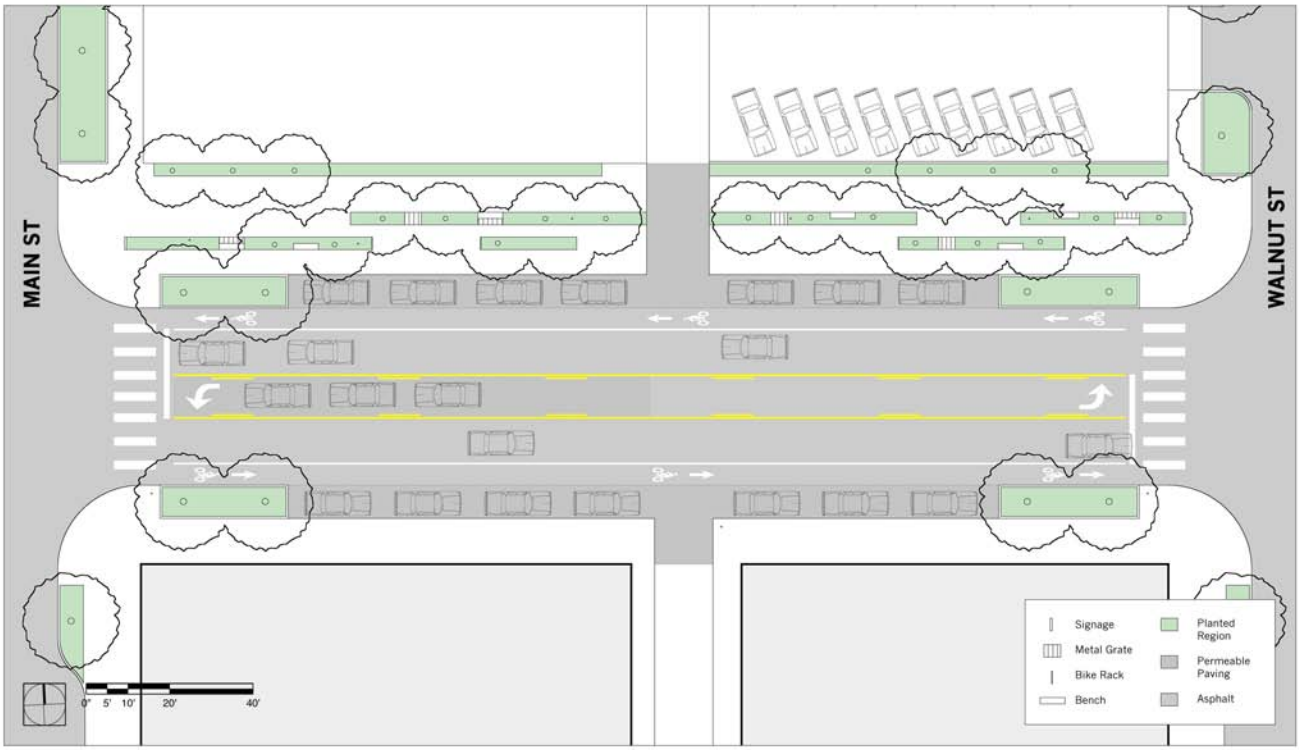


3.3 Baltimore Avenue to Main Street

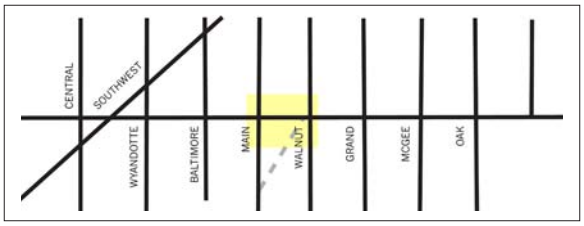


Proposed streetscape elements:

- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Improved signalization
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons

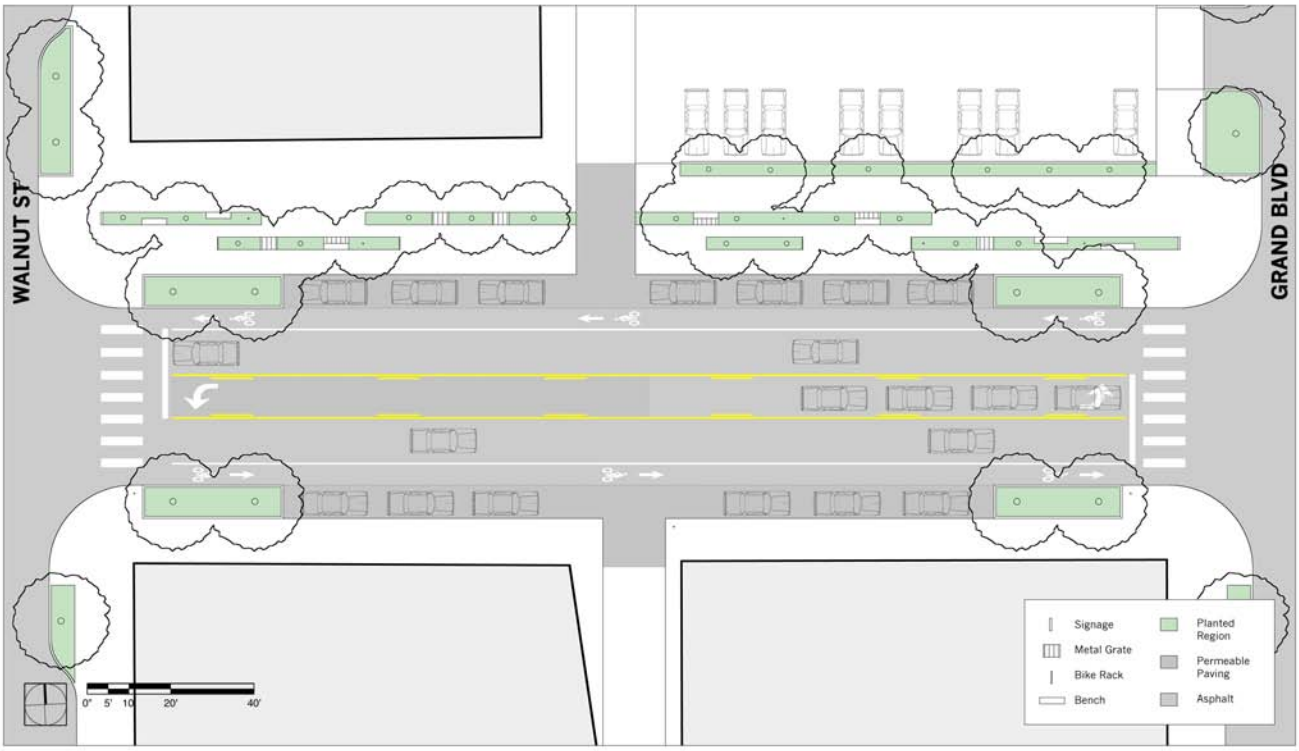


3.4 Main Street to Walnut Street

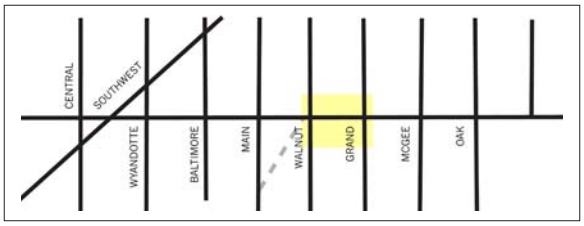


Proposed streetscape elements:

- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons

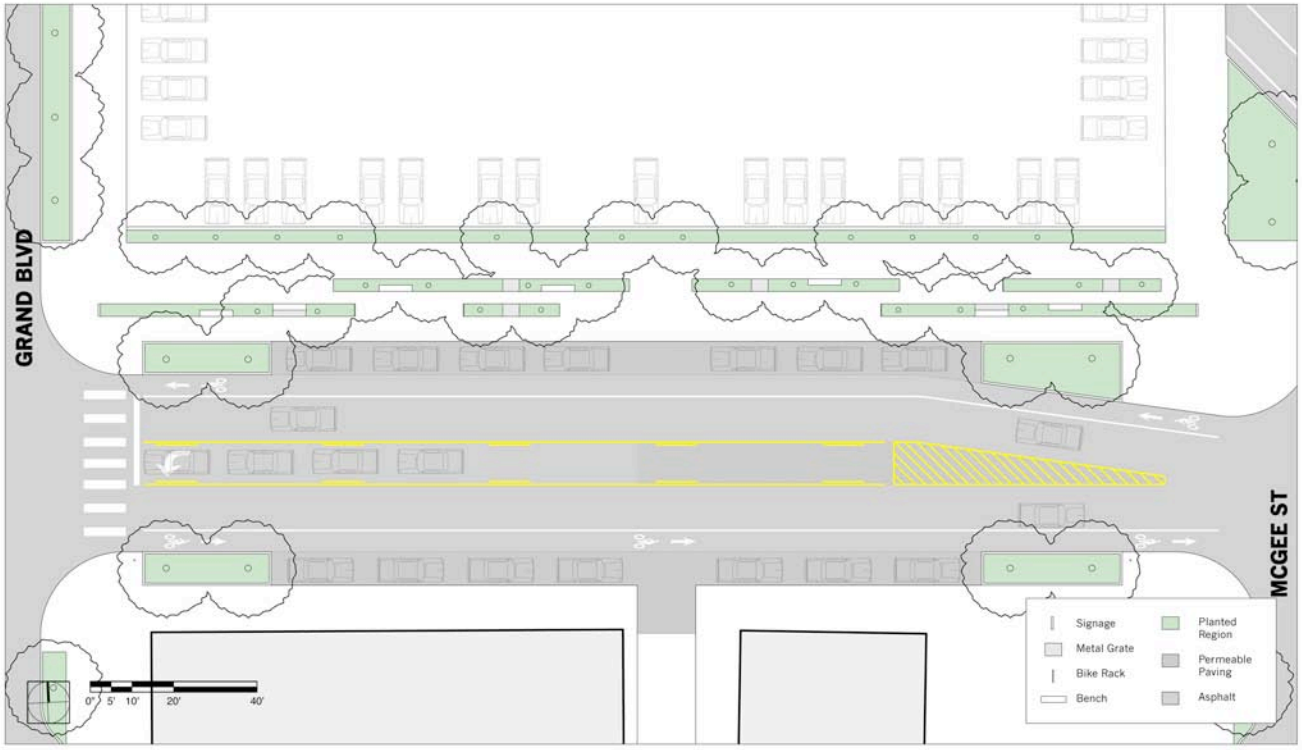


3.5 Walnut Street to Grand Boulevard

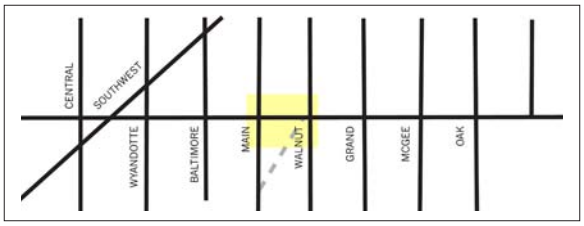


Proposed streetscape elements:

- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Improved signalization
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons

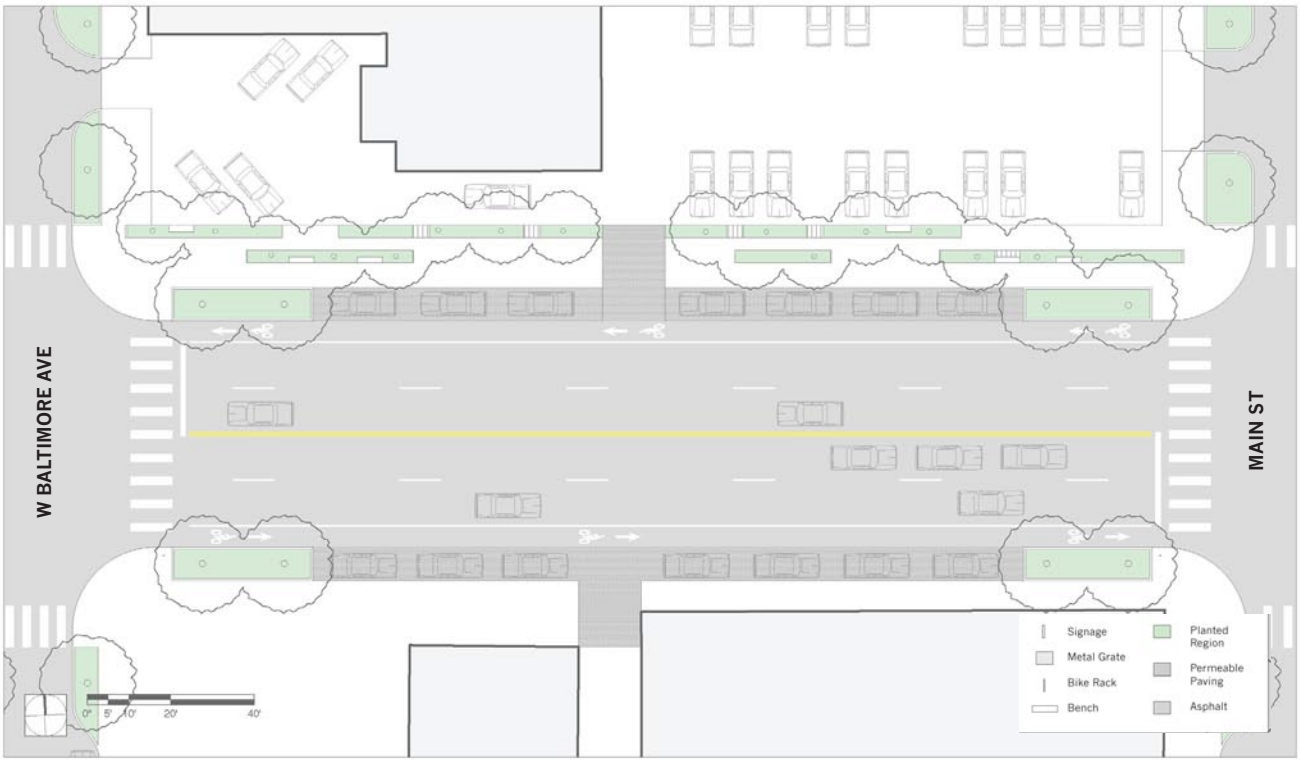


3.6 Grand Boulevard to McGee Street



Proposed streetscape elements:

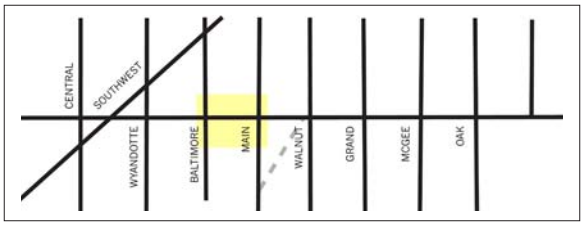
- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons



3.7 Four-Lane Option
Baltimore Avenue to Main Street

(Option can be applied to all sample blocks)

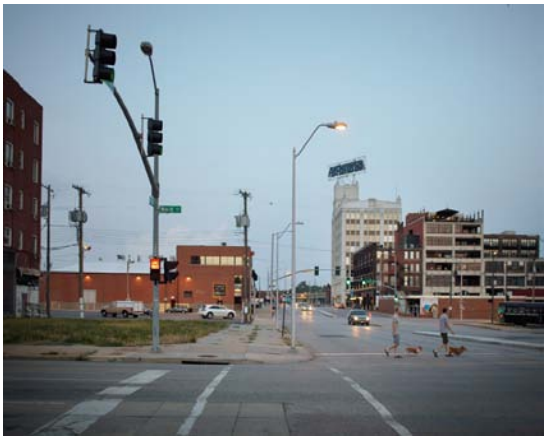
A traffic study will be part of the next phase of work. In the meantime, a four lane option was considered to illustrate the adaptability of the preferred concept.



Proposed streetscape elements:

- Curb extensions with infiltration planters
- Improved crosswalks
- Street trees
- Ground level plantings
- 2) 5' bike lanes
- New roadway striping
- New curbs and sidewalks
- Curbless sidewalk on the north side of 20th Street
- Bollards on north side of 20th Street, located at on-street parking
- Stormwater detention/retention basins (location TBD)
- Streetscape amenity package (benches, bike racks, trash cans, wayfinding, etc.)
- Improved signalization
- Utility improvements and re-location
- Permeable pavement in on-street parking stalls, center median (where indicated) and alley aprons

20th Street and Main Street Proposed Streetscape Improvements



Existing Conditions

20th Street Typical Street Section

20th Street and Grand Boulevard Proposed Streetscape Improvements

4.0 Implementation

4.1 Recommended Phasing

Given the scale of the overall 20th Street Streetscape Plan the approach to implementation must be phased. However, it is imperative to maintain momentum and not allow excessive time to pass between Phases without advancing towards the goal of implementing all phases.

This report represents the completion of Phase 1.

Phase 1: **Stakeholder Consensus Building**
Corridor Analysis
Concept Design: Central Street to McGee Street
Cost Estimates for Phase 1

Phase 2: **Construction Drawings: Central Street to McGee Street**

Phase 3: **Concept Design and Construction Drawings: West Pennway Street to Central Street**

Phase 4: **Construction: Central Street to McGee Street**

Phase 5: **Construction: West Pennway Street to Central Street**

5 Block Sample: Current Phase

Full 20th Street Streetscape Scope

4.2 Cost Opinion

Recent streetscape projects in Kansas City, most notably 37th to 44th on Main Street and 43rd Street from JC Nichols Parkway to Oak Street have averaged $500,000 per block, including hard and soft costs. Preliminary estimates for 20th Street from Central Street to McGee average $970,000 per block, including hard and soft costs. Coordination among relevant city departments may lower the amount of these estimates.

Some of the reasons for this increase include:

- Moving the curb line in 12 to 20 feet on the north side of the street and associated stormwater utility relocations.
- More extensive planting on the north side of the street, both for aesthetic enhancements and improved stormwater functionality.
- Specialized plant material that function as part of a green stormwater / water quality management system.
- Paving all new surfaces (assuming selective re-grade to support green solutions and proper surface flow).
- Storage facilities for excess stormwater (2 per block on average).
- Vacating the Wyandotte leg of the "Bow Tie Park."
- Vacating the "Walnut Flyway."
- Pervious pavement in the on-street parking areas and in the turn lane at minor intersections.
- Adding a park at the intersection of Southwest Boulevard and 20th Street.
- Legal fees for land ownership redefinition.
- Surface and accessibility improvements stretching into mid-block alleyways.
- Custom accessory package including benches, bike racks, trash receptacles, wayfinding, etc.
- Public art / communication representative of the Crossroads Arts District (i.e., it needs to be reflective of the best practices related to commissioning and maintaining public art, etc.).

The following items are included in the cost opinions:

General Conditions

- Waste management
- Temporary utilities and facilities, including detours and signage
- Construction fencing
- Erosion control
- Operation and maintenance (irrigation, tree pruning, light bulb replacement, trash removal, grafitti removal, public art and wayfinding maintenance, etc.)

Demolition
- Removal of asphalt and concrete
- Removal of "Walnut Flyway" and Wyandotte leg of "Bow Tie Park"

Site Preparation
- Site Clearing
- Dewatering (removing excess water from soil during construction)
- Rough grading, new subsoils

Paving
- Curbs and curb cuts
- Alley aprons
- Pervious asphalt
- Regular asphalt
- Sidewalks
- ADA ramps

Plantings
- Plant materials
- Irrigation
- Trees
- Engineered soils

Exterior Improvements
- Wayfinding signage
- Roadway signage
- Grates and inlets
- Planters
- Infiltration planters
- Moveable bollards
- Retention/detention basins
- Benches
- Bike racks
- Trash receptacles
- Public art / communication

Utilities
- Basic utilities (electrical, water, sewer, gas)

- Storm utilities (catch basins, grating and piping)
- Fire hydrant relocation
- Existing pipe cleaning
- Roadway lighting
- Pedestrian lighting

Professional Services
- Architectural and engineering (incl. survey) fees
- Construction management fees
- Contractor fees
- Legal fees

Additional Costs
- Contingency
- Testing
- Permit fees
- Geo-technical

The following items are excluded from the cost opinions because they typically involve negotiations between various city departments and/or public utilities:

KCPL utilities
Electrical demolition
Traffic signals
Major utility relocation or repair (gas, water, sewer, electrical)
Telecommunications, cable and fiber optic

Construction Estimate

Summary Costs Opinion

* Each block segment is divided by the center of the cross streets

Summary By Block	Cost Of Work	Fees/ Cont.	Prof. Services	TOTAL
Summary By Block				
Block 1 - Central - Wyandotte (Bow Tie Park included)	$686,421.75	$102,963.26	$215,926.53	$1,005,311.54
Block 2 - Wyandotte - Baltimore	$672,852.60	$100,927.89	$201,855.78	$975,636.27
Block 3 - Baltimore - Main	$628,501.20	$94,275.18	$188,550.36	$911,326.74
Block 4 - Main - Walnut (Flyway demo included)	$859,411.60	$128,911.74	$267,823.48	$1,256,146.82
Block 5 - Walnut - Grand	$570,305.60	$85,545.84	$171,091.68	$826,943.12
Block 6 - Grand - McGee	$579,820.70	$86,973.11	$173,946.21	$840,740.02
TOTAL PROJECT				**$5,816,104.51**

Average Cost per Block **$969,351**

Summary By Project	2011	2012	2013	2014	2015
Block 1 - Central - Wyandotte (Bow Tie Park includ	$1,005,311.54	$1,055,577.12	$1,108,355.97	$1,163,773.77	$1,221,962.46
Block 2 - Wyandotte - Baltimore	$975,636.27	$1,024,418.08	$1,075,638.99	$1,129,420.94	$1,185,891.98
Block 3 - Baltimore - Main	$911,326.74	$956,893.08	$1,004,737.73	$1,054,974.62	$1,107,723.35
Block 4 - Main - Walnut (Flyway demo included)	$1,256,146.82	$1,318,954.16	$1,384,901.87	$1,454,146.96	$1,526,854.31
Block 5 - Walnut - Grand	$826,943.12	$868,290.28	$911,704.79	$957,290.03	$1,005,154.53
Block 6 - Grand - McGee	$840,740.02	$882,777.02	$926,915.87	$973,261.67	$1,021,924.75
TOTAL PROJECT	**$5,816,104.51**	**$6,106,909.74**	**$6,412,255.22**	**$6,732,867.98**	**$7,069,511.38**

* The Summary Of Projects assumes a 5% per year inflation rate (2011 $)

Construction Estimate

Central - Wyandotte Street
* Each block segment is divided by the center of the cross streets

DIVISIONS	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS				**$44,000.00**
Construction Waste Mgmnt.	LS	1	$12,000.00	$12,000.00
Temporary Facilities / Utilities / Detouring	LS	1	$20,000.00	$20,000.00
Construction Fencing	LF	1,000	$2.00	$2,000.00
Erosion Control	LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS				**$67,141.50**
Existing Asphalt & Concrete Removal	SF	34,761	$1.50	$52,141.50
* Bow Tie Park Demolition	LS	1	$15,000.00	$15,000.00
31 - EARTHWORK - SITE PREPARATION				**$54,000.00**
Site Clearing	LS	1	$10,000.00	$10,000.00
Earth Moving	SF	20,000	$0.70	$14,000.00
Dewatering	LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils	LS	1	$25,000.00	$25,000.00
32 -PAVING				**$195,035.25**
Asphalt Paving (8")	SY	1,160	$42.10	$48,836.00
Pervious Paving	SF	0	$7.75	$0.00
Concrete Paving	SF	9,761	$7.25	$70,767.25
Surface Striping	LF	1,316	$10.00	$13,160.00
ADA Crossings	LS	12	$2,000.00	$24,000.00
Remove curb & Provide New Concrete Curb/ Edge Work	LF	1,196	$32.00	$38,272.00
32 - PLANTINGS				**$142,045.00**
Planting Irrigation	LS	1	$10,000.00	$10,000.00
Turf & Grasses	SF	9,704	$5.00	$48,520.00
Plantings	LS	1	$15,000.00	$15,000.00
Trees	EACH	41	$500.00	$20,500.00
Engineered Planting Soils / Landscape Fabric / Mulch	SY	565	$85.00	$48,025.00
32 - EXTERIOR IMPROVEMENTS				**$68,700.00**
Wayfinding Signage	LS	1	$10,000.00	$10,000.00
Roadway Signage	LS	1	$10,000.00	$10,000.00
Grates / Inlets	LS	4	$500.00	$2,000.00
Planter w/ curbs	LF	210	$40.00	$8,400.00
Bollards	EACH	0	$500.00	$0.00
Retention / Detention Basins	SF	1	$15,000.00	$15,000.00
Bike Racks	LS	4	$1,000.00	$4,000.00
Trash Receptacles / Recycling	EACH	6	$550.00	$3,300.00
Benches	EACH	6	$1,000.00	$6,000.00
Public Art & Communication	LS	1	$10,000.00	$10,000.00
33 - UTILITIES				**$115,500.00**
Basic Utilities	LS	1	$10,000.00	$10,000.00
Storm Utilities / Relocation	LS	1	$10,000.00	$10,000.00
Fire Hyrdrant Relocation	LS	1	$5,000.00	$5,000.00
Subdrainage	LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning	LS	1	$2,500.00	$2,500.00
Roadway Ligthing	LS	1	$40,000.00	$40,000.00
General Electical & Street Lighting	LS	1	$40,000.00	$40,000.00
TOTAL [COW]				**$686,421.75**
Contingency	10.00%			$68,642.18
Testing	2.00%			$13,728.44
Permit Fees	3.00%			$20,592.65
Subtotal Construction				**$102,963.26**
00 - PROFESSIONAL SERVICES				$215,926.53
Design Fees (Architectural / Engineering / Survey)	10.00%			$68,642.18
Build (Construction Management / Supervision)	10.00%			$68,642.18
Contractor Overhead & Profit	10.00%			$68,642.18
Legal				$10,000.00
TOTAL PROJECT COSTS				**$1,005,311.54**

Gross SF - approx.	44,558
Cost Per SF	**$22.56**

Construction Estimate

Wyandotte Street - Baltimore Avenue
* Each block segment is divided by the center of the cross streets

DIVISIONS	Remarks	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS					**$44,000.00**
Construction Waste Mgmnt.		LS	1	$12,000.00	$12,000.00
Temporary Facilities / Utilities / Detouring		LS	1	$20,000.00	$20,000.00
Construction Fencing		LF	1,000	$2.00	$2,000.00
Erosion Control		LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS					**$38,100.00**
Existing Asphalt & Concrete Removal		SF	25,400	$1.50	$38,100.00
31 - EARTHWORK - SITE PREPARATION					**$47,313.60**
Site Clearing		LS	1	$10,000.00	$10,000.00
Earth Moving		SF	10,448	$0.70	$7,313.60
Dewatering		LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils		LS	1	$25,000.00	$25,000.00
32 -PAVING					**$201,624.00**
Asphalt Paving (8")		SY	1,160	$42.10	$48,836.00
Pervious Paving		SF	5,652	$7.75	$43,803.00
Concrete Paving		SF	9,300	$7.25	$67,425.00
Surface Striping		LF	1,316	$10.00	$13,160.00
ADA Crossings		LS	7	$2,000.00	$14,000.00
Remove curb & Provide New Concrete Curb/ Edge Work		SF	450	$32.00	$14,400.00
32 - PLANTINGS					**$156,715.00**
Planting Irrigation		LS	1	$10,000.00	$10,000.00
Turf & Grasses		SF	9,481	$5.00	$47,405.00
Plantings		LS	1	$12,000.00	$12,000.00
Trees		EACH	41	$500.00	$20,500.00
Engineered Planting Soils / Landscape Fabric / Mulch		SY	786	$85.00	$66,810.00
32 - EXTERIOR IMPROVEMENTS					**$113,600.00**
Wayfinding Signage		LS	1	$8,000.00	$8,000.00
Roadway Signage		LS	1	$8,000.00	$8,000.00
Grates / Inlets		LS	8	$500.00	$4,000.00
Planter w/ curbs		LF	1,000	$40.00	$40,000.00
Bollards		EACH	23	$500.00	$11,500.00
Retention / Detention Basins		SF	2	$15,000.00	$30,000.00
Bike Racks		LS	2	$1,000.00	$2,000.00
Trash Receptacles / Recycling		EACH	2	$550.00	$1,100.00
Benches		EACH	4	$1,000.00	$4,000.00
Public Art & Communication		LS	1	$5,000.00	$5,000.00
33 - UTILITIES					**$71,500.00**
Basic Utilities		LS	1	$8,000.00	$8,000.00
Storm Utilities / Relocation		LS	1	$8,000.00	$8,000.00
Fire Hyrdrant Relocation		LS	1	$5,000.00	$5,000.00
Subdrainage		LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning		LS	1	$2,500.00	$2,500.00
Roadway Ligthing		LS	1	$20,000.00	$20,000.00
General Electical & Street Lighting		LS	1	$20,000.00	$20,000.00
TOTAL [COW]					**$672,852.60**
Contingency		10.00%			$67,285.26
Testing		2.00%			$13,457.05
Permit Fees		3.00%			$20,185.58
Subtotal Construction					**$100,927.89**
00 - PROFESSIONAL SERVICES					$201,855.78
Design Fees (Architectural / Engineering / Survey)		10.00%			$67,285.26
Build (Construction Management / Supervision)		10.00%			$67,285.26
Contractor Overhead & Profit		10.00%			$67,285.26
Legal					$0.00
TOTAL PROJECT COSTS					**$975,636.27**
Gross SF - approx.	34,881				
Cost Per SF	**$27.97**				

Construction Estimate

Baltimore Avenue - Main Street
* Each block segment is divided by the center of the cross streets

DIVISIONS	Remarks	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS					**$44,000.00**
Construction Waste Mgmnt.		LS	1	$12,000.00	$12,000.00
Temporary Facilities / Utilities / Detouring		LS	1	$20,000.00	$20,000.00
Construction Fencing		LF	1,000	$2.00	$2,000.00
Erosion Control		LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS					**$48,637.50**
Existing Asphalt & Concrete Removal		SF	32,425	$1.50	$48,637.50
31 - EARTHWORK - SITE PREPARATION					**$49,539.00**
Site Clearing		LS	1	$10,000.00	$10,000.00
Earth Moving		SF	20,770	$0.70	$14,539.00
Dewatering		LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils		LS	1	$20,000.00	$20,000.00
32 -PAVING					**$227,009.70**
Asphalt Paving (8")		SY	1,807	$42.10	$76,074.70
Pervious Paving		SF	4,500	$7.75	$34,875.00
Concrete Paving		SF	10,000	$7.25	$72,500.00
Surface Striping		LF	1,316	$10.00	$13,160.00
ADA Crossings		LS	8	$2,000.00	$16,000.00
Remove curb & Provide New Concrete Curb/ Edge Work		SF	450	$32.00	$14,400.00
32 - PLANTINGS					**$97,015.00**
Planting Irrigation		LS	1	$10,000.00	$10,000.00
Turf & Grasses		SF	4,021	$5.00	$20,105.00
Plantings		LS	1	$10,000.00	$10,000.00
Trees		EACH	38	$500.00	$19,000.00
Engineered Planting Soils / Landscape Fabric / Mulch		SY	446	$85.00	$37,910.00
32 - EXTERIOR IMPROVEMENTS					**$90,800.00**
Wayfinding Signage		LS	1	$10,000.00	$8,000.00
Roadway Signage		LS	1	$10,000.00	$8,000.00
Grates / Inlets		LS	8	$500.00	$4,000.00
Planter w/ curbs		LF	430	$40.00	$17,200.00
Bollards		EACH	23	$500.00	$11,500.00
Retention / Detention Basins		SF	2	$15,000.00	$30,000.00
Bike Racks		LS	2	$1,000.00	$2,000.00
Trash Receptacles / Recycling		EACH	2	$550.00	$1,100.00
Benches		EACH	4	$1,000.00	$4,000.00
Public Art & Communication		LS	1	$5,000.00	$5,000.00
33 - UTILITIES					**$71,500.00**
Basic Utilities		LS	1	$8,000.00	$8,000.00
Storm Utilities / Relocation		LS	1	$8,000.00	$8,000.00
Fire Hyrdrant Relocation		LS	1	$5,000.00	$5,000.00
Subdrainage		LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning		LS	1	$2,500.00	$2,500.00
Roadway Ligthing		LS	1	$30,000.00	$20,000.00
General Electical & Street Lighting		LS	1	$30,000.00	$20,000.00
TOTAL [COW]					**$628,501.20**
Contingency		10.00%			$62,850.12
Testing		2.00%			$12,570.02
Permit Fees		3.00%			$18,855.04
Subtotal Construction					**$94,275.18**
00 - PROFESSIONAL SERVICES					$188,550.36
Design Fees (Architectural / Engineering / Survey)		10.00%			$62,850.12
Build (Construction Management / Supervision)		10.00%			$62,850.12
Contractor Overhead & Profit		10.00%			$62,850.12
Legal					$0.00
TOTAL PROJECT COSTS					**$911,326.74**
Gross SF - approx.	36,446				
Cost Per SF	**$25.00**				

Construction Estimate

Main Street - Walnut Street
* Each block segment is divided by the center of the cross streets

DIVISIONS	Remarks	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS					**$47,000.00**
Construction Waste Mgmnt.		LS	1	$15,000.00	$15,000.00
Temporary Facilities / Utilities / Detouring		LS	1	$20,000.00	$20,000.00
Construction Fencing		LF	1,000	$2.00	$2,000.00
Erosion Control		LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS					**$292,894.00**
Existing Asphalt & Concrete Removal		SF	28,596	$1.50	$42,894.00
* Demolition of "Flyway"		LS	1	$250,000.00	$250,000.00
31 - EARTHWORK - SITE PREPARATION					**$53,309.80**
Site Clearing		LS	1	$10,000.00	$10,000.00
Earth Moving		SF	19,014	$0.70	$13,309.80
Dewatering		LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils		LS	1	$25,000.00	$25,000.00
32 -PAVING					**$215,457.80**
Asphalt Paving (8")		SY	1,623	$42.10	$68,328.30
Pervious Paving		SF	4,400	$7.75	$34,100.00
Concrete Paving		SF	9,582	$7.25	$69,469.50
Surface Striping		LF	1,316	$10.00	$13,160.00
ADA Crossings		LS	8	$2,000.00	$16,000.00
Remove curb & Provide New Concrete Curb/ Edge Work		SF	450	$32.00	$14,400.00
32 - PLANTINGS					**$90,150.00**
Planting Irrigation		LS	1	$10,000.00	$10,000.00
Turf & Grasses		SF	3,645	$5.00	$18,225.00
Plantings		LS	1	$10,000.00	$10,000.00
Trees		EACH	35	$500.00	$17,500.00
Engineered Planting Soils / Landscape Fabric / Mulch		SY	405	$85.00	$34,425.00
32 - EXTERIOR IMPROVEMENTS					**$89,100.00**
Wayfinding Signage		LS	1	$10,000.00	$8,000.00
Roadway Signage		LS	1	$10,000.00	$8,000.00
Grates / Inlets		LS	8	$500.00	$4,000.00
Planter w/ curbs		LF	350	$40.00	$14,000.00
Bollards		EACH	26	$500.00	$13,000.00
Retention / Detention Basins		SF	2	$15,000.00	$30,000.00
Bike Racks		LS	2	$1,000.00	$2,000.00
Trash Receptacles / Recycling		EACH	2	$550.00	$1,100.00
Benches		EACH	4	$1,000.00	$4,000.00
Public Art & Communication		LS	1	$5,000.00	$5,000.00
33 - UTILITIES					**$71,500.00**
Basic Utilities		LS	1	$8,000.00	$8,000.00
Storm Utilities / Relocation		LS	1	$8,000.00	$8,000.00
Fire Hyrdrant Relocation		LS	1	$5,000.00	$5,000.00
Subdrainage		LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning		LS	1	$2,500.00	$2,500.00
Roadway Ligthing		LS	1	$30,000.00	$20,000.00
General Electical & Street Lighting		LS	1	$30,000.00	$20,000.00
TOTAL [COW]					**$859,411.60**
Contingency		10.00%			$85,941.16
Testing		2.00%			$17,188.23
Permit Fees		3.00%			$25,782.35
Subtotal Construction					**$128,911.74**
00 - PROFESSIONAL SERVICES					$267,823.48
Design Fees (Architectural / Engineering / Survey)		10.00%			$85,941.16
Build (Construction Management / Supervision)		10.00%			$85,941.16
Contractor Overhead & Profit		10.00%			$85,941.16
Legal					$10,000.00
TOTAL PROJECT COSTS					**$1,256,146.82**
Gross SF - approx.	32,241				
Cost Per SF	**$38.96**				

Construction Estimate

Walnut Street - Grand Blvd
* Each block segment is divided by the center of the cross streets

DIVISIONS	Remarks	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS					**$44,000.00**
Construction Waste Mgmnt.		LS	1	$12,000.00	$12,000.00
Temporary Facilities / Utilities / Detouring		LS	1	$20,000.00	$20,000.00
Construction Fencing		LF	1,000	$2.00	$2,000.00
Erosion Control		LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS					**$47,379.00**
Existing Asphalt & Concrete Removal		SF	31,586	$1.50	$47,379.00
					$0.00
31 - EARTHWORK - SITE PREPARATION					**$49,004.20**
Site Clearing		LS	1	$10,000.00	$10,000.00
Earth Moving		SF	20,006	$0.70	$14,004.20
Dewatering		LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils		LS	1	$20,000.00	$20,000.00
32 -PAVING					**$233,656.40**
Asphalt Paving (8")		SY	1,734	$42.10	$73,001.40
Pervious Paving		SF	4,400	$7.75	$34,100.00
Concrete Paving		SF	11,580	$7.25	$83,955.00
Surface Striping		LF	1,316	$10.00	$13,160.00
ADA Crossings		LS	8	$2,000.00	$16,000.00
Remove curb & Provide New Concrete Curb/ Edge Work		SF	420	$32.00	$13,440.00
32 - PLANTINGS					**$84,445.00**
Planting Irrigation		LS	1	$10,000.00	$10,000.00
Turf & Grasses		SF	3,220	$5.00	$16,100.00
Plantings		LS	1	$10,000.00	$10,000.00
Trees		EACH	36	$500.00	$18,000.00
Engineered Planting Soils / Landscape Fabric / Mulch		SY	357	$85.00	$30,345.00
32 - EXTERIOR IMPROVEMENTS					**$87,700.00**
Wayfinding Signage		LS	1	$10,000.00	$8,000.00
Roadway Signage		LS	1	$10,000.00	$8,000.00
Grates / Inlets		LS	8	$500.00	$4,000.00
Planter w/ curbs		LF	315	$40.00	$12,600.00
Bollards		EACH	26	$500.00	$13,000.00
Retention / Detention Basins		SF	2	$15,000.00	$30,000.00
Bike Racks		LS	2	$1,000.00	$2,000.00
Trash Receptacles / Recycling		EACH	2	$550.00	$1,100.00
Benches		EACH	4	$1,000.00	$4,000.00
Public Art & Communication		LS	1	$5,000.00	$5,000.00
33 - UTILITIES					**$71,500.00**
Basic Utilities		LS	1	$8,000.00	$8,000.00
Storm Utilities / Relocation		LS	1	$8,000.00	$8,000.00
Fire Hyrdrant Relocation		LS	1	$5,000.00	$5,000.00
Subdrainage		LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning		LS	1	$2,500.00	$2,500.00
Roadway Ligthing		LS	1	$30,000.00	$20,000.00
General Electical & Street Lighting		LS	1	$30,000.00	$20,000.00
TOTAL [COW]					**$570,305.60**
Contingency		10.00%			$57,030.56
Testing		2.00%			$11,406.11
Permit Fees		3.00%			$17,109.17
Subtotal Construction					**$85,545.84**
00 - PROFESSIONAL SERVICES					$171,091.68
Design Fees (Architectural / Engineering / Survey)		10.00%			$57,030.56
Build (Construction Management / Supervision)		10.00%			$57,030.56
Contractor Overhead & Profit		10.00%			$57,030.56
Legal					$0.00
TOTAL PROJECT COSTS					**$826,943.12**
Gross SF - approx.	34,806				
Cost Per SF	**$23.76**				

Construction Estimate

Grand Blvd - McGee Street
* Each block segment is divided by the center of the cross streets

DIVISIONS	Remarks	UNIT	QUANTITY	UNIT $	TOTAL
01 - GENERAL CONDITIONS					**$44,000.00**
Construction Waste Mgmnt.		LS	1	$12,000.00	$12,000.00
Temporary Facilities / Utilities / Detouring		LS	1	$20,000.00	$20,000.00
Construction Fencing		LF	1,000	$2.00	$2,000.00
Erosion Control		LS	1	$10,000.00	$10,000.00
02 - EXISTING CONDITIONS					**$44,901.00**
Existing Asphalt & Concrete Removal		SF	29,934	$1.50	$44,901.00
					$0.00
31 - EARTHWORK - SITE PREPARATION					**$48,409.20**
Site Clearing		LS	1	$10,000.00	$10,000.00
Earth Moving		SF	19,156	$0.70	$13,409.20
Dewatering		LS	1	$5,000.00	$5,000.00
Engineered Sub-Soils		LS	1	$20,000.00	$20,000.00
32 -PAVING					**$223,561.50**
Asphalt Paving (8")		SY	1,685	$42.10	$70,938.50
Pervious Paving		SF	3,990	$7.75	$30,922.50
Concrete Paving		SF	10,778	$7.25	$78,140.50
Surface Striping		LF	1,316	$10.00	$13,160.00
ADA Crossings		LS	8	$2,000.00	$16,000.00
Remove curb & Provide New Concrete Curb/ Edge Work		SF	450	$32.00	$14,400.00
32 - PLANTINGS					**$100,050.00**
Planting Irrigation		LS	1	$10,000.00	$10,000.00
Turf & Grasses		SF	4,092	$5.00	$20,460.00
Plantings		LS	1	$10,000.00	$10,000.00
Trees		EACH	42	$500.00	$21,000.00
Engineered Planting Soils / Landscape Fabric / Mulch		SY	454	$85.00	$38,590.00
32 - EXTERIOR IMPROVEMENTS					**$92,300.00**
Wayfinding Signage		LS	1	$10,000.00	$8,000.00
Roadway Signage		LS	1	$10,000.00	$8,000.00
Grates / Inlets		LS	8	$500.00	$4,000.00
Planter w/ curbs		LF	430	$40.00	$17,200.00
Bollards		EACH	26	$500.00	$13,000.00
Retention / Detention Basins		SF	2	$15,000.00	$30,000.00
Bike Racks		LS	2	$1,000.00	$2,000.00
Trash Receptacles / Recycling		EACH	2	$550.00	$1,100.00
Benches		EACH	4	$1,000.00	$4,000.00
Public Art & Communication		LS	1	$5,000.00	$5,000.00
33 - UTILITIES					**$71,500.00**
Basic Utilities		LS	1	$8,000.00	$8,000.00
Storm Utilities / Relocation		LS	1	$8,000.00	$8,000.00
Fire Hyrdrant Relocation		LS	1	$5,000.00	$5,000.00
Subdrainage		LS	1	$8,000.00	$8,000.00
Existing Pipe Cleaning		LS	1	$2,500.00	$2,500.00
Roadway Ligthing		LS	1	$30,000.00	$20,000.00
General Electical & Street Lighting		LS	1	$30,000.00	$20,000.00
TOTAL [COW]					**$579,820.70**
Contingency		10.00%			$57,982.07
Testing		2.00%			$11,596.41
Permit Fees		3.00%			$17,394.62
Subtotal Construction					**$86,973.11**
00 - PROFESSIONAL SERVICES					$173,946.21
Design Fees (Architectural / Engineering / Survey)		10.00%			$57,982.07
Build (Construction Management / Supervision)		10.00%			$57,982.07
Contractor Overhead & Profit		10.00%			$57,982.07
Legal					$0.00
TOTAL PROJECT COSTS					**$840,740.02**
Gross SF - approx.	34,026				
Cost Per SF	**$24.71**				

Parking meters

4.3 Funding Opportunities

Advocating for future funding is the responsibility of the three neighborhoods impacted by the 20th Street Streetscape Plan – the Crossroads Arts District, the Westside, and the Downtown Loop, with the assistance of the City of Kansas City, Missouri. Depending on funding opportunities, some of the recommended phases may be split into smaller projects or combined into larger projects than are defined here. Funding for these phases may come from a variety of local, state or federal sources including:

- Surface Transportation Program – Transportation Enhancement Funds (STP-TE)
- Mid America Regional Council Sustainable Communities Initiative/HUD Grant
- Federal Highway Administration
- Federal Highway Administration Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- American Reinvestment and Recovery Act Funding (ARRA)
- Tax Increment Financing Funds (TIF)
- Kansas City, Missouri Capital Improvements Program (CIP)
- Community Improvement District Funds (CID)
- Neighborhood Improvement District Funds (NID)
- Pubic Improvement Advisory Committee (PIAC)
- Funding through partnership with KCMO City Planning and Development
- Funding through partnership with KCMO Parks and Recreation Department
- Funding through partnership with KCMO Water Department
- Funding through partnership with KCMO Public Works Department
- Funding through partnership with Mid-America Regional Council (MARC)
- Private funding for improvements on private property.

Maintenance

Implementation of the 20th Street Streetscape Plan is dependent upon the successful creation of the Crossroads Community Improvement District (CID), working in close collaboration with various city agencies. The Crossroads CID, anticipated to be voted on in the Summer of 2011, will establish an agreement for the maintenance of streetscape improvements that exceed the City standard. The improvements typically include street trees, stormwater BMP's, pedestrian lights and amenities.