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Collinsville Great Streets: Environmental Infrastructure

What is Environmental Infrastructure

How we build our communities impacts the ecological systems as well as the health, safety, and welfare of our communities. Environmental infrastructure is a way to examine how we create sustainable communities through environmentally friendly processes and materials. Key elements of environmental infrastructure for Great Streets include:

- Green Infrastructure
- Stormwater
- Human Health and Well-Being
- Material Selection and Longevity
- Energy Use


Green Infrastructure


Stormwater


Human Health and Well-Being


Energy and Materials

Existing Conditions

Green Infrastructure
Green infrastructure is defined as both a verb and a noun. As a noun, green infrastructure refers to the parks, open space, trees, and vegetation that is within and adjacent to the study area. As a verb, green infrastructure refers to mimicking natural processes, especially in dealing with stormwater.

Overhead utility lines and the lack of tree lawn in many locations prevents existing street trees.

Street Trees
The most noticeable aspect of existing green infrastructure is the lack of green infrastructure within the St. Louis Road / Collinsville Road right-of-way, especially the lack of street trees. There are two main reasons for the lack of street trees. One is the lack of tree lawn. The second reason is the presence of overhead power lines along the corridor.

The benefits of street trees are numerous. Dollar for dollar, trees can have the biggest impact for the least investment. Benefits or street trees include:

- Traffic Calming
- Buffer for Pedestrians
- Increased Property Values
- Community Character
- Air Quality
- Carbon Sequestration
- Stormwater Infiltration
- Reduced Heat Island
- Habitat
- Streetscape Aesthetics
- Reduced Energy Costs

Land Cover and Open Space
The project area can be categorized as the “upland” area east of State Route 157 and the “bottoms” west of State Route 157. The land cover of the uplands has a large amount of tree cover, especially within the drainage ways between residential streets. The tree cover along St. Louis Road is limited because of the lack of street trees and commercial properties with little to no tree coverage. Trees along St. Louis Road are primarily found on residential properties.

The land cover “bottoms” west of State Route 157 is primarily grass and cropland. Pockets of woodland occur, especially closer to Cahokia Mounds.

Note: Larger versions of all maps are included as an appendix.

Map of land cover. Note: Only includes areas within the city limits of Collinsville. State Park Place and other unincorporated areas are not included. (source: East-West Gateway Council of Governments - Urban Land Cover 2017)

Map of impervious areas. Note: Only includes areas within the city limits of Collinsville. State Park Place and other unincorporated areas are not included. (source: East-West Gateway Council of Governments - Urban Land Cover 2017)

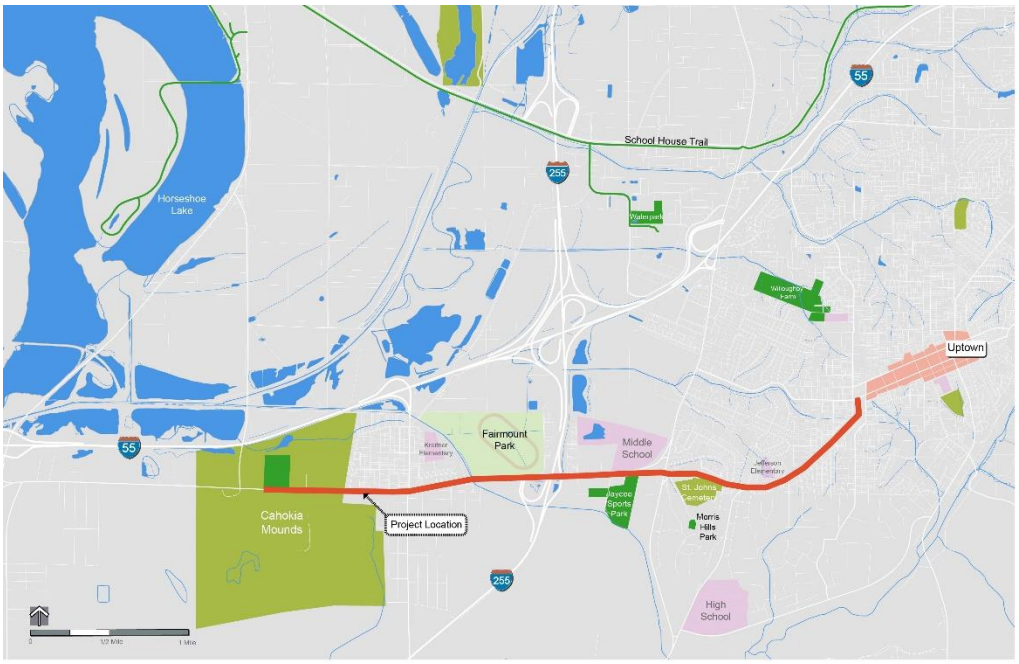
The most significant open space along the corridor is Cahokia Mounds at the western end of the project area. Cahokia Mounds is the largest pre-Columbian settlement north of Mexico. It is an international destination and a UNESCO World Heritage Site.

Other parks and open spaces along the corridor include: St. Joseph's Cemetery, an approximately 20-acre cemetery just east of State Route 157 along St. Louis Road and Jaycee Sports Complex, a city owned park with multiple ball fields just west of State Route 157.

There are vacant parcels along St. Louis Road at Sumner Drive and Sycamore Street.

Schools along the corridor include Jefferson Elementary School, Collinsville Middle School, and Kreitner Elementary in State Park Place. Collinsville High School is just off the corridor at Caseyville Road and Morrison Avenue.

The corridor is close to multiple community destinations. The Madison County Transit School House Multi-Use Trail is approximately two miles north of the corridor. Morris Hills Park, an underutilized park, is just south of St. Joseph's Cemetery along Woodland Dr. Willoughby Farm is less than a mile north from the corridor.



The project corridor is in a central location to multiple destinations such as Cahokia Mounds, Fairmount Park, Jaycee Sports Park, Downtown, and School Branch Trail.

Example of non-native vegetation along the corridor.

Biodiversity

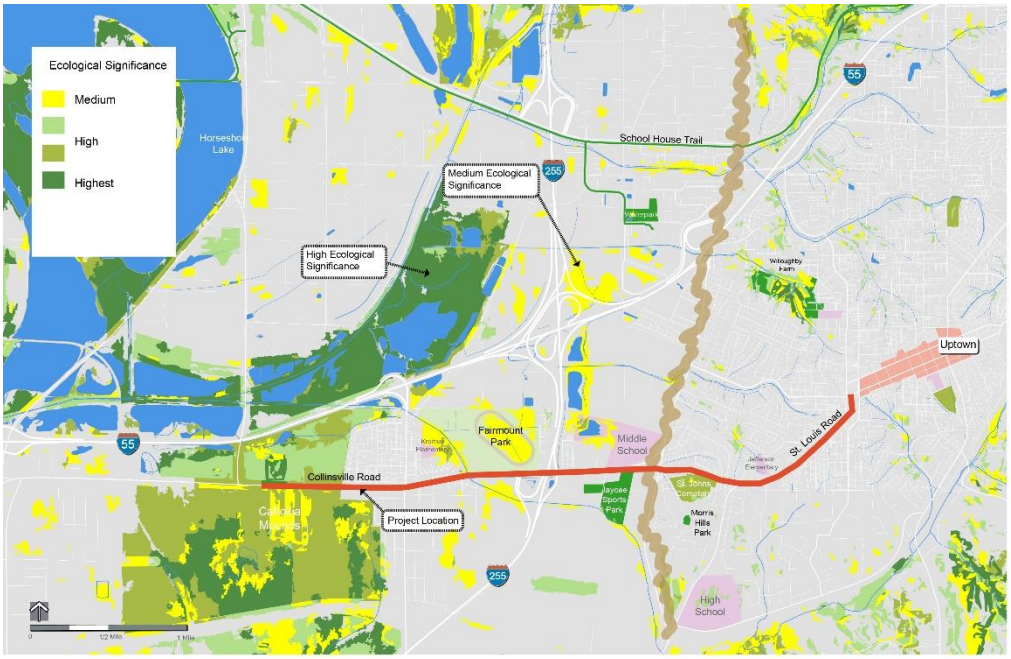
Biodiversity is the variety of plant and animal life. Often, biodiversity is thought of as "large natural areas" outside of urban cores. However, biodiversity is extremely important in urban and suburban settings as a way to help mitigate and restore fragmented habitats that have resulted from urbanization. Biodiversity is important since increased biodiversity can help improve habitats (such as for pollinators), can increase stormwater infiltration, and provide overall natural beauty. Increasing biodiversity is a natural fit for Collinsville with its strong history of agriculture (the need for pollinators) and watershed hydrology (bluff and bottomlands water cycle).

Increased biodiversity does not mean having to restore large swaths of ecological areas. Bigger is always better, but improvements in biodiversity can result from small, incremental improvements. An example of incremental improvements is the Milkweeds for Monarchs initiative. Property owners planting small patches of milkweeds and other butterfly loving plants in urban locations have resulted in increased Monarch habitats.

The existing biodiversity along St. Louis Road / Collinsville Road is low. Low biodiversity is not surprising and typical of an urban and suburban environment.

There are many challenges for increased biodiversity along St. Louis Road / Collinsville Road. One, there is a lack of existing green space and vegetation within the right-of-way. Second, existing vegetation that is present is often non-native species. Finally, one of the largest open spaces, St. Joseph's Cemetery is typical of many cemeteries in that they have large swaths of turf grasses.

Although the immediate project corridor is low in biodiversity, immediately west of the project area is rich in biodiversity with areas of Cahokia Mounds site and Horseshoe Lake having a high ecological value.



Map of ecological significance. Although most of the immediate corridor is low in biodiversity and ecological significance, adjacent areas such as Cahokia Mounds and Horseshoe Lake have high ecological value.

Existing Green Infrastructure and Open Space Strengths

- World class destination and historical site of Cahokia Mounds.
- Surrounding neighborhood along St. Louis Road has a robust tree canopy.
- Lack of street trees along St. Louis Road / Collinsville Road.

Existing Green Infrastructure and Open Space Weaknesses

- Lack of street trees.
- Non-native plant species.
- Lack of biodiversity.
- Lack of space for green infrastructure.

Stormwater

Urbanization and development cause changes to the flow of stormwater. In undeveloped areas, the natural process is that up to 50 percent of stormwater is infiltrated, 35-40 percent is evaporated, and 10-15 percent is surface runoff. In southern Illinois, clay soils and shallow rock can decrease infiltration and increase runoff, however, the natural process for infiltration still well exceeds runoff.

Past urban development has increased impervious surfaces and thus increased the amount of surface runoff and decreased the amount of rainfall that is infiltrated into the soil. In urbanized areas such as St. Louis Road and Collinsville Road, surface runoff can exceed 55-60 percent or higher. The effects of increased stormwater runoff have several negative impacts on water quality and volume. Water quality is degraded in lakes, streams, and rivers by pollutants and increased water temperatures. Increased water volumes lead to flooding and higher velocities in

Photos of ponding in the bottoms area. (Source: 2015 Southwest Corridor Business District Plan)

streams and rivers causing erosion and stream bank degradation. Also, the increased water volume can lead to "urban flooding" where streets and properties are flooded in areas that are not typically designated as potential flood zones.

The corridor has two distinct regions; St. Louis Road which is in the uplands or bluffs and Collinsville Road which is in the bottomlands. The uplands are elevated areas with moderately drained soils and generally do not experience flooding. While the bottomlands are low lying areas with poorly drainage soils and experience severe flooding.

Existing stormwater is captured along St. Louis Road through grate inlets. Based on visual observations, there are no existing treatments for water quality such as rain gardens or infiltration basins prior to stormwater entering inlets. Adjacent parcel stormwater appears to primarily flow out into the right-of-way.

On Collinsville Road, existing stormwater is captured by roadside swales which are directed to detention basins adjacent to Interstate 255. Based on visual observations, there are no existing treatments for water quality. The right-of-way is generally at or above the grade of adjacent parcels and stormwater doesn't drain into the right-of-way in this area.

In conversations with stakeholders, flooding was mentioned as a significant concern, primarily in the Collinsville Road portion of the corridor. Existing stormwater problems on St. Louis Road include small inlets with wide spacing that are prone to clog. There are some minor flooding issues adjacent to existing inlets during heavy rainfall, although the flooding is limited to the right-of-way and doesn't impact adjacent parcels. Along Collinsville Road, flooding is a major issue due to some larger developments with significant impervious area. The topography in this area is also fairly flat. Based on visual observation, there is standing water that remains for several days after rain events in both the roadside swales and low lying areas.

Existing Stormwater Strengths – St. Louis Road

- Except for some minor ponding within the right-of-way, flooding does not seem to be a problem along this section of the corridor.

Existing Stormwater Weaknesses – St. Louis Road

- Age of existing infrastructure – small inlets prone to clogging with wide spacing.
- No current water quality treatments.
- No street trees.
- Many parcels drain directly onto the right-of-way.
- Isolated ponding on some parcels.

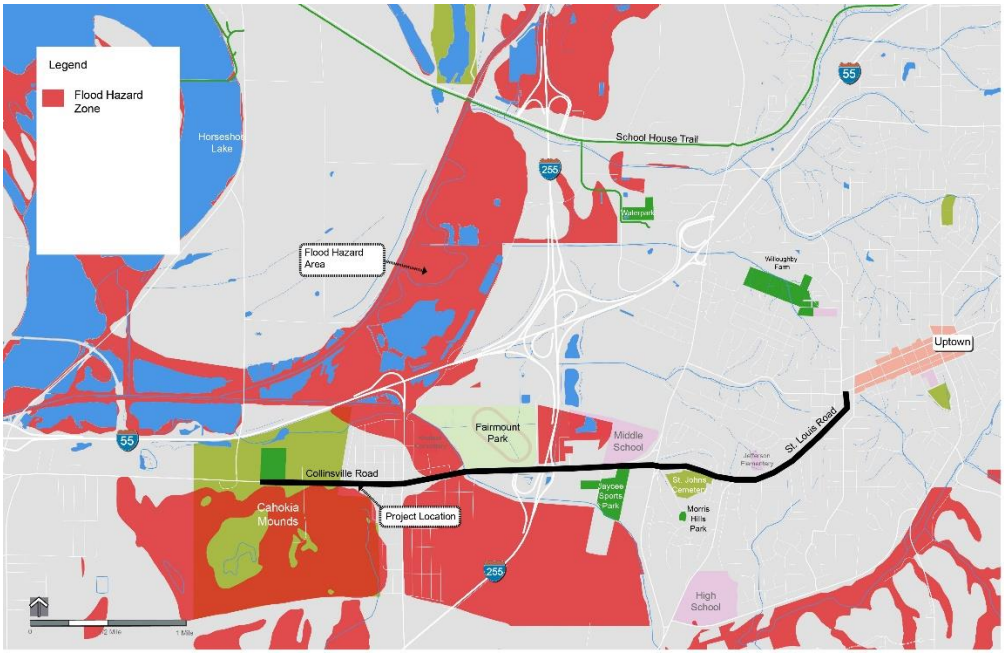
Existing Stormwater Strengths – Collinsville Road

- The drainage system along Collinsville Road was improved by IDOT within the last 5-years.

Existing Stormwater Weaknesses – Collinsville Road

- Flooding is a significant issue in this section of the corridor.
- Stormwater is pumped from the existing basins adjacent to Interstate 255.
- Canteen Creek (watershed outfall) is only designed to convey the 15-year storm.
- There is standing water in the swales along the corridor for days after an existing rain event.
- There are a number of developments with significant impervious area that lack detention and infiltration.
- No current water quality treatments.
- No street trees.

Map of drainage corridors. Upland drainage is channelized as it crosses the bottoms below the bluff. The area near Horseshoe Lake and Cahokia Mounds has extensive wetlands. The 100-year floodplain extends south of Canteen Creek and east of Cahokia Creek. The 100-year floodplain also extends west of Collinsville Middle School.



Map Flood Hazard Zones

Human Health and Well-Being

Measuring human health and well-being is not an exact science. In the context of a roadway and street corridor, health and well-being are influenced by a number of factors including the level of noise, connections to nature, social interaction, emissions, and physical activity.

Lack of walkability is one of the biggest impacts to well-being along the corridor. Sidewalks should not only be safe physically but also comfortable for pedestrians. Sidewalks that are buffered from traffic are more comfortable for pedestrians. Many sidewalk segments along St. Louis Road lack a buffer. Along Collinsville Road there is a lack of pedestrian friendly space. Although there are segments of sidewalk, pedestrians are between a four-lane roadway and large expanses of parking. It is not a pleasant environment for pedestrians.

In many locations, there are unsafe conditions for pedestrians. Lack sidewalks, lack of defined sidewalks (where the parking lot extends to the street edge), and lack of crosswalks all contribute to unsafe conditions.

Traffic noise is another impact on well-being along the corridor. With wide traffic lanes and little traffic calming, traffic along St. Louis Road tends to exceed the posted speed limit causing increased traffic noise. Key factors for increases in traffic noise are the volume of traffic, the speed of traffic, accelerating vehicles, and the percentage of large trucks.

Public gathering areas are a key component of promoting social interaction. Gathering areas can range in size and type from pocket parks, plazas, seating walls, benches, etc. St. Louis Road lacks public gathering areas. Gathering areas work best when they have amenities such as vegetation, seating, and shade and are oriented to be buffered from the noise and the wind.

Sidewalks should not only be safe physically but also comfortable for pedestrians. Sidewalks that are buffered from traffic are more comfortable for pedestrians. Many sidewalk segments along St. Louis Road lack a buffer. Along Collinsville Road there is a lack of pedestrian friendly space. Although there are segments of sidewalk, pedestrians are between a four-lane roadway and large expanses of parking. It is not a pleasant environment for pedestrians.

Existing Strengths for Human Health and Well-Being

- Strong community network.

Existing Weaknesses for Human Health and Well-Being

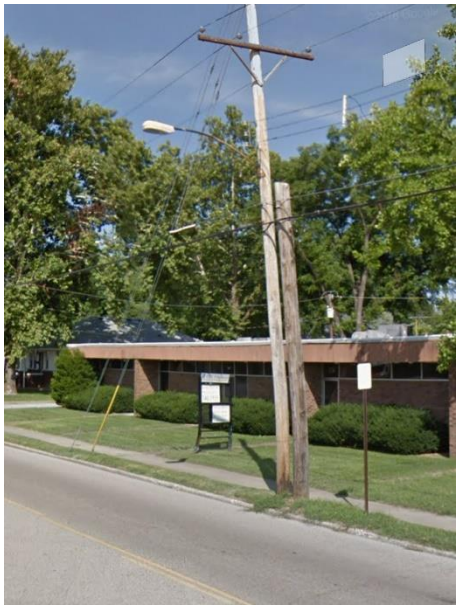
- Lack of social gathering areas along the corridor.
- Traffic noise.
- Gaps in walking and bicycling network. Lack of buffer for sidewalks and pedestrians.

Other Environmental Infrastructure

Urban Heat Island Effect

The large extent of impervious surfaces and lack of green space and street trees contribute to an increased urban heat island effect along St. Louis Road / Collinsville Road. Impervious surfaces such as rooftops and pavements heat the surrounding air and thus alters the microclimate around them. This can result in additional energy use and costs for building cooling. At a regional scale, the cumulative effect can contribute to larger climate impacts.

A way to measure the potential heat island effect is the Solar Reflectance Index (SRI.). The SRI is a measure of the surface's ability to reject solar heat, as shown by a small temperature rise. It is defined so that a standard black is 0 and a standard white is 100. The heat island effect can be reduced through the use of materials with high solar reflectance index (SRI), increased vegetation (which cools through evapotranspiration), and increased shade (street trees). A SRI measurement of the project limits was not part of this study. However, the SRI is likely low to moderate within the project area due to the numerous parking lots and streets. The Sustainable Sites v2 Rating System recommends paving materials have solar reflective rating of a minimum of 0.33 at installation.

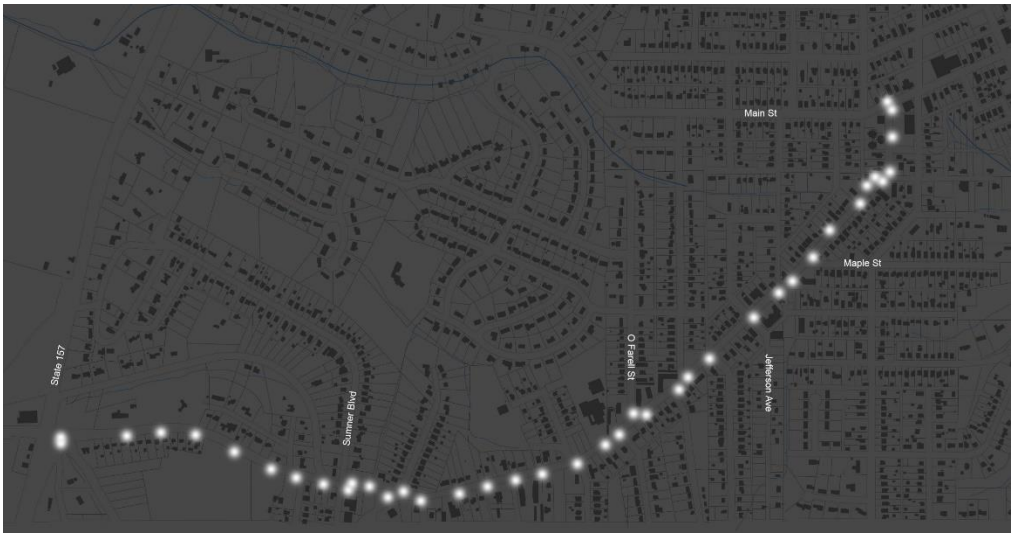


Existing street lights along St. Louis Road are pole mounted area lights.

Lighting

This existing conditions summary does not include a detailed analysis of light levels and possible areas of light spillage onto adjacent residential parcels. Existing light fixtures within the right-of-way and adjacent parcels are area lights attached to existing utility poles. The spacing of existing lighting is fairly consistent along the corridor. However, many residents stated that St. Louis Road seems "dark" and would benefit from additional lighting.

A signature element of Uptown Collinsville is the ornamental lighting. Lighting was a key goal of the Uptown Master Plan. The Master Plan stated, "both the scale of fixture and type of lighting can easily create the sense that the sidewalks - and all of Uptown - are the domain of the pedestrian." This same type of thinking should guide lighting decisions along St. Louis Road. Whether the same Uptown lighting style is used along the whole project corridor (or only portions) is a topic to discuss with residents during the community charrette.



Map of existing street light locations along St. Louis Road. (Note: Graphic only represents location and not light levels.)

What We Heard – Community Priorities

Several common themes emerged related to environmental infrastructure during the community stakeholder meetings, open houses (January 28 - 31), and comments from the online mapping tool. Community priorities for environmental infrastructure included:

1. Increased opportunities for walking and biking.
2. Overall beautification of St. Louis Road / Collinsville Road.
3. Increased trees and landscaping.
4. Better lighting.

Opportunities and Recommendations for Environmental Infrastructure

A. Connected Multi-Use Trail Network

The St. Louis Road / Collinsville Road corridor should be a key link in an overall multi-use trail network in Collinsville. St. Louis Road / Collinsville Road is a vital link between downtown the world class destination of Cahokia Mounds. Several local destinations are adjacent to the corridor including Collinsville Middle School, Jaycee Sports Complex, Jefferson Middle School, and Collinsville High School. Within a short distance of the corridor additional destinations include the Madison County Transit Schoolhouse Trail, Gateway Center, Morris Hills Park, and Willoughby Farm.

The corridor is important for residents walking within the neighborhood. Many residents mentioned that St. Louis Road is a popular route for strolling within the neighborhood and to reach downtown Collinsville.

1. Multi-Use Trail along St. Louis Road / Collinsville Road

A multi-use trail should extend along St. Louis Road / Collinsville Road from Main Street to Cahokia Mounds. The trail should be a 10-feet wide. In locations where right-of-way width is limited, or there are obstacles, an 8-foot wide trail may be necessary where fuctionally acceptable. A 10-feet wide path meets the width recommended by AASHTO (American Association of State Highway Transportation Officials). Some cities, such as Columbia, Missouri, have defined widened sidewalks as “pedways” where due to right-of-way limitations, a full 10-feet multi-use trail width cannot be achieved. To match the neighborhood sidewalk character, the multi-use trail should be concrete. West of State Park Place, the trail can be an asphalt surface to match other MCT Trails in Madison County.

Generally, the multi-use trail should be on the west side of St. Louis Road and the north side of Collinsville Road.

Alternative Alignments (Walnut Drive and Sycamore Street)

As part of the planning process, and alternative alignment of using Walnut Drive and the alley of Sycamore Street was evaluated. The advantage of the alternative alignment is that Walnut Drive has a gentler slope than St. Louis Road. St. Louis Road also has several points between Mesa Drive and State Route 157 where the space for a multi-use trail on the north side is limited. The topography along the north side of St. Louis Road is very steep in several locations and there is an existing retaining wall just west of Mesa Drive. A road diet of St. Louis Road and the relocation of the north street edge will help provide space for the multi-use trail, but retaining walls will still likely be needed along some sections.

The Walnut Drive trail alignment would avoid the above difficulties of utilizing St. Louis Road. However, the key disadvantage of using Walnut Drive is what happens at Walnut Drive and State Route 157. The topography is too steep to run the trail

south and connect back to St. Louis Road. The trail would have to run north and cross State Route 157 at the intersection with Collinsville Road. Once across State Route 157, the trail could run on the north or south side of Collinsville Road until Collinsville Middle School. However, the trail would have to cross an existing slip lane to reach the north side. On the south side, the trail would have to navigate a pinch point created by the location of Ramon's El Dorado restaurant. If future improvements to State Route 157 and St. Louis Road take place (including bringing State Route 157 to grade with St. Louis Road), the Walnut Drive trail alignment will likely become more practical.

The triangular piece of property anchored by Ramon's El Dorado restaurant and Lifepoint Church is a problematic section for the trail. Either an alignment along Collinsville Road or St. Louis Road both have disadvantages, especially with the lack of a defined right-of-way created by the parking lot of Ramon's El Dorado restaurant extending all the way to the street edge. This section of the trail may require a temporary alignment as future improvements to State Route 157 and St. Louis Road are considered.

The Sycamore Street alley was also considered as an alternative alignment. The benefit of this alignment is that it would take the trail off of St. Louis Road and free up right-of-way on St. Louis Road for other streetscape enhancements. However, the alley right-of-way has been encroached by adjacent property owners. While the City could technically reclaim this right-of-way, it would likely cause animosity by adjacent property owners toward the trail. This would outweigh the potential benefits of the Sycamore Street alley alignment.

Sketch of the proposed multi-use trail in the residential section of St. Louis Road. The proposed condition includes relocated utilities.

Sketch of the proposed multi-use trail along St. Louis Road just east of State Route 157. St. Louis Road is proposed to go from 4-lanes to 2-lanes in this section, which provides space for the trail on the north side of the road. The proposed condition includes relocated utilities.

2. Community Trail Connections

The St. Louis Road / Collinsville Road corridor is a key link in an overall multi-use trail network in Collinsville. From Cahokia Mounds, a multi-use trail should connect north to the Madison County Transit School House Trail via an alignment following the Cahokia Canal. This alignment is consistent with the Metro East Park and Recreation District (MEPRD) trail master plan.

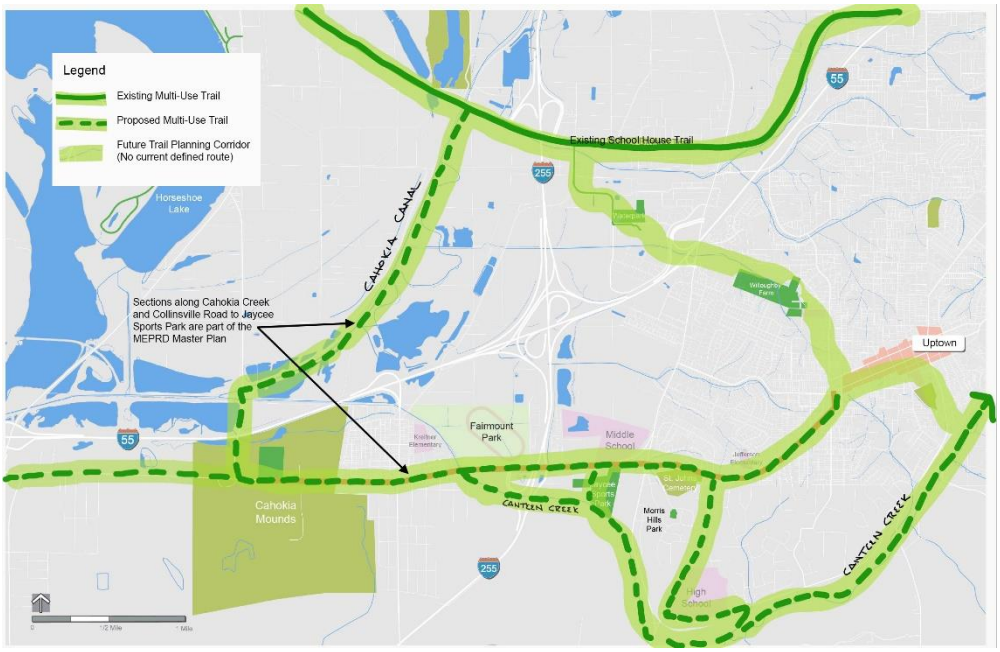
The Canteen Creek is an opportunity for a trail alignment to connect Collinsville High School, Jaycee Sports Complex, and the heart of Collinsville. Canteen Creek has an extensive floodplain, so additional planning will be required to determine the feasibility of utilizing the Canteen Creek corridor. In addition, the corridor is primarily private property that will require extensive easements or property acquisitions for any potential trail.

A multi-use trail should be located along Caseyville Road to connect St. Louis Road to Collinsville High School. Additional planning and design will be required for Caseyville Road as there is limited existing space adjacent to the edge of the roadway for a multi-use trail. In addition, frequent driveways and steep adjacent side slopes are challenges for a trail.

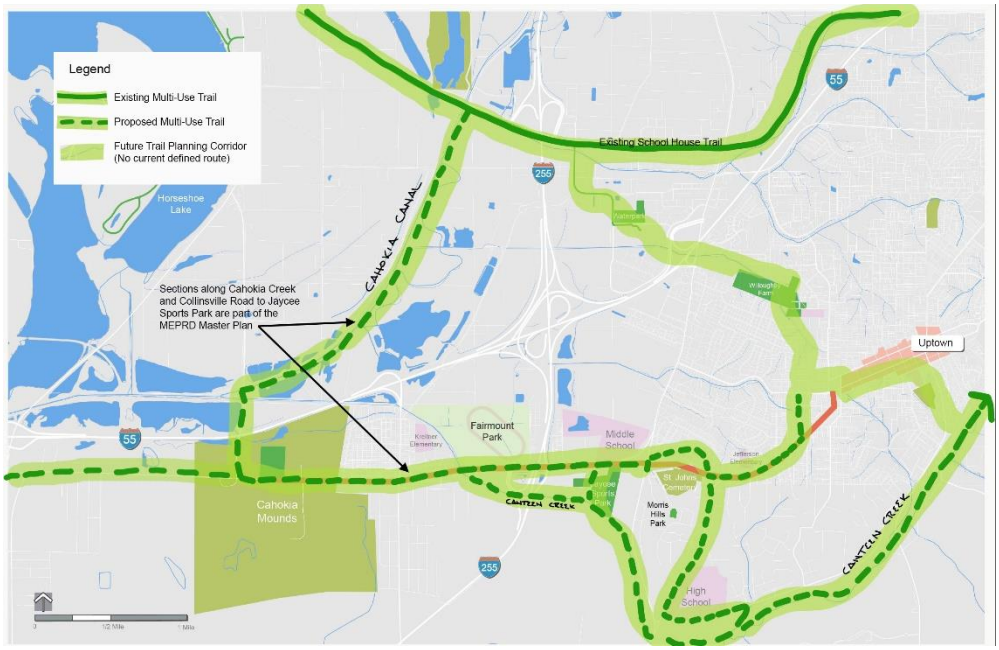
From the north end of St. Louis Road, a future multi-use trail should connect to Willoughby Farm and further north to the Gateway Center, Waterpark, and trailhead of the School House Trail. A defined corridor was not identified as part of this planning process. A key challenge is crossing I-55/I-70. Additional planning will be required to identify and evaluate potential trail corridors.

Morris Hills Park is an underutilized park along Woodland Drive just south of St. Joseph cemetery. The park is underutilized due to its location and lack of modern facilities. Its location is not easily accessible for pedestrians and bicyclists as Woodland Drive is a narrow residential street without sidewalks or bicycle facilities. The Collinsville Parks Master Plan should evaluate future uses for the park. A sidewalks along Woodland Drive is recommended to increase neighborhood pedestrian access.

Sketch of the proposed multi-use trail at Monks Mound. In addition to the multi-use trail, Collinsville Road is proposed to be converted to 2-lanes with on-road bike lanes each direction. A pedestrian crossing across Collinsville Road connects Monks Mound to the trail leading to the visitor center. The multi-use trail is proposed to connect north along Cahokia Canal to the School Branch Trail.



Map of the recommended multi-use trail corridor. The multi-use trail follows St. Louis Road on the west side and Collinsville Road on the north side. Community connections include Cahokia Canal and Canteen Creek.



Map of the alternative multi-use trail alignment. The alternative alignment utilized Walnut Drive and the Sycamore Street alley.

Map detail of the alternative multi-use trail alignment. The alternative alignment utilized Walnut Drive and the Sycamore Street alley.

B. Watersheds and Stormwater

With the majority of the project watershed developed and undetained, there are significant opportunities to decrease stormwater runoff and improve water quality. While stormwater is not a noticeable problem within the uplands portion of the corridor, the bottomlands have significant flooding issues.

With stormwater on St. Louis Road and Collinsville Road eventually draining to Canteen Creek, reducing stormwater volume and improving water quality will assist in overall stormwater goals in the watershed. The existing stormwater infrastructure within the St. Louis Road right-of-way is aging and in need of improvement. Reducing stormwater volume into the existing stormwater infrastructure will help reduce the pressure on the existing system. Improvements to stormwater will need to be driven by the City of Collinsville.

Upland Strategies

Regional Detention

The City has expressed interest in developing regional detention basins in the uplands to help alleviate the drainage and flooding issues in the bottomlands. Detaining stormwater in the uplands where no existing detention basins exist will provide a significant benefit to the watershed both in a reduction in flood volume and improvement to water quality. Flood volumes are improved by reducing the flow rate of stormwater to the bottomlands. Water quality is improved by storage of sediment in the regional detention basins and reducing the erosion potential downstream through lower flow rates.

These regional detention basins will be constructed and maintained by the City. Funding for the basins needs to be developed along with the shared facility regulation changes that are proposed in the Bottomlands Strategies section regarding the recommend revisions to the City's stormwater regulations.

This program should be developed Citywide, with a focus on improving the weaknesses of the targeted watersheds. Upland detention should occur in each of the sub-watersheds in the upland area. A drainage study needs to be undertaken to evaluate the watersheds and provide recommendations on how the City should proceed with implementing the new regulations. Additionally this study needs to evaluate and quantify the impact of uplands versus bottomlands detention to determine stormwater banking credits for bottomlands detention removal in new bottomland developments.

The City has identified an area near Jefferson School for upland detention. The City should move forward with design and construction of the detention near Jefferson School. This project can proceed independently of other St. Louis Road improvements.

Tree Lawns as Bioretention

Tree lawns have the opportunity to be micro bioretention basins. The priority for locations for the bioretention should be near existing inlets and at intersections where the bioretention plantings can also act as aesthetic landscape enhancements. Commitment to maintenance by a neighborhood group (such as a community improvement district) or adjacent property owners will be required before installation of any bioretention facilities. Location of bioretention areas should take place during concept / preliminary design of the streetscape (see implementation section).

Increase the Tree Canopy

An increased tree canopy within the corridor will provide significant stormwater benefits as trees not only capture rainfall through root systems, but through their leaves and bark.

The Uptown Master Plan recommended 40-feet spacing of street trees. While 40-feet is a good starting point, actual locations should be developed during the concept / preliminary design of the streetscape (see implementation section). Location of trees will need to take into account proposed lighting locations, signage, site lines, and views of buildings.

The location of the overhead power lines will impact possible tree locations. If the power lines can be buried, there will be a greater opportunity for larger canopy trees. If the overhead power lines remain in place, trees may be limited to one side of the street or smaller understory trees may be used.

ForestReLeaf is one of the best programs from free community trees in the St. Louis region. Although ForestReLeaf is a Missouri organization, their free tree program is also available to Illinois communities in adjacent counties to Missouri. The downside of the program is the size of the trees, which is small. The small planting size of the trees can be problematic for public areas as the trees can be subject vandalism. Recommended size of new trees in public areas are 1 ½" – 2" in caliper and should be budgeted by the City as part of capital improvements.

Advocate for Private Stormwater Improvements

For property owners, there is less incentive to improve stormwater runoff. Opportunities do exist to improve stormwater on private parcels through education and advocacy. Other recommendations from this report such as the use of native and water harvesting (rain barrels) should be encouraged. Downspout disconnection is the process of separating roof downspouts from the sewer system and redirecting roof runoff onto pervious surfaces, most commonly a lawn or rain garden. This reduces the amount of directly connected impervious area in a drainage area.

Private stormwater strategies such as rain gardens and rain harvesting (rain barrels) can have a significant cumulative impact when many property owners participate.

Shared Green Infrastructure Strategies and Incentives

To help spur and incentivize projects, shared stormwater best management practices (BMP's) should be considered. Potential BMP's include: Example BMP's include bioretention, permeable pavement, rainwater harvesting, green roofs, sand filters, stormwater ponds and wetlands, proprietary BMPs, open channels and dry detention basins.

This would help spur development by taking the stormwater requirements, normally born by the developer on-site, to a shared facility. Typically, when redevelopment occurs, on-site stormwater management facilities compete with other site features for limited and valuable space. Shared facilities that benefit multiple parcels would free-up space on the site for the developer and save on development costs.

The City should consider shared stormwater facilities (or credits) as redevelopment occurs. The upland detention, mentioned earlier in this section, could also be an opportunity for shared facilities.

A constraint for shared stormwater facilities is the lack of available space, especially public space. However, one option for shared facilities are side street edges. Bioretention parking islands/tree lawns and permeable paving are green infrastructure options that could better define parking on these side streets while providing a potential shared stormwater strategy.

Bottomland Strategies

Tree Lawns as Bioretention

Tree lawns have the opportunity to be micro bioretention basins. The priority for locations for the bioretention should be near existing inlets and at intersections where the bioretention plantings can also act as aesthetic landscape enhancements. Commitment to maintenance by a neighborhood group (such as a community improvement district) or adjacent property owners will be required before installation of any bioretention facilities. Location of bioretention areas should take place during concept / preliminary design of the streetscape (see implementation section).

Increase the Tree Canopy

An increased tree canopy within the corridor will provide significant stormwater benefits as trees not only capture rainfall through root systems, but through their leaves and bark. Location of trees will need to take into account proposed lighting locations, signage, site lines, and views of buildings.

The development of the 9500 Sports Complex should also take into account the opportunity for increasing the tree canopy. Many sports complexes will have

medium size shade trees between sport fields to provide shade for spectators. Parking areas should have canopy trees along lot edges and within parking islands.

Advocate for Private Stormwater Improvements

For property owners, there is less incentive to improve stormwater runoff. Opportunities do exist to improve stormwater on private parcels through education and advocacy. Other recommendations from this report such as the use of native plants will have stormwater benefits. Techniques such as downspout disconnects and water harvesting (rain barrels) should be encouraged. Downspout disconnection is the process of separating roof downspouts from the sewer system and redirecting roof runoff onto pervious surfaces, most commonly a lawn or rain garden. This reduces the amount of directly connected impervious area in a drainage area.

Shared Stormwater Strategies and Incentives

To help spur and incentivize projects greater than one acre (such as multi-parcel redevelopment), shared stormwater detention and best management practices (BMP's) should be considered. This would help spur development by taking the stormwater requirements, normally born by the developer on-site, to a shared facility. Typically, when redevelopment occurs, on-site stormwater management facilities compete with other site features for limited and valuable space. Shared facilities that benefit multiple parcels would free-up space on the site for the developer and save on development costs. The City should revise the stormwater regulations to discourage individual detention facilities for new development in the bottomland. This regulations change should work in concert with the regional detention facilities developed in the uplands.

The concept sketch below shows an example of utilizing shared stormwater facilities as an amenity for development. The concept has a mix of land uses including residential, office, and retail. This concept was well received by residents in attendance at the final open house presentation. The benefits for the City include significant new private investments and new housing options. As presented at the open house, it's a "big idea" that will not happen overnight. To move forward toward implementation will require multiple levels of coordination between the City, IDOT, and private land owners.

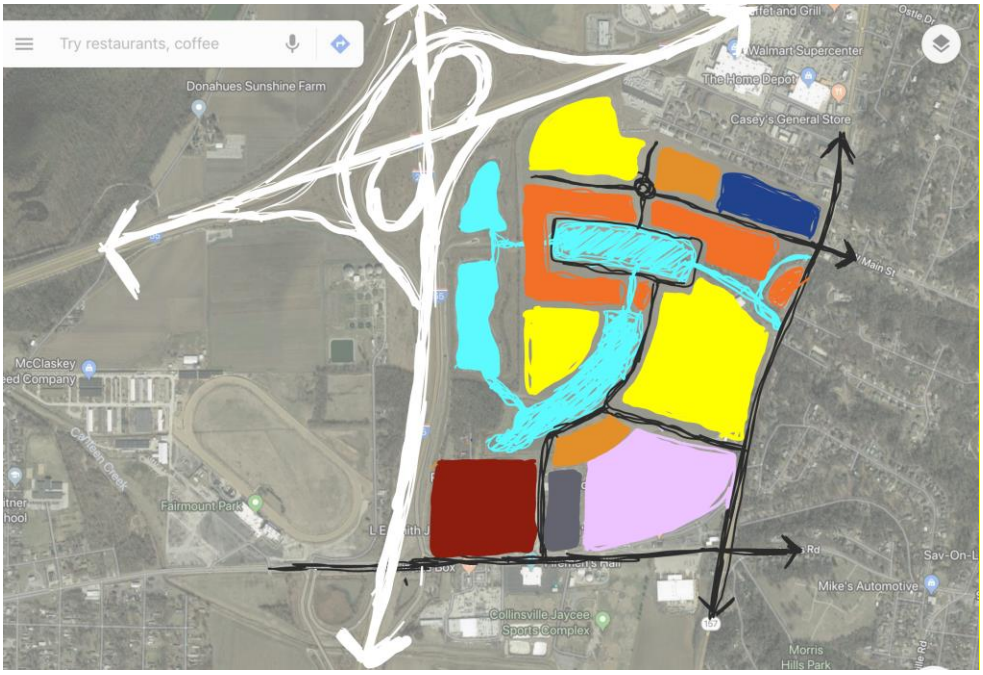
To move forward, several steps and initiatives will have to take place including a more detailed market assessment to determine what is feasible for development, stormwater and watershed analysis to determine needed capacity, determining the feasibility and mechanisms of a stormwater credit program, and updated land use plan, and likely rezoning.

While there are examples of desirable mixed-use developments such as New Town St. Charles and the Menomonee Valley in Milwaukee where stormwater management is a driving force for successful development, there are also examples

where cities have struggled to find a successful path forward. The City of Maryland Heights has spent over a decade planning in the Howards Bend area trying to find a successful balance of stormwater management, development potential, and land use regulations. It can be a complicated mix for a city to sort, especially if a proposed area is controlled by multiple property owners.

An initial first step for the City should be a scoping study to compare successful and unsuccessful case studies and lessons learned. This study could then set the stage for more detailed planning including a market assessment, stormwater and watershed analysis, and land use plans.

New Town, St. Charles is a regional example of a development utilizing stormwater facilities as an amenity.



Concept sketch of utilizing shared stormwater facilities as an amenity for development. The above concept has a mix of land uses including residential, office, and retail.

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Scale comparison to New Town. St. Charles. New Town is a regional example of a development utilizing stormwater facilities as an amenity. The undeveloped area west of State Route 157 is similar in size to New Town.

C. Green Infrastructure

Landscaping, street trees, and overall beautification was one of the top priorities of the community for the St. Louis Road / Collinsville Road Corridor.

Streetscape Landscape Strategies

Existing lack of tree lawn and overhead utilities are the two biggest obstacles to increased landscape and street trees along the corridor. Below are several strategies to increase the amount of landscape and street trees along the corridor.

1. Leverage Pedestrian Bumpouts to Install Street Trees and Landscaping
2. Leverage Access Management to Provide Tree Lawns
3. Use BMPs with Native Plantings in Conjunction with Storm Inlets
4. Leverage the Relocation of Utilities to Increase Opportunities for Street Trees

1. Leverage Pedestrian Bumpouts to Install Street Trees and Landscaping

As locations are improved for pedestrians crossings, there are opportunities to piggy-back on the improvements to install street trees and other landscaping. Bumpouts are an example of a feature that can increase pedestrian safety and provide an opportunity area for landscaping and street trees.

Locations will need to be confirmed during conceptual/preliminary design, however potential locations for bumpouts include recommended pedestrian crossing points, including at or near: St. Louis Road at Caseyville Road, St. Louis Road at the First Baptist Church, St. Louis Road at Courtland Place, St. Louis Road and Jefferson Avenue, and St. Louis Road and Main Street.

An important safety consideration with landscaping near an intersection is to ensure lines of sight. Street trees and landscaping must not be placed to obscure lines of sight for motorists, bicyclists, and pedestrians. Bumpouts must also conform with required turning radius.

Example of a bulb out with landscaping. The bulb out also provides space for street tree plantings.

2. Leverage Access Management Improvements to Provide Tree Lawns

As access management improvements occur along St. Louis Road, there will be opportunities to increase the amount of tree lawn along the corridor. Access management includes eliminating excess curb cuts or providing defined curb cuts on lots where pavement extends continuously to the street edge. Additionally, as street intersections are better aligned, opportunities for tree lawn and greenspace will increase. Tree lawns should be a minimum of 5-feet in width. In plaza and hardscape areas, street trees should be provided will sufficient soil volume.

3. Use BMPs with Native Plantings in Conjunction with Storm Inlets

Tree lawns are a great opportunity for increased landscape planting. Typically, tree lawns are just grass, which has little biodiversity or aesthetic value. However, the benefit of grass is that it is relatively easy to maintain and can withstand salt spray from the road. In addition, the length of the corridor will result in a significant amount of landscape plantings to maintain if the entire length of the tree lawn is landscaped.

Example of a BMP where stormwater can infiltrate in a planted area. Especially in areas with on-street parking, BMP's should provide space for passengers to disembark.

Plantings should be concentrated at bumpouts and as part of BMP's in conjunction with storm inlets. Stormwater BMP's near inlets will provide an opportunity for native plantings, increase streetscape aesthetics, improve water quality, and provide opportunities for micro-detention. The BMP's should be more urban in nature like the picture to the left with well defined edges that contribute to the overall streetscape appearance.

Remaining tree lawns should remain grass with street trees unless adjacent property owners are willing to maintain the tree lawn. Home and business owners should be encouraged to enhance the tree lawn with low height plantings if they take on the maintenance.

Use Trees that Help Keep Views of Buildings and Signage

Street trees should keep the views to buildings and signage open as much as possible. A landscape architect or arborist should be part of the streetscape design team to ensure proper tree selection. Some tree species that will help to keep views of buildings open include:

- Ginkgo (Especially cultivars such as Princeton Sentry and Magyar): Ginkgos have strong central leaders and less frequent horizontal branching.
- Skyline HoneyLocust: A honeylocust cultivar that has "light" foliage that isn't dense.
- London Plane Tree / Sycamore: Tree that can be limbed up as it matures.
- Oaks (especially pin and red oaks).

The diagram to the right shows trees that do well at keeping views open to building and signage. In considering tree species, considering should include biodiversity. Some trees have low biodiversity (such as the ginkgo) compared to other species such as oaks that have very high biodiversity. When possible, trees with high biodiversity should be used.

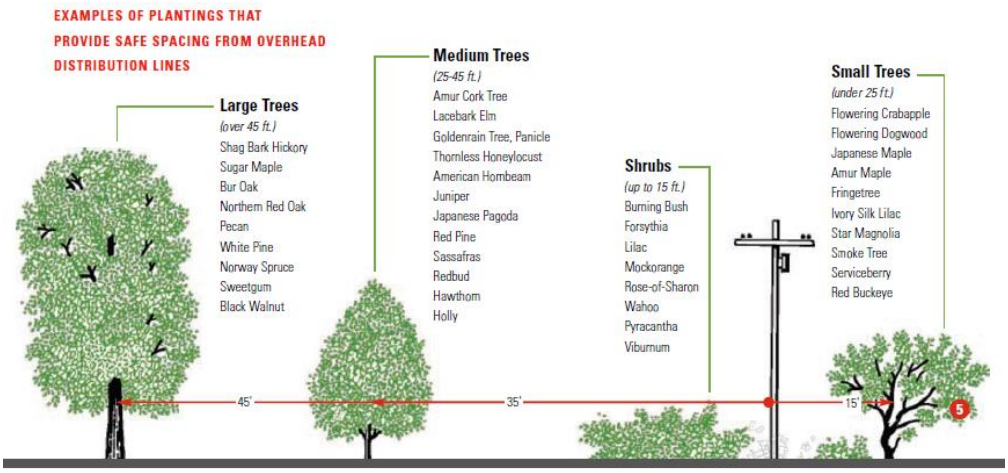
Use Trees Appropriate for near Utility Lines

The existing utility lines on the east side of St. Louis Road is one of the biggest challenges to street tree plantings along St. Louis Road. Below is Ameren's recommended tree sizes and spacing near their overhead lines. Ideally the utility lines should be relocated along St. Louis Road. Relocated utilities will allow greater opportunities for street trees.

If the utility lines cannot be relocated (or cannot be relocated in the short term), there are still options for street trees and landscape plantings along St. Louis Road. Larger street trees should be planted on the opposite side of St. Louis Road from the utility lines. On the utility line side, the curb line and tree lawn could be located to allow smaller tree plantings.

Smaller trees most suitable for St. Louis Road include:

- Serviceberry (many cultivars available)
- Redbud
- Amur Maple



Right: Ameren Tree Planting Guide (Source: Ameren)

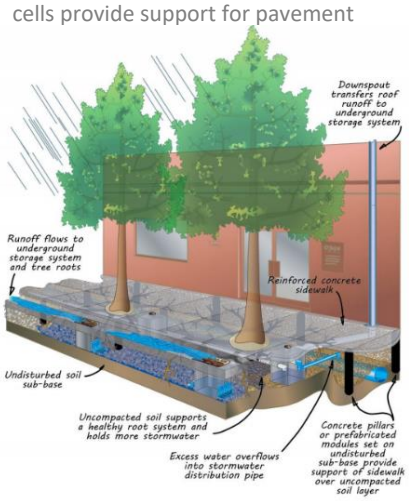
Tree form when pruned should also be considered. Some tree species hold their form better when pruned for utility clearances.

Reference Guides for Tree and Planting Selections

A landscape architect, arborist, or other professional should make final selections for tree and plant species. When choosing species, a variety of factors such as micro-habitats, sun, water, space limitations, maintenance, and aesthetics must be weighed. While reference guides are helpful, they should not supplement professional knowledge. Below is a list of St. Louis regional tree and plant references:

- MSD Landscaping Guide for Stormwater BMPs
- Ameren Guide to Tree Planting
- Missouri Urban Trees, Missouri Department of Conservation
- Missouri Botanical Garden – Plant Finder (Web Based)
- Landscaping with Native Plants, Missouri Botanical Garden

Example of a propriety structural soil system (Strata Cells). The structural cells provide support for pavement



Structural soils can be used as a stormwater best management practice by provide storage from runoff or through permeable paving *(Source EPA)*

Use Structural Soils to Help with Long-Term Tree Health

Where there is limitations for green space, providing proper soil volumes is necessary for long-term tree health will be at a premium. Sidewalks next to tree lawns (less than 4-foot width) should use structural soils or other subsurface structural system (such as Silva Cells) to promote root growth. Structural soil is a technique of using 80% aggregate and 20% soil. Silva Cells and Strata Cells are two examples of propriety products of plastic/fiberglass "boxes" that support paving above while protecting uncompacted soil. These propriety products provide up to four times the volume of soil than structural soils.

Structural soils or a product like Silva Cells or Strata Cells should also be used in plaza areas. A typical urban tree ideally needs more than 1,000 cubic feet of soil to minimize stress and reach full maturity.

Locations where structural soil will be needed are plaza type areas like the proposed streetscape around Kruta Bakery.

Maintenance

The intent of this white paper is not to provide a detailed maintenance discuss. However, several key points concerning landscape maintenance should be highlighted. One, there is no such thing as a "no-maintenance" landscape. Native plantings often are "lower" maintenance, but they often require more skilled maintenance than typical turf maintenance. Two, clear designation of maintenance responsibilities is required. Often, communities are hopefully that surrounding land owners will maintain landscape improvement. Sometimes this is the case. However, if land owners discontinue maintenance suddenly, large investments in the landscape can become imperiled. It is better for a central organization (such as a the City) to be responsible for all maintenance to ensure consistency. Finally, initial establishment maintenance (the first 2-3 years), varies from long-term maintenance. As part of the streetscape design process or before any landscape improvements are installed, the City should ensure that a maintenance plan has been developed.

Metrics

American Forests recommends a 40% urban tree canopy coverage as a minimum for a healthy urban forest. The Uptown Master Plan recommended 40-feet spacing of street trees. While 40-feet is a good starting point, actual locations should be developed during the concept / preliminary design of the streetscape (see implementation section). Location of trees will need to take into account proposed lighting locations, signage, site lines, and views of buildings. The City should use the East-West Gateway land cover data to measure changes in the City's tree canopy coverage. The current benchmark year is 2018 for the land cover data.

Biodiversity Strategies

Public Realm

The tree "lawn" is one of the best opportunities to increase biodiversity in the public realm along St. Louis Road. Opportunities for the tree lawn can be thought of as a sliding scale for biodiversity. On the low end of the biodiversity scale is cool season lawn grasses. On the high end of the biodiversity scale is native grasses, forbs, and shrubs. The best way to increase biodiversity in the corridor is to use more native planting (grasses, forbs, shrubs, and trees).

There are multiple considerations for deciding on the type of plantings within the tree lawn. Considerations include maintenance, lines of site, public perception and salt tolerance.

While maintenance for native plantings such as native shrubs, grasses, and forbs can be less than turf grass in the long term, native plantings typically require more initial maintenance, especially in the first 1-3 years. In addition, native plantings require a more specialized maintenance. For example, turf grass in a tree lawn is fairly straightforward maintenance of regular cutting and trimming every one to two weeks. However, perennial and shrubs plantings require a spring cleanup, addition of yearly mulch, regular weeding, litter pickup, and fall cleanup. In addition, care must be taken not to weed actual plants.

Maintaining lines of site will be important for any plantings in the tree lawn along St. Louis, especially with the numerous driveway openings. Plantings should not block views for motorists, bicyclists, or pedestrians.

Public perception of plantings in the tree lawn should remain positive. Sometimes, native plantings can have the perception of looking "weedy". There are several ways to overcome this perception. One, use species, especially cultivars, which are compact in size. Second, provide a transition space along the edge of native plantings can provide a more "manicured" look. This transition space can be very compact native plantings or non-native plantings. However, a transition space in tree lawns can be a challenge because of the lack of available space for a transition/edge space.

Issues such as maintenance, lines of site, public perception, and salt tolerance should not discourage the use of native plantings in the tree lawn along St. Louis Road. However, it will be important to keep these factors in mind during planning and final design of the corridor. Maintenance requirements and responsibilities need to be fully understood and committed to prior to final design and construction.

Strategies for Increasing Biodiversity in the street Right-of-Way:

1. Focus on Intersection Plantings

Similar to the street tree strategy, increased biodiversity should focus on intersection locations as the first priority. Landscape enhancements at the intersections will be highly noticeable and will provide additional benefits such as traffic calming and increased buffering for pedestrians.

2. Start Small and Expand

Unless maintenance requirements are fully understood and funded, areas of native plantings should start small and expand over time. Intersection locations are a good place to start. As areas are successful, additional areas can be established by removing turf in tree lawns and planting native species.

3. Use Native Trees

One of the biggest impacts for biodiversity will come from a restored tree canopy along St. Louis Road. Native trees should be used as much as possible, accounting for factors such as visibility to buildings and use near utility lines.

Private Realm

Increased biodiversity should also be a focus on private parcels adjacent to St. Louis Road and Collinsville Road. The main challenges, however, to increasing biodiversity on private parcels is the lack of direct control over what is planted. The City can regulate landscape standards for new development, but has little control over existing development.

Strategies to increase biodiversity on private parcels should focus on education, advocacy, and awareness.

Strategies for Increasing Biodiversity on Private Parcels

1. Education of Native Plant Alternatives

Increased aesthetics and landscape improvements were high priorities for stakeholders. Existing community grant programs such as façade improvements should expand to include other aesthetic improvements such as landscaping. As part of private landscape enhancements, businesses and property owners should be educated on native plant alternatives to popular ornamental plants. An example is native sedges instead of liriope. The Missouri Botanical Garden is a great resource including their *Landscaping with Native Plants* guide.

project pollinator
a community garden initiative

Recognition of property owners and businesses that have planted native plantings and pollinators is a good way to encourage increase biodiversity on private parcels.

Several St. Louis regional organizations may be available to assist property owners with either technical assistance or through speakers and materials to educate and excite property owners about the use of native plants. Organizations include:

- BiodiverseCity St. Louis
- Grow Native! (Which has a Southwestern Illinois Chapter)
- Heartlands Conservancy
- St. Louis Audubon Society
- St. Louis Chapter of Wild Ones

Lighting

The Uptown Design Guidelines are a good starting point for choosing a lighting style for St. Louis Road and Collinsville Road as it provide design continuity between Uptown and the project area. However, the length of the project corridor and changing land uses create a need for a diversity of lighting fixtures. Future streetscape lighting along the corridor should consist of three different lighting styles based on locations along the corridor. The below styles are initial general recommendations. The final lighting style should be chosen in consultation with residents and businesses along the corridor. The concept of the three different lighting styles were presented at the community charrette and received strong positive feedback from attendees. The three different styles include:

Example of the existing Uptown lighting fixture that should be used along commercial nodes along St. Louis Road.

<u>Commercial Nodes</u>

Commercial nodes, such as the area around Kruta Bakery, should have the same lighting style and spacing as Uptown Collinsville. This will provide continuity between St. Louis Road and Uptown.

<u>Residential Areas</u>

Residential areas along St. Louis Road and within State Park Place should have a simplified ornamental style that is well suited for residential areas. While the final design should be finalized by the City in coordination with the neighborhood, an simple acorn style (shown left) was well received by attendees at the community meeting.

<u>Collinsville Road</u>

This section of the corridor is a four-lane highway with higher speed traffic. Lighting along this section should be a high-mast type that is ornamental. Typical high-mast lighting is fairly bland, usually with silver or gray poles. High-mast lighting along Collinsville Road should be ornamental with brightly painted poles with options for banners. Ornamentation of the high-mast lighting could include similar details as the Uptown style, but scaled as appropriate for the Collinsville Road section. Since Collinsville Road is wider with further spaced land uses than Uptown, light poles and ornamentation along Collinsville Road will need to be larger and have more bulk to be used aesthetically.

Example of an acorn type fixture that is recommended for residential nodes along St. Louis Road. Note: style shown for general reference. Final style should be chosen in consultation with residents and business owners.

Cahokia Mounds

Any roadway lighting or trail lighting along the Cahokia Mounds sections should be carefully coordinated with Cahokia Mounds and their Management Plan. The 2008 Cahokia Mounds Management Plan stated, "there should be building height limits and outdoor lighting regulations to minimize adverse impacts to the Monks Mound view shed." The Management Plan does not specify further details regarding lighting regulations.

Low level (bollard type) lighting at a few select location such as at trail nodes are recommended to provide enough lighting for security and safety while also complying with the intent of the Management Plan.

Dark Sky Friendly

At minimum, lighting should comply with the Uptown and citywide zoning code for lighting levels. However, streetscape lighting should also be dark sky friendly with cut-off shielding and downward directed lighting. Modern acorn style light fixtures are able to comply with current best practices.

Multiple Jurisdictions

The City should focus on implementing lighting along St. Louis Road from Main Street to Route 157 since this stretch of the corridor is under the City's jurisdiction. West of Route 157, the right-of-way is under IDOT's jurisdiction and portions of the corridor are within unincorporated Madison County and St. Clair County. Implementation of lighting west of Route 157 will need to be in coordinating with these jurisdictions.

Architectural Lighting

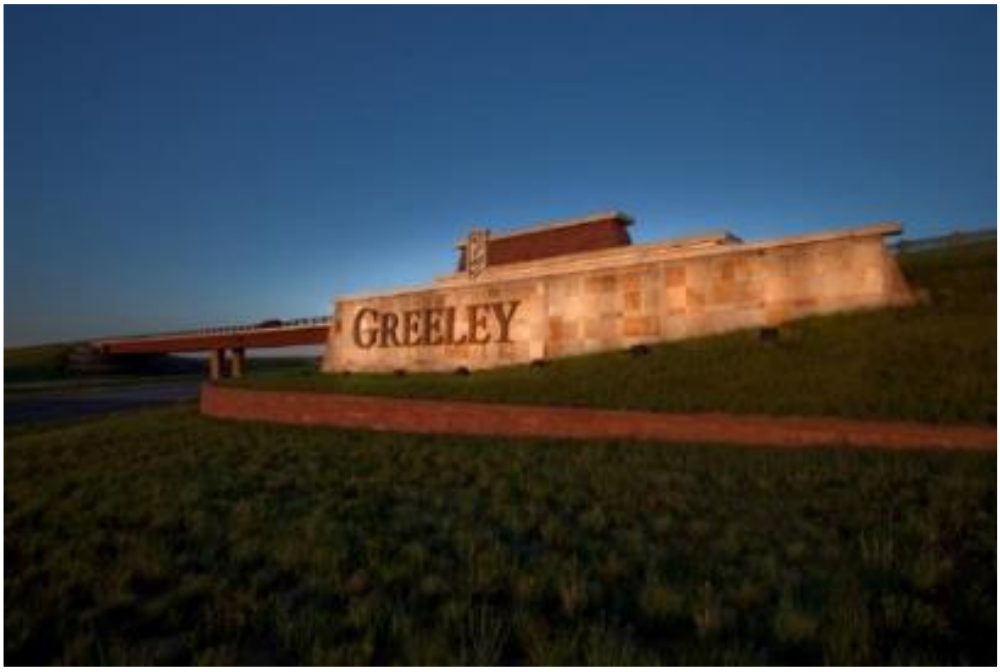
Property owners within commercial nodes should be encouraged to have architectural lighting on their buildings. Appropriately scaled architectural lighting can provide a welcoming nighttime appearance, even when the business is closed. Architectural lighting can also increase the perception of safety and value within the neighborhood. Commercial lighting should avoid spilling over into residential areas.

Lighting as a Gateway

The underpass of State Route 157 is an opportunity to utilize light as art. This underpass is a dreary entry into the City, especially at night. Artistic lighting of bridge columns, walls, and embankments will create a welcoming entry into the City and increase the perception of safety along the corridor. The proposed entry monuments at the exits of I-255 should be also be lighted.

The City will need to gain approval from IDOT for any lighting enhancements within IDOT's right-of-way. Maintenance agreements will also be required.

Example of an ornamental style high-mast lighting recommended for Collinsville Road. Note: style shown for general reference. Final style should be chosen in consultation with residents and business owners.



Examples of using lighting as a gateway. Top above: Precedent underpass lighting. This concept should be used for the underpass at State Route 157. Above: Monument lighting. This concept should be used for the proposed entry monuments at the exits to I-255.

Map of proposed lighting locations. Pink: Commercial node lighting, Yellow: Residential lighting, Brown: High mast lighting, Symbols: Gateway lighting locations.

Sketch of nighttime lighting including street lights and architectural lighting of commercial buildings.

Wayfinding

There are two types of wayfinding recommended for the St. Louis Road / Collinsville Road corridor. The first type is regional wayfinding that connects out of town visitors to major destinations such as Cahokia Mounds and Fairmount Park. The second type is local wayfinding that is a resource for both out-of-town visitors and local / neighboring residents.

Regional Wayfinding

There is a surprising lack of regional wayfinding for Cahokia Mounds, even though the site is frequently visited by international tourists and is designated as a Unesco World Heritage Site. Wayfinding for Cahokia Mounds should start along the interstates of I-255, I-55/I-70, and even I-64. Illinois Department of Transportation (IDOT) standard tourist signage is brown. However, enhanced signage options should be explored. The St. Louis Convention & Visitors Commission started a regional attraction wayfinding program within Missouri which includes a hierarchy of tourism signs along interstates and major roads. IDOT's Region 1 (Chicago) has an enhanced interstate signage program recognizing landscape sponsorship. So there is precedent for customized signage along the interstate to better direct visitors to Cahokia Mounds. Standard IDOT tourism signage could be implemented in the short-term while customized, enhanced signage could be designed and approved by IDOT.

At the I-255 and Collinsville Road intersection, the exit/entry ramps should be enhanced to create a more welcoming entry experience and direct visitors to destinations. At minimum, enhanced landscaping and wayfinding should occur at the intersection of the ramps and Collinsville Road. In addition, a large-scale wayfinding monument should be installed at the ramp location that will be visible from traffic along I-255. Additional viewshed and scale studies will be required to determine a recommended height, but as Collinsville Road sits below I-255, the height of the monument will need to be substantial.

A 'Welcome to Collinsville' sign monument is recommended at the I-255 embankment along Collinsville Road.

Local Wayfinding

Along the St. Louis Road / Collinsville Road corridor, wayfinding signage for motorists, bicyclists, and pedestrian should be implemented to direct travelers to local destinations such as Collinsville Middle School, Collinsville High School, Jaycee Sports Complex, Fairmount Downs, Jefferson Elementary School, and Uptown. Local wayfinding benefits not only visitors who are unfamiliar with the area, but also creates pride and awareness from local residents of community destinations.

Sketch of proposed wayfinding monuments at the exits to I-255.

Human Health and Well-Being

The opportunity for increased human health and social interaction will increase significantly along the St. Louis Road / Collinsville Road corridor with the addition of the recommended neighborhood parks, plaza areas, and streetscape enhancements.

The neighborhood park proposed for Sumner Boulevard and St. Louis Road will provide convenient open space locations within easy walking distance for residents. The nodes and plazas formed through better street alignments and access management will create additional areas for neighborhood social interaction. The public plaza proposed near Kruta Bakery is an opportunity for outdoor dining and seating. These types of spaces help create a unique vibe for a neighborhood and stimulate formal and informal interactions.

Sketch of the proposed streetscape near Kruta Bakery. The plazas and nodes created through the streetscape improvements will provide excellent opportunities for neighbors to gather together and for social interaction. The proposed condition includes relocated utilities.

Reduced Traffic Noise

A benefit of a slow speed zone along St. Louis Road, in addition to safety, is reduced traffic noise. A traffic speed limit of 25 m.p.h will greatly reduce traffic noise along the corridor and make adjacent activities such as walking and outdoor dining much more enjoyable.

Don't Forget St John's Cemetery and Morris Hills Park!

St. John's Cemetery was not discussed much by residents during the community workshops, however, it should not be overlooked as usable community open space.

An evening jazz concert at Cedar Hill Cemetery in Connecticut.
(Source: Cedar Hill Cemetery Foundation and Trust for Public Land)

The use of cemeteries as community open space is not new. In the early and mid-1800's, some of the first public open space in cities were cemeteries such as Mount Auburn Cemetery in Cambridge, Massachusetts and Spring Grove Cemetery in Cincinnati, Ohio.

Today, many cemeteries are becoming more open for active and passive recreation uses due to the demand for urban green space or as an opportunity to increase revenue for the cemetery. According to American Forests, Green-Wood Cemetery in Brooklyn and Oakland Cemetery in Atlanta are two examples of cemeteries that are activating their space through concerts, 5K runs, special events, and other programming.

In the St. Louis region, Bellefontaine Cemetery is an example of a cemetery that is attempting to increase visitorship through its designation as a Level II arboretum. In addition, Bellefontaine Cemetery has made recent investments such as a new stream and natural areas, and increased marketing as the "other Forest Park".

Increased use of St. Joseph's as an active community open space will require coordination by multiple groups, especially as it is a private cemetery. In addition to capital costs, agreements will be required for maintenance and programming.

A key consideration for future use will be the type of uses and programming within the cemetery. The Trust for Public Land surveyed popular community uses of cemeteries. Frequent uses included:

- Jogging
- Dog walking
- Special events
- Jazz concerts
- Bird watching
- Picnicking
- Walking trails

Morris Hills Park is an overlooked park. As mentioned in the community trail section, connections to the park should be increase. At minimum, a sidewalk from St. Louis Road should connect to the park. The current parks master plan should evaluate park facilities and recommend improvements to modernize the park.

Next Steps (Environmental Infrastructure)

Short-Term Timeframe

Jefferson School Upland Detention Design
Priority: High
Primary Responsibility: City of Collinsville
Additional Partners: Jefferson School (School District)
Cost: $30,000 - $50,000 (design)
Timeframe: 4-6 months
Coordination with Other Projects: Stand alone project. Although will benefit stormwater in bottomlands.
Notes:

- High priority because it's a stand alone project that can move forward independently of other priorities. Also a high priority since it addresses key goals of the City to address stormwater in the bottomlands.
- Design range based on a functional treatment to more of a park-like amenity to be used by the school and neighborhood.

North of Collinsville Road (Collinsville "New Town") – Scoping Study
Priority: High
Primary Responsibility: City of Collinsville
Additional Partners: IDOT, Private Land Owners
Cost: $25,000 - $35,000 (study)
Timeframe: 4-5 months
Coordination with Other Projects: Many. Market assessment, stormwater analysis, and land use planning will need to take place. Feasibility of Route 157 realignment with St. Louis Road.
Notes:

- Scoping study should review relevant case studies (New Town, Menomonee Valley, Howards Bend (Maryland Heights, and others) to review lessons learned. The study should outline scope for next steps to better align future planning.

Conceptual Design / Preliminary Design of St. Louis Road Streetscape
Priority: High
Primary Responsibility: City of Collinsville
Additional Partners: IDOT, Private Land Owners
Cost: $30,000 - $40,000 (Survey), Design TBD
Timeframe: 9–12 months
Coordination with Other Projects: Traffic study, stormwater upgrades, wayfinding study, park plans,
Notes:

- Scope should include conceptual / preliminary design of streetscape elements including multi-use trail, new sidewalks, lights, street trees, landscaping, bump-outs, and pedestrian crossings.
- If not part of separate traffic study, project should include design of street reconfigurations of St. Louis Road / Caseyville Road and near Kruta Bakery.
- Decision on utility relocations will be required.

Trail Planning for Community Trail Connections
Priority: Medium
Primary Responsibility: City of Collinsville
Additional Partners: MEPRD, IDOT
Cost: Dependent on level of planning included in City's Parks and Recreation Master Plan. Stand alone plan: $25,000 - $45,000
Timeframe: As part of Parks Master Plan
Coordination with Other Projects: City's Parks and Recreation Master Plan
Notes:

- As part of City's Parks and Recreation Master Plan, further refine trail feasibility along Canteen Creek, Caseyville Road, and to Morris Hill Park. Determine trail corridor north to Willoughby Farm and the Gateway Center.

Wayfinding Plan
Priority: Low
Primary Responsibility: City of Collinsville
Additional Partners: IDOT, Illinois South Tourism, Cahokia Mounds
Cost: $40,000 - $60,000 (design)
Coordination with Other Projects: Conceptual Design / Preliminary Design of St. Louis Road Streetscape
Timeframe: 6-9 months
Notes:

- Scope should include recommendations and cost estimates of regional and local wayfinding system including wayfinding to Cahokia Mounds, monument signage at I-255/Collinsville Road, St. Louis Road / Collinsville Road local wayfinding.

Intermediate Timeframe

Annexation of State Park Place
Priority: High
Primary Responsibility: City of Collinsville
Additional Partners:
Cost: TBD
Coordination with Other Projects:
Timeframe: TBD
Notes:

- State Park Place, because of its location on the border of unincorporated Madison County and St. Clair County sees little investment. By annexing State Park Place, the City will have greater control of its key entry from the West.

Conceptual Design / Preliminary Design of Collinsville Road Streetscape (or Just Multi-Use Trail)
Priority: Medium
Primary Responsibility: City of Collinsville / IDOT
Additional Partners: Madison County, St. Clair County
Cost: TBD
Coordination with Other Projects: Feasibility of Route 157 and Collinsville Road Alignment, North of Collinsville Road (Collinsville "New Town")
Timeframe: TBD
Notes:

- Project limits from Route 157 to Fairmount Downs or from Route 157 to Limit of Cahokia Mounds
- Scope should include conceptual / preliminary design of streetscape elements including multi-use trail, lights, street trees, landscaping, signage, and pedestrian crossings.
- Before proceeding, the feasibility of Route 157 and Collinsville Road alignment (bringing Route 157 to grade) needs to be determined.
- Multiple jurisdictions will make this a difficult section to move forward. Alternatively, instead of a holistic streetscape project, individual components could be implemented:
    - Multi-use trail connection from Route 157 to Cahokia Mounds
    - Monument signage at I-255 and Collinsville Road

Develop recognition and grant programs for property beautification with emphasis on native plants.
Priority: Low
Primary Responsibility: City of Collinsville
Additional Partners:
Cost: Low. Could be accomplished with internal staff resources.
Coordination with Other Projects:
Timeframe: Annually
Notes:

- Low cost way to advocate for property beautification in the neighborhood,

Route 157 Bridge – Artistic Lighting
Priority: Low
Primary Responsibility: City of Collinsville
Additional Partners: IDOT
Cost: $10,000 - $20,000 Lighting Concept, Implementation TBD
Coordination with Other Projects: Dependent on outcome feasibility of Route 157 and Collinsville Road alignment (bringing Route 157 to grade). If Route 157 to grade moves forward, no artistic lighting project.
Timeframe: 6-9 months
Notes:

- City of Collinsville should solicit proposals from artists and lighting design firms to develop a lighting concept.

Long-Term Timeframe

Cahokia Mounds Management Plan Implementation / Cahokia Mounds Designation as a National Park
Priority: High
Primary Responsibility: Cahokia Mounds / Heartlands Conservancy
Additional Partners: City of Collinsville, Regional Partners, Congressional Delegation
Cost: TBD
Coordination with Other Projects:
Timeframe: Multi-year
Notes:

- Implementation of the management plan and designation of Cahokia Mounds as a National Park would have an extensive positive impact on Collinsville and the region with the significant increase in tourism.