

Appendix E – Visual And Aesthetic Conditions Technical Report



Visual & Aesthetic Conditions

Kansas City Streetcar Main Street Extension

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1. Introduction

This technical memorandum provides a general overview of the existing visual conditions along the Kansas City Streetcar Main Street Extension project corridor and discusses the proposed physical aspects of the proposed streetcar extension that would result in changes to the surrounding visual environment.

The National Environmental Policy Act (NEPA) requires federal agencies to examine the impacts of federal actions on visual resources. In addition, Section 106 of the National Historic Preservation Act (NRHP) and Section 4(f) of the U.S. Department of Transportation Act require that visual impacts be considered to protect public parks, recreational areas, wildlife and waterfowl refuges, and public and private historical sites. For the purposes of this analysis, visual and aesthetic impacts were assessed first by identifying the visual conditions in the project area, and then identifying potential impacts to the visual environment that may arise from the proposed Kansas City Streetcar Main Street Extension project. The evaluation was based on project area photographs and field observation. The anticipated visual impacts of project-related construction (stations, signals and overhead contact system) were compared to the existing terrain and viewshed to determine if any mitigation should be proposed. Mitigation measures are identified where it is determined any adverse visual impacts would be likely.

2. Existing Visual Character and Quality

2.1. Existing Land Uses

The land uses directly adjacent to and within 150 feet on either side of the proposed streetcar alignment define the existing visual character of the study area.

The proposed streetcar extension is located adjacent to residential neighborhoods, retail/commercial development, and civic amenities such as a college, museums, a hospital, and performing arts venues. An overview of the corridor segmented by station location is as follows:

- **Union Station:** The Union Station/Crown Center area is a culturally iconic region of Downtown Kansas City that also marks the transition to Midtown. The station area serves a broad mix of uses including retail, cultural attractions, and residential buildings, and a portion of the area consists of a modern urban setting with office towers, medical centers, and open spaces. Modern urban structures often include architectural features that contribute to the corridor's traditional design aesthetic. The mixed-use vibrant urban context extends into the Crossroads Arts District, which was traditionally an industrial-oriented area, but now is an eclectic district mixing residential uses with art galleries, small businesses, and restaurants. There are two parks, the 176-acre Penn Valley Park and the 5-acre Washington Square Park, that provide green space and natural elements to this area.



Figure 1. Union Station Area Photos

- **27th Street:** Located immediately west of the proposed 27th Street Station is the National World War I Museum and Memorial, which attracts over 500,000 visitors each year; as well as the Federal Reserve Bank of Kansas City. Across Main Street from the WWI memorial and Penn Valley Park is Union Cemetery, Missouri's oldest public cemetery and the resting place of Civil War soldiers and the area's earliest settlers. Adjacent to the cemetery are two of the City's oldest neighborhoods, Union Hill and Longfellow, originally settled in the mid 1800's, that have become popular historic urban areas and have had a recent influx of redevelopment. East of the station are Legoland Discovery Center, Sea Life Kansas City Aquarium, Kaleidoscope, the Hallmark Center, and Coterie Theatre – all family-oriented entertainment, cultural, and artistic attractions. These attractions are

all part of the larger Crown Center development, which provides lodging, dining, shopping, and entertainment.



Figure 2. 27th Street Station Area Photos

- 31st Street:** The station at 31st Street would be located on the south side of the Union Hill neighborhood and at the northern edge of the Broadway Gillham Neighborhood, a historic, walkable community of pre-World War II era homes. Building setbacks are minimal, often fronted by sidewalks. Small blocks help create a walkable and livable neighborhood. The station would serve neighborhood retail and dining establishments in this revitalized setting. The area also has a high degree of transit dependence as it serves organizations oriented to those with disabilities including The Children's Center Campus, a collection of public service institutions comprised of a YMCA, Ability KC, and the Children's Center for the Visually Impaired. Ability KC is a non-profit organization that provides rehabilitation and therapy services for disabled children and adults; its adult facility is located near the intersection of 30th Street and Main Street. One block away are the Children's Mercy Clinics, which specialize in treating children for a wide range of medical needs. Also located near this station is the Signal Hill neighborhood, Metropolitan Community College, and a local entertainment district known as Martini Corner.



Figure 3. 31st Street Station Area Photos

- Armour Boulevard:** The Armour Boulevard corridor, perpendicular to Main Street, is home to a large number of apartment buildings, many of which are the result of redevelopment and renovation over the past decade. These buildings have expanded the number of apartments

in the Armour area from 250 to over 1,500. The area continues to grow and has started to bring in modern mixed-use development. The station area also includes a fair amount of single-family housing (several distinct neighborhoods), the Midtown Marketplace, and the Foreign Language Academy.



Figure 4. Armour Boulevard Station Area Photos

39th Street: Serving as a destination for performing arts, the 39th Street station area is the home to Madrid Theater, Metropolitan Ensemble Theatre, and Unicorn Theatre. In addition, the Westport entertainment district and the Kansas City Young Audiences School (that teaches performing and visual arts to over 100,000 children each year) are located within walking distance to the proposed station. Small blocks, minimal building setbacks, and sidewalks encourage a walkable environment and make these destinations accessible. In addition, the station would also serve organizations within the vicinity that are oriented to those with disabilities, such as The Whole Person, which provides training and resources for the disabled community.

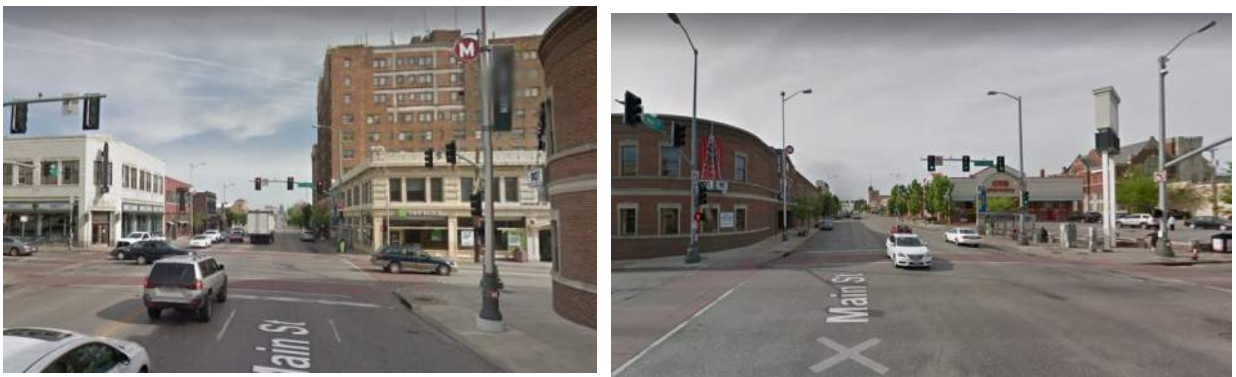


Figure 5. 39th Street Station Area Photos

- **43rd Street:** The 43rd Street station area continues to transform into a modern, urbanized, hospital-oriented neighborhood with a mix of open space, hotels, medical centers, and residential housing. St. Luke's Hospital sits in the station area and serves as an engine of economic development for the community bringing hotels, retail, and residential buildings

into the area. The Southmoreland neighborhood in the area has become a target for residential reinvestment, and hotels such as Embassy Suites and Best Western, located near the station, serve the area.



Figure 6. 43rd Street Station Area Photos

- 45th Street:** Located within the same Southmoreland neighborhood as the 43rd Street station and adjacent to Mill Creek Park, this potential station would serve a mix of cultural attractions, museums, office buildings, and hotels. It would provide access to the Kemper Museum of Contemporary Art, the Kansas City Art Institute, and the Nelson-Atkins Museum of Art. The modern design of the office towers and museums, wide roadways, building setbacks, and other urban structures give the area a contemporary aesthetic.



Figure 7. 45th Street Station Area Photos

- Plaza Station** (Intersection of Main Street and Ward Parkway North): Similar to the Union Station area, the Plaza Station would serve a broad mix of uses including retail, open space, residential, and recreational and sport centers. Major trip generators near the station include the Country Club Plaza, a 14-square-block shopping and dining district, and the Kansas City Public Library Plaza Branch. The Country Club Plaza, home to statues, murals, mosaics, and architectural reproductions of Seville Spain buildings, provides a unique visual character to the area. Also associated with the Country Club Plaza is Mill Creek Park; and the Plaza Tennis Center with 10 courts for hosting professional, college, and recreational tournaments. In

addition, a portion of the area is linked to the interconnected park system along Brush Creek which transitions this part of the area into livable multi-family homes bounded by green belts and open spaces.



Figure 8. Plaza Station Area Photos

- **UMKC Station** (Intersection of Brookside Boulevard and 51st Street): The UMKC Station area is home to the UMKC campus and Rockhurst College campus, serving 18,000 students in total. Student apartments (currently vacant for remediation) occupy the northeast corner of the intersection. On the southeast corner, the recently opened Brookside 51 mixed-use development includes apartments and a new grocery store. To the west of the intersection is the South Plaza neighborhood composed of single family homes along the blocks lining Brookside Boulevard. To the northwest of the residential area is the South Plaza commercial center: a mix of neighborhood retail, apartments, and single family homes. The Country Club right-of-way corridor, the site of the city's last streetcar line is located within this station area as well.



Figure 9. UMKC Station Area Photos

2.2. Visual Resources

The visual resources within the project corridor include neighborhoods defined by distinct visual character; resources listed in or eligible for the NRHP; and parks and recreational facilities within 150 feet of the proposed alignment. These include:

- Washington Square Park
- World War I Museum and Memorial
- Mill Creek Park
- Country Club Plaza
- Trolley Track Trail

Properties that do not meet the definition of visual resources include those with view of the proposed alignment or station platforms that would be blocked by other development; neighborhoods that lack distinct visual character; and businesses located adjacent to the corridor, with the exception of historic resources.

3. Environmental Consequences

3.1. New Visual Elements

The proposed Kansas City Streetcar Main Street Extension would introduce new visual elements into the Main Street corridor. These new visual elements would include: streetcar vehicles and trackway; station platforms; the Overhead Contact System (OCS); and electrical substations. All of these elements would be similar in design to those of the existing Downtown Streetcar Starter line.

Streetcar vehicles and trackway: The type of streetcar vehicle would be the same as those currently operating downtown. In addition, two sets of steel rail tracks would be placed within the street pavement section.

Station platforms: Station platforms would be of similar size and scale to those that currently exist downtown. Typical station platforms would be 75 to 80 feet in length (plus tapered ends). A key guiding principle in the design of the streetcar platforms has been to complement the surrounding streetscape context and nearby architecture. This would continue to be a guiding principle on the Kansas City Streetcar Main Street Extension in order to directly consider existing public views and preservation of viewsheds.

Overhead Contact System (OCS): The streetcar vehicles would be powered by an Overhead Contact System that would necessitate the placement of poles to support the overhead wires. The pole design would be similar to those on the Downtown Starter Line, but would be tailored to match existing streetscape aesthetics to the extent possible.



Figure 10. Existing Vehicle and Trackway



Figure 11. Existing Station Platform

Electrical substations: To provide electricity to the streetcar vehicles along the corridor, up to seven electrical (traction power) substations would be located along the corridor. The substations would be approximately 30 feet by 14 feet (plus space for a grounding grid) and would be located on vacant parcels, surface parking lots, alleyways, or possibly within parking structures. These substations would have little to no visual impact as they would be located in places that would be concealed from view, would be located in areas that are not visually sensitive, or would be screened to blend in to the surrounding context.



Figure 12. Existing Electrical Substation

3.2. Impacts by Visual Resource

Each of the visually sensitive resources (i.e., Washington Square Park, the World War I Museum and Memorial, Country Club Plaza, and Trolley Track Trail) was evaluated to determine whether the affected environment would be altered in a negative way by the addition of the new visual elements associated with the proposed streetcar extension. Visual effects and impacts of the proposed streetcar extension on each visual resource are described as follows:

- Washington Square Park:** This visual resource is located near the northern (the existing Downtown Starter Line southern terminus) of the proposed project, directly adjacent to the proposed Union Station southbound streetcar station. The proposed project would be visible from the park. However, the proposed project elements currently exist today as part of the existing Downtown Starter Line and no new visual elements would be introduced.
- World War I Museum and Memorial:** This visual resource is located near the northern terminus (the existing Downtown Starter Line southern terminus) of the proposed project, and the alignment would be located within the road right-of-way to the east of this resource. Due to the topography (the museum and memorial are on a hill), the proposed project would generally not be visible from the museum, but would be visible from the memorial. However, the proposed project elements would be located within a major thoroughfare and would not be significant because similar views exist within the existing viewshed of this resource – the downtown streetcar is currently visible from the memorial. No new viewshed impacts would occur.
- Mill Creek Park:** This park is located to the west of Main Street, from 43rd Street to 47th Street. Due to topography and buildings between the park and Main Street, the proposed project would generally not be visible from the park. The exception is near the southern limits of the park at 47th Street where the proposed streetcar alignment and associated visual elements

including the streetcar, tracks, and OCS wires/poles would be visible. However, the overall visual character would be similar because Main Street/Brookside Boulevard, and 47th Street/Emanuel Cleaver II Boulevard exist adjacent to and within the viewshed of this resource. Therefore, the potential impacts would not be considered significant.

- **Country Club Plaza:** The Country Club Plaza is located to the west of the proposed Plaza station (intersection of Main Street and Ward Parkway North). While the proposed streetcar alignment would not be within the limits of the Country Club Plaza, it would be visible from the easternmost boundaries and would introduce new visual elements including the streetcar, tracks, and OCS wires/poles. However, the overall visual character would be similar because major thoroughfares (Main Street/Brookside Boulevard, Emanuel Cleaver II Boulevard, and Volker Boulevard) exist adjacent to and within the viewshed of this resource. Therefore, the potential impacts would not be considered significant.
- **Trolley Track Trail:** This resource is located adjacent to the southern terminus of the proposed alignment within the Country Club right-of-way, the site of the city's last streetcar line. New visual elements would be introduced including the streetcar, tracks, and OCS wires/poles. However, the overall visual character would remain similar because a major thoroughfare (Brookside Boulevard) exists adjacent to and within the viewshed of this resource. Additionally, the Country Club right-of-way was purchased by the Kansas City Area Transportation Authority (KCATA) and has been reserved for the future transportation of good or passengers. Therefore, the potential impacts would not be considered significant.

4. Mitigation

The Project Team, comprised of the City of Kansas City (KCMO), the Kansas City Streetcar Authority (KCSA), and the Kansas City Area Transportation Authority (KCATA), will coordinate with project stakeholders and interested and affected parties as design progresses. Though no adverse visual impacts are anticipated, the Project Team would continue to be mindful of aesthetics as the project progresses. For example, as noted, station platforms were designed for the Downtown Starter Line with context-sensitive design as a guiding principle that ensured the stations would fit into the context of the surrounding station area. This would continue as design progressed on the proposed extension. The Project Team has also produced visualizations (see the two images below) which have been used and will continue to be used at public and stakeholder meetings to aid in understanding the proposed project.



Figure 13. Example Visualizations

As noted previously, electrical substations, would be concealed from view or placed in areas that are not visually sensitive to the extent practicable. In cases where they would not be concealed, the Project Team would consider aesthetic treatments that fit the context of the surrounding area (see example to the right).



Figure 14. Example Aesthetic Treatment for Electrical Substation