



## Appendix J – Decision Process for E.O. 11988

**Kansas City Streetcar – Main Street Extension  
Union Station (Pershing Boulevard) to the University of Missouri – Kansas City (51<sup>st</sup> Street)  
Decision Process for E.O. 11988 as provided by DOT Order 5650.2**

**Step 1: Determine whether the action is located in a 100-year floodplain (or a 500-year floodplain for critical actions).**

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the Main Street Extension would cross the 100-year and 500-year floodplains of Brush Creek as indicated on Panel No 29095C0262G (January 29, 2017). The FEMA zone designation at the proposed streetcar crossing is Zone AE, which are floodplain areas subject to inundation by the 1% annual chance flood event. The proposed project includes a 3.5-mile extension of the existing streetcar alignment along Main Street/Brookside Boulevard within the existing transportation right-of-way. It includes track placement, new stations, traction power substations, and an expansion of the existing vehicle maintenance facility. The floodplain crossing would occur on the existing Brookside Boulevard bridge over Brush Creek. For this reason E.O. 19988 applies, and an evaluation of direct and indirect impacts association with construction and modification of the floodplain is required.

**Step 4: Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.**

The new track would be placed on the existing bridge deck approximately 9.5 to 11 feet above the base flood elevation (BFE). A new bridge structure would not be built over Brush Creek nor within the floodplain of Brush Creek.

Per FEMA program guidance provided by the City of Kansas City, Missouri, FEMA has determined that certain types of development within a floodway can be considered to have an impact small enough that resultant zero rise in flood levels could reasonably be assumed without performing an engineering analysis. The construction of elevated structures on piers, where flow-through is provided for at least ninety percent of the area facing the flow, and where the underside of the lowest floor is at least one foot above the BFE is one of those activities. As such, the installation of streetcar track on the existing bridge at an elevation 9.5 to 11 feet above BFE is an activity in a mapped floodway that can be considered no impact.

**Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.**

(a) Preserving Lives: Local residents and transit customers would benefit from the construction of the streetcar extension as it would provide additional transit opportunities for those living and/or working near to the route. The streetcar extension would also provide extended access along the corridor to the River Market and the University of Missouri – Kansas City, as well as connectivity to bus lines that reach other portions of the metropolitan area.

(b) Preserving Property: The installation of the streetcar tracks over Brush Creek would not diminish the existing landscape within the 100-year or 500-year floodplain during construction in the transportation right-of-way (ROW).

(c) Preserving Natural Values and Minimizing Impacts: The installation of the streetcar tracks would have minimal effects on water resources as no additional impervious surface would be added in or directly around the floodplain. Ground disturbance would be limited to the transportation ROW to minimize effects.

### Step 6: Reevaluate the Alternatives.

Although the proposed project would be within the 100-year and 500-year floodplains, the project would not impact floodplain values. Locating the streetcar tracks within the existing street/bridge deck would result in no impact to the floodplain. Additionally, steps would be taken during construction to minimize ground disturbance in the floodplain.

The no-action alternative is impracticable because it will not satisfy the need to provide mobility and connectivity, economic development and growth, community amenities and improved livability, and sustainability.

### Step 8: Implement the Proposed Action

An application for a floodplain development permit would be submitted prior to construction, in order to satisfy compliance under the terms of the Kansas City, MO Floodplain Management Ordinance and the National Flood Insurance Program. Because no impact to the floodplains would occur a No-Rise Certification would not be needed. As design progresses, the City of Kansas City FEMA Floodplain Administrator would continue to provide review. Additionally, the City of Kansas City, with the Kansas City Streetcar Authority and the Kansas City Area Transportation Authority would assure that this plan, as described above, is executed, and necessary language would be included in any agreements with participating parties. These agencies would also provide oversight, if needed, in monitoring the construction process to ensure no unnecessary impacts occur to the floodplain or regulatory floodway during the track installation.