Appendix C Bridge Alternatives Renderings

### **Five Original Alternatives**





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### **Five Original Alternatives**







## **Alternatives Eliminated**





#### Underdeck Arch

- Limits space for pathway under bridge
- Prone to collect debris during flood events
- Limits clear space over floodwaters
- Complex design and construction

### **Tied Arch**

- Limits Access
  - Debris/Sediment removal difficult
  - Maintenance/inspection of bridge
- Permitting Challenges
  - Visually obstructs river/park views
  - Viewshed impacts
- Complex design and construction

# **Alternatives Eliminated**



#### Elevated Bridge

### Elevated Bridge

- Footprint Impacts
- Mature Tree Removal
- Pedestrian Circulation
- Park Functionality
- Park Access
- Maintenance Access
- Viewshed Impacts
- Permitting Challenges
- Cost \$7 to \$10 Million More

AVENUE BRIDGES PROJECT

### **Alternatives Eliminated**







# **Recommended Bridge Types**







# Single Pier Bridge Type



#### Pros

Park Access



- Park Functionality
- Vertical clearance at path
- Thinner deck section
- Opportunity for increased sidewalk widths/river overlooks
- Minimum roadway elevation adjustment
- River/Park views maintained
- Debris removal during floods
- Cost \$17 to \$35 Million

### Cons

- Pier within River
- Pier wall potential tagging 28 surface

# **Clear Span Bridge Type**



Pros

- Park Access
- Park Functionality
- ▶ No pier within River
- Unobstructed River views
- River/Park views maintained
- Open River flow capacity
- Cost \$18 to \$39 Million

### Cons

- Thicker deck section, especially at the ends
- Increase roadway elevation to provide clearance for path
- Limits clear space over floodwaters
- Coordination w/ Kayak Park 29 and hydraulic impacts

