

**APPENDIX
CENTRAL CITY
CLEAR FORK / WEST FORK, TRINITY RIVER, AND MARINE CREEK
FEASIBILITY STUDY**

**FEDERAL PLAN
STRUCTURAL DESIGN**

GENERAL

Structures included in the Federal Plan consist primarily of closure structures where the raised levees intersect streets and railroads. The proposed new structures are as follows: one new flood gate structure at the intersection of the Tarantula Railroad and levee Centerline Sta. 47+30.6; one new floodgate structure at the intersection of Henderson Street and levee Centerline Sta. 79+65.96; one new floodgate at the intersection of Seventh Street and levee Centerline Sta. 112+85.91.

TARANTULA RAILROAD FLOODGATE STRUCTURE

The Tarantula Railroad floodgate structure would be a cast in place reinforced concrete structure categorized as a retaining wall type structure with a swinging gate 5 foot high for SPF+4 and would be 22.5 foot wide. It would be configured in a U-shaped arrangement, i.e., a footing with integral sill and vertical end walls. The structure provides a 20-foot (minimum) rectangular opening through the levee for the railroad. The end walls are cantilever retaining walls that are oriented transversely to and match the cross-section of the levee thus retaining the levee material. A fabricated steel swing gate is mounted on hinges on a stiffened section of one of the end walls, sealing against the concrete surfaces of each wall and along the sill. A portable winch is provided as loose equipment to operate the gates.

HENDERSON STREET FLOODGATE STRUCTURE

The Henderson Street floodgate structure would be a cast in place reinforced concrete structure categorized as a retaining wall type structure with swinging gates 2 foot high for SPF+4 and would be 22.5 foot wide. It is configured in a U-shaped arrangement, i.e., a footing with integral sill and vertical end walls. The structure provides a 68-foot (minimum) rectangular opening through the levee for the Henderson street traffic. The end walls are cantilever retaining walls that are oriented transversely to and match the cross-section of the levee thus retaining the levee material. Two fabricated steel swing gates are mounted on hinges on a stiffened section of each of the end walls, sealing against the concrete surfaces of each wall and along the sill and along a removable post at the center of the roadway. A portable winch is provided as loose equipment to operate the gates.

SEVENTH STREET FLOODGATE STRUCTURE

The Seventh Street floodgate structure would be a cast in place reinforced concrete structure categorized as a retaining wall type structure with swinging gates 2 foot high

for SPF+4 and would be 22.5 foot wide. It is configured in a U-shaped arrangement, i.e., a footing with integral sill and vertical end walls. The structure provides a 68-foot (minimum) rectangular opening through the levee for the Seventh street traffic. The end walls are cantilever retaining walls that are oriented transversely to and match the cross-section of the levee thus retaining the levee material. Two fabricated steel swing gates are mounted on hinges on a stiffened section of each of the end walls, sealing against the concrete surfaces of each wall and along the sill and along a removable post at the center of the roadway. A portable winch is provided as loose equipment to operate the gates.