CHAPTER III
Selected Alternative

The Preferred Alternative for SIU 2 is composed of a comprehensive set of physical improvements to 60 miles (100 kilometers) of I-70 in Missouri, generally between Route 131 (not including the interchange) in Odessa to Route 5 (not including the interchange) in Boonville, Missouri. In summary, the improvements include:

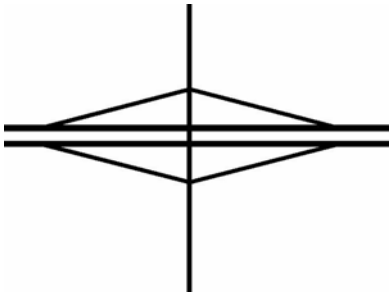
- Replacing all existing pavement and bridges with an improved geometric design involving the reconstruction of four existing lanes and the addition of one lane in each direction (mainline improvements). These improvements will increase safety and capacity on I-70;
- Interchange reconstruction in compliance with the Missouri Department of Transportation's (MoDOT) current access management guidelines, to the extent practicable, allowing increased capacity and compliant with all current safety criteria;
- Completion of the long-term goal of a continuous frontage road system across the state of Missouri. Although this is a long-term goal, it is not a high priority for MoDOT. MoDOT is not committed to constructing frontage roads in the near term unless a frontage road currently exists at that location or unless it is required for the purposes of maintaining existing local service connections and maintaining access to adjacent properties;
- Implementing the Rest Area Master Plan of consolidating the rest areas along I-70 into three improved and expanded rest areas;
- Reconstruction of the westbound weigh station facility due to roadway construction; and
- Installation of electronic signage and other technology to assist motorists and improve traffic conditions (Intelligent Transportation Systems) (ITS).

A. Mainline Improvements

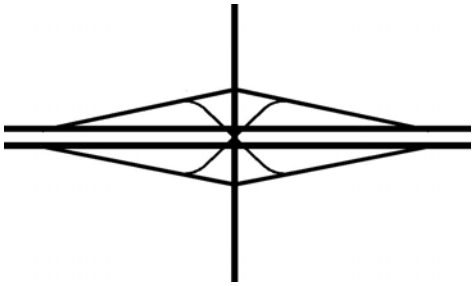
In SIU 2, the mainline will be widened to the north from the western terminus at mile marker 39 to mile marker 69, where a transition from north to south will occur, east of Sweet Springs. The crossover transition occurs between mile marker 69.04 and mile marker 69.79. From this transition point, the remainder of the mainline will be widened to the south to the eastern terminus of SIU 2 near Boonville. Sheet A-33 in Appendix A of the DEA shows where the proposed crossover from north to south will occur and relates the proposed improvements to existing conditions.

B. Interchange Improvements

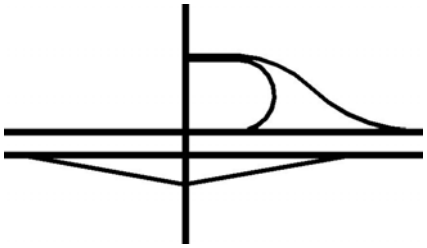
As part of the Preferred Alternative in SIU 2, 13 interchanges, nine overpasses, one underpass and one under highway cattle pass will be improved. Of the 13 interchanges, the standard diamond interchange template was applied at eight locations due to the lack of constraints that will warrant alternative designs (Table III-1).



Standard Diamond



Single Point Urban Interchange



Half Folded Diamond

At the remaining five interchange locations, various alternatives such as the half folded diamond and the single point urban interchange designs were developed, as appropriate, to avoid topographical features and avoid and minimize impacts to commercial or residential developments or environmental resources. At each of the 13 interchange locations and the nine overpass locations, the proposed improvements will require demolition of existing bridges to accommodate the new mainline cross section and demolition of most of the existing interchange ramps and related features where they occur. No new additional interchanges are proposed within SIU 2.

Table III-1: Summary of Interchange Alternatives

Interchange Location	Selected Alternatives:
I-1 Route M/O Odessa	Diamond Interchange
I-2 Route H	Diamond Interchange
I-3 Route 13 Higginsville	Diamond Interchange
I-4 Route T Aullville	Diamond Interchange
I-5 Route 23 Concordia	Single Point Urban Interchange
I-6 Route Y/V V Emma	Diamond Interchange
I-7 Route127 Sweet Springs	Half Folded Diamond
I-8 Route K/EE	Diamond Interchange
I-9 Route YY	Diamond Interchange
I-10 U.S. 65	Diamond Interchange
I-11 Route J	Diamond Interchange
I-12 Route K	Diamond Interchange offset to the east approximately 3,500 feet (1,067 meters)
I-13 Route 135/41 Boonville	Diamond Interchange