

Section 1

INTRODUCTION



1.0 Introduction

This Tier 2 Evaluation in Volume II of the Tier I Final Environmental Impact Statement (Final EIS) is for the Springfield Rail Improvements Project. The Springfield Rail Improvements Project is one part of a proposed program to improve high-speed passenger rail service between Chicago, Illinois, and St. Louis, Missouri, that is assessed in Volume I. The Tier 2 project limits in Springfield are Sangamon Avenue on the north and Stanford Avenue on the south (see Exhibit 2-2).

1.1 Tiering Process

Both this Tier 2 Evaluation, as a component of the Tier 1 Final EIS, and the Tier I Final EIS, were prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1500-1508). The Final EIS was prepared by the Illinois Department of Transportation (IDOT) and the Federal Railroad Administration (FRA) in cooperation with the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the Illinois Historic Preservation Agency, the Illinois Department of Agriculture, and the Illinois Department of Natural Resources. The tiered environmental process is a phased environmental review commonly used in the development of complex projects. The Tier 1 EIS addresses broad issues and alternatives for the Chicago-St. Louis rail corridor. If a decision is made to build additional rail improvements as an outcome of the Tier 1 process, Tier 2 environmental documents will be prepared for component projects. This Volume II of the Final EIS is one of those Tier 2 documents.

This Final EIS evaluation for the Springfield Rail Improvements Project considers site-specific rail improvement alternatives in the City of Springfield, Illinois. The Springfield Rail Improvements Project is also referenced as the Springfield Project in this Final EIS.

1.2 Tier 1 Alternatives in Springfield

The purpose of the proposed Chicago to St. Louis High-Speed Rail (HSR) Corridor Program is to enhance the passenger transportation network between Chicago and St. Louis by improving high-speed passenger rail service, resulting in a more balanced use of different corridor travel options by diverting trips made by automobile and air to rail. Increased use of rail would result in an overall improvement in traveler safety in the corridor, as well as a reduction in air pollutant emissions and energy consumption.

The existing transportation network consists of highway (automobile and bus), air, and passenger rail travel. Currently, nearly all trips made annually within the Chicago-St. Louis corridor are accomplished through automobile and air travel with only 1 percent by passenger rail. Automobile travel is seen as more flexible and convenient, and air travel is seen as faster than passenger rail. Enhancements to passenger rail service would

include reduced travel times, improved service reliability, increased frequency of trips, and increased capacity.

Specific to Springfield, the existing and projected rail traffic on the three north-south corridors that pass through Springfield causes vehicle traffic congestion, safety, and other problems. These problems are primarily related to the multiple at-grade crossings in the three north-south corridors. The crossings block vehicle traffic, increase risk of crashes, and require trains to blow horns. Concurrent with the Tier 1 analysis, the Tier 2 analysis through Springfield analyzes alternatives for enhancing the capacity of one of the three lines (Union Pacific (UP)) and accommodating and reducing the effects of the increasing high-speed passenger and freight train traffic on the three north-south rail corridors.

The northern limit of the Springfield Project is the south right-of-way line of Sangamon Avenue. The structure over Sangamon Avenue would not be affected by the Springfield alternatives and provides an easily recognized project limit for the public.

The southern project limit is the north right-of-way line of Stanford Avenue. The track arrangements and rail operations are the same for all alternatives at this point, and it provides an easily recognized project limit for the public. The project includes an evaluation of vehicle congestion, public safety, and other problems along all three of the north-south rail lines through the City.

1.3 Springfield Rail Improvement Alternatives

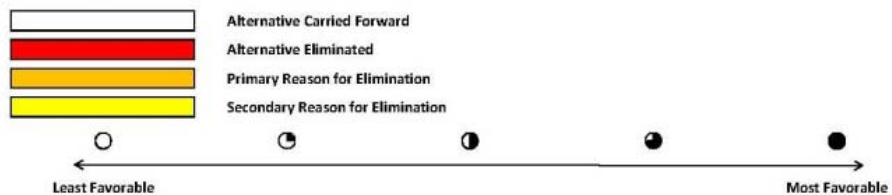
The Tier 1 alternative screening process identified five alternatives in Springfield (see Volume I). Table 1-1 summarizes the Tier 1 alternatives analysis.

- Alternative 5 was eliminated because it was not as effective in improving rail operations since it introduced the need for trains to shift from one track to another in the Union Pacific (UP) line north and south of the City and increased the length of Canadian National (CN) track. The shift is necessary because under this alternative UP passenger traffic would be on the 3rd Street tracks, and UP freight traffic would be on 10th Street. UP freight trains on the UP west track north and south of the City would need to cross over the UP east track to use the new UP freight corridor on 10th Street. These trains could block and delay any UP freight or passenger trains on the UP east track. This alternative also had the highest capital costs and the largest area of new right-of-way required. This alternative was among the highest in terms of length of rail corridor through minority and low-income residential neighborhoods, and did not provide any notable advantages relative to the other alternatives. Minority and low-income populations are considered “populations of concern” due to the 1997 DOT Order directing Federal agencies to identify and address disproportionate high and adverse human health or environmental effects on these groups (U.S. DOT Order 5610.2, 1997).
- Alternative 4 also was eliminated because it introduces the need for trains to shift from one track to another in the UP line north and south of the city in the same

manner as described above, its high capital costs, and community impacts. This alternative did not provide any notable advantages relative to the other alternatives.

Table 1-1. Summary of Springfield Tier 1 Screening

Evaluation Criteria	Springfield Alternative:				
	1	2	3	4	5
<i>Meet Purpose and Need</i>					
Passenger Travel Length (mi)	4.8	4.8	4.8	4.8	4.8
Passenger Travel Time (min)	5.8	5.8	5.8	5.8	5.8
Connectivity to passenger rail	N/A	N/A	N/A	N/A	N/A
<i>Minimize Operation and Construction Issues</i>					
Operational Issues	Minimal	Minimal	CN does not support	Additional Switching Required	Additional Switching Required
Number of Railroads along Route	1	1	1	1	1
Number of Railroad Flyovers	0	0	0	0	0
Number of At-Grade Highway Crossings	52-67	28-32	17-21	50-54	39-43
Construction Issues	Limited to UP plus grade separations	Primarily NS freight	Primarily NS freight	UP plus NS	UP plus NS
<i>Minimize Capital and Maintenance Costs</i>					
Capital Cost (\$M)	113-377	315-338	461-486	412-435	558-584
Maintenance Costs (Cost per Year)	\$230,400	\$230,400	\$230,400	\$230,400	\$230,400
<i>Minimize Impacts to the Environment</i>					
Right-of-way Impacts (ac)	6.0-22	42-43	81-84	48-49	87-90
Residential and Neighborhood (mi)	9.1	5.4	3.6	9.1	7.3
Water Resources (crossings)	0	0	0	0	0
Floodplain Impacts (crossings)	0	0	0	0	0
Wetlands (ac)	0	0	0	0	0
Threatened and Endangered Species	0	0	0	0	0
Environmental Justice (50% Poverty) *1	0	0	0	0	0
Environmental Justice (50% Minority) **2	208	178	75	208	105
Cultural Resources within Proposed ROW	1	0	0	1	1
Parks and Recreation (Potential Section 4(f) Properties)	0	0	0	0	0



1 – Number of 2010 Census tracts where population having income below threshold exceeds 50 percent. The 2010 poverty threshold for a family of four is \$22,113.

2 – Based on the 2010 Census block areas that exceed 50 percent minority populations.

- Alternative 3 achieves the project purpose and need but was eliminated because of a lack of support from the CN, the high capital costs, and the large area of right-of-way that would need to be acquired. This alternative had the lowest probability, based on census data, for environmental justice and neighborhood impacts, but constructing Alternatives 1 or 2 with the grade separations on the CN corridor

would minimize the potential for higher environmental justice impacts associated with these alternatives at a lower cost than constructing Alternative 3.

Alternatives 1 and 2 are the retained alternatives and are addressed at site-specific detail in this Tier 2 Final EIS. They are:

- Alternative 1 leaves UP freight and passenger traffic at its existing location in the 3rd Street rail corridor. A second track would be added to increase train traffic capacity. New grade separations would be constructed at city streets. Alternative 1 is evaluated with three different grade-separation configurations. These are referred to as Alternatives 1A, 1B and 1C.
- Alternative 2 would shift UP freight and passenger traffic to the 10th Street rail corridor parallel to the existing Norfolk Southern (NS) corridor. Two new tracks would be constructed for the UP, and new grade separations would be constructed at city streets. Alternative 2 has two different grade separation configurations. These are referred to as Alternatives 2A and 2B.

The alternatives are described in greater detail in Section 3 of Volume II. The alternatives are screened as to how they will achieve the purpose and need as described in Section 2. The Tier 2 screening process is described in Section 3. The alternatives that remain after Tier 2 screening are then evaluated for their environmental consequences. This evaluation is presented in Section 5.

1.4 Anticipated Decisions

The anticipated decisions to be made as part of this process are:

- Record of Decision on the Springfield Rail Improvements Project.
- The selection of an alternative that will determine the alignment and number of tracks required for each of the involved railroads. It will also determine right-of-way limits, locations of grade separations and at-grade crossing, existing crossings to be closed, quiet zone implementation, fencing, pedestrian crossings and station location.