

The purpose of the Tupelo Railroad Relocation Planning and Environmental Study is to identify and evaluate railroad relocation alternatives. The Preferred Alternative should be able to satisfy the following need criteria of the project:

- **Reduce Vehicular Traffic Delays**
- **Improve Response for Emergency Vehicles**
- **Improve Safety of Traveling Public**
- **Improve Efficiency of Rail Operations**
- **Enhance Quality of Life**
- **Additional Benefits**
  - \*Economic Development
  - \*Access to Tupelo Central Business District
  - \*Multimodal Relationships

Evaluation Measures	Alternative A (No-Build)	Operational Improvement (Relocated Interchange)	In-town Alternative		Alternative B (Western Bypass)	Alternative C (Northern Bypass w/KCS Corridor)	Alternative D (Northern Bypass w/KCS Corridor)	Alternative E (Eastern Bypass)	Alternative F (Eastern Bypass)	Alternative G (Railroad Trench)	Alternative H (Gloster over BNSF)	Alternative I (Elevated Viaduct-All Bridge)	Alternative J (US 78 Bypass)	Alternative K (Coonewah Creek Bypass)	Alternative L (Town Creek Bypass)	Alternative M (Elevated Viaduct)
			Scenario 1 (Crosstown over BNSF)	Scenario 2 (BNSF over Crosstown)												
<b>Alignment Statistics</b>																
Est. Length (Miles)	24.5	1.7	n/a	n/a	29.7	30.4	28.0	34.6	38.4	24.5	n/a	24.5	25.5	26.8	26.8	24.5
Est. Length of New Track Construction (Miles)	n/a	1.7	n/a	n/a	29.7	12.6	12.2	24.9	29.8	1.0	n/a	3.0	10.8	26.8	12.5	3.7
Est. Length of Existing BNSF Track (Miles)	24.5	0.0	n/a	n/a	0.0	14.0	14.0	10.2	9.0	23.5	n/a	21.5	14.7	0.0	14.9	22.8
Est. Length of Existing KCS Track (Miles)	n/a	0.0	n/a	n/a	0.0	3.8	1.8	0.0	0.0	0.0	n/a	0.0	0.0	0.0	0.0	0.0
Est. Additional BNSF Operational Distance (Miles)	n/a	0.0	n/a	n/a	5.2	5.9	3.5	10.1	13.9	0.0	n/a	0.0	1.0	2.3	2.3	0.0
Est. Additional KCS Operational Distance (Miles)	n/a	0.9	n/a	n/a	10.4	0.9	0.9	6.7	6.7	0.0	n/a	0.0	0.9	10.4	0.9	0.0
Est. Proposed Total Bridge/Trestle Length (ft)	n/a	500	n/a	n/a	6,400	7,900	7,200	8,600	9,600	n/a	n/a	16,000	9,580	13,880	19,710	8,386
Est. Proposed Highway Overpass Modifications (No.)	n/a	1	n/a	n/a	0	3	1	0	0	0	n/a	1	0	0	1	1
<b>Human Environment</b>																
Est. Community Facilities Displaced within 500 ft of R/W (No.)*	n/a	0	n/a	n/a	0	2	3	2	2	n/a	n/a	3	0	1	0	n/a
Est. Population Density (Population/acre)	0.84	0.01	n/a	n/a	0.12	0.07	0.19	0.12	0.12	0.84	n/a	0.84	0.1	0.01	0.17	0.84
Est. Education Facilities within 500 ft of R/W (No.)	3	0	n/a	n/a	0	0	2	0	0	3	n/a	3	0	0	0	3
Est. Proposed/Modified Natchez Trace Parkway Crossing (No.)	n/a	0	n/a	n/a	1	1	1	1	1	n/a	n/a	0	1	1	1	n/a
Est. Parks within 500 ft of R/W (No.)	n/a	0	n/a	n/a	0	0	0	1	0	n/a	n/a	2	0	0	0	n/a
<b>Natural Environment</b>																
Est. Environmentally Sensitive Sites within 500 ft of R/W (No.)	1	0	n/a	n/a	1	0	0	0	0	1	n/a	1	0	1	0	1
Est. Perennial Streams Crossings	6	3	n/a	n/a	8	7	4	5	8	6	n/a	6	2	5	6	6
Est. Intermittent Streams Crossings	18	2	n/a	n/a	22	9	7	23	31	18	n/a	18	3	11	7	18
Est. Hydric Soils Impacts (Acres)	n/a	0.0	n/a	n/a	58.3	38.3	17.3	27.5	28.6	n/a	n/a	0	2.5	18.6	7	0
Est. Wetland Impacts (Acres)**	n/a	0.0	n/a	n/a	32.8	22.3	6.5	10.7	22.3	n/a	n/a	n/a	6.8	4.9	6.8	n/a
Est. 100-year Floodplain Encroachment (Acres)**	n/a	40.1	n/a	n/a	65.0	254.3	192.7	120.5	114.3	n/a	n/a	n/a	202.8	266.4	186.0	10.0
<b>Physical Environment</b>																
Est. Historical/Archeological Sites within 500 ft of R/W (No.)	6	0	n/a	n/a	0	1	4	1	1	6	n/a	6	4	5	1	6
Est. Public Water Supply Wells within 500 ft of R/W (No.)	1	0	n/a	n/a	0	0	1	2	1	1	n/a	1	0	0	0	1
Est. Potential Contamination Sites within 500 ft of R/W (No.)	31	3	n/a	n/a	1	6	3	2	3	31	n/a	31	1	0	3	31
<b>Safety</b>																
Est. Existing Grade Separations (No.)	5	5	5	5	1	2	1	1	1	5	5	5	2	1	2	5
Est. Existing Public At-grade Crossings to Remain (No.)	21	20	17	16	4	8	8	8	8	16	21	10	8	4	8	11
Est. Existing Public At-Grade Crossings Closed (No.)	n/a	2	6	7	17	15	15	13	13	5	0	11	14	17	14	11
Est. Proposed Grade Separations (No.)	n/a	2	3	6	9	4	6	7	8	5	2	11	9	9	7	11
Est. Proposed Public At-grade Crossings (No.)	n/a	0	0	0	21	8	7	19	23	0	0	0	0	20	0	0
<b>Project Costs (\$2008)</b>	<b>n/a</b>	<b>\$70,700,000</b>	<b>\$63,983,000</b>	<b>\$110,119,000</b>	<b>\$577,780,000</b>	<b>\$367,790,000</b>	<b>\$328,730,000</b>	<b>\$583,730,000</b>	<b>\$747,230,000</b>	<b>CND<sup>†</sup></b>	<b>CND<sup>†</sup></b>	<b>\$558,150,000</b>	<b>\$504,450,000</b>	<b>\$670,130,000</b>	<b>\$769,140,000</b>	<b>\$384,745,000</b>

Notes:

- Quantities above have been estimated using GIS data and available mapping. Quantities should only be used for planning purposes.
- \* Community Facilities include Churches, Cemeteries and Recreational Facilities.
- \*\* Wetlands and 100-year floodplain quantities includes all water body crossings. Proposed bridge structures would reduce or eliminate these impacts.
- All alignment alternative lengths have been calculated from MP 575.5 to MP 600.0.
- <sup>†</sup> Costs not determined due to unfeasibility of alternative
- Bridge/Trestle length based on distance of stream crossings and 20% of distance of floodplain crossing.

Resource or Topic Evaluated	Summary of Direct Effects of No-Build Alternative	Summary of Direct Effects of Build Alternative	Summary of Indirect Effects of Build Alternative
Land Use	No Effect	Approximately 11 acres of agricultural and vacant land would be converted to railroad right-of-way.	No Effect
Farmlands	No Effect	No effect	No Effect
Socioeconomic Conditions	Increased traffic delay at Crosstown and Eason Boulevard	Increased traffic flow on roadway network, leading to economic development and growth.	Increased tax revenue, growth, employment, and improved access.
Environmental Justice	No Effect	No disproportionate effects anticipated.	No disproportionate effects anticipated.
Public Facilities & Community Cohesion	No Effect	No Effect	No Effect
Cultural Resources	No Effect	Visual impacts to 37 NRHP-listed or NRHP-eligible sites & districts. MOA to mitigate adverse effects.	Potential viewshed impacts and potential impacts to unknown resources.
Air Quality	Decrease in air quality from additional emissions from idling automobile traffic	Improvement of air quality via reduction of emissions from idling automobile traffic	No Effect
Noise	Continued train horn soundings throughout Tupelo on BNSF main line. 414 impacted sites (128 severely impacted).	Removal of horn soundings within central Tupelo along BNSF main line. 59 sites reduced noise severity.	No Effect
Vibration	No Effect	Increase in vibration impacts at 18 sites	No Effect
Geological	No Effect	No Effect	No Effect
Wetlands	No Effect	Short-term impacts during construction.	No Effect
Floodplains	No Effect	Impact to 10 acres of 100-year floodplain and 3 new floodway crossings	No Effect
Hydrology & Water Resources	No Effect	No Effect	No Effect
Section 4(f)	No Effect	No Effect	No Effect
Wildlife	No Effect	Not likely to adversely affect Price's potato bean. No effect to other listed species or habitat.	No Effect
Hazardous Materials	No Effect	Low concern for encountering materials during construction.	No Effect
Visual & Aesthetic	No Effect	Impacts to resources within immediate vicinity of viaduct. MOA to mitigate adverse effects.	No Effect
Construction Costs	\$0	\$385 Million	N/A
Benefits	\$0	\$1.25 Billion in Congestion Costs Saved over 20 years	Increased tax revenue, growth, employment, and improved access.

\* MIN. WALL HEIGHT = 4.5'±  
 \* MAX. WALL HEIGHT = 38'±

