KY 32 Alternatives Study Level 2 Screening Evaluation Matrix

LEVEL 2 SCREENING SUMMARY

Alternative	Distance (miles)	Purpose and Need/ Project Goals Traffic Operations		Potential Community Potential Environmental Resource Impacts		Potential Potential Cultural Geotechnical Resource Impacts		Constructability	Total Cost Estimate (\$ millions)	
No Build	13.7	Least Desirable	Least Desirable	No Impact	No Impact	No Impact	Low	NA	\$0	
Alternative 1	12.1	Satisfactory	Average	High	Low	Medium	Low	Average	\$8.1	
Alternative 1P	13.7	Satisfactory	Average	Medium	Low	Medium	Low	Average	\$3.8	
Alternative 2 (Option A)	11.8	Average	Average	Medium	Medium	Medium	Medium	Average	\$7.6	
Alternative 2 (Option B)	11.4	Average	Average	Medium	High	Medium	Medium	Average	\$8.0	
Alternative 3 (Option A)	12.1	Satisfactory	Satisfactory	Medium	Medium	High	Medium	Average	\$7.7	
Alternative 3 (Option B)	11.8	Average	Satisfactory	Medium	High	High	Medium	Least Desirable	\$8.1	

KEY:	
Low/Satisfactory	Lowest likely impacts; Satisfactory for this measure.
Medium/Average	Mid-range of impacts; Somewhat unsatisfactory for this measure.
High/Least Desirable	High likely impacts; Least Desirable for this measure.

			essing Purpose and		Addressing Other Project Goals Traffic Operations Potential Community Impacts				Potential Environmental Impacts				Potential Cultural Resource Impacts				Potential Geotechnical Impacts				
Alternative	Distance (miles)	Travel Time (minutes)	ess and Safety through the safety of the saf	Travel Conditions for Emergency Medical Services and School Buses	Support, Preserve, and Enhance Economic Development Opportunities and Tourism and Incorporate Context Sensitive Design Features, as appropriate, to Preserve and/or Complement the Existing Character and Context of the KY 32 Study Area	Estimated 2030 Traffic Volume on Existing KY 32 (KY 7 - KY 173 / KY 173 - KY 504)	Estimated 2030 Traffic Volume on Proposed Alternative	Possible Relocations Homes/ Businesses		Possible Impacts to Known Cemeteries	Potential Impact to Laurel Gorge Walking Trail	Environmental Justice Communities	Streams	Threatened and Endangered Species - Mammals	Threatened and Endangered Species - Mollusks	Hazardous Materiale/Underground Storage Tanks	National Register Historic Properties	Likelihood of additional National Register of Historic Properties	Known Archaeological Sites	Likelihood of Additional Archaeological Sites	Potential Impact to Known Wells/Potential for Mines
No Build	13.7		Least Desirable	Least Desirable	Least Desirable	730 to 3750	NA	OιO	0	0	No Impact	None	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Alternative 1	12.1	13.2	Satisfactory	Satisfactory	Satisfactory	(approximately from KY 173) & a	io 4100 300 vpd diverted approximately 350 trips)	13/2	1	4	No Impact	None	Avoids Caney Creek and Laurel Creek. 41 named and unnamed streams are locate within this control. Most are the headwaters of streams the headwaters of streams Creeks. Not all of the stream would be impacted within the con	Wooded areas in this corridor are suitable for but habitats. Three but species, the Indians, the suitable state but, and the species of the Indians, and the Indians of Indians o	None were reported in the USPVIG database for the area along the existing roadway.	A total of two sites exist — a gas station in Electronic along existing IV/32 at the western terminus; the second site is located in Newtondam just north of the existent terminus where KY 32 junctions with IV/37.	0	Medium	1	High	1 water well, 1 dry and abandoned well
Alternative 1P	13.7	16.4	Satisfactory	Satisfactory	Satisfactory	(approximately from KY 173) & a new	150 vpd diverted	6/0	0	2	No Impact	None	Same as 1	Fewer impacts than Alternative	Same as 1	Same as 1	0	Low	1	High	1 water well, 1 dry and abandoned well
Alternative 2 (Option A)	11.8	12.9	Average	Average	Satisfactory	200 to 2700	1600 to 2400 (2400 cn Option A segment)	5/1	0	2	No Impact	None	are situated along the northernmost edges of the project corridor – the first area (app. 0.6 miles) is located within Rowan County app. 1.1 miles east of Ellionville. The second area (app. 1.7 miles) is located on either side of the Rowan/Elliott County line. It addition, 28 named and unparamed frozens posts within	Wooded areas in this confider are suitable for but habitats. Three best species, the Indians. Three best species, the Indians or your and Virginis beyond but, are known to occur within both Edited and Rivane Courties. It is allowed to be the Indians are known to be the Indians are known to be the Indians are known to be the Indians are the Indians	Northern Riffleshell and Pirik Muscker mussels have been known to ozis in Elioti County, but not Rowan County.	terminus; the second site is	0	Medium	0	Medium	1 water well, potential for mines
Alternative 2 (Option B)	11.4	12.5	Least Desirable	Least Desirable	Satisfactory	200 to 2700	1600 to 2100 (2100 to Option B segment)	7/0	o	2	Medium	None	be impacted. The portion of Laurel Creek that could be impacted is located in the are where Option B separates from Option A in the eastern most portion of the corridor. A total of 27 named and unnamed streams are locates within this corridor, but not all within this corridor. But not all	Wooded areas in this corridor are suitable for but habitats. These but species, the Indians. These but species, the Indians are known to course. It is are known to course within both Elicit and Rowan Courses. It is estimated that approximately rife streamed when preliminary design attest and esternated when preliminary design attest and esternated and in consultation with the KYTC. Division of Environmental Analysis.	County, but not Rowan County. Laurel Creek and its tributaries in the eastern area	A total of two sites exist – a gas station in Elitomilie along existing IV/32 at the western terminus; the second site is located in Newtoundaring year control of the eastern terminus where KY 32 junctions with KV 7,	0	Medium	1	Medium	2 water wells, potential for mines
Alternative 3 (Option A)	12.1	13.2	Satisfactory	Satisfactory	Satisfactory	200	1400 to 4300 (2400 on Option A segment)	5/1	0	1	No Impact	None	A total of 37 named and	Three bat species, the Indiana,	Northern Riffleshell and Pirik Musket mussels have been known to exist in Ellot Countly, but and Rowan Countly. On Rowan	There are 3 Hazardous Materials sites in this Alternative Corridor. A gas station in Billowillia along existing KY 32; the second sets in location state in Control and the set of the Control with KY 32 and Rocky Creek between two ceremeters).	0	Medium	3	Hgh	2 water wells, 1 gas well, 1 dry abandoned well
Alternative 3 (Option B)	11.8	12.8	Least Desirable	Least Desirable	Satisfactory	200	1400 to 4300 (2400 on Option B segment)	7/0	0	1	Medium	None	alternative is selected. The portion of Laurel Creek that could be impacted is located in the area where Option B separates from Option A in the eastern most portion of	In consultation with the KYTC	County, but not Rowan County. Laurel Creek and its tributaries in the eastern area	along existing KY 32 and an o soil that was reported by the	0	Medium	4	Hgh	3 water wells, 1 gas well, 1 dry and abandoned well

	Distance	Constru	ctability	Cost Estimates								
Alternative	(miles)	Maintenance of Traffic	Phasing/ Scheduling	Design (\$ millions)	ROW (\$ millions)	Utility (\$ millions)	Construction (\$ millions)	Total Cost (\$ millions)	Cost/Mile (\$ millions)			
No Build	13.7	NA	NA	\$0	\$0	\$0	\$0	\$0	\$0			
Alternative 1	12.1	Least Desirable	Satisfactory	\$6.4			\$63.7					
Alternative 1P	13.7	Least Desirable	Satisfactory	\$2.7	\$11.4		\$26.5	\$51.5	\$3.8			
Alternative 2 (Option A)	11.8	Average	Satisfactory	\$6.1	\$12.3	\$9.4	\$61.3	\$89.1	\$7.6			
Alternative 2 (Option B)	11.4	Average	Satisfactory	\$6.4	\$11.9	\$9.1	\$63.9	\$91.3				
Alternative 3 (Option A)	12.1	Average	Average	\$6.5	\$12.6	\$9.7		\$93.4	\$7.7			
Alternative 3 (Option B)	11.8	Average	Least Desirable		\$12.2	\$9.4						