

DESIGN ALTERNATIVE EVALUATION CRITERIA

US Route 15 Interchange at Edwards Ferry Road and Fort Evans Road, Leesburg, Virginia



EVALUATION CRITERIA	NO-BUILD ALTERNATIVE	BUILD ALTERNATIVE A	BUILD ALTERNATIVE B	BUILD ALTERNATIVE C
		SPUI / Right In, Right-Out	SPUI / Fort Evans Rd. over US Route 15	SPUI / US Route 15 over Fort Evans Rd.
Right-of-Way Impacts	No action - no right-of-way impacts.	1.5 acres (acquisition and permanent easements) 13 parcels impacted	1.7 acres (acquisition and permanent easements) 14 parcels impacted	1.7 acres (acquisition and permanent easements) 14 parcels impacted
Construction Sequencing / Duration	No action - no constructability issues.	3-phase MOT sequence required.	3-phase MOT sequence required; requires temporary full closure of Fort Evans Road at US Route 15 with traffic diversion to Battlefield Parkway.	Complex 3-phase MOT sequence required; SB mainline grade change requires sub-phasing; temporary access closure to Fort Evans Road from south, with traffic diversion to Battlefield Parkway.
Total Project Cost	No action - no construction cost.	\$79.7M total project cost	\$96.2M total project cost	\$100.9M total project cost
Traffic Operations	Edwards Ferry Rd.: Overall delay of 95 sec/veh (LOS F) Fort Evans Rd.: Overall delay of 82 sec/veh (LOS F)	Edwards Ferry Rd.: Overall delay of 60 sec/veh (intersection LOS E; free-flow mainline) Fort Evans Rd.: Overall delay of 0 sec/veh (free-flow intersection and mainline LOS A)	Edwards Ferry Rd.: Overall delay of 46 sec/veh (intersection LOS D; free-flow mainline) Fort Evans Rd.: Overall delay of 17 sec/veh (intersection LOS C; free-flow mainline)	Edwards Ferry Rd.: Overall delay of 48 sec/veh (intersection LOS D; free-flow mainline) Fort Evans Rd.: Overall delay of 23 sec/veh (intersection LOS C; free-flow mainline)
Pedestrian / Bicyclist Safety	Pedestrian and bicyclist movements will remain a safety concern, with no new facilities constructed. Gaps in sidewalk system will remain.	Edwards Ferry Rd.: 13 signalized crosswalks Fort Evans Rd.: Pedestrian bridge over US Rte. 15 Improved bike route connections	Edwards Ferry Rd.: 13 signalized crosswalks Fort Evans Rd.: 2 signalized crosswalks; Pedestrian bridge over WB to NB ramp. Improved but partial bike route connections	Edwards Ferry Rd.: 13 signalized crosswalks Fort Evans Rd.: 2 signalized crosswalks, 1 unsignalized crosswalk at WB to NB ramp. Improved bike route connections
Compliance with Adopted Plans	Does not comply with the Town Plan or the Countywide Transportation Plan	Complies with Town Plan and Countywide Transportation Plan regarding type and extent of improvements.	Complies with Town Plan and Countywide Transportation Plan for improvements at Edwards Ferry Road. Exceeds programmed improvements at Fort Evans Road.	Complies with Town Plan and Countywide Transportation Plan for improvements at Edwards Ferry Road. Exceeds programmed improvements at Fort Evans Road.
Compliance with Design Criteria	No action - no proposed improvements. Existing pedestrian facilities remain noncompliant with current standards.	1 DE (shoulder width on ramps) 2 Design Waivers (sidewalk buffer width and shared use path buffer width)	1 DE (shoulder width on ramps) 1 Design Waiver (sidewalk buffer width)	1 DE (shoulder width on ramps) 2 Design Waivers (sidewalk buffer width and shared use path buffer width)
Environmental Impacts	No action - no direct environmental impacts. Air quality will continue to degrade as congestion increases.	Reduced delay will improve air quality. No sensitive environmental resources identified within project limits; no significant impacts anticipated.	Reduced delay will improve air quality. No sensitive environmental resources identified within project limits; no significant impacts anticipated.	Reduced delay will improve air quality. No sensitive environmental resources identified within project limits; no significant impacts anticipated.
Utility Impacts	No action - no utility impacts.	Gas, water, overhead and underground power are affected. Impacts similar to other alternatives.	Gas, water, overhead and underground power are affected. Impacts similar to other alternatives.	Gas, water, overhead and underground power are affected. Impacts similar to other alternatives.