

Roundabout Design Review Form, Part B - Design Parameters

Item #: _____ County: _____

ROADWAY INFORMATION

	Leg 1		Leg 2		Leg 3		Leg 4		Leg 5 ⁴	
Approach Design Speed ¹ (mph)										
	AADT	VPHPL	AADT	VPHPL	AADT	VPHPL	AADT	VPHPL	AADT	VPHPL
Design Year Volumes (AADT ² & VPHPL ³)										

DESIGN PARAMETERS

	Parameter ⁵	Leg 1	Leg 2	Leg 3	Leg 4	Leg 5 ⁴
Entry Width (ft)	Single: 14-18 ft Recommend 15 ft Multi: 12-15/ lane					
Entry Angle, PHI ϕ (deg)	20° - 40° desirable					
Inscribed Circle Diameter (ICD) (ft)	Mini: 45-90 ft Single: 90-180 ft Multi: 150-300 ft					
Circulatory Roadway Width (ft)	Single: 16-20 ft Multilane: 14-16 ft per lane					
Splitter Island Length (ft)	≤ 45 mph: 50 ft min., 100 ft des. > 45 mph: 200 ft min.					
Entry Curb Radius (ft)	Urban Single: 50-100 ft Multi: Should be > 65 ft					
Approach Profile (two car lengths from edge of circle) (%)	See KYTC Roundabout Guidance					
Angle of Visibility (deg)	75° min.					

FASTEST PATH

	Parameter ⁵	Leg 1		Leg 2		Leg 3		Leg 4		Leg 5 ⁴	
		FT	MPH	FT	MPH	FT	MPH	FT	MPH	FT	MPH
R ₁ , Radius (ft) & Speed (mph)	Mini: 15-20 mph Single: 20-25 mph Multi: 25-30 mph										
R ₂ , Radius (ft) & Speed (mph)	See KYTC roundabout guidance. Not usually controlling factor.										
R ₃ , Radius (ft) & Speed (mph)	Should be >R ₂										
R ₄ , Radius (ft) & Speed (mph)	See KYTC roundabout guidance. Not usually controlling factor.										
R ₅ , Radius (ft) & Speed (mph)	15-25 mph										
Bypass R ₅ , Radius (ft) & Speed (mph)	Should not significantly exceed R ₁										

MINIMUM SIGHT DISTANCE PARAMETERS

	Parameter ⁵	Leg 1	Leg 2	Leg 3	Leg 4	Leg 5 ⁴
Approach Stopping Sight Distance (SSD) (ft)	See KYTC Roundabout Guidance					
Circulatory Roadway SSD (ft)	See KYTC Roundabout Guidance					
Intersection Sight Distance (ISD) (ft)	See KYTC Roundabout Guidance					

¹ Design speed of the roadway, not the terminal.
² Segment (2-way) AADT of approach roadway
³ Approach or entering volumes per lane

⁴ Leave blank if not applicable. Use additional form if more than five approach legs.
⁵ Recommended values from KYTC Roundabout Design Guidance

Tier 1 Review: _____

Designer: _____ Tier 2 Review: _____

KYTC Project Manager: _____ Tier 3 Review: _____ Review Tier Level: _____