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# DOTD Sidra Parameters: Required Settings

# **Model Settings**

#### Site Input Menu

- Sidra Standard
- Same as Signalised Intersections
- Exclude Geometric Delay
- Queue Blockage 5%
- Cross-check capacity model settings shown to the right for proper settings of options.

Options Roundabout Data	
Roundabout Model Options	
Roundabout Capacity Model	When you change the Ro
SIDRA Standard	Method, HCM Delay For comparison of the effect
US HOM 6	only while other paramet
O US HCM 2010	parameters for the select
Roundabout Level of Service (LOS) Method	Table: Default settings of 2010 and SIDRA Standa
SIDRA Roundabout LOS	
Same as Signalised Intersections	Related Parameters
Same as Sign Control	
Delay Model	Roundabout LOS Metho
✓ Exclude Geometric Delay	HCM Delay Formula
HCM Delay Formula	FIGNI Delay Formula
HCM Roundabout Capacity Model Extension	Exclude Geometric Dela
Apply the SIDRA Model for Unbalanced Flow Conditions for HCM 6	
Apply the SIDRA Model for Unbalanced Flow Conditions for HCM 201	n

### **Geometric Parameters**

**NOTE:** Geometric Parameters are for analysis only. Design engineering is required to verify the actual geometry of the roundabout.

#### **Environmental Factor**

1.1 for Design Year

#### Single Lane Roundabout

- Circulating Width = 20 Ft
- Minimum Island Diameter = 70 Ft
- Inscribed Diameter = Program
- Entry Radius = 100 Ft
- Entry Angle = Default

#### **Double Lane Roundabout**

- Circulating Width = 30 Ft 32 Ft
- Minimum Island Diameter = 115 Ft
- Inscribed Diameter = Program
- Entry Radius = 100 Ft
- Entry Angle = Default

# **Demand and Sensitivity**

- Analysis objective: Final Year
- Growth Model: Compound
- Number of Years: 20 (dependent on project)
- Results for: Intersection Vehicles

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## Sequence Data

To compare a roundabout to a signal, the optimum phasing sequence should be developed using an approved signal timing software and the results put into Sidra as User-Given data in the respective tabs.

To use the signal comparison, open *Phasing* & *Timing* in the *Site Input Menu* and input the cycle length, phasing and split time in the necessary tabs to manually match the optimum phasing sequence already developed. See Timing Option and Sequence Editor tabs example below:

PHASING & TIMING - Site1			
Sequences Sequence Editor Phase & Sequence Data Timing Options Advanced			
Sequence Leading Left Turn			
Cycle Time Option		PHASING & TIMING - Site1	
Practical Cycle Time		Sequences Sequence Editor Phase & Sequence Data Timing Options Advanced	
Maximum Cycle Time	150 sec		
Cycle Rounding	10 sec		
Optimum Cycle Time		Phase Selector - Sequence Leading Left Turn	
Cycle Time - Lower Limit	Program 👻	ВСD	
Cycle Time - Upper Limit	150 sec		
Cycle Time - Increment	5 sec	Add Phase	
Optimum Maximum Green Settings		Phase Editor	
Scale Factor - Lower Limit	50.0 %		
Scale Factor - Upper Limit	120.0 %	Phase Name B	
Scale Factor - Increment	5.0 %		
User-Given Cycle Time			
Cycle Time	130 sec	Movement Classes	
User-Given Phase Times		Light Vehicles (LV) ReadName Heavy Vehicles (HV)	
Green Split Option			
Green Split Priority			
		RoadName	
		<b>'</b>	

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