

# Concrete Roundabouts

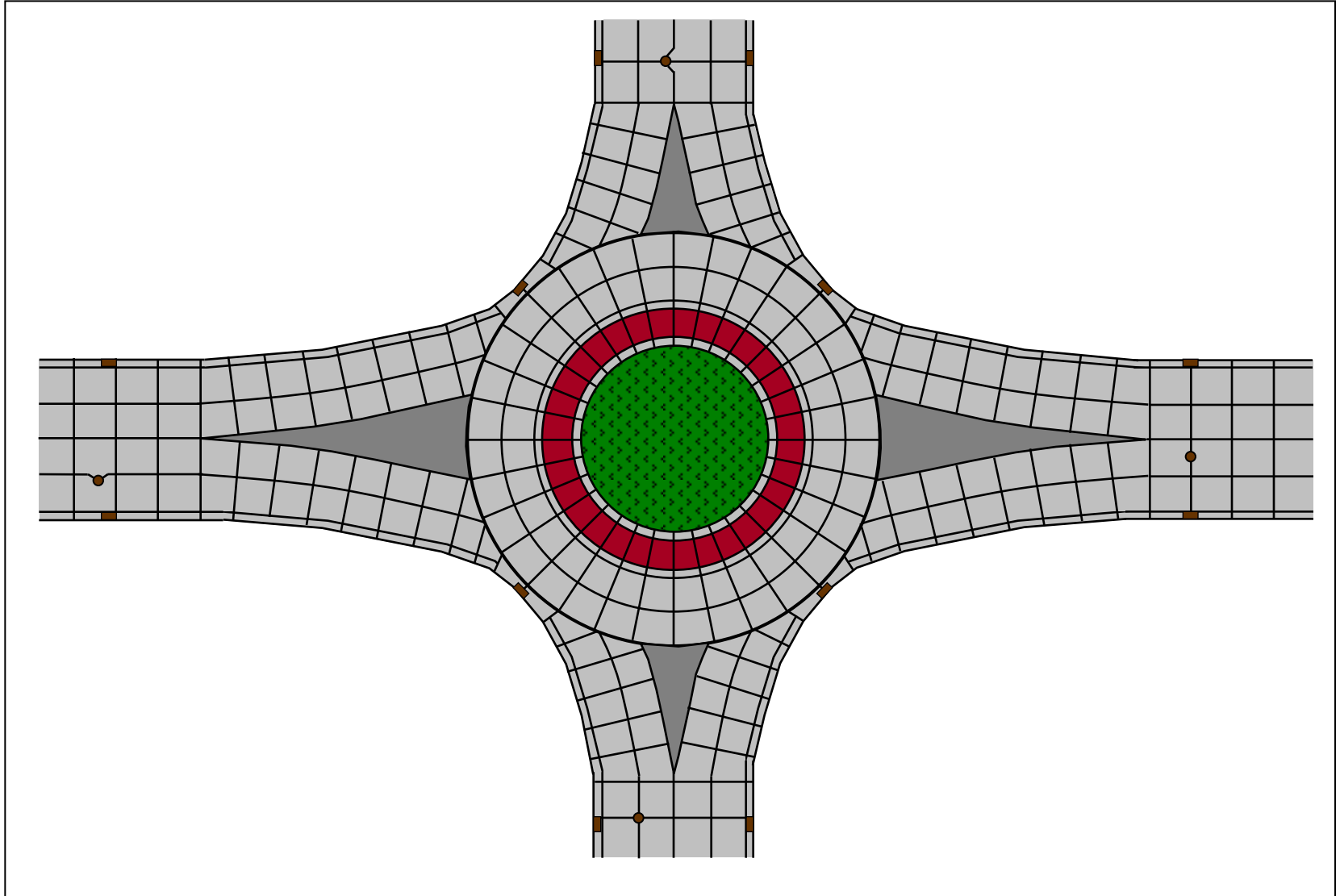
Daniel DeGraaf, P.E.

Michigan Concrete Association

# Sign of things to come

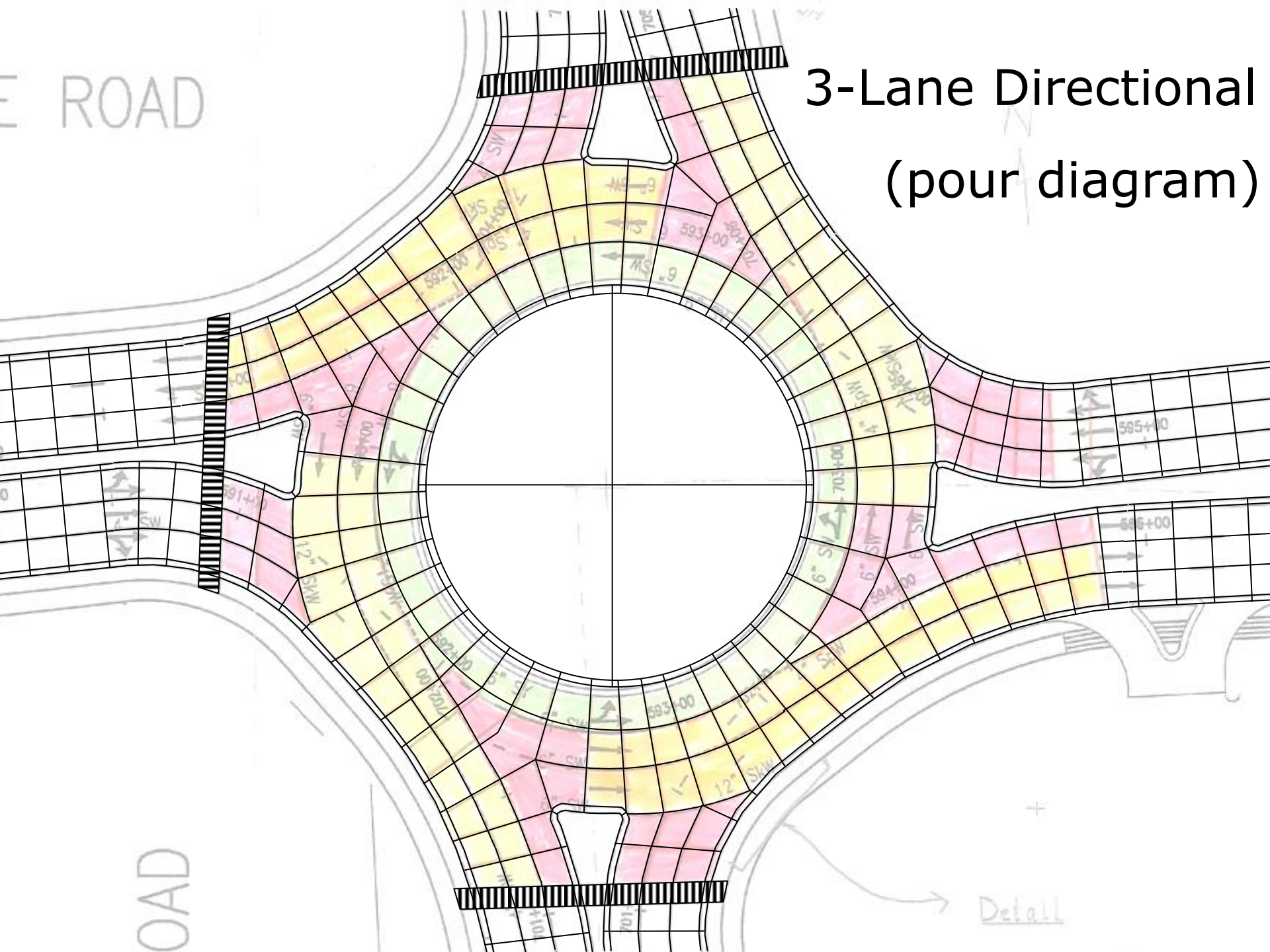


Not Recommended for traffic



E ROAD

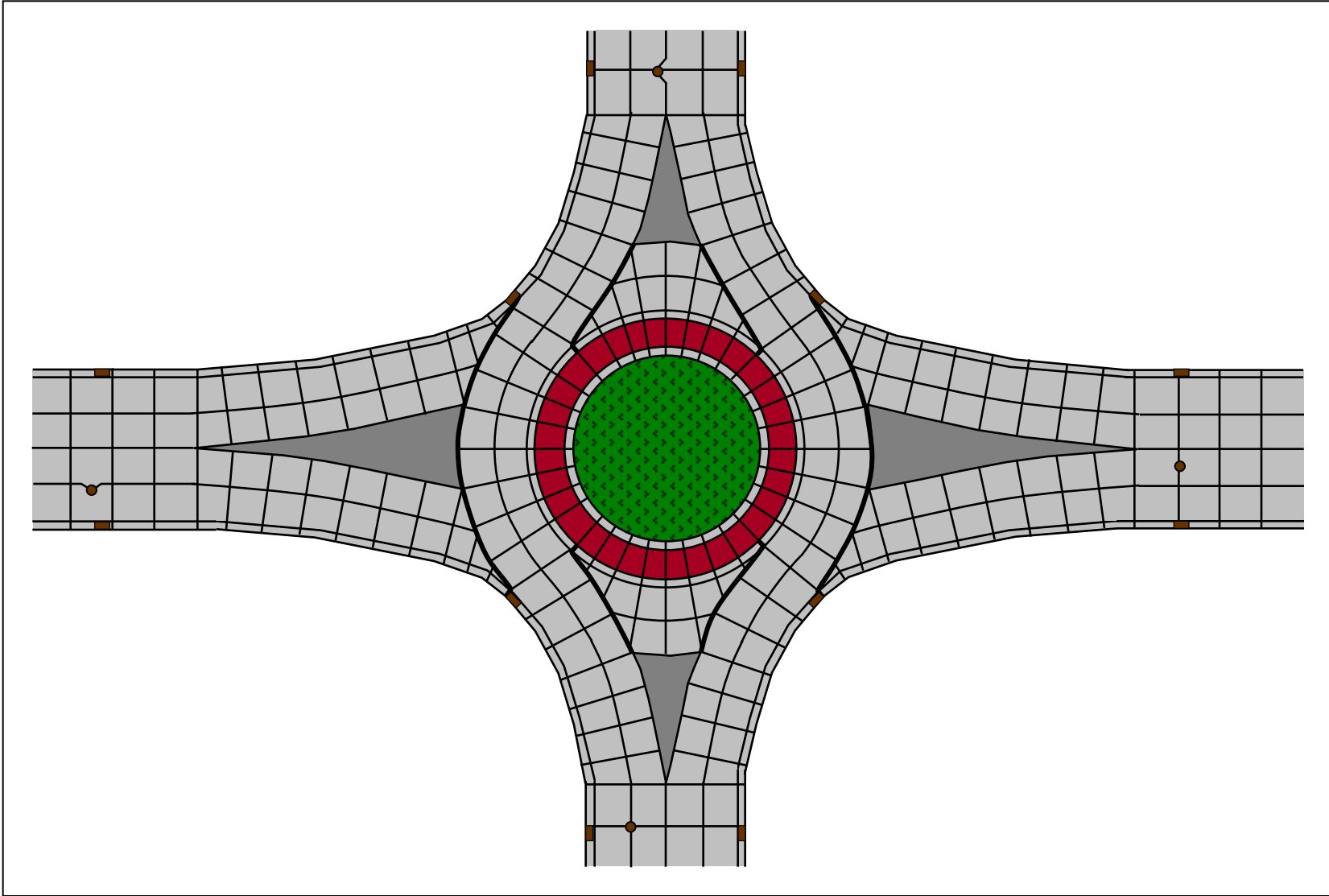
3-Lane Directional  
(pour diagram)



ROAD

Detail

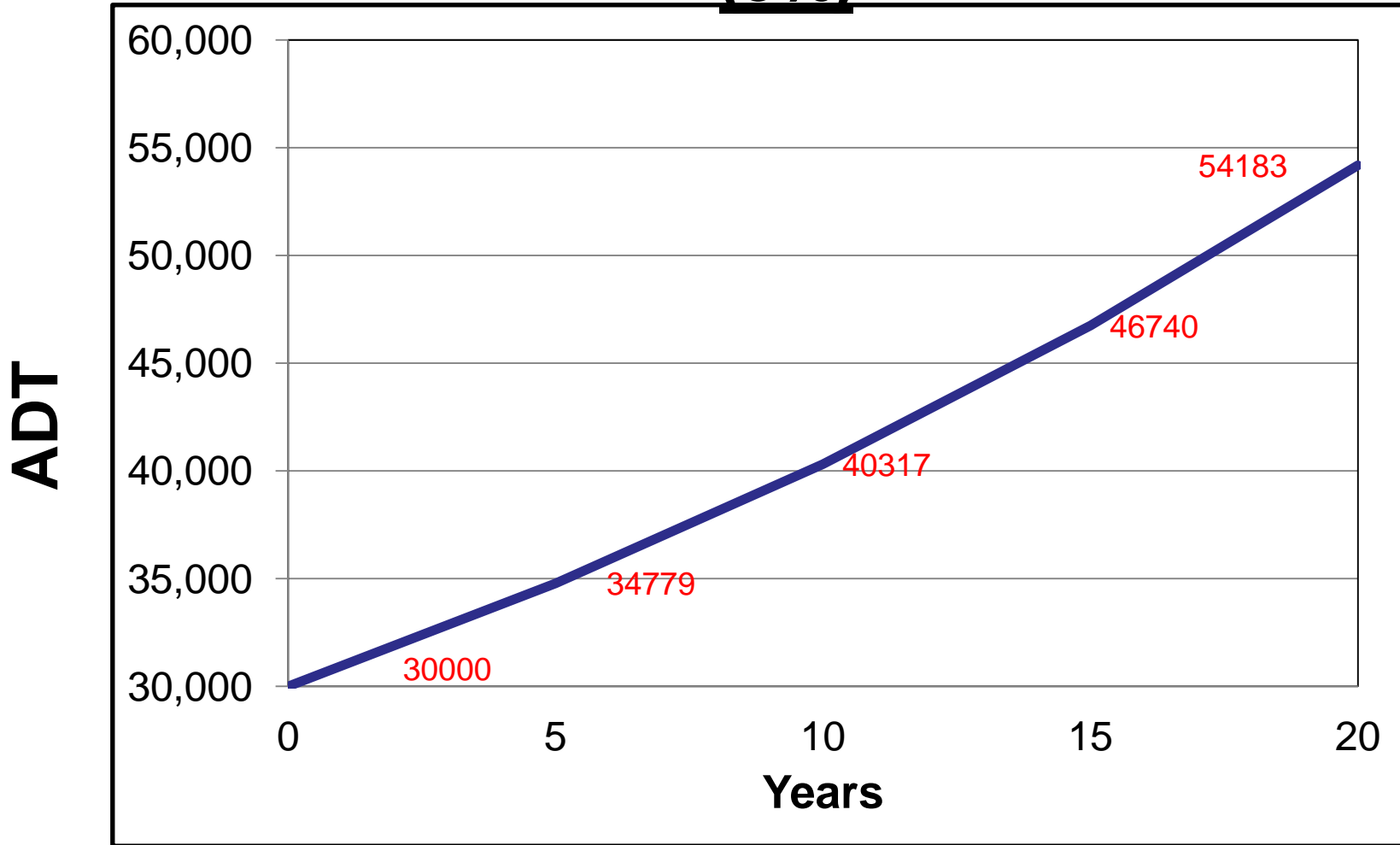
# Pave Through





# POPULATION/ADT GROWTH

(3%)



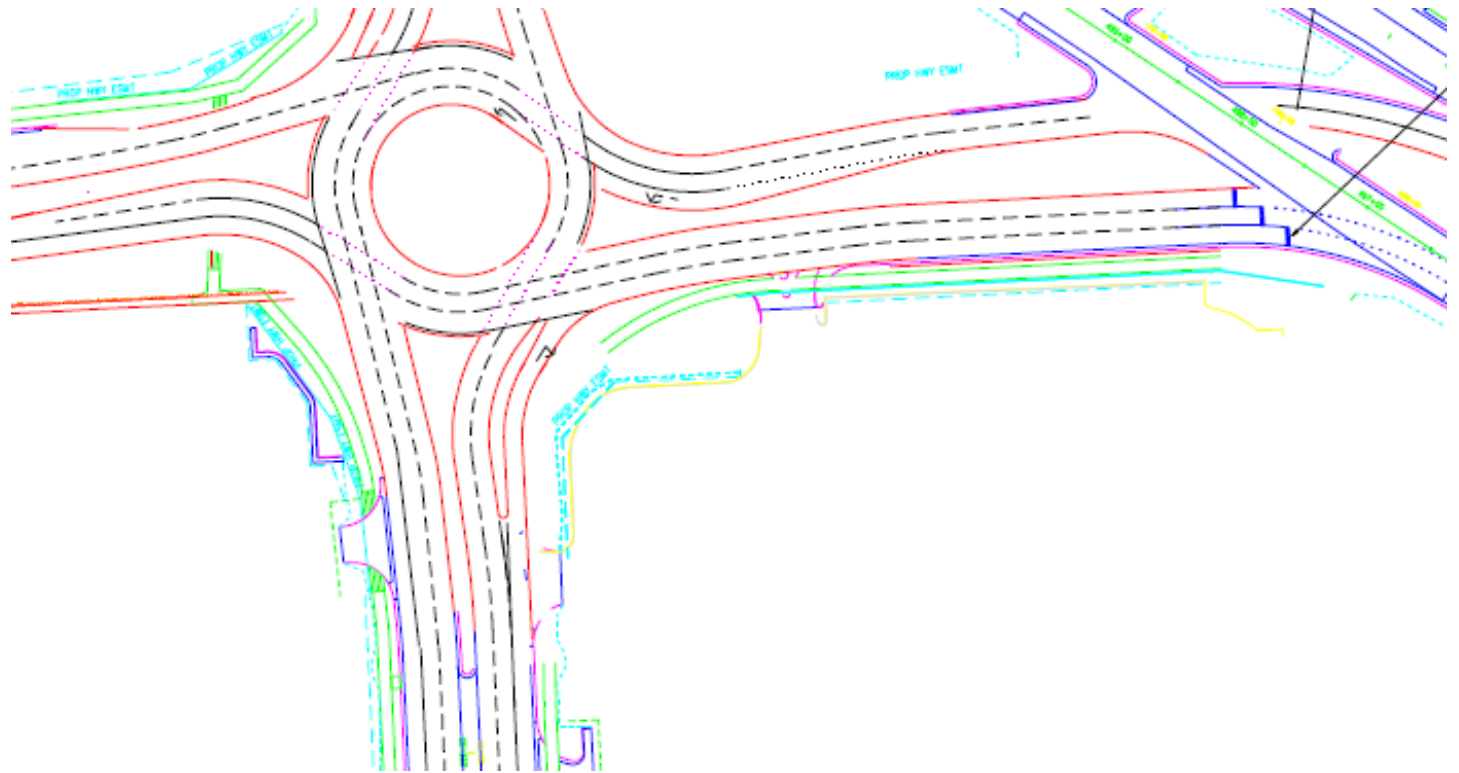
- 3  
LANE\*

- 2  
LANE\*

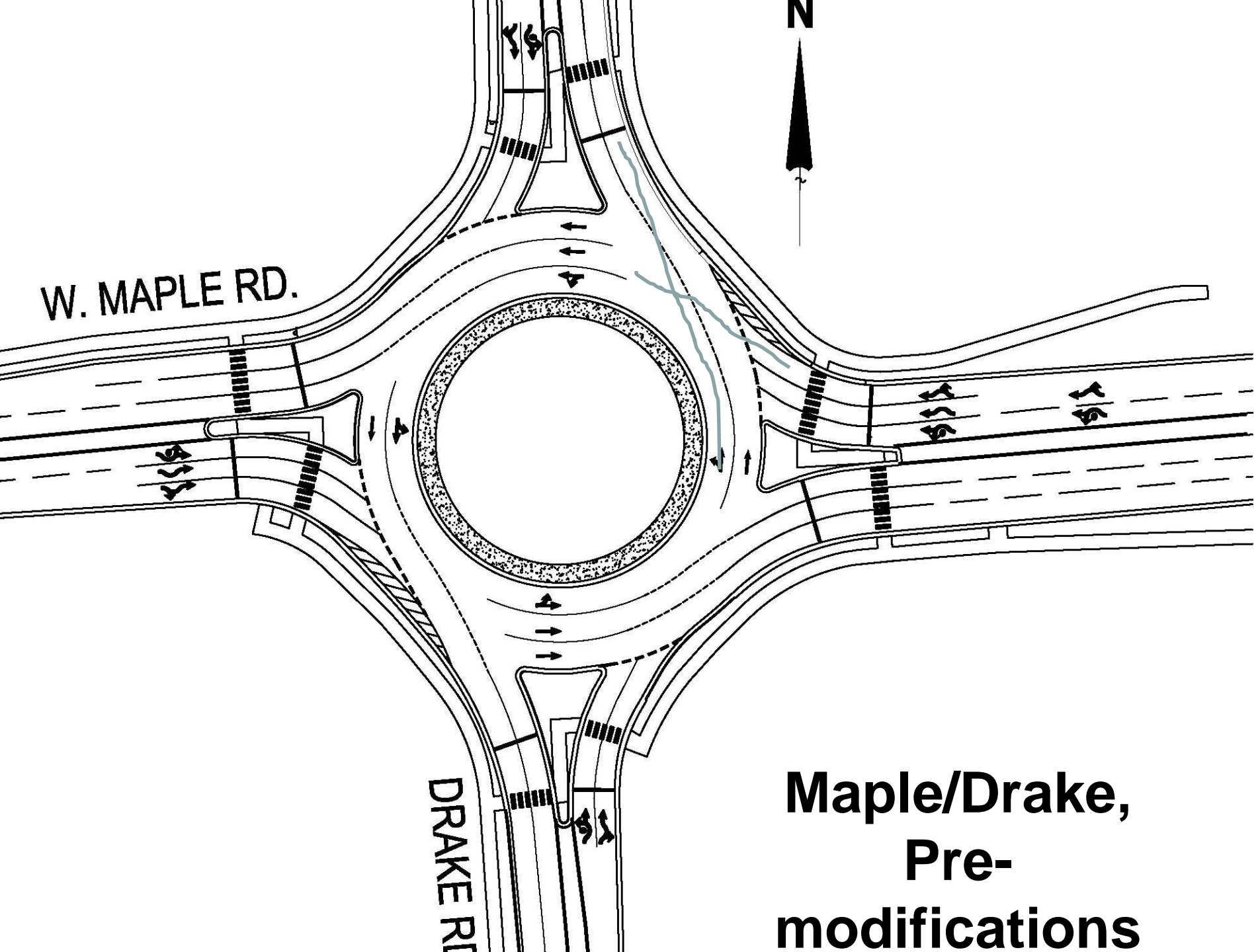
\*capacity varies

# Orchard Lk/14 Mile Ultimate Design

- Three Lanes East and West Bound

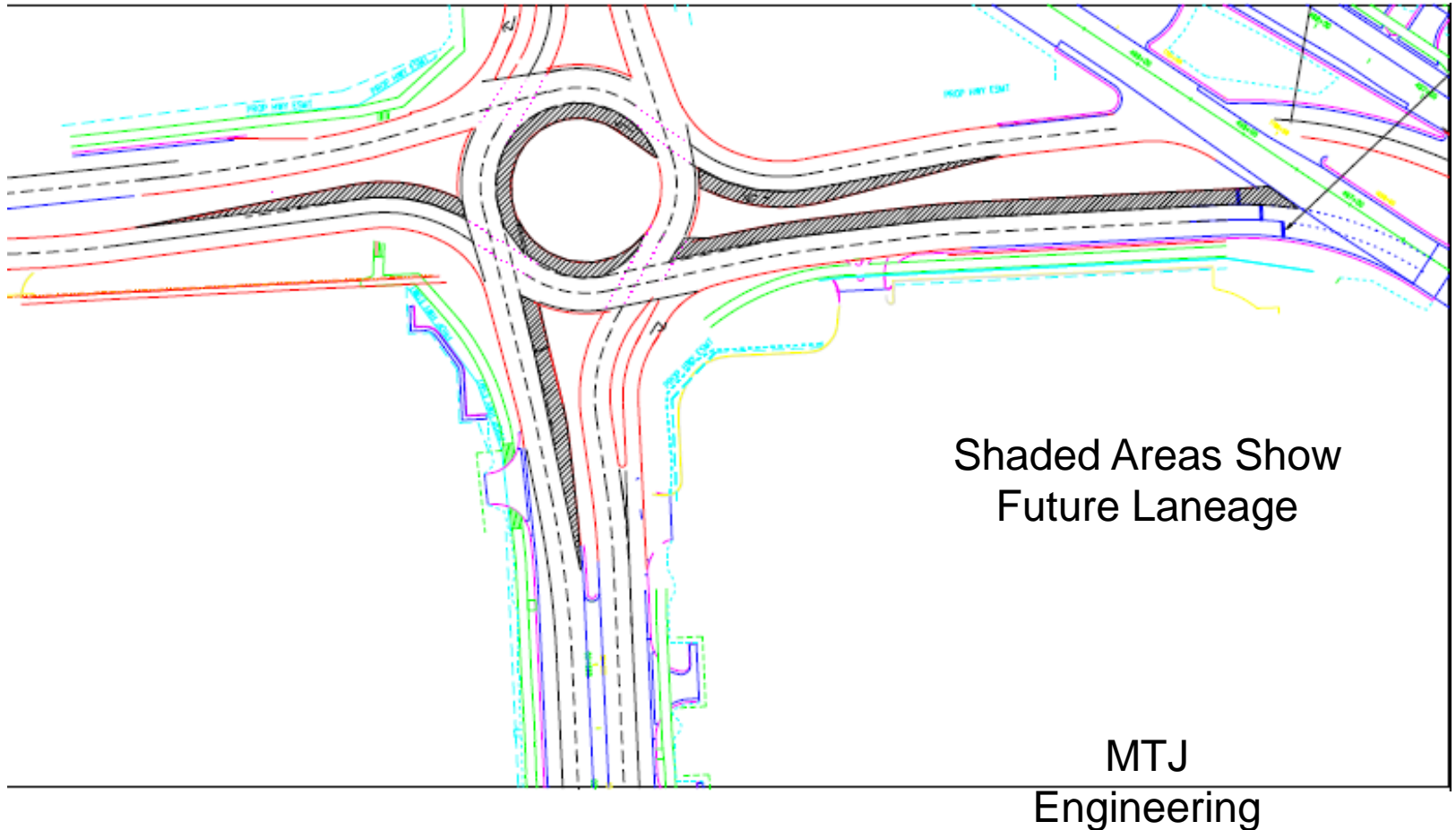


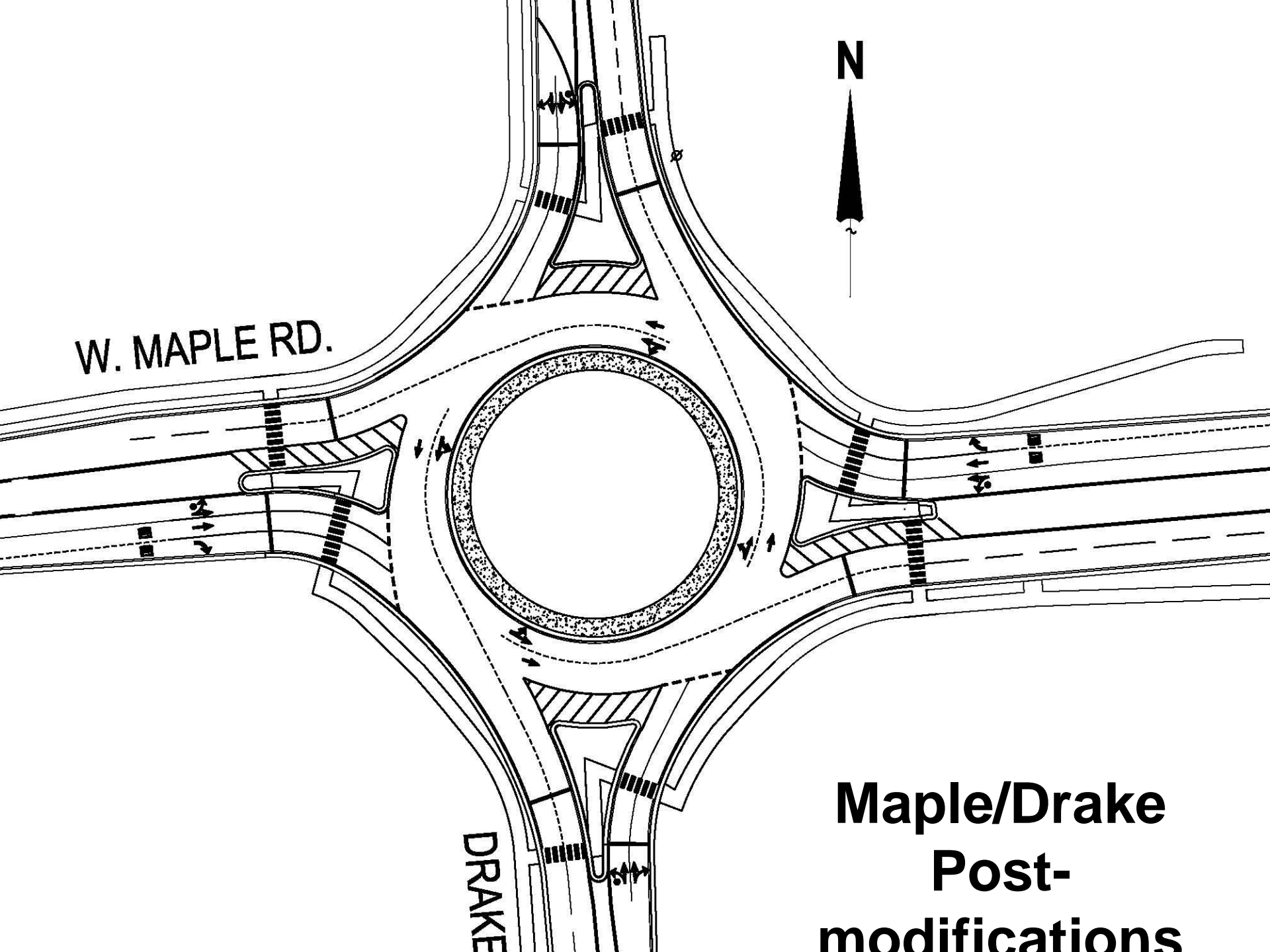




# Orchard Lk./14 Mile Interim/Ultimate Analysis

- Two Lanes East and West Bound





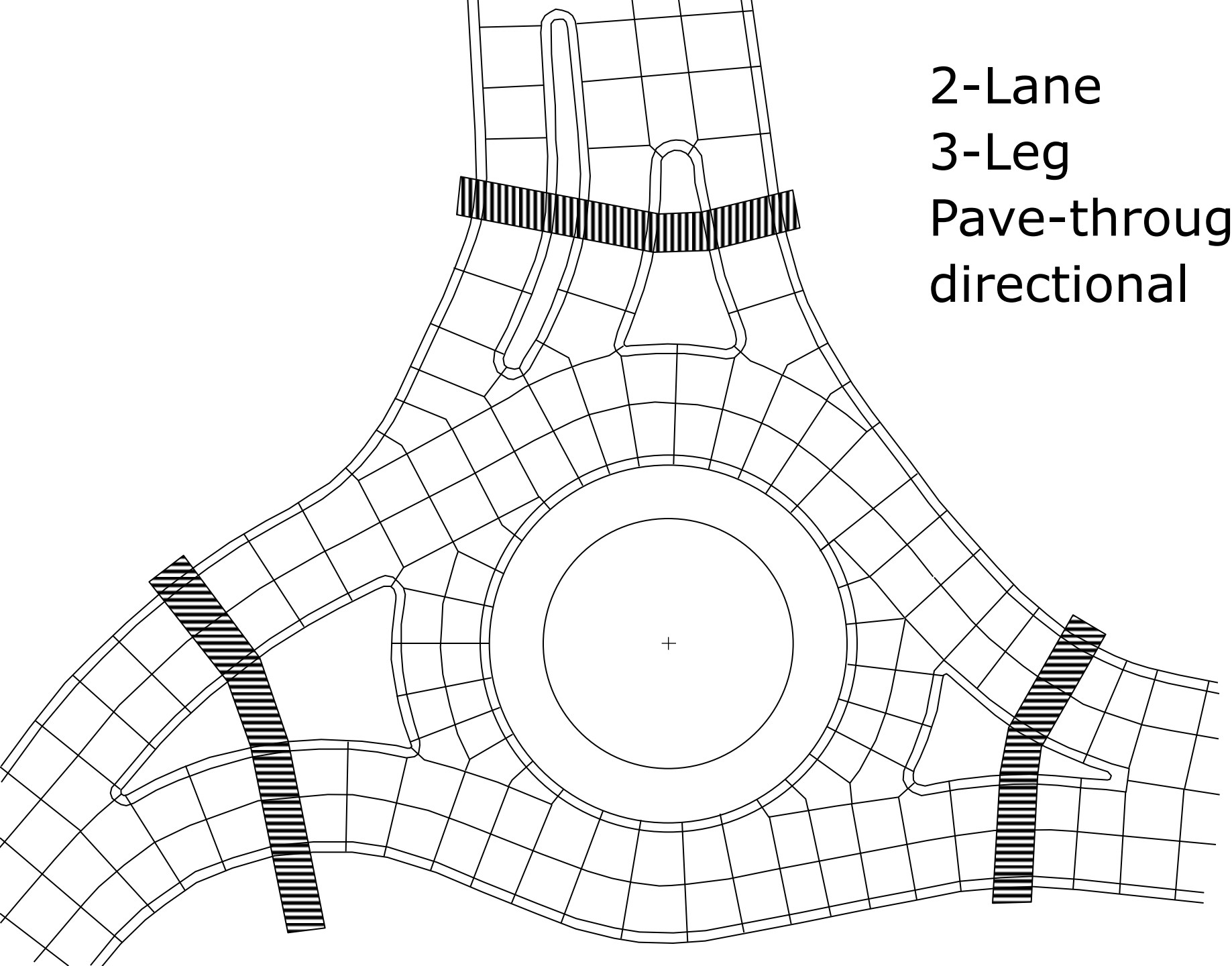
W. MAPLE RD.

DRAKE

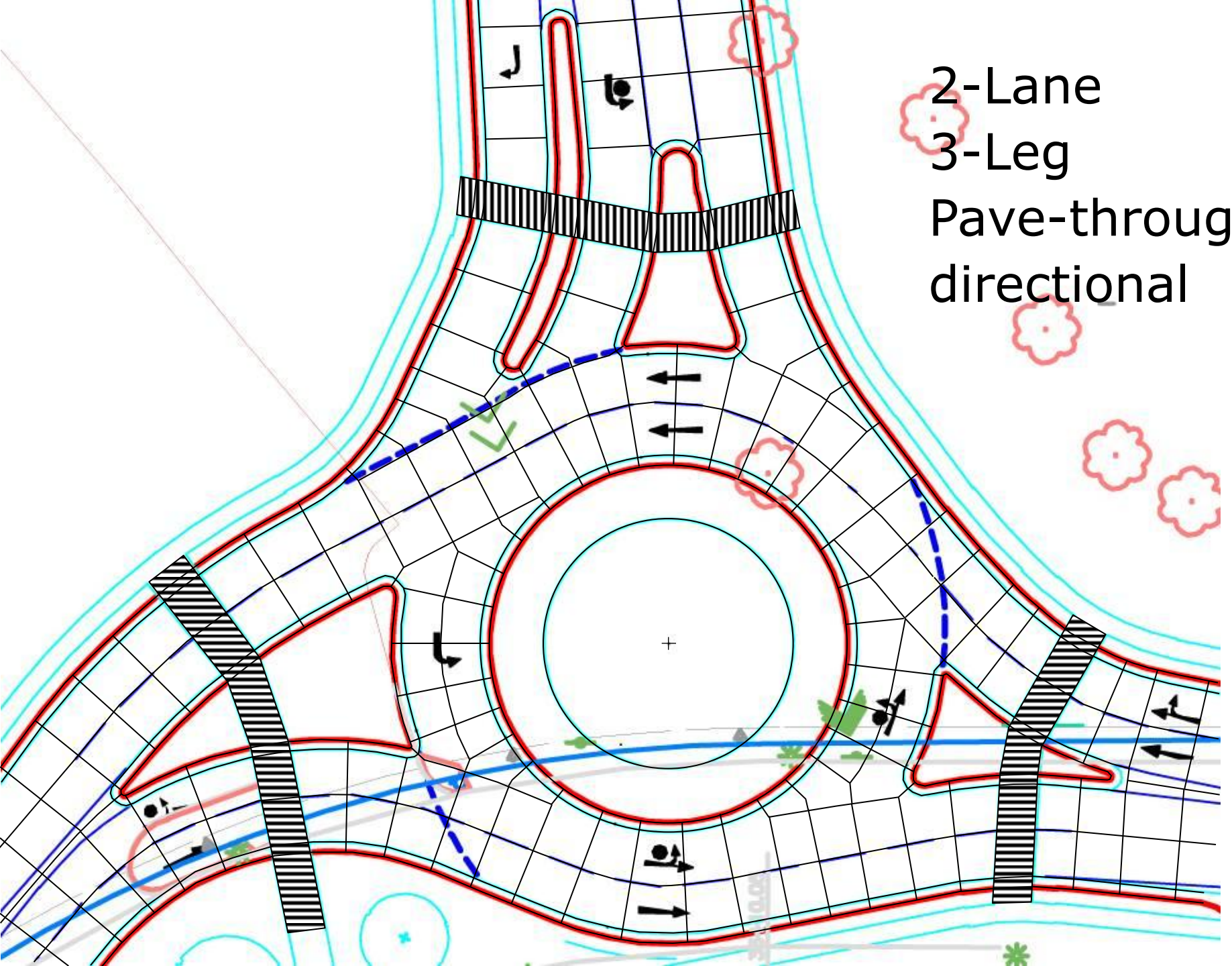


**Maple/Drake  
Post-  
modifications**

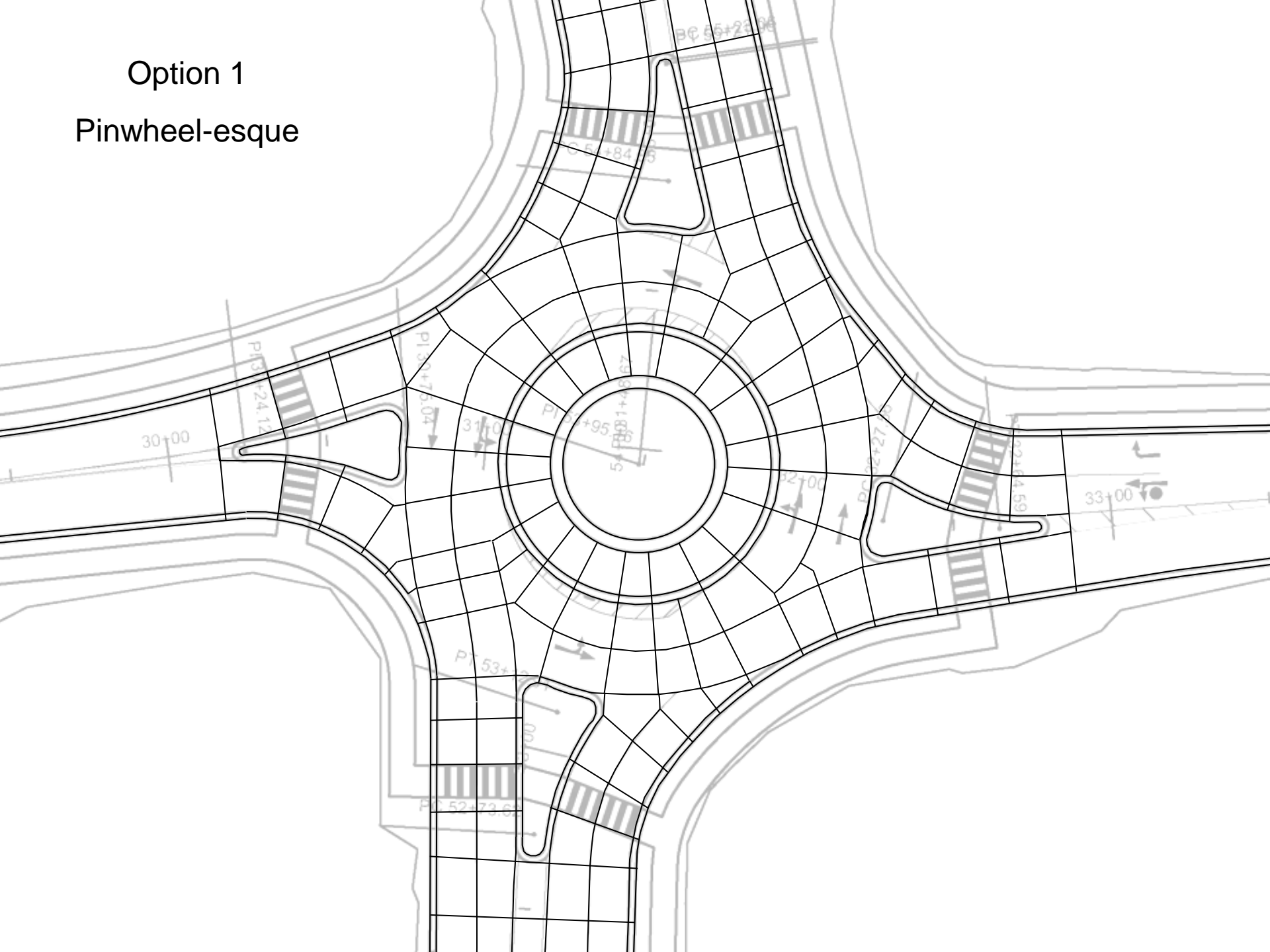
2-Lane  
3-Leg  
Pave-through  
directional



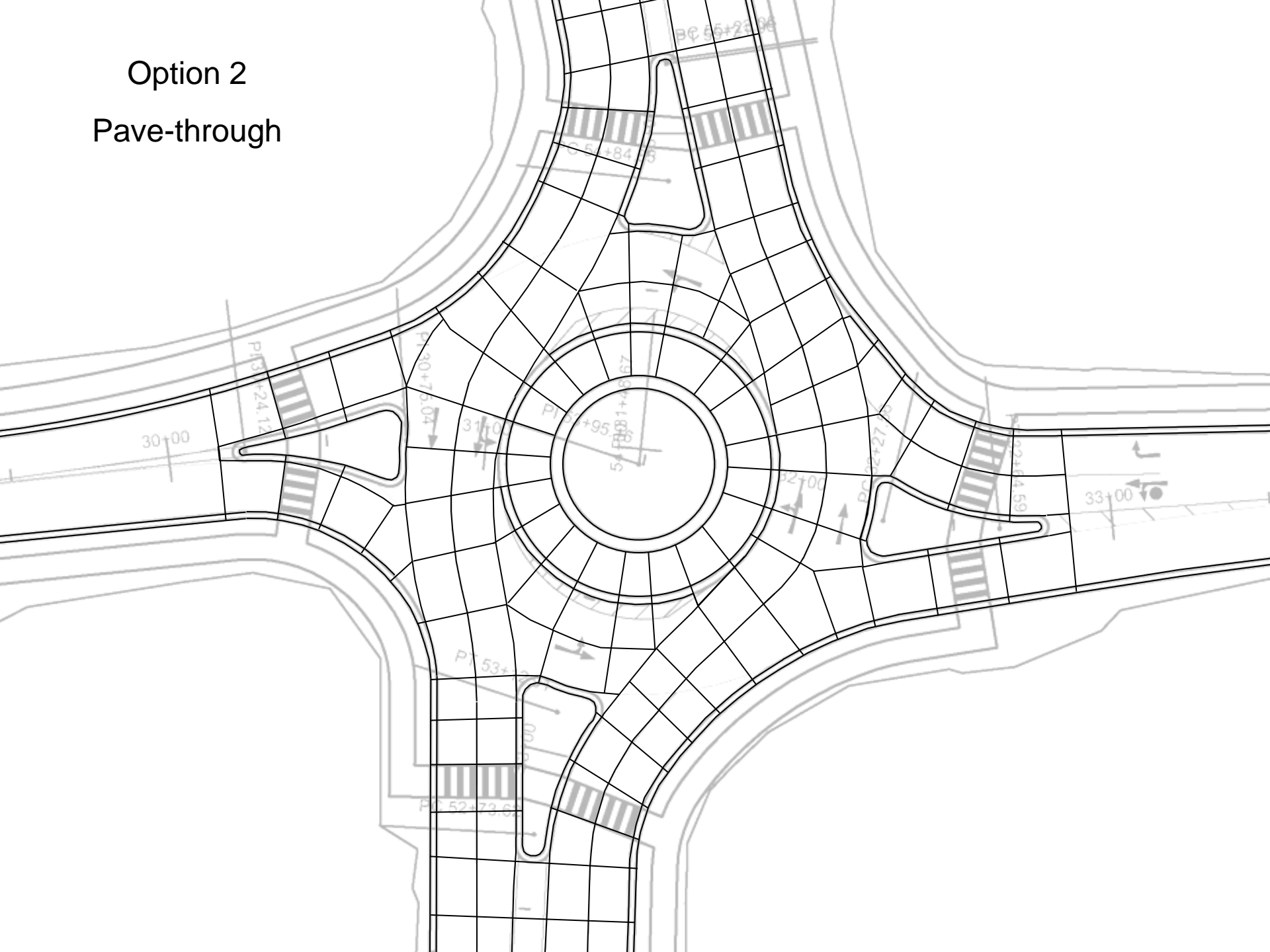
2-Lane  
3-Leg  
Pave-through  
directional



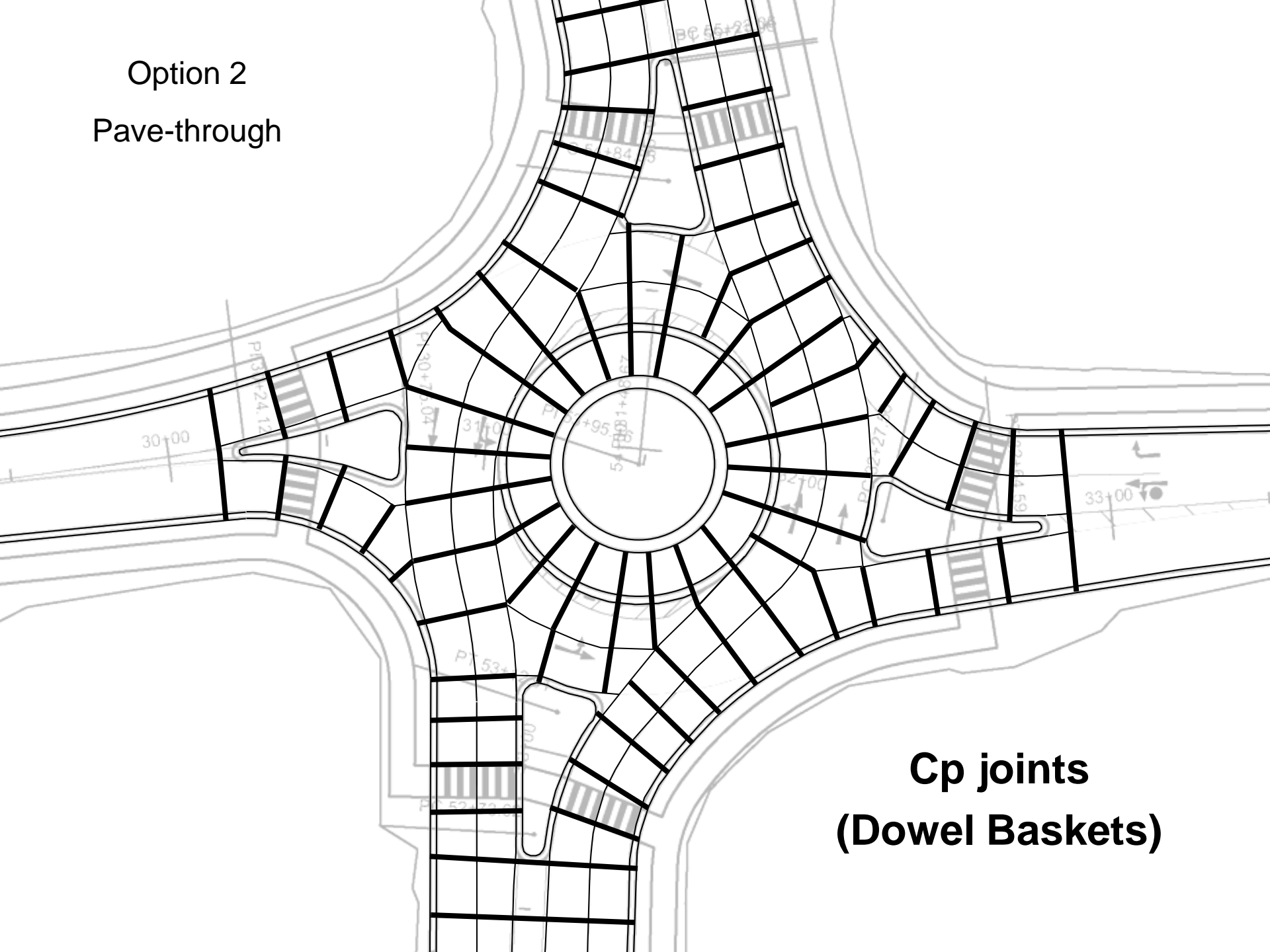
Option 1  
Pinwheel-esque



Option 2  
Pave-through



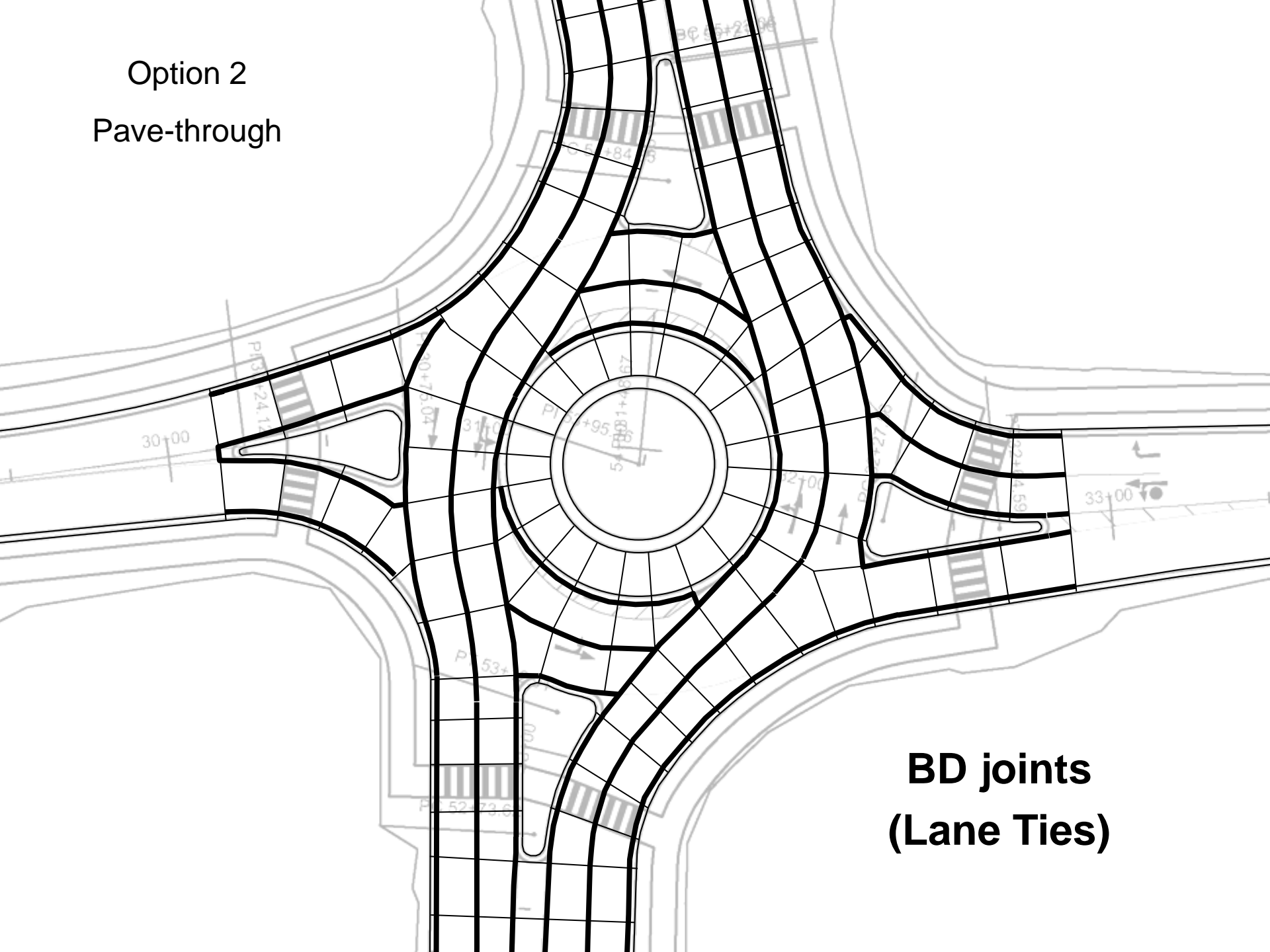
Option 2  
Pave-through



**Cp joints  
(Dowel Baskets)**

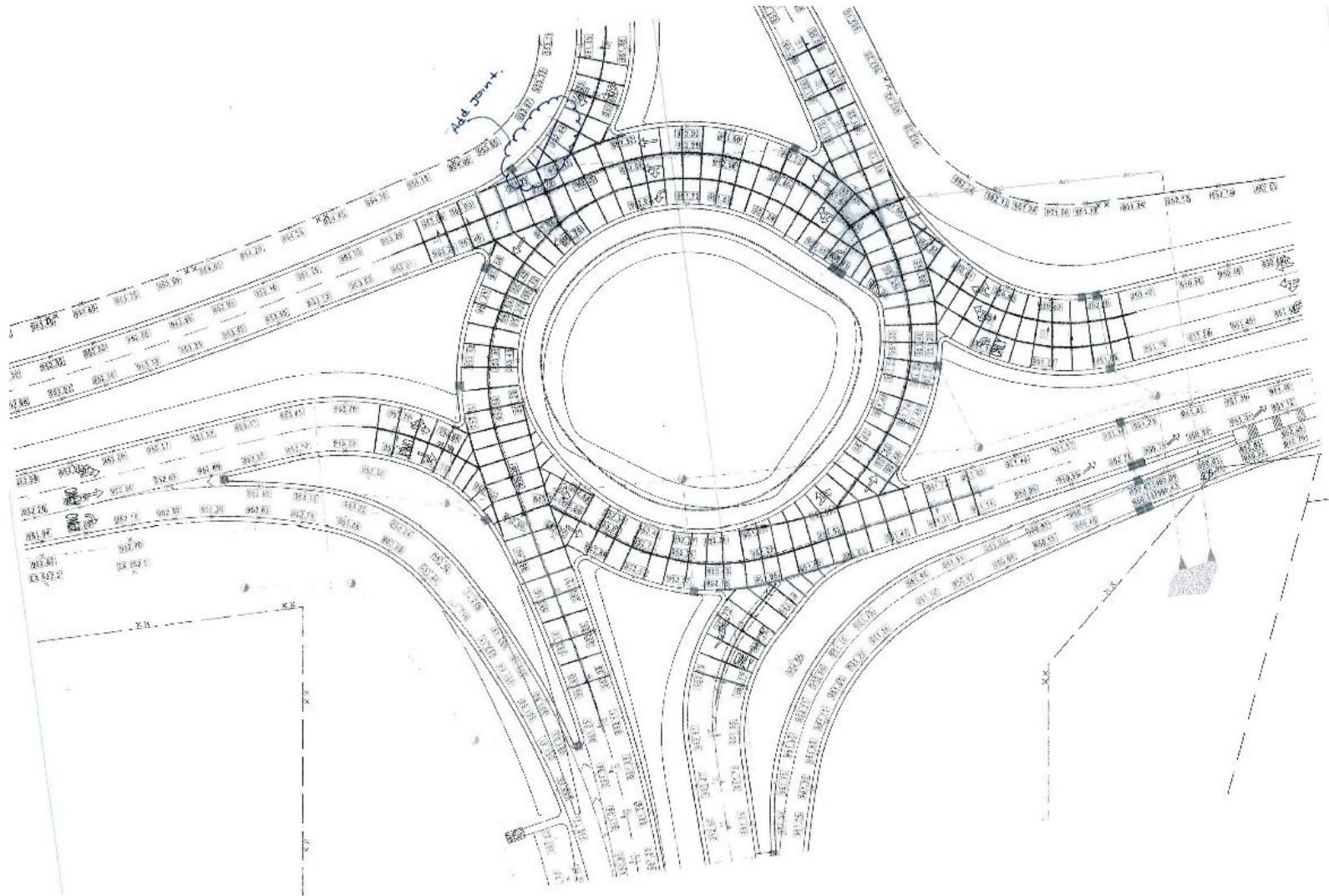


Option 2  
Pave-through



**BD joints**  
**(Lane Ties)**

# M-5 & Pontiac Trail 60,000 ADT



M-5 & Pontiac Trail Traffic Counts (11/06/2012)

	<b>Total Volume</b>	<b>AM Peak</b>	<b>PM Peak</b>	
		7:00-8:00 am	5:00-6:00 pm	
<b>NB approach</b>	15036	471	2262	
<b>NB to EB slip lane</b>	10556	634	1137	
<b>SB approach</b>	9211	1077	589	
<b>EB approach</b>	5973	425	447	
<b>EB to SB slip lane</b>	3863	587	214	
<b>WB approach</b>	15672	1525	1238	
<b>Total</b>	<b>60311</b>	<b>4719</b>	<b>5887</b>	

## M-5 Pontiac Trail Exist. Traffic Counts







10/30/2011 09:11



