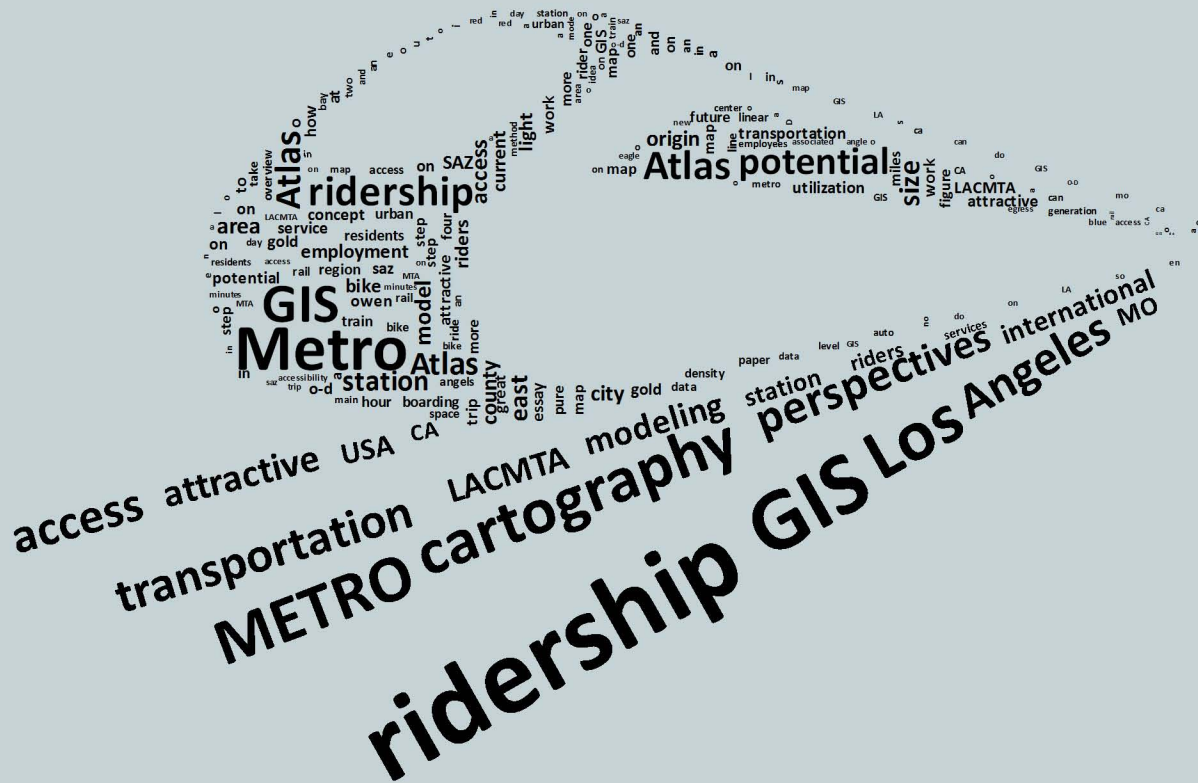


# METRO RAIL RIDERSHIP



# LOS ANGELES COUNTY

Bin (Owen) Mo

## PREFACE

Los Angeles County is internationally known as an automobile-oriented region. Like many metropolitan areas, the county is coping with increasing street and highway traffic. Transit, and particularly rail, is often regarded as a strategy to help reduce urban traffic congestion, especially in these times of economic downturn, rising gas prices, pollution, and growing awareness of global climate change.

It was estimated that 100,000 riders access the Metro Rail system by walking, based on the 2006 Los Angeles County Metropolitan Transportation Authority (LACMTA) On-Board Survey. The objectives of this project are to identify the potential ridership and current utilization by those who walk to the Metro Rail system in Los Angeles County using the process of “Trip Generation,” a travel demand forecasting model, and to present the results of the Trip Generation analysis in the *Atlas of Potential Metro Rail Ridership* to support visual planning about public transit.

The potential ridership produced and attracted to each station was estimated using Origin-Destination (O-D) flow patterns from residential and employment regions. Estimation of the number of potential riders accessing the Metro Rail system by walking involves a spatial analysis of the location of current Metro Rail stations serving populations in a reasonable access time. Service Area Zones (SAZ) then were delineated and mapped to indicate the areas that the potential riders could be served by existing stations within a ten minute walking interval. This potential ridership by walking to a Metro Rail Station was measured to be approximately one million, a figure ten times larger than the present level of Metro Rail utilization. The analysis results across stations were compiled into the *Atlas of Potential Metro Rail Ridership* to support both general audiences, as well as transit planning for ridership promotion, system forecasting, and service improvement in Los Angeles County.

For further information about this project, please check the featured article "Mapping Potential Metro Rail Ridership in Los Angeles County" published by *Cartographic Perspectives*. Number 72. 2012.

# ATLAS OF POTENTIAL METRO RAIL RIDERSHIP IN LOS ANGELES COUNTY

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## Table

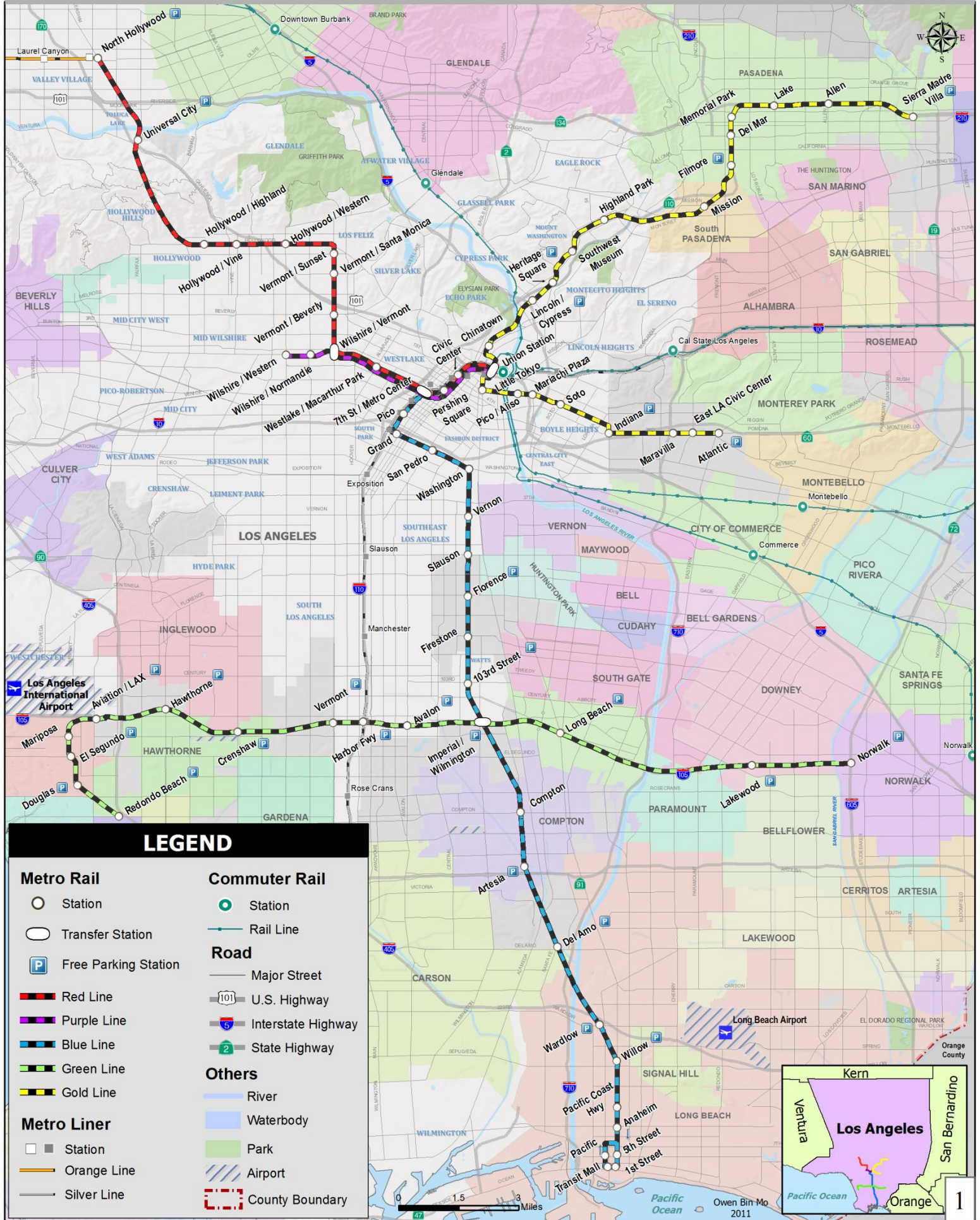
### Total integrated potential ridership of Metro Rail system in Los Angeles County

(Transfer stations are excluded in Red / Purple lines, Blue Line, Green Line and Gold Line)

Metro Rail Station	Walking Boarding	10-Minute SAZ Integration						
		Residents	Employees	Trip Attractors	Potential (Total)	Under- utilization	Under- Utilization ratio	Cover Area (Sq. Mi)
Transfer Stations	13,828	23,065	68,867	64,894	156,826	142,998	91%	1.24
Red / Purple Lines	43,613	124,218	131,936	169,280	425,434	381,821	90%	4.68
Blue Line	23,800	83,158	59,382	65,633	208,173	184,373	89%	5.94
Green Line	10,814	26,173	15,227	13,527	54,927	44,113	80%	2.88
Gold Line	11,400	73,733	63,795	86,998	224,526	213,126	95%	6.17
<b>Total</b>	<b>103,455</b>	<b>330,347</b>	<b>339,207</b>	<b>400,332</b>	<b>1,069,886</b>	<b>966,431</b>	<b>90%</b>	<b>20.91</b>

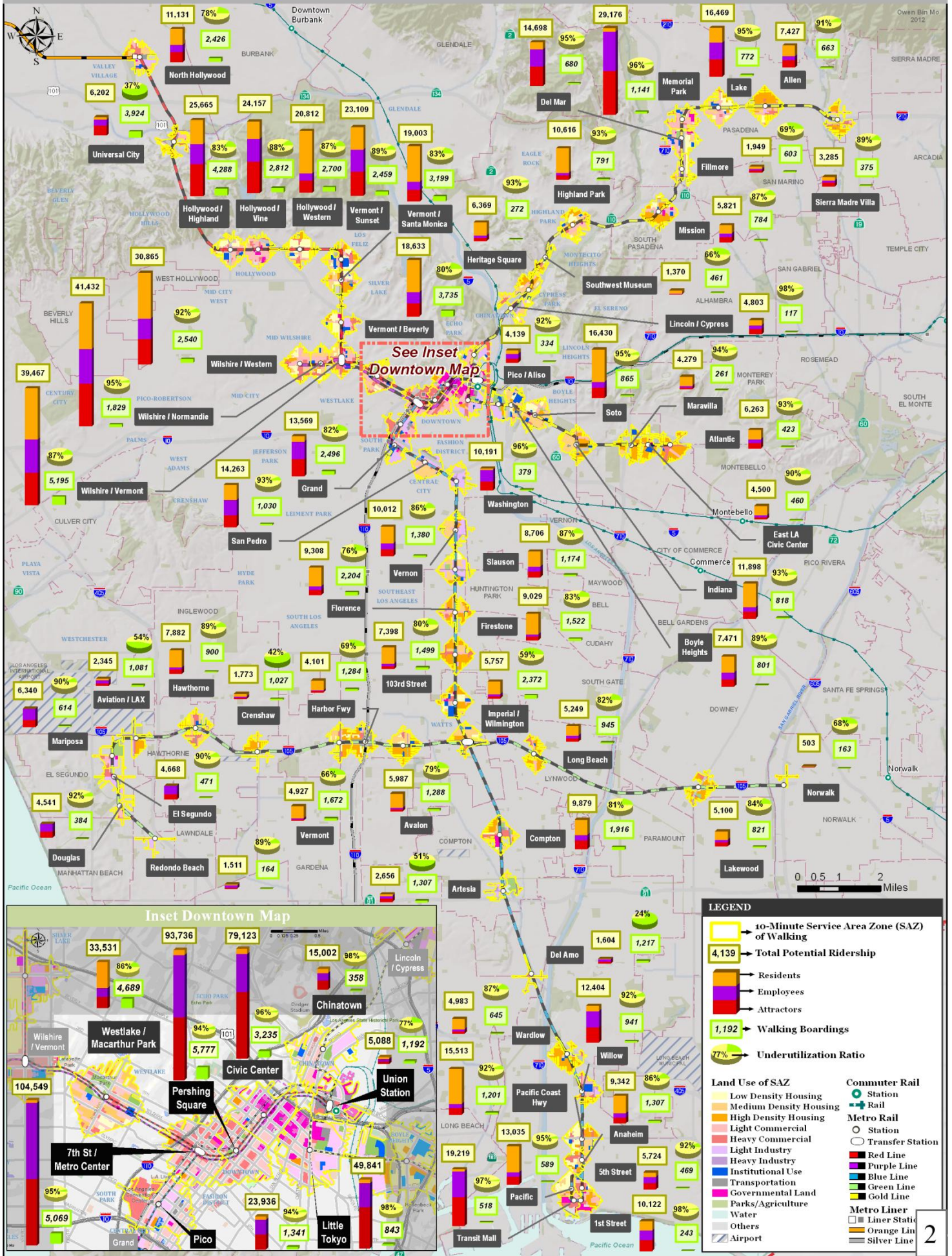


# 2011 Los Angeles County Metro Rail System





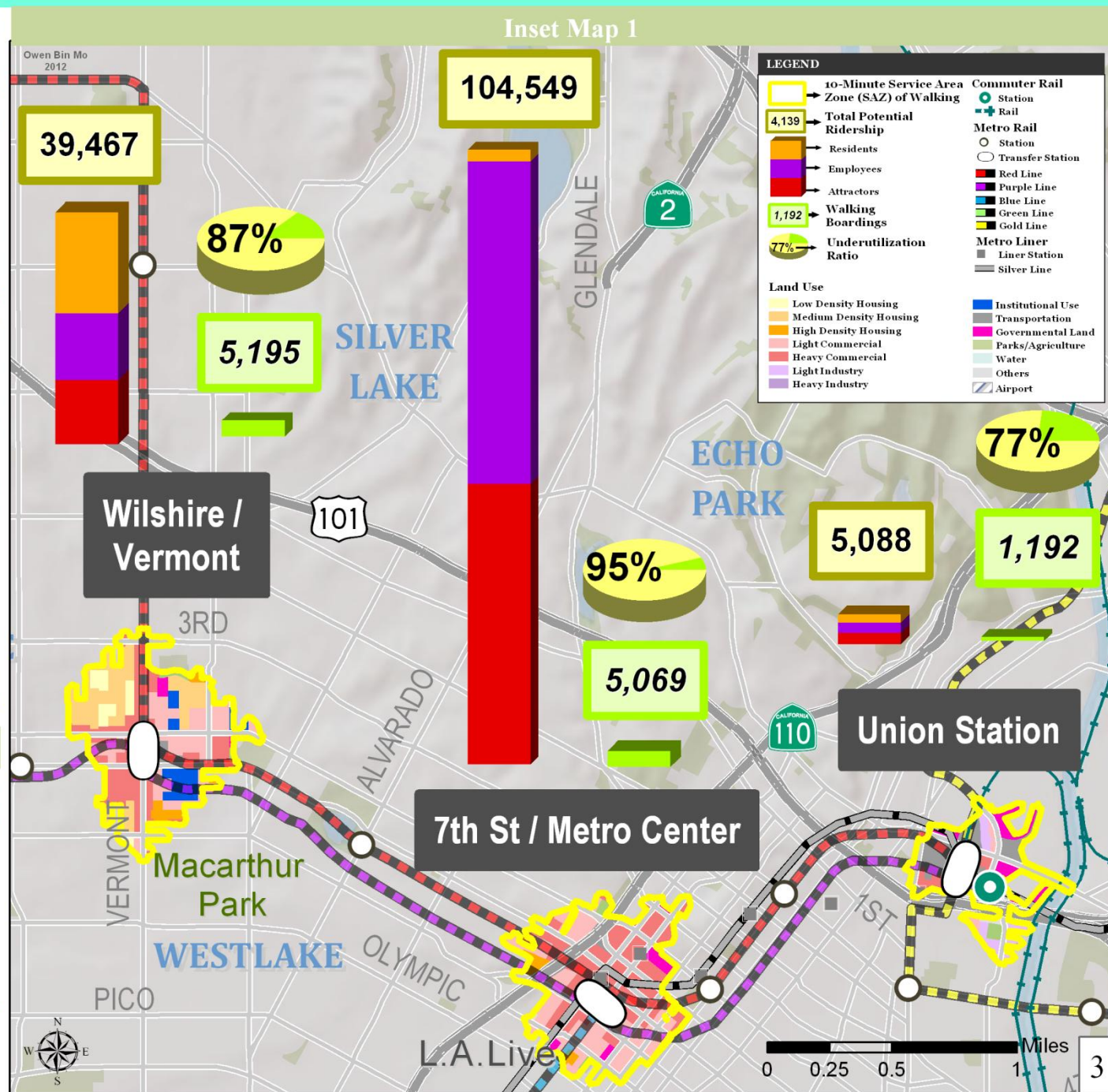
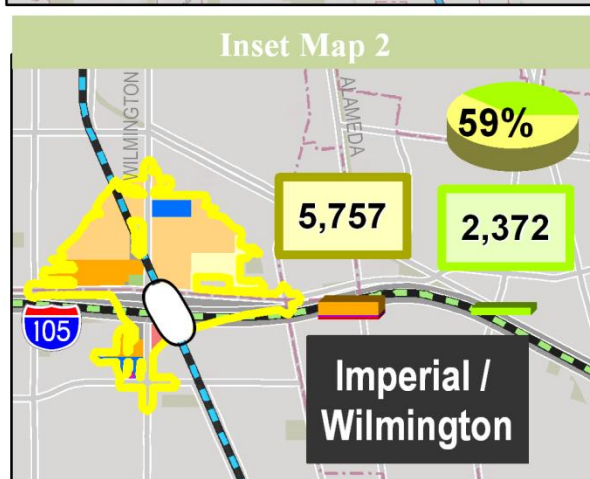
# Potential Metro Rail Ridership in Los Angeles County





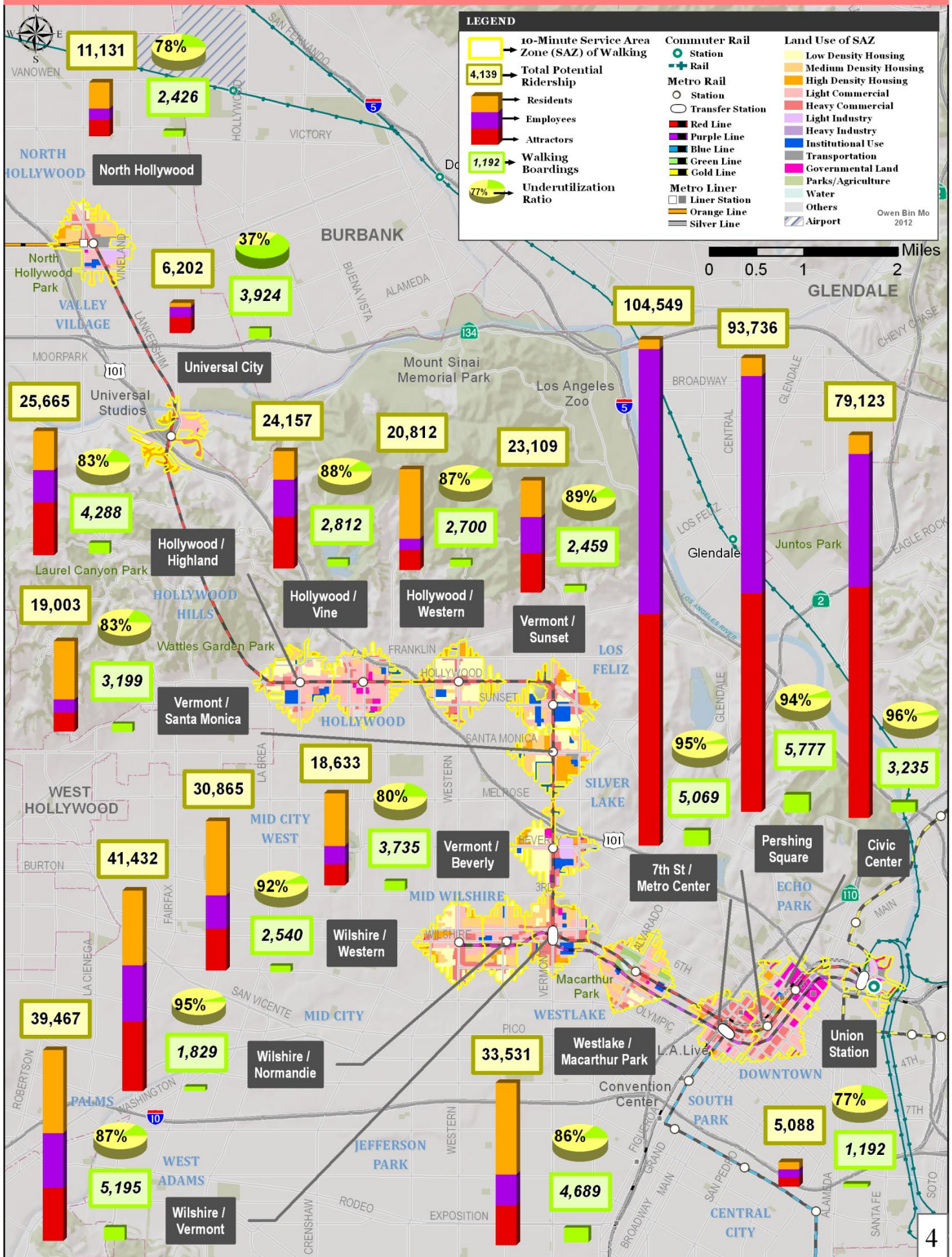
# Potential Metro Rail Ridership in Los Angeles County

## Transfer Stations





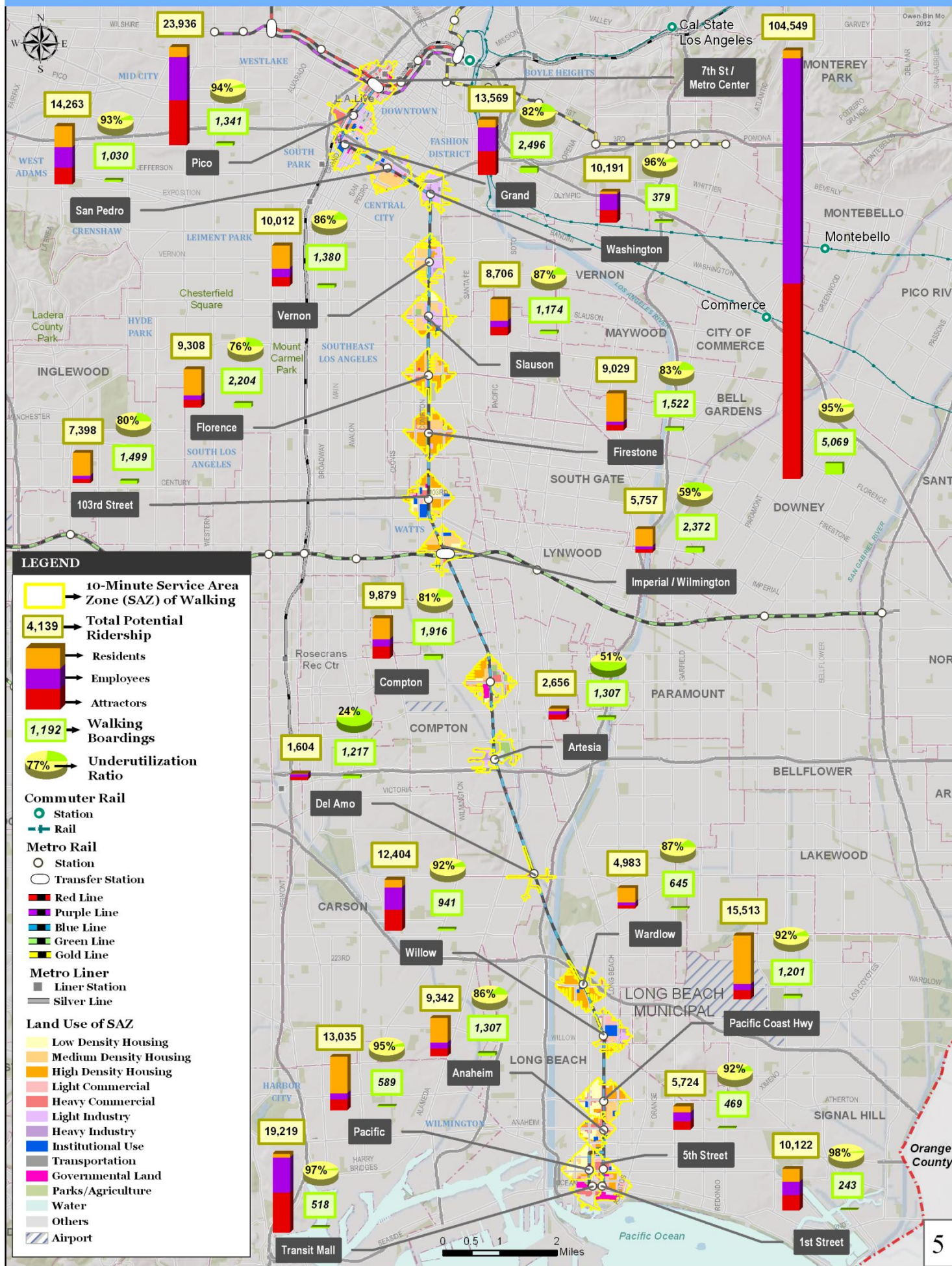
# Potential Metro Rail Ridership in Los Angeles County *Red / Purple Lines*





# Potential Metro Rail Ridership in Los Angeles County

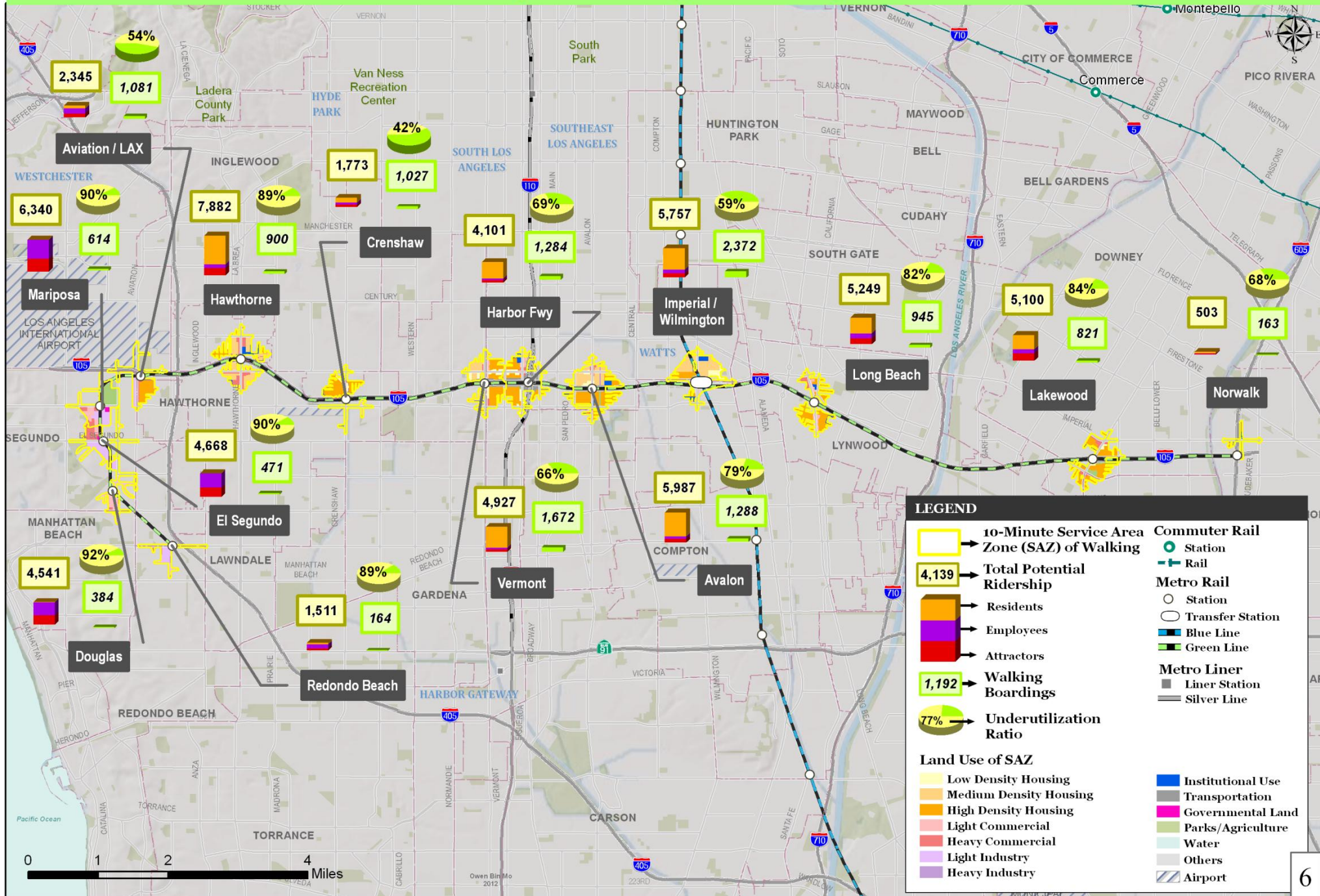
## Blue Line





# Potential Metro Rail Ridership in Los Angeles County

## Green Line





# Potential Metro Rail Ridership in Los Angeles County

## Gold Line

### LEGEND

10-Minute Service Area Zone (SAZ) of Walking

4,139 Total Potential Ridership

Residents

Employees

Attractors

1,192 Walking Boardings

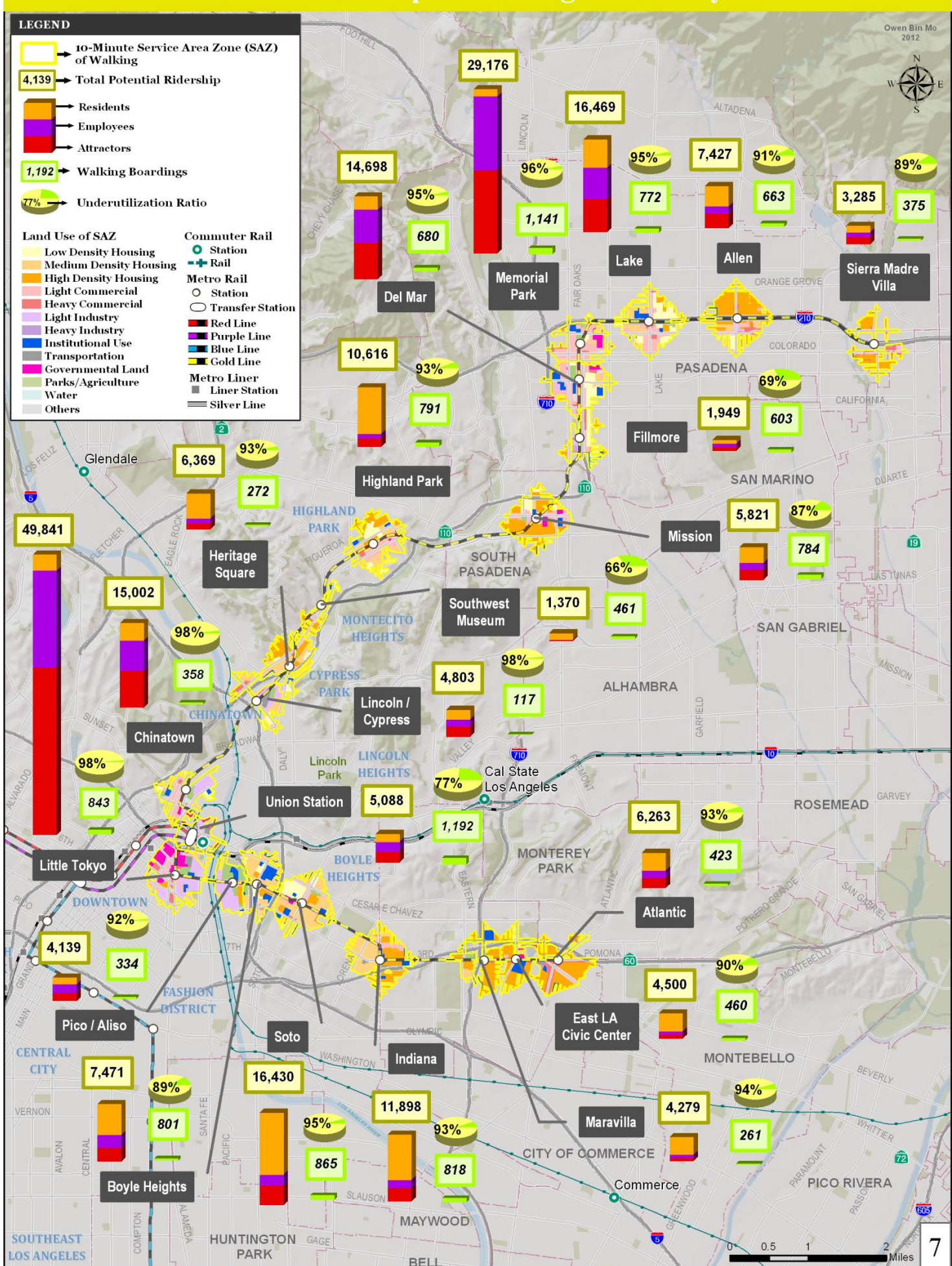
77% Underutilization Ratio

### Land Use of SAZ

Low Density Housing  
Medium Density Housing  
High Density Housing  
Light Commercial  
Heavy Commercial  
Light Industry  
Heavy Industry  
Institutional Use  
Transportation  
Governmental Land  
Parks/Agriculture  
Water  
Others

### Commuter Rail

Station  
Rail  
Metro Rail  
Station  
Transfer Station  
Red Line  
Purple Line  
Blue Line  
Gold Line  
Metro Liner  
Liner Station  
Silver Line



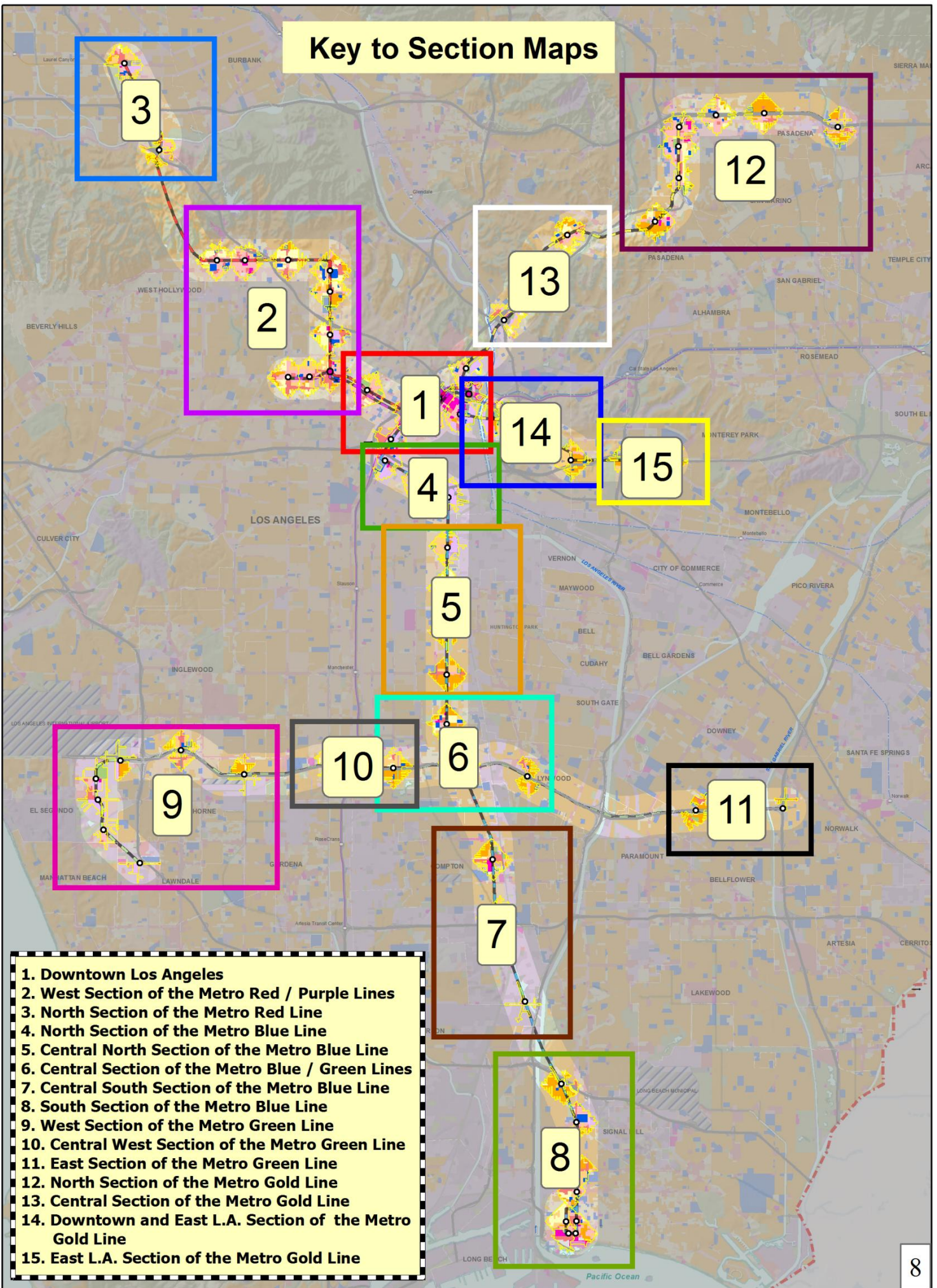
Owen Bin Mo 2012



0 0.5 1 2 Miles



## Key to Section Maps



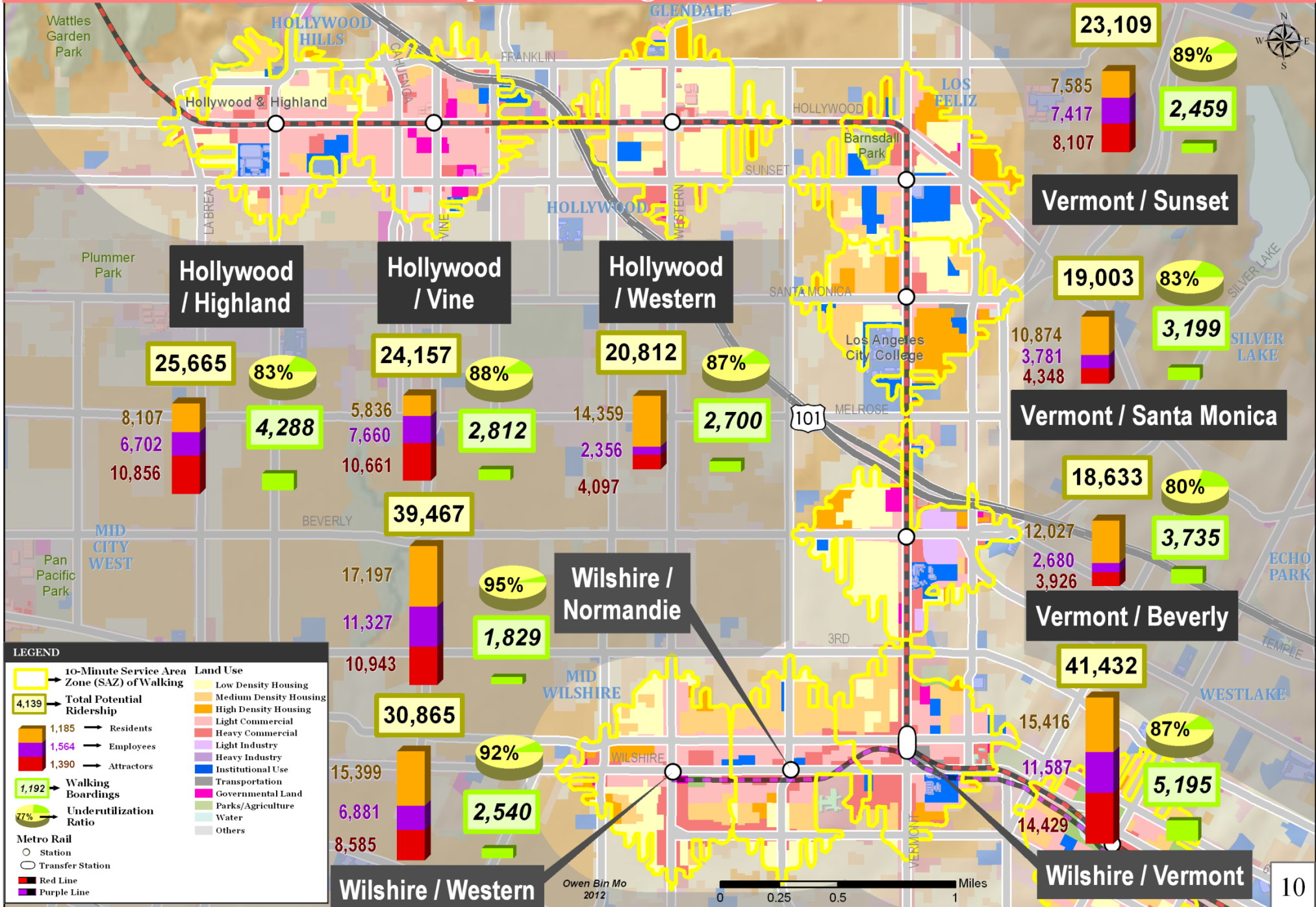


## *Downtown Los Angeles*



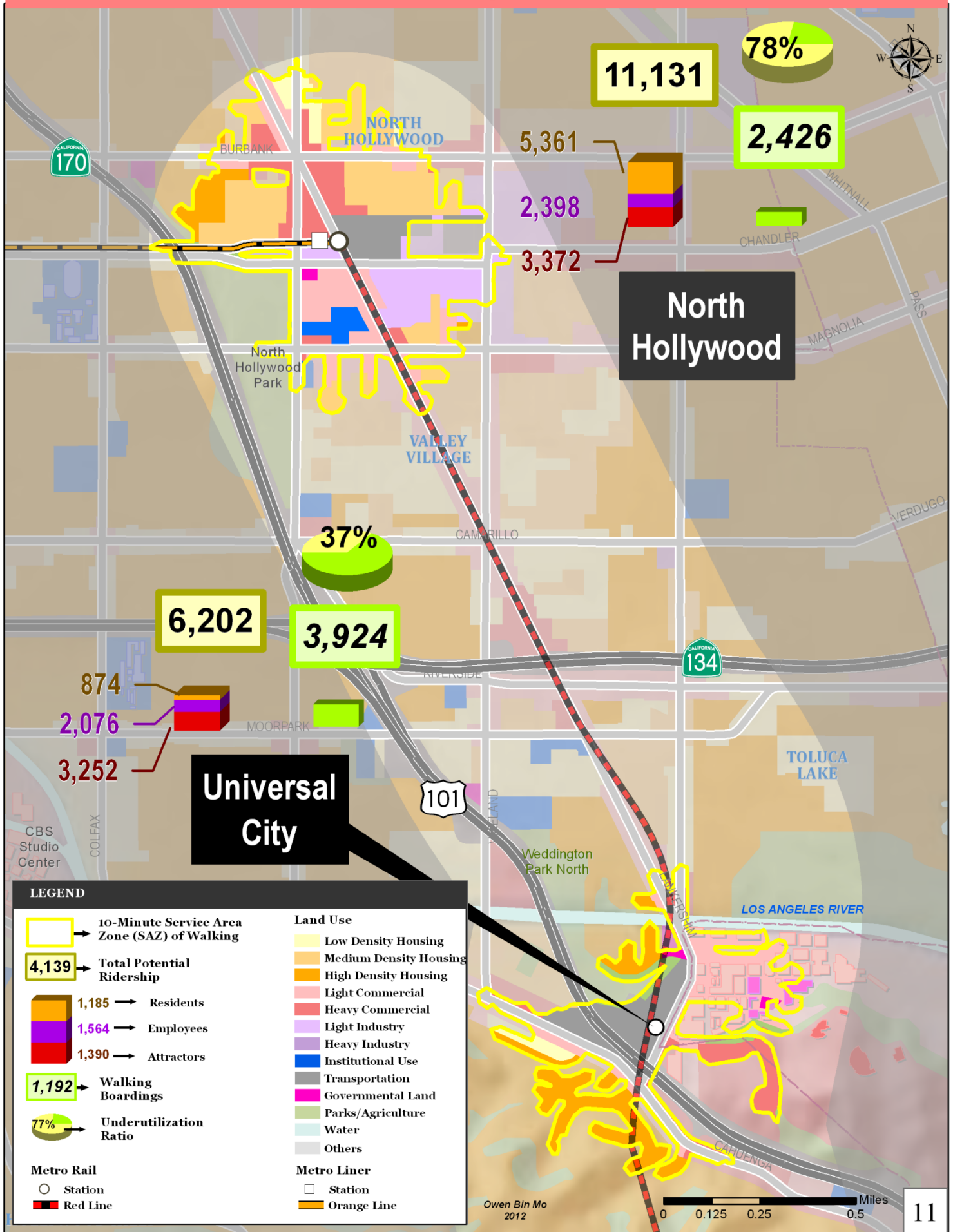


# Potential Metro Rail Ridership in Los Angeles County *West Section of the Red / Purple Lines*



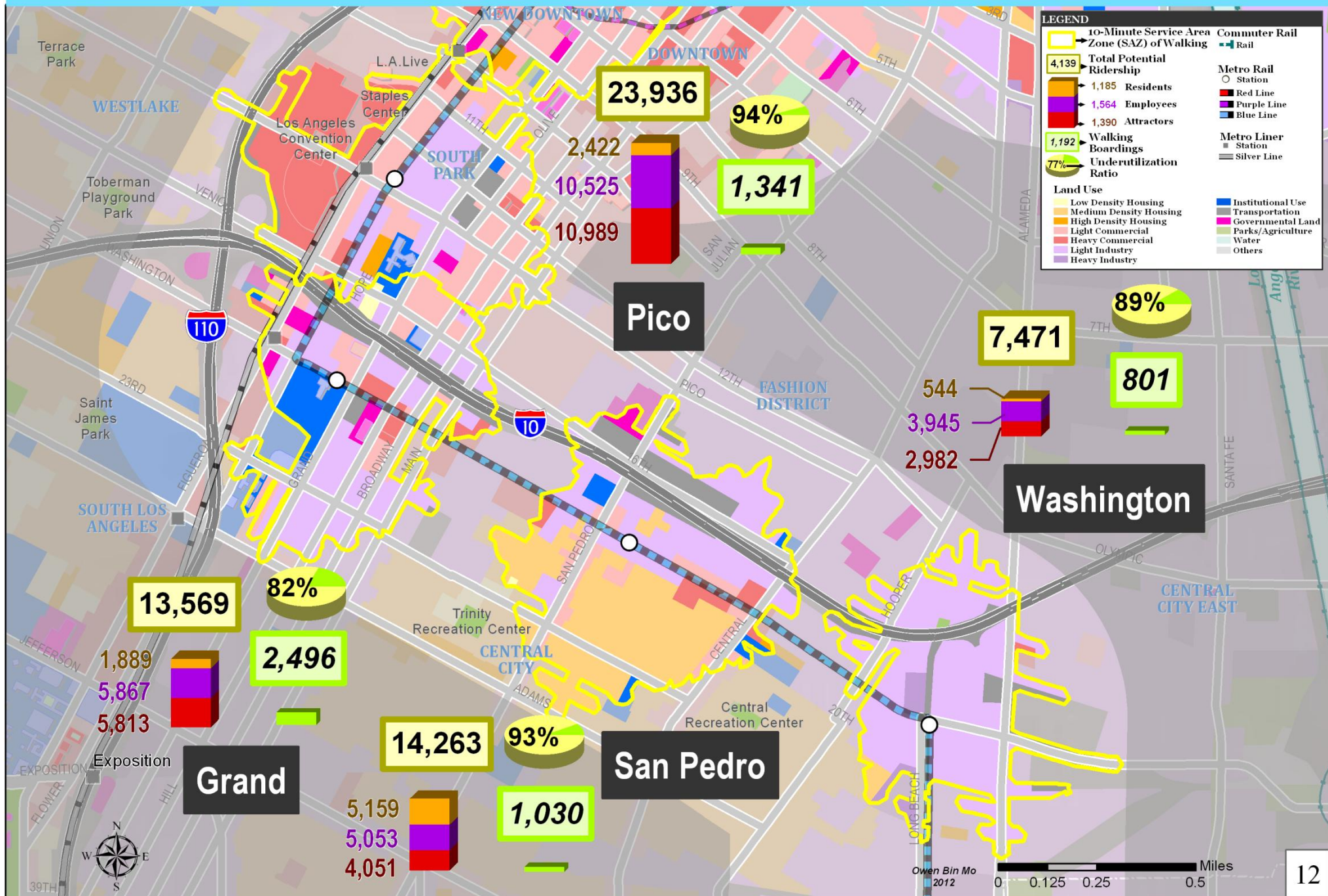
# Potential Metro Rail Ridership in Los Angeles County

## North Section of the Red Line



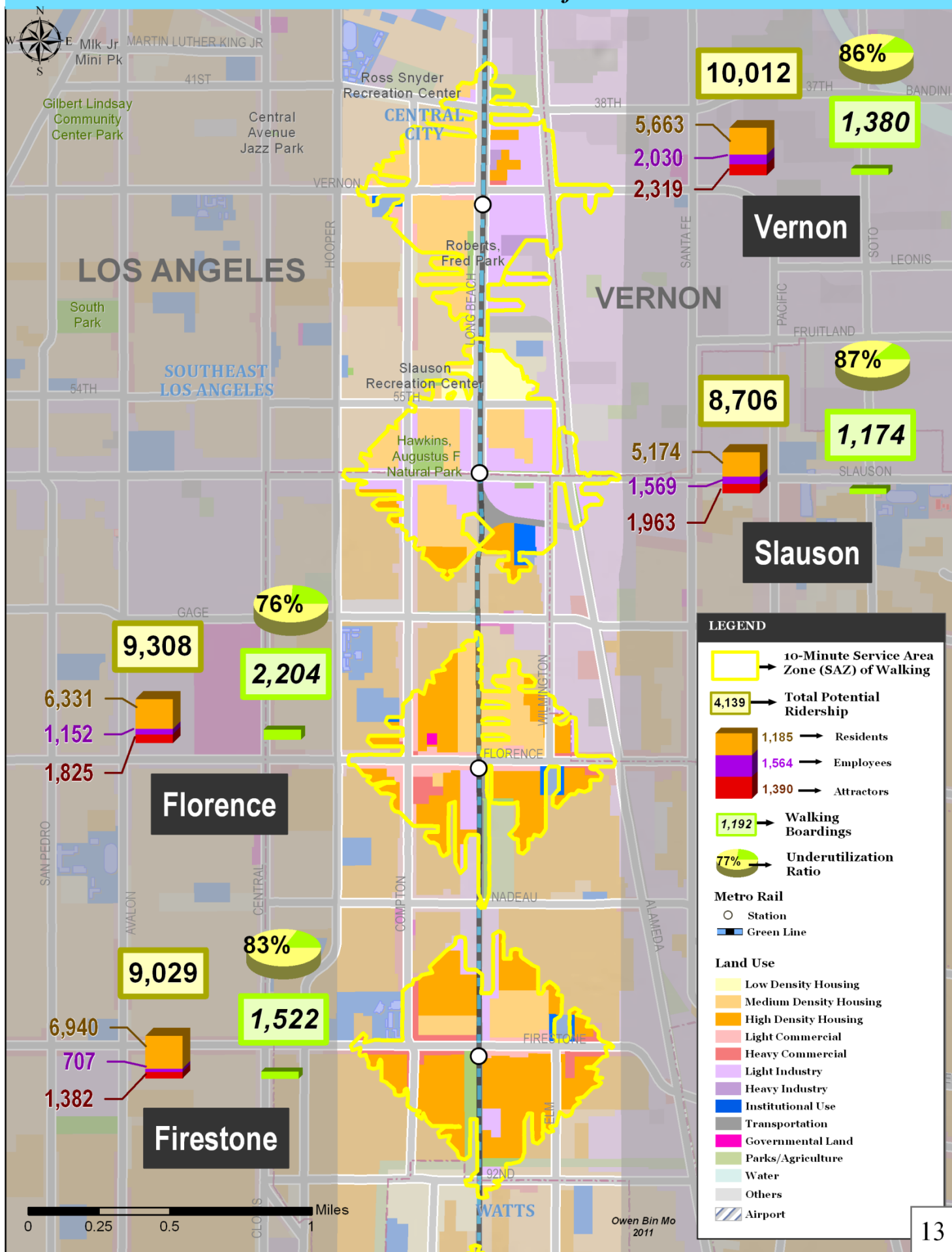


# Potential Metro Rail Ridership in Los Angeles County *North Section of the Blue Line*



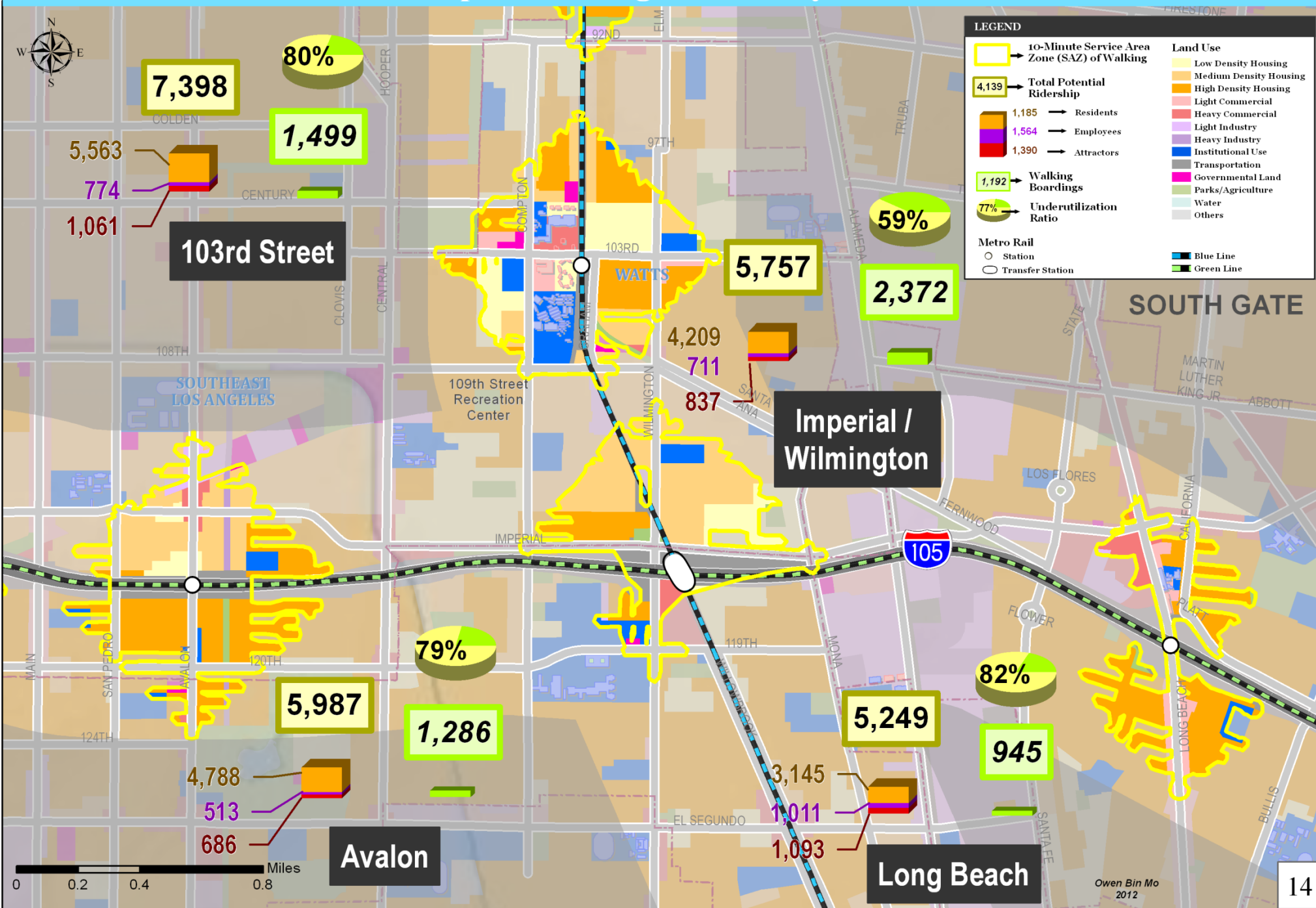
# Potential Metro Rail Ridership in Los Angeles County

## Central North Section of the Blue Line



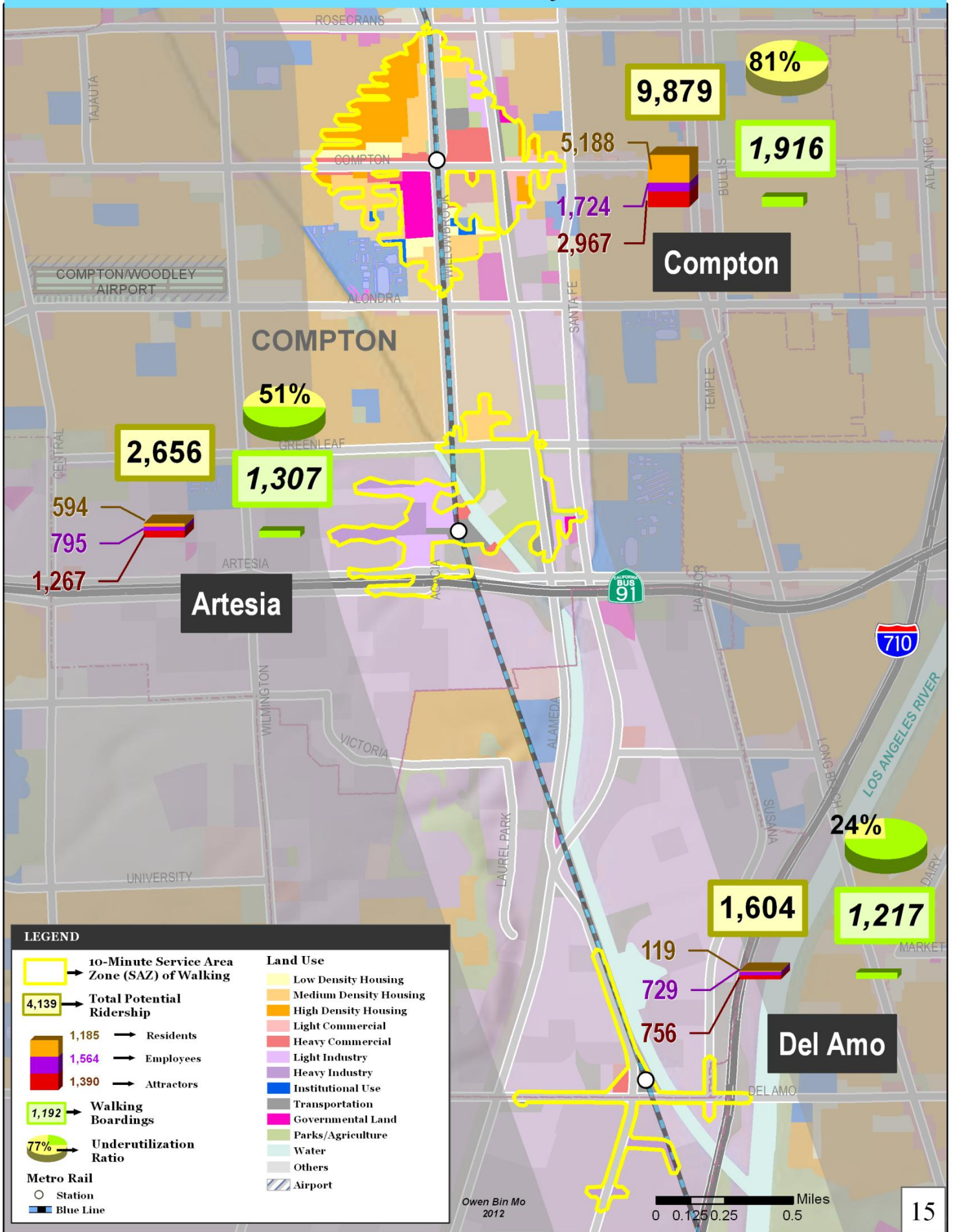


## Potential Metro Rail Ridership in Los Angeles County *Central Section of the Blue / Green Lines*



# Potential Metro Rail Ridership in Los Angeles County

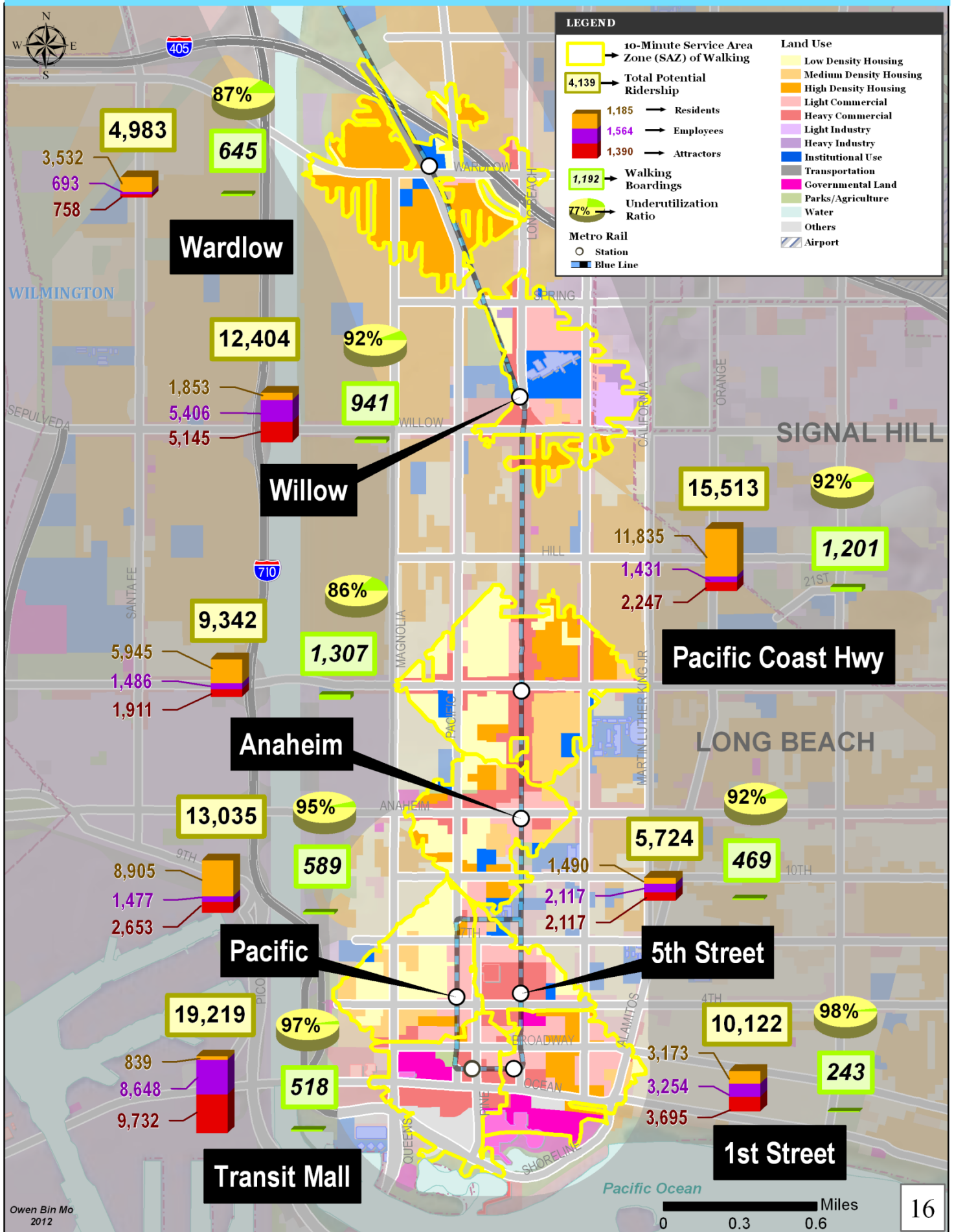
## Central South Section of the Blue Line





# Potential Metro Rail Ridership in Los Angeles County

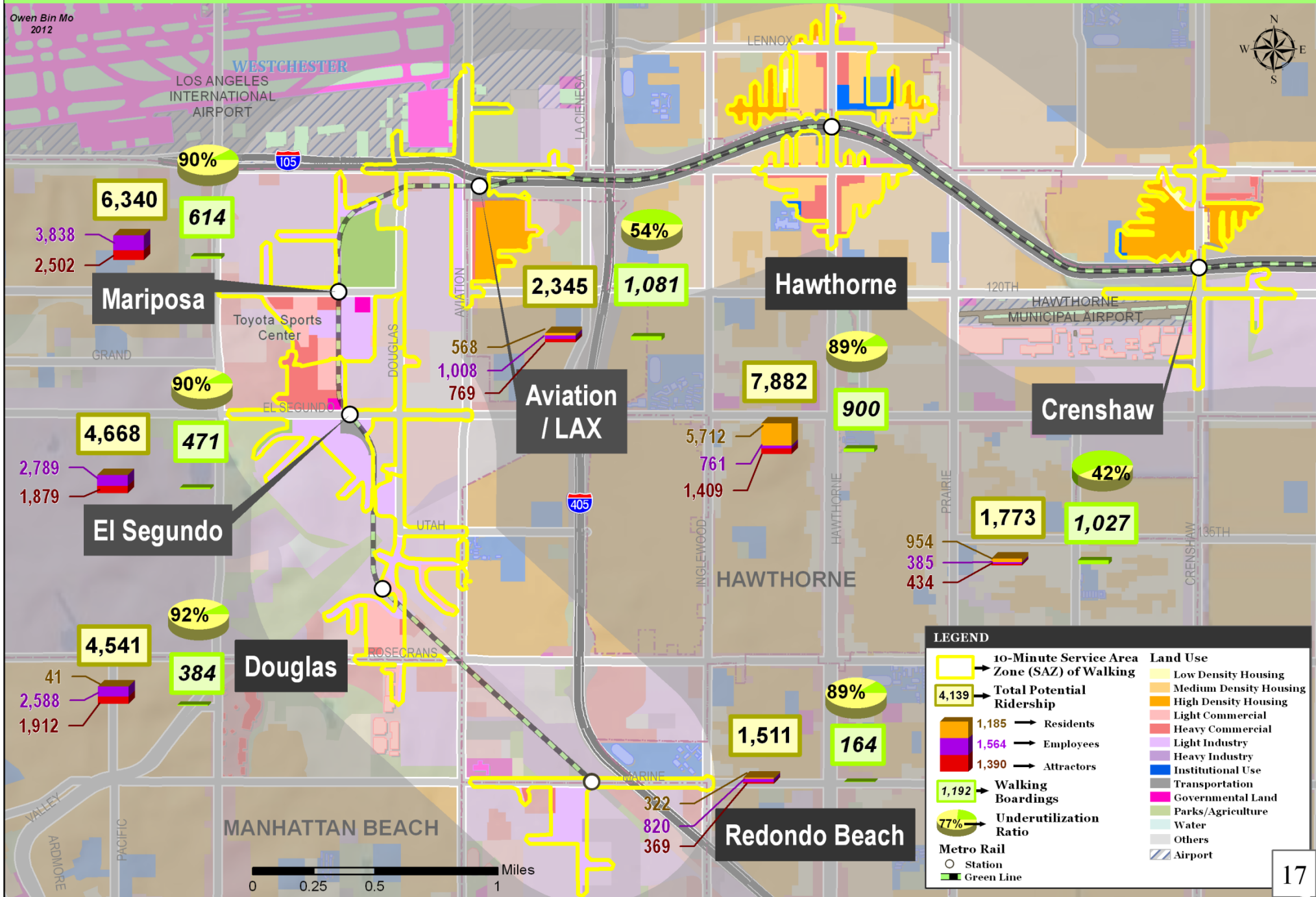
## South Section of the Blue Line



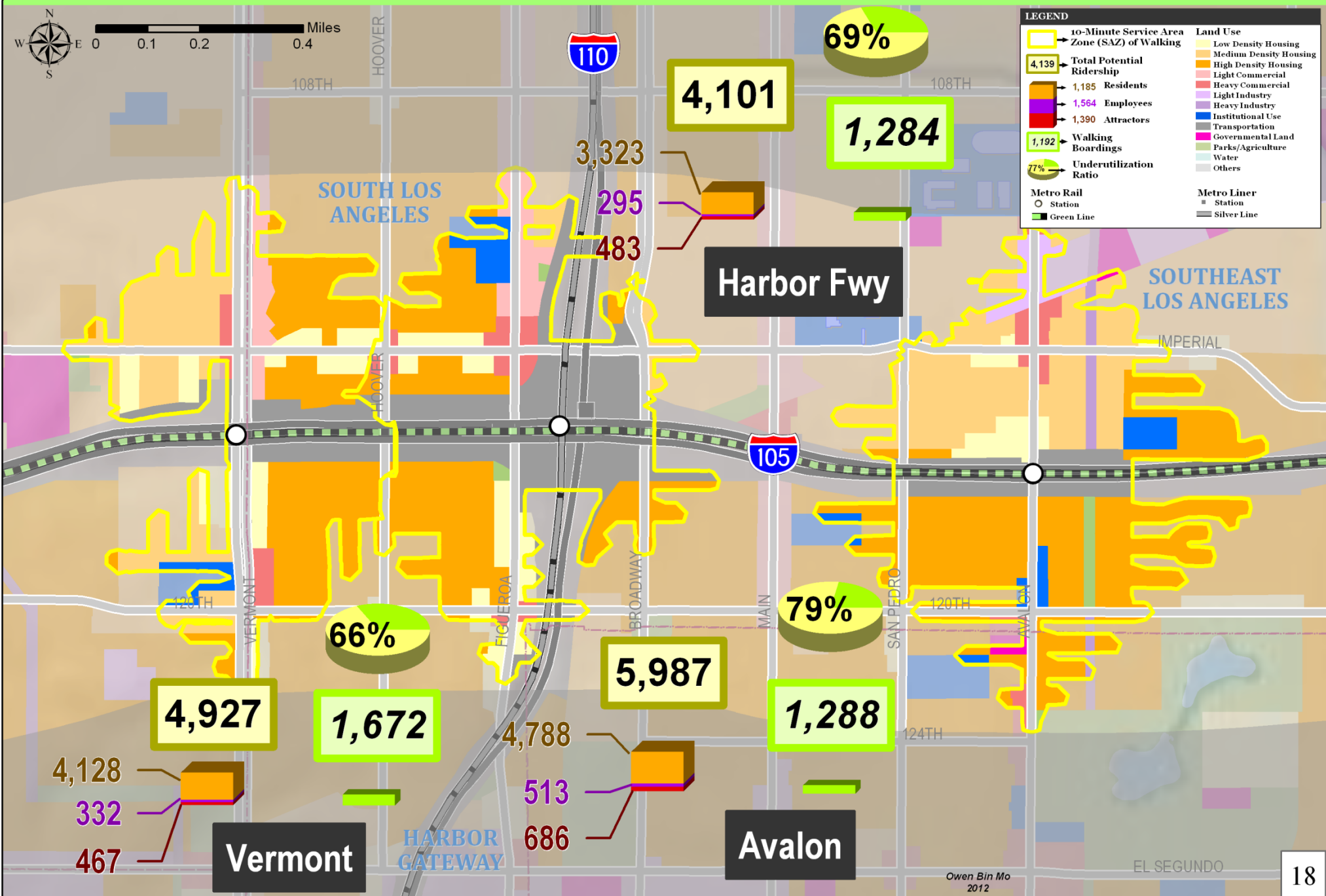


# Potential Metro Rail Ridership in Los Angeles County *West Section of the Green Line*

Owen Bin Mo  
2012

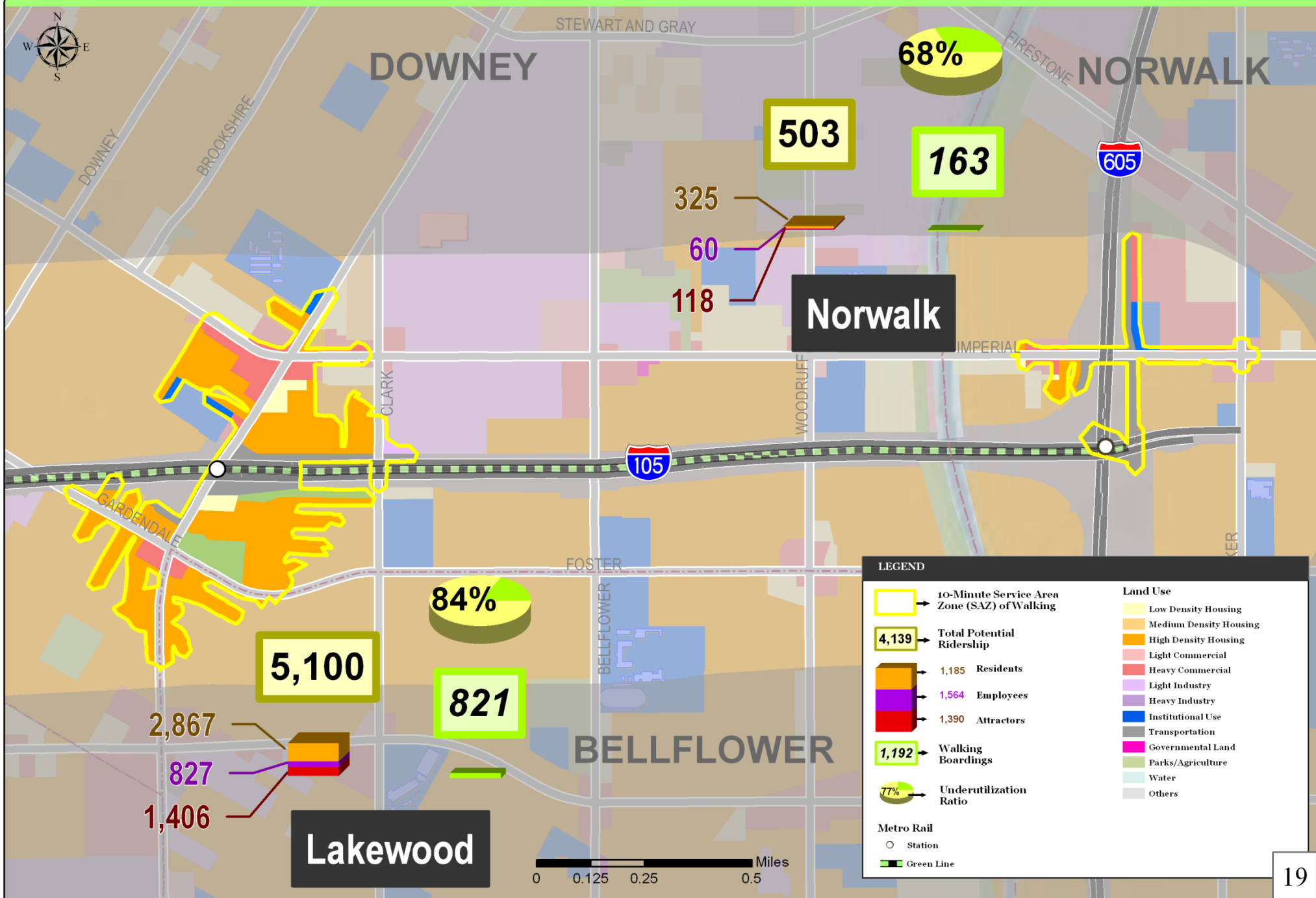


# Potential Metro Rail Ridership in Los Angeles County *Central West Section of the Green Line*



# Potential Metro Rail Ridership in Los Angeles County

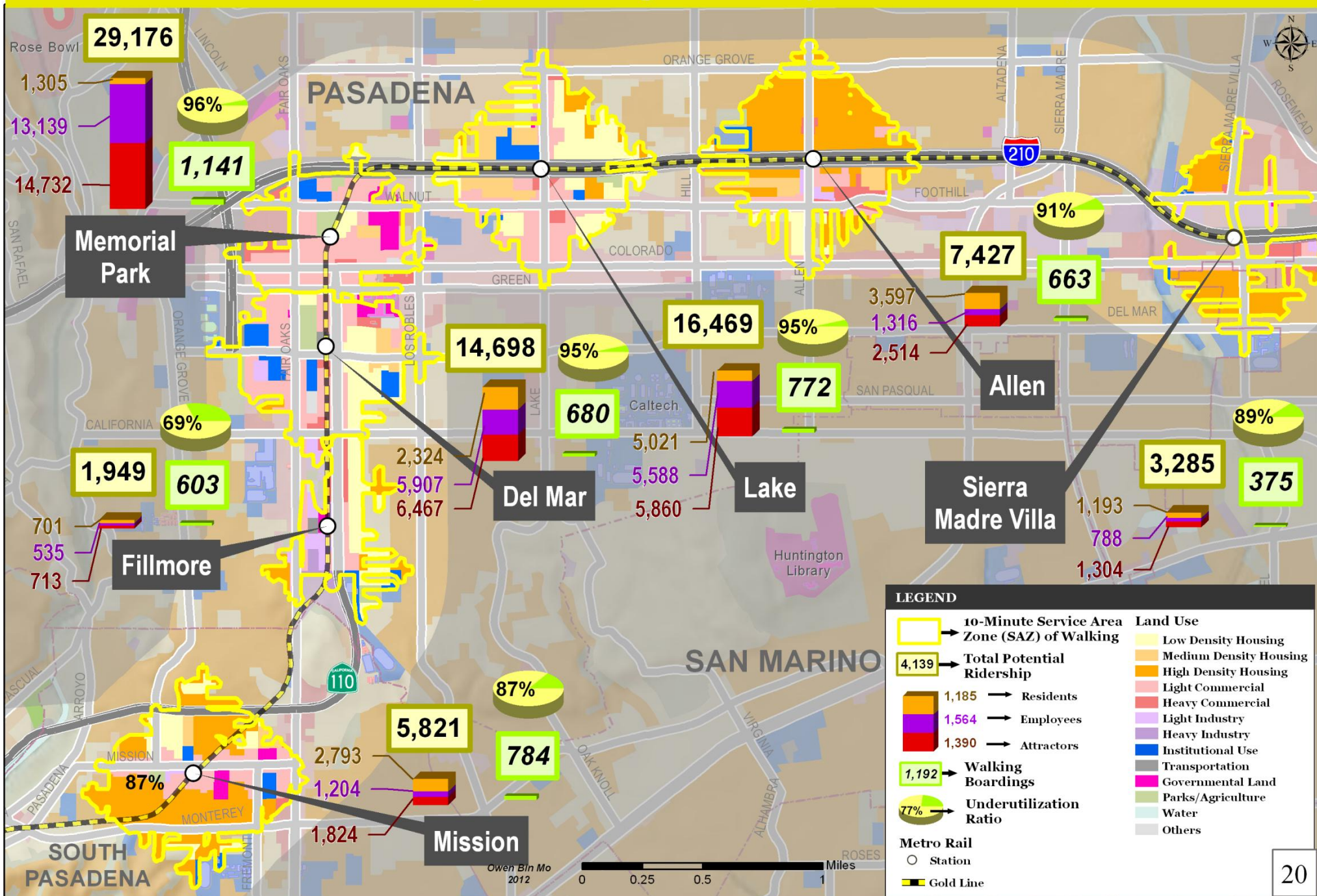
## East Section of the Green Line





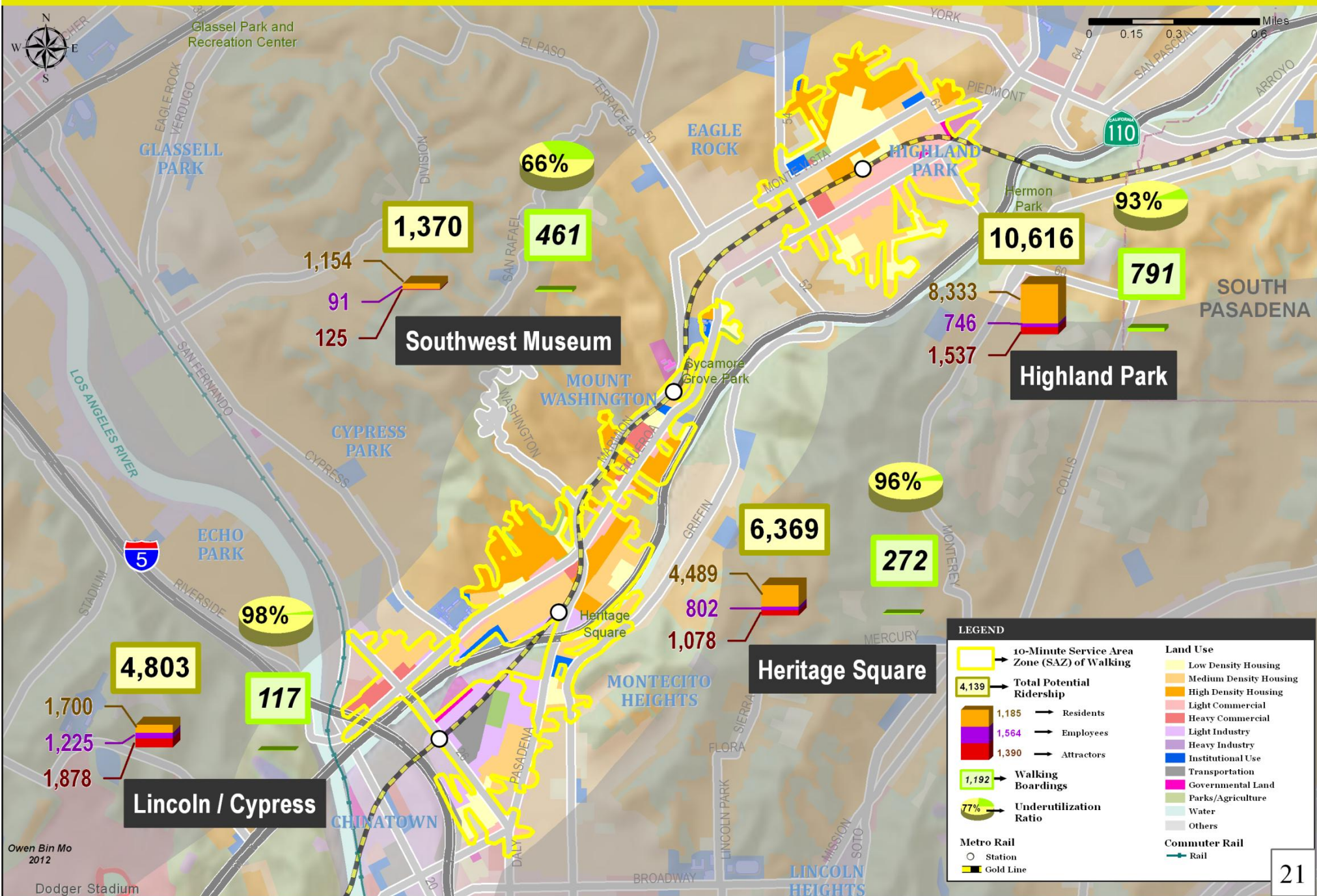
# Potential Metro Rail Ridership in Los Angeles County

## North Section of the Gold Line





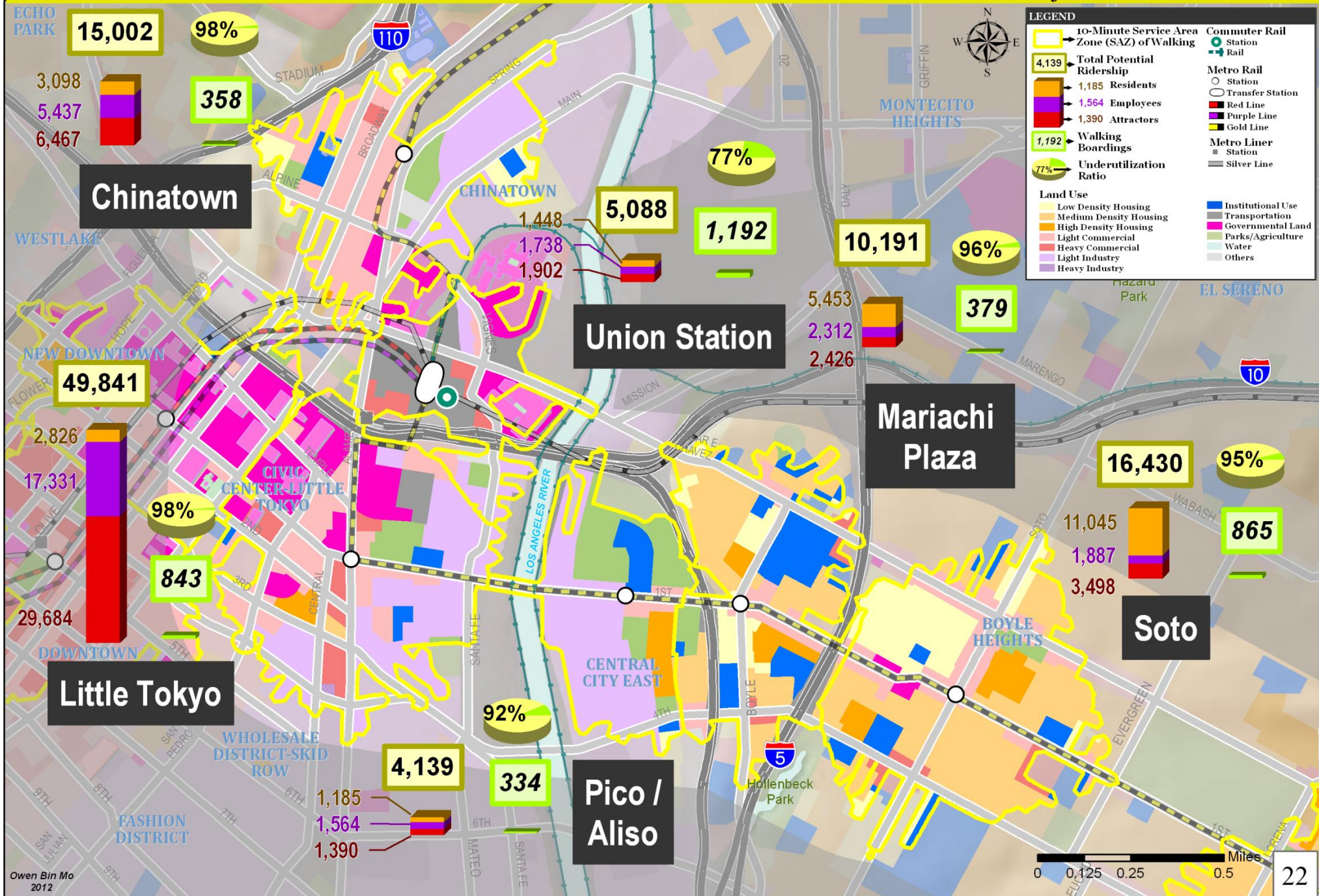
## Central Section of the Gold Line





# Potential Metro Rail Ridership in Los Angeles County

## Downtown and East Los Angeles Section of the Gold Line





# Potential Metro Rail Ridership in Los Angeles County

## East Los Angeles Section of the Gold Line

