

# ISLE OF PALMS MANAGED PARKING PROGRAM

STATUS  
MEETING



AUGUST 21, 2014

# Agenda

- 1** Review of Work Scope
- 2** On-Street Parking Review
- 3** On-Street Parking Verification
- 4** Traffic/Parking Data Collection & Study
- 5** Managed Parking Program Implementation
- 6** Next Steps



# 1 Review of Work Scope



# Review of Work Scope

TASK	CONTRACT DATES	STATUS
1) On-Street Parking Review	November 1, 2013 to December 31, 2013	Complete
2) On-Street Parking Verification	January 1, 2014 to February 28, 2014	Complete
3) Parking Permit Program Implementation Plan	January 1, 2014 to December 31, 2014	Ongoing



# 2 On-Street Parking Review



# On-Street Parking Review

## Tasks

- Determine roadways where on-street parking can be accommodated with a four-foot buffer
- Charleston County GIS files
- Sight Distance Review at Intersections

## Deliverable

- GIS Map Book

# On-Street Parking Review

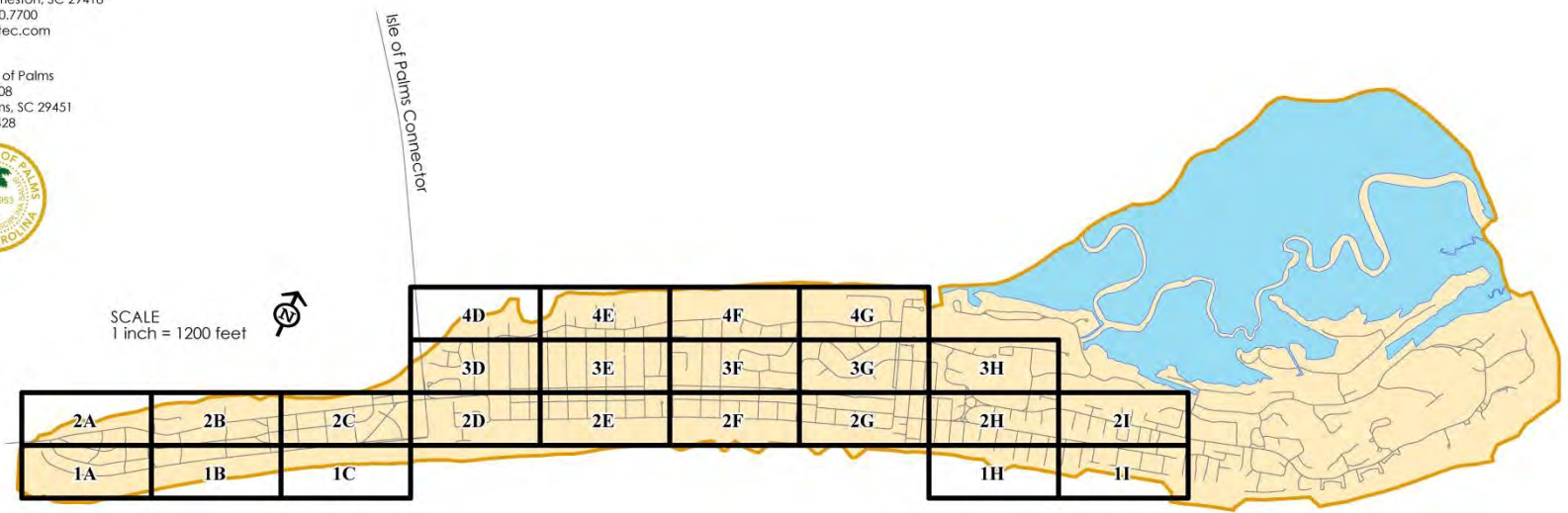
AREA	AVAILABLE CLEARANCE	BUFFER TO PAVEMENT	PARKING STALL	BUFFER TO PROPERTY LINE
<b>GREEN</b>	<b>16 feet +</b>	4 feet	8 feet	4 feet +
<b>BLUE</b>	<b>14-16 feet</b>	4 feet	8 feet	2-4 feet
<b>ORANGE</b>	<b>8-14 feet</b>	0-4 feet	8 feet	0-2 feet
<b>RED</b>	<b>&lt;8 feet</b>	Too narrow, on-Street parking cannot be accommodated		
<b>BLACK</b>	Clear Zones, Fire Hydrants, Sidewalks			





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P.O. Box 508  
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843-886-6428



# ON STREET PARKING REVIEW

## ISLE OF PALMS, SC

DATE:  
MARCH 31, 2014

PROJECT NO:  
171001448



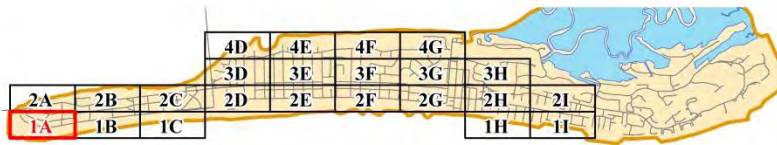




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LEGEND:

- Fire Hydrant
- Building
- Parcel Boundary
- Parcel Has Obstruction (Shown in White)
- Clear Zone (Intersections/Sidewalks/Fire Hydrants)
- Parking Clearance**
- Over 16 Feet
- 14 to 16 Feet
- 8 to 14 Feet
- Under 8 Feet

TITLE:  
On Street Parking Review  
2nd Avenue

PROJECT NO:  
171001448

PAGE:  
1 of 23

SCALE:  
1 inch = 100 feet

SHEET:

**1A**



DATE:  
MARCH 31, 2014







1A

2B

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- LEGEND:
- Fire Hydrant
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  - Clear Zone (Intersections/Sidewalks/Fire Hydrants)
  - Parking Clearance**
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TITLE:  
On Street Parking Review  
2nd Avenue

PROJECT NO:  
171001448

PAGE:  
2 of 23

SCALE:  
1 inch = 100 feet



SHEET:

**2A**

DATE:  
MARCH 31, 2014





# On-Street Parking Review

AREA	AVAILABLE CLEARANCE	TOTAL LENGTH	TOTAL PARKING SPACES
<b>GREEN</b>	<b>16 feet +</b>	29.7 miles	3,480
<b>BLUE</b>	<b>14-16 feet</b>	3.1 miles	360
<b>ORANGE</b>	<b>8-14 feet</b>	6.0 miles	700
<b>RED</b>	<b>&lt;8 feet</b>	5.2 miles	610
<b>BLACK</b>	--	9.2 miles	--

# On-Street Parking Conclusions

## Summary

- The 4' off-the-road buffer does not reduce on-street parking supply
- Not a Managed Parking Solution
- Abundant On-Street Parking Potential
- Does not consider obstructions
- Exceeds Beach Management Plan requirements

# 3 On-Street Parking Verification





# On-Street Parking Verification

## Tasks

- Field Review of obstructions blocking potential parking areas
- Determine difficulty in removing potential obstructions
- Determine actual available on-street parking areas

## Deliverable

- Field Review Summary & Obstruction Map





Carolina Boulevard



7th Avenue



Charleston Boulevard





Palm Boulevard



42nd Avenue



43rd Avenue

# On-Street Parking Verification

## Summary

- 625 existing parcels (32%) have obstructions in the ROW
- Difficulty of Removal
  - **HIGH:** 27% of obstructions
  - **MEDIUM:** 34% of obstructions
  - **LOW:** 39% of obstructions
- **Obstructions result in overall reduction of potential parking areas by 59%**



# On-Street Parking Verification

AREA	AVAILABLE CLEARANCE	TOTAL LENGTH	TOTAL PARKING SPACES	OBSTRUCTED PARKING SPACES	UNOBSTRUCTED PARKING SPACES
<b>GREEN</b>	<b>16 feet +</b>	29.7 miles	3,480	2,050	<b>1,430</b>
<b>BLUE</b>	<b>14-16 feet</b>	3.1 miles	360	210	<b>150</b>
<b>ORANGE</b>	<b>8-14 feet</b>	6.0 miles	700	410	<b>290</b>
<b>RED</b>	<b>&lt;8 feet</b>	5.2 miles	610	360	<b>250</b>
<b>BLACK</b>	--	9.2 miles	--	--	--

# On-Street Parking Conclusions

## Summary

- Significant Amount of Obstructions Existing
- Considering obstructions, the 4' off-the-road buffer does not reduce on-street parking supply
- Not a Managed Parking Solution

# 4 Traffic/Parking Data Collection & Study



# Traffic/Parking Data Collection & Study

## Tasks

- Analysis of Historical and Current Traffic Count Data
- Parking Accumulation Study
  - Memorial Day weekend
  - Parking Counts via aerial surveys



# Traffic/Parking Data Collection & Study

## **Deliverable**

- Traffic Analysis & Parking Accumulation Study



# Data Collection

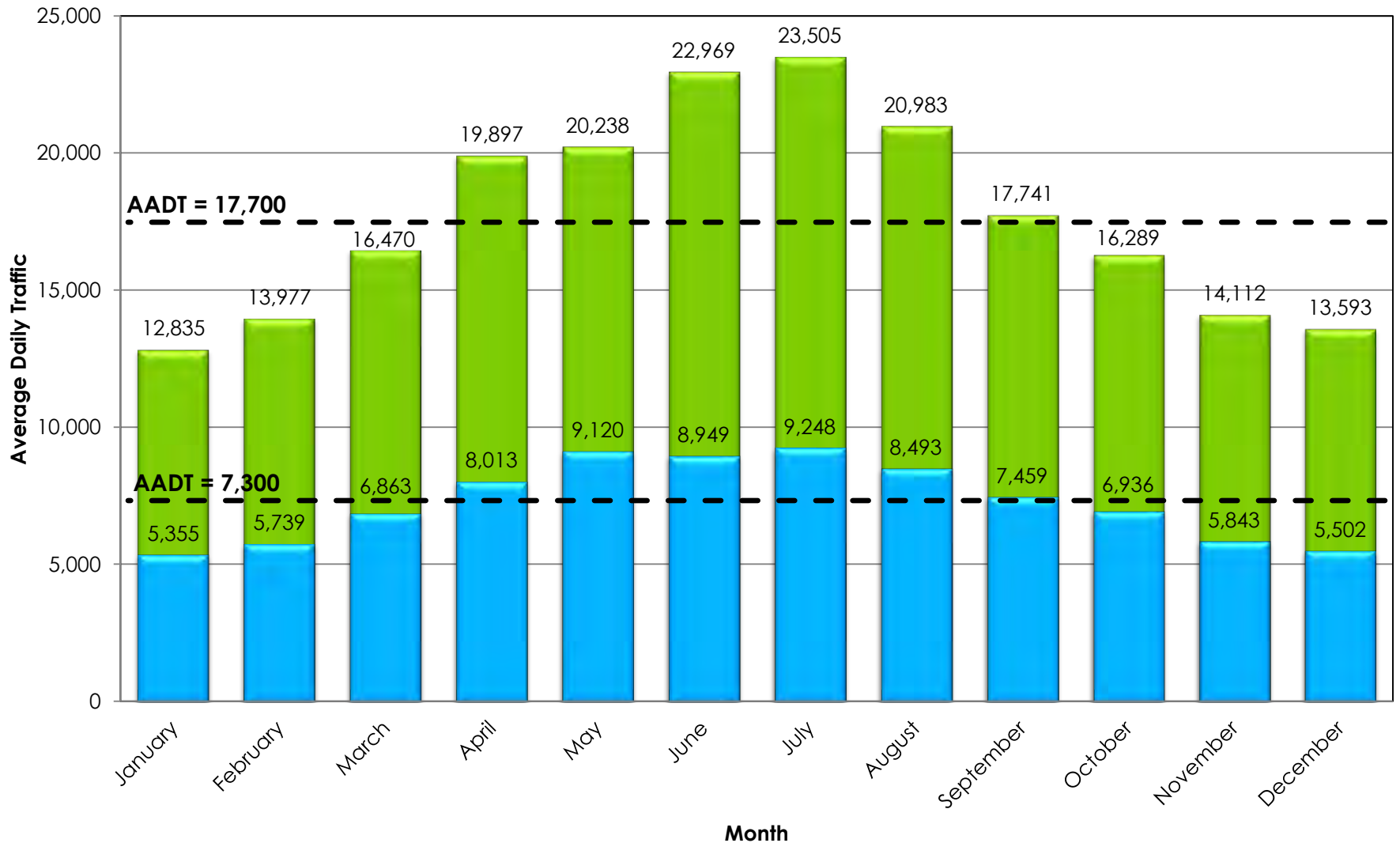
## Sources

- IOP Permanent Count Stations
- SCDOT Permanent Count Station
- Memorial Day week and weekend counts

## Traffic Counts

- Bi-directional Tube Counts at 7 locations:
  - IOP Connector, Palm Boulevard (4 locations), 21<sup>st</sup> Avenue, and 41<sup>st</sup> Avenue
  - 7 days of data
- Turning Movement Count at IOP Connector & Palm Boulevard intersection (9 hours)

# Average Monthly Traffic (IOP Conn. & Palm Bl.)



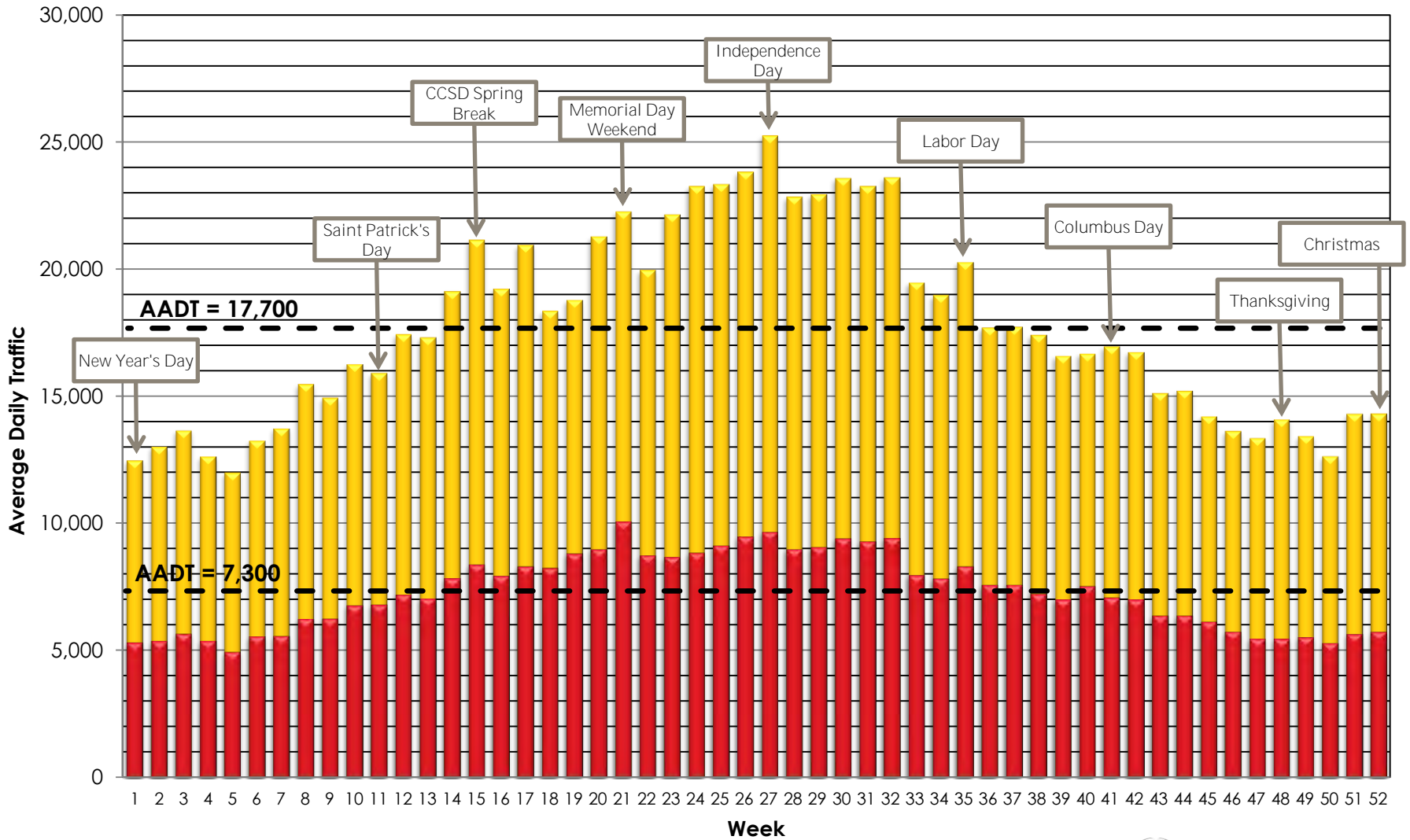
Source: Isle of Palms

IOP Connector Palm Blvd





# Average Weekly Traffic (IOP Conn. & Palm Bl.)

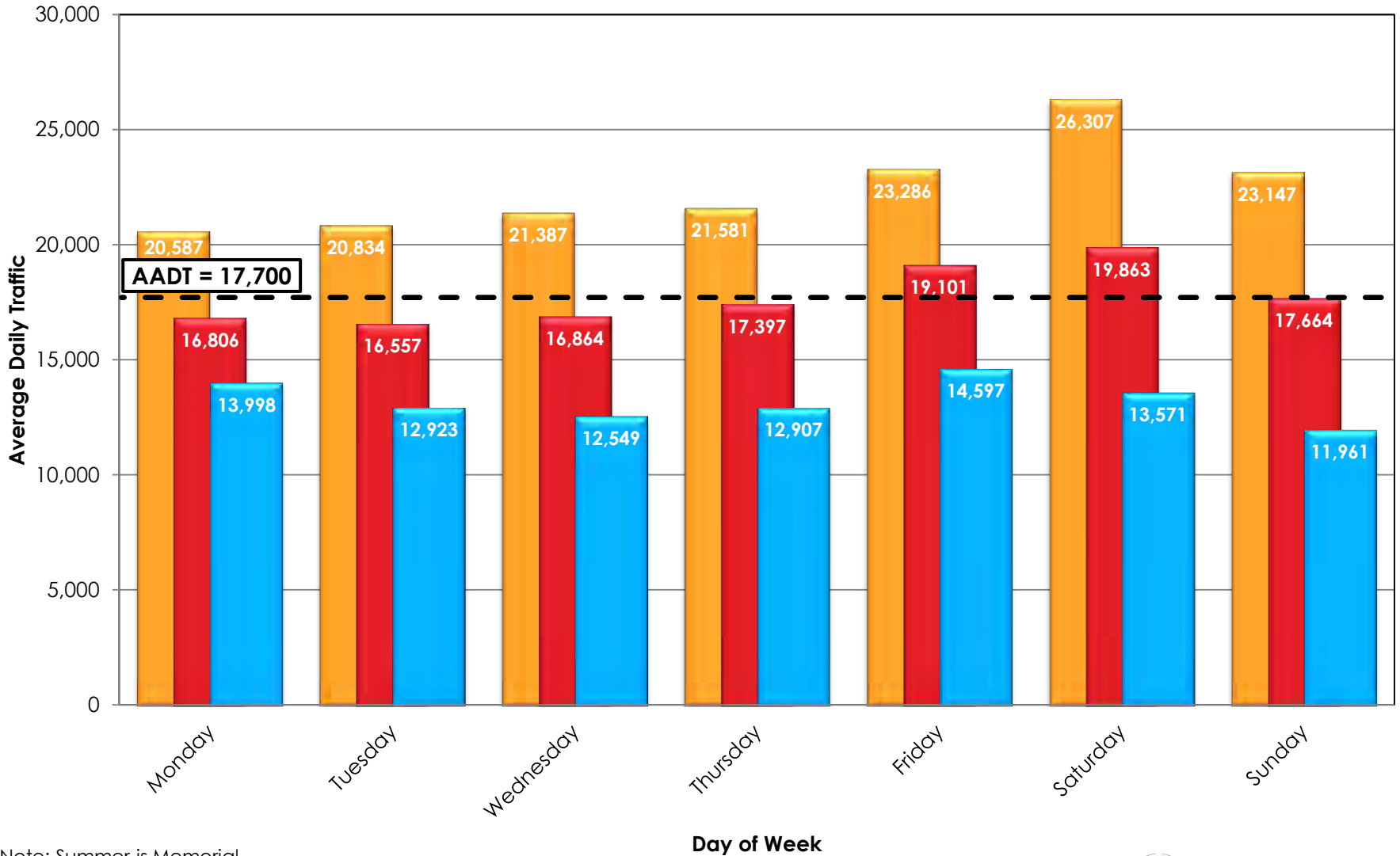


Source: Isle of Palms

IOP Connector Palm Boulevard



# Average Daily Traffic (IOP Connector)

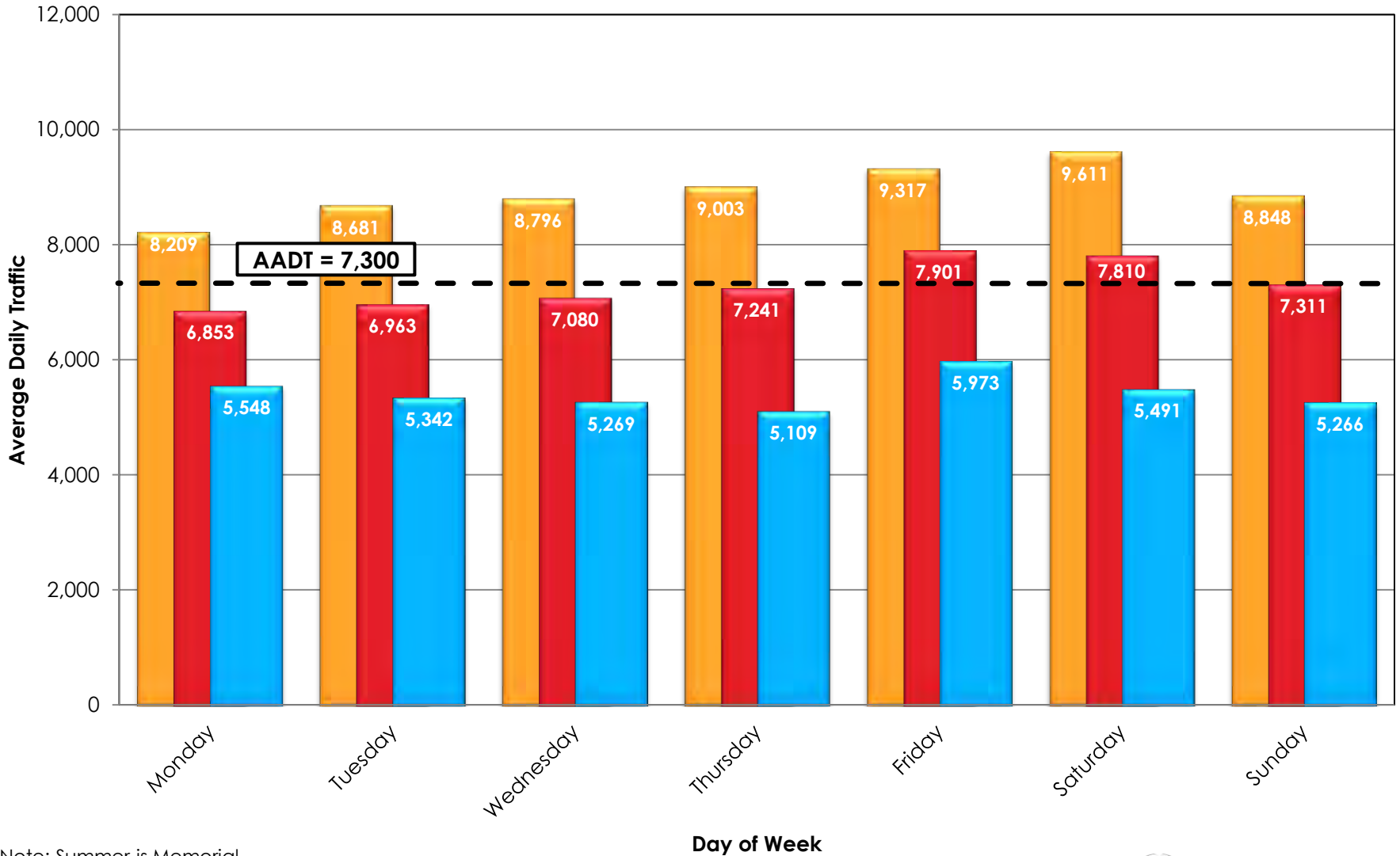


\*Note: Summer is Memorial Day to Labor Day, Winter is December 1 to February 28.  
Source: Isle of Palms

■ Summer\* Average    ■ Annual Average    ■ Winter\* Average



# Average Daily Traffic (Palm Boulevard)



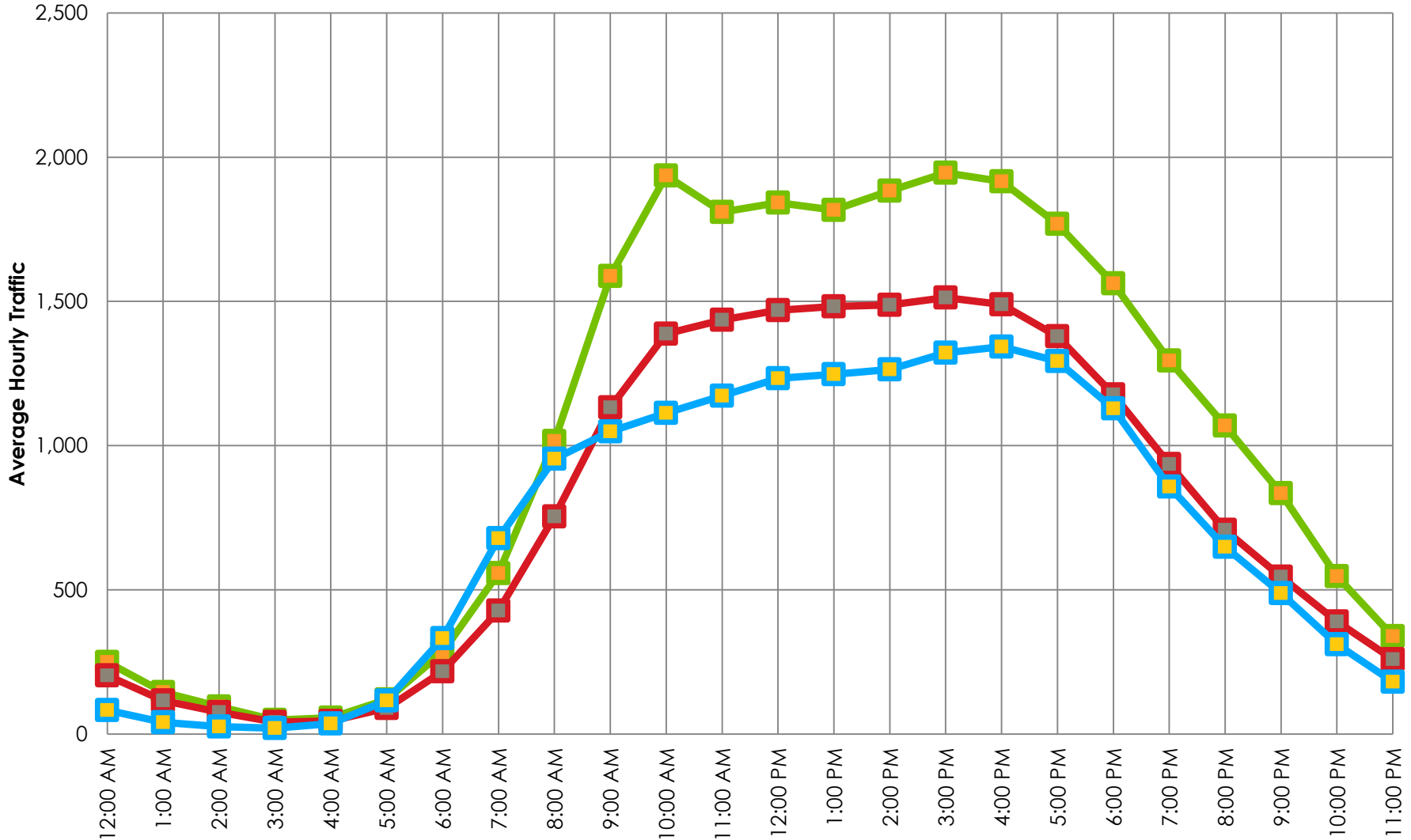
\*Note: Summer is Memorial Day to Labor Day, Winter is December 1 to February 28.  
Source: Isle of Palms

■ Summer\* Average    
 ■ Annual Average    
 ■ Winter\* Average





# Average Hourly Traffic (IOP Connector)



\*Note: Memorial Day to Labor Day  
Source: Isle of Palms

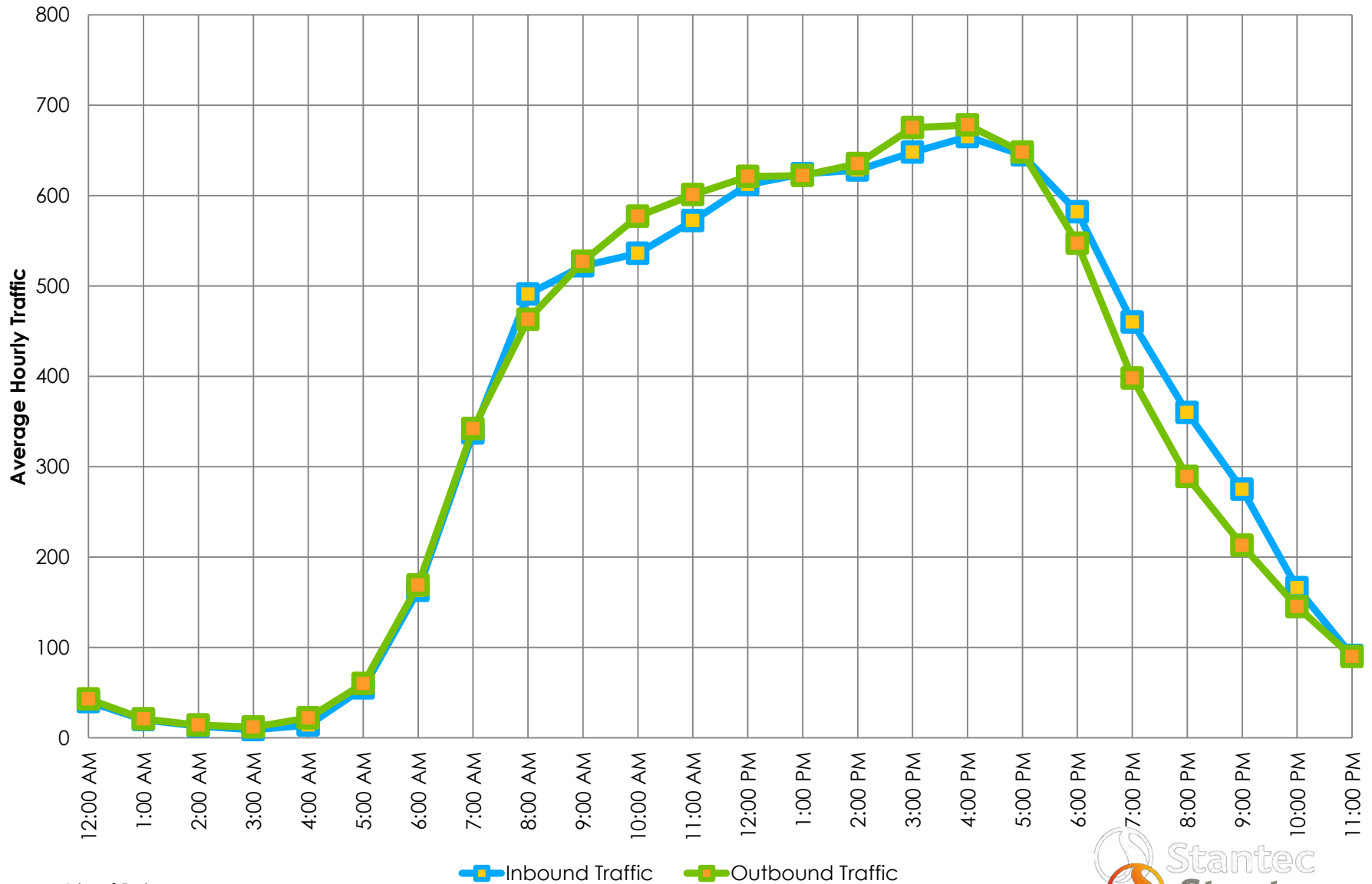
Summer\* Sat & Sun Hourly Average

Sat & Sun Hourly Average

Tue, Wed, & Thu Hourly Average



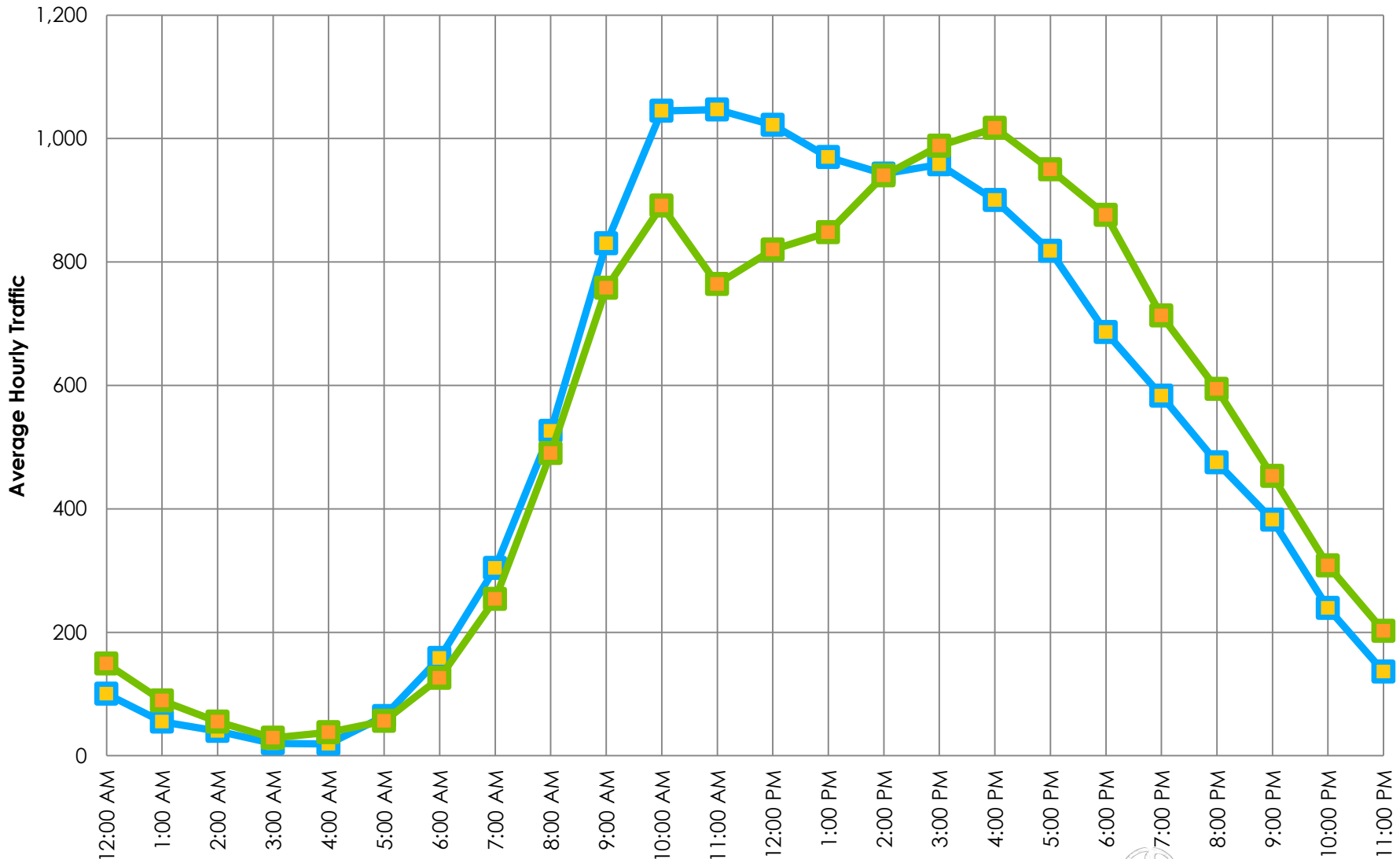
# Directional Hourly Traffic (IOP Connector)



Source: Isle of Palms



# Directional Hourly Traffic (IOP Connector) - Summer



\*Note: Memorial Day to Labor Day  
Source: Isle of Palms

Inbound Traffic Outbound Traffic





# Permanent Count Station Data

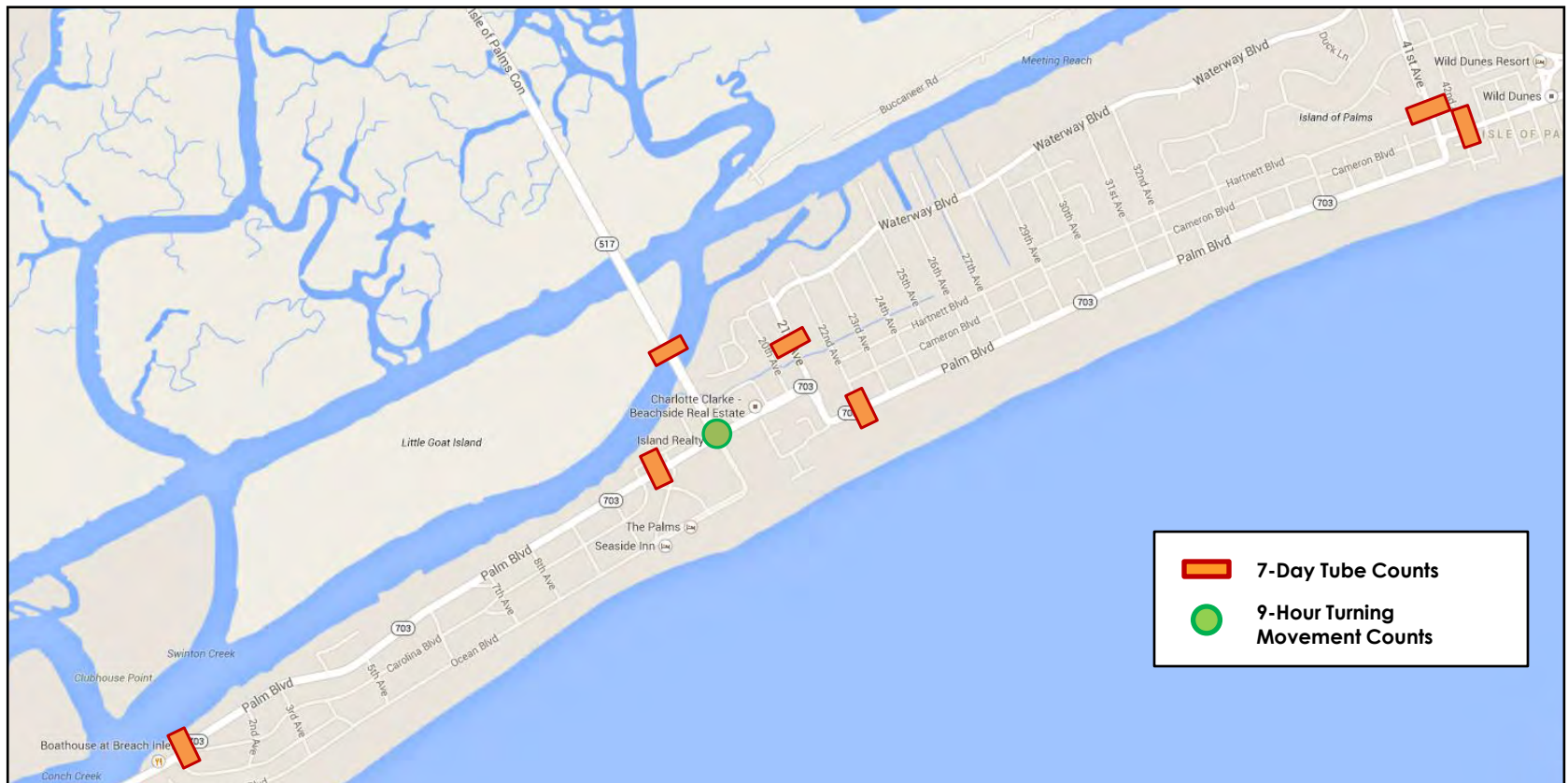
## Summary

- On the IOP Connector – IOP Permanent Count Station & SCDOT Permanent Count Station is Nearly Identical



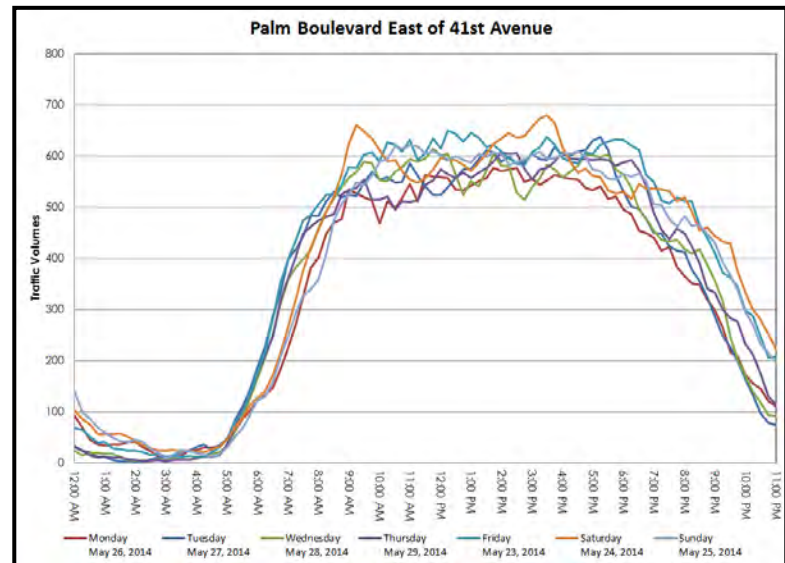
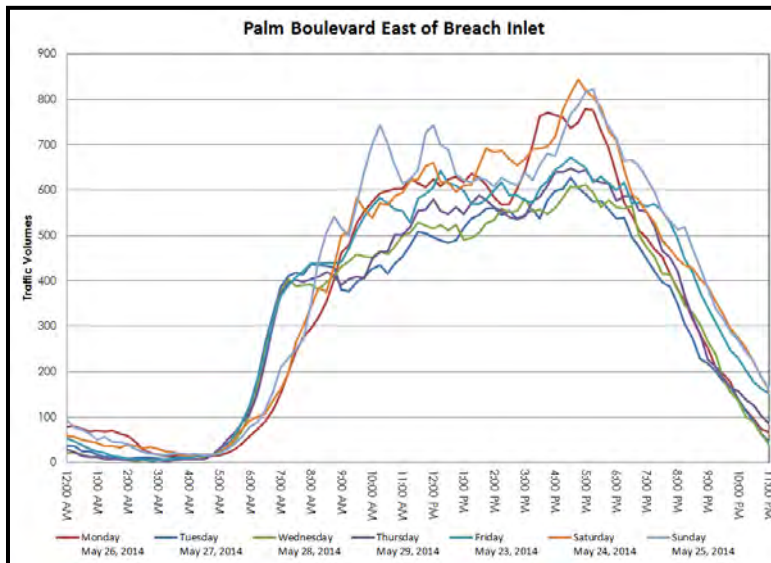
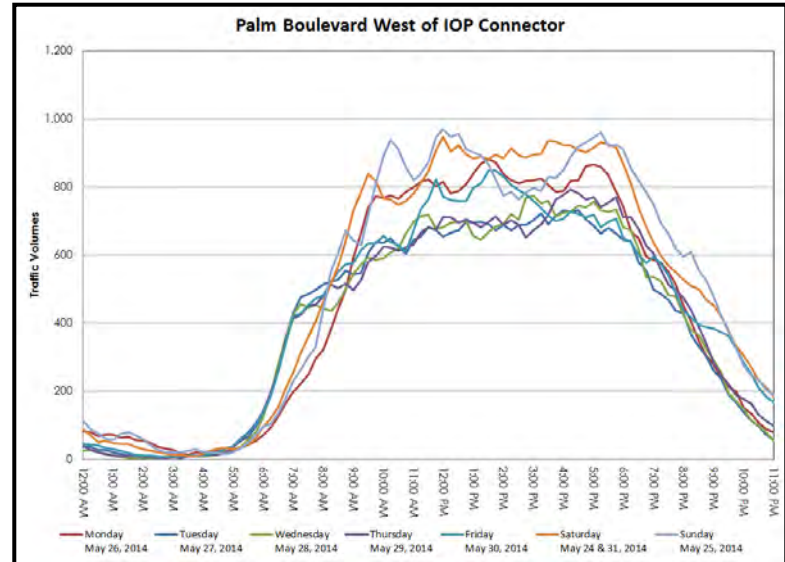
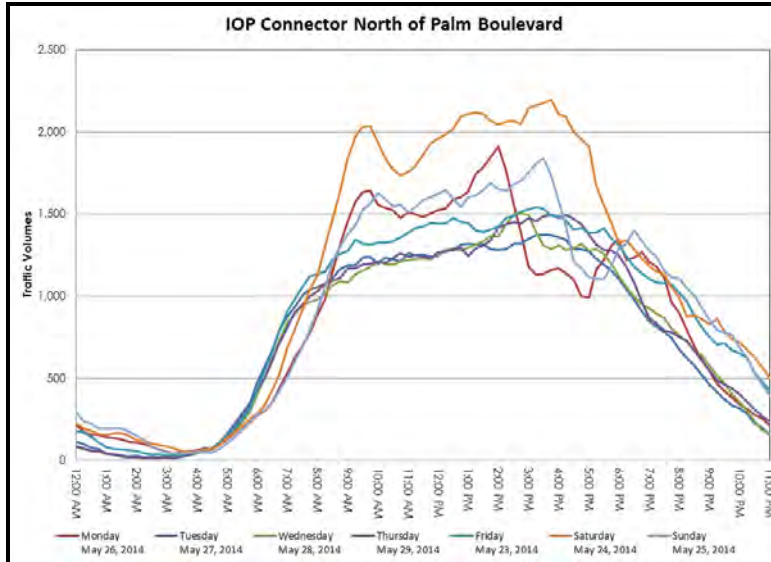
# Traffic Count Locations

Saturday, May 24, 2014 (Memorial Day Weekend)



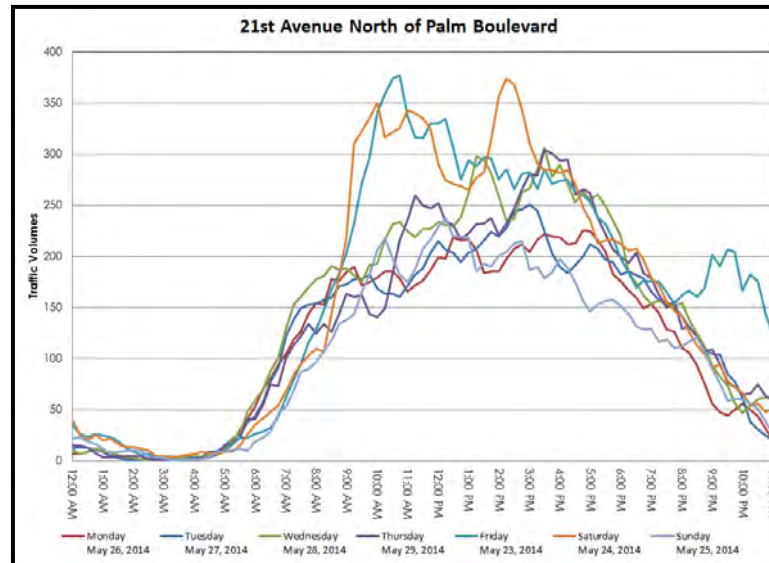
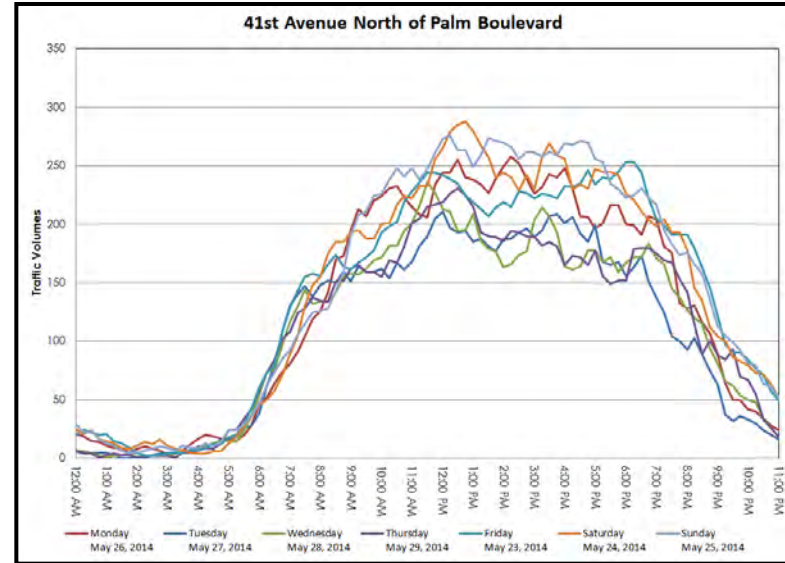
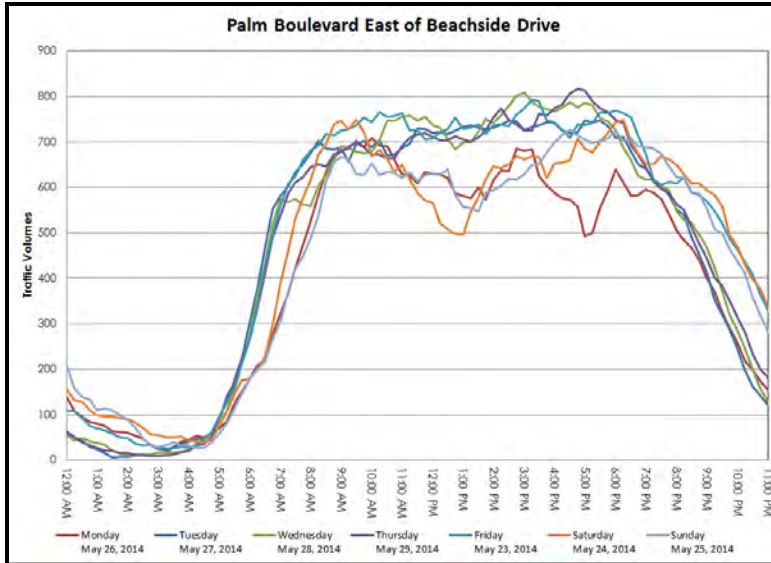


# Average Hourly Traffic Summary

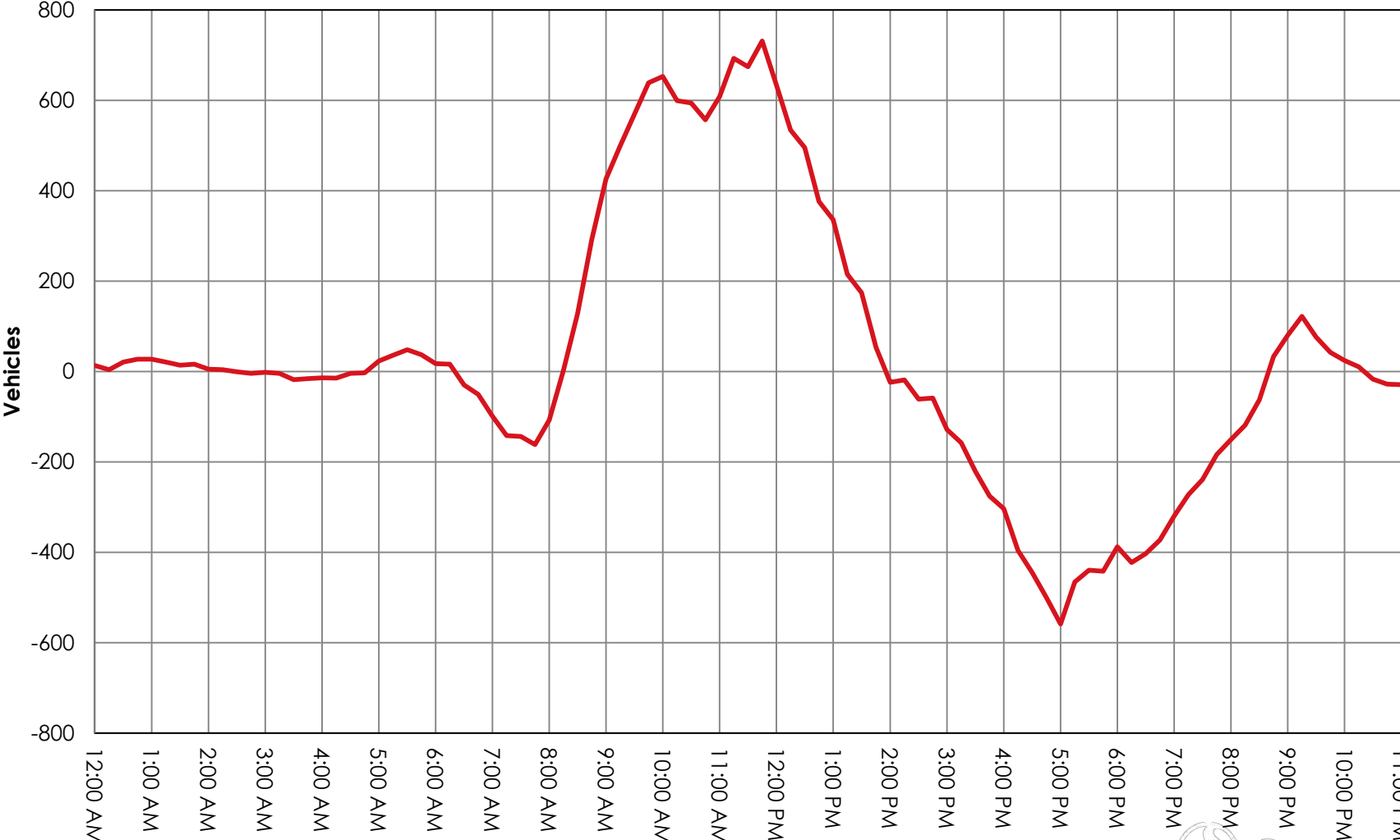




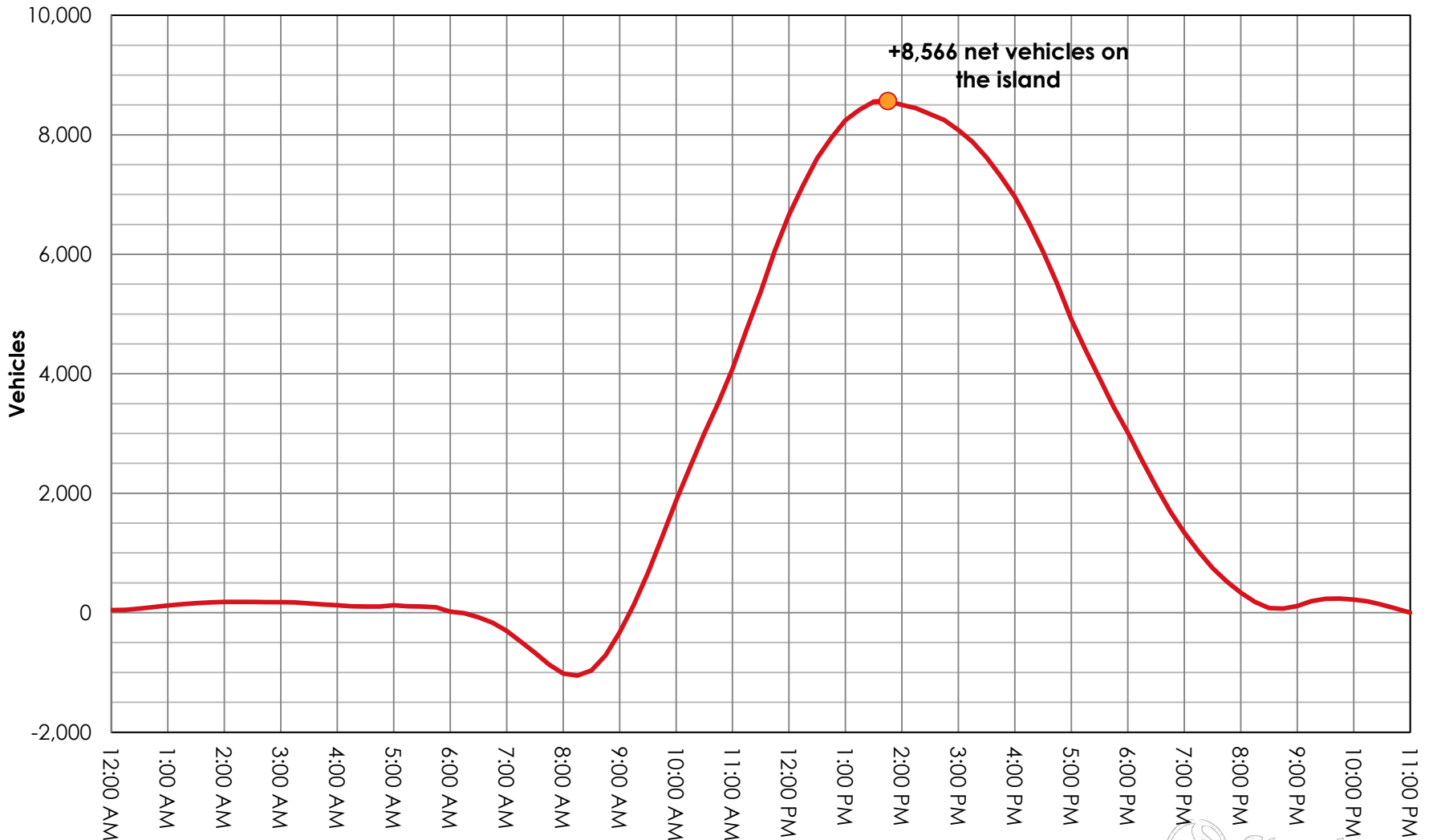
# Average Hourly Traffic Summary



# Inbound vs. Outbound Traffic Trend – Saturday



# Inbound vs. Outbound Cumulative Traffic – Saturday



# Parking Data

## Summary

- Aerial Photographs
  - 9:00 AM to 6:00 PM
  - Every 30 minutes
- Focused on beach parking



9:00 AM





9:30 AM





10:00 AM





10:30 AM





11:00 AM





11:30 AM





12:00 PM





12:30 PM





1:00 PM





1:30 PM





2:00 PM





2:30 PM





3:00 PM





3:30 PM





4:00 PM





4:30 PM





5:00 PM





5:30 PM





6:00 PM



# Parking Data Summary

## Summary

- On-street parking accumulation by block
- Lot Parking accumulation: City, County, Private
- Every 30 minutes

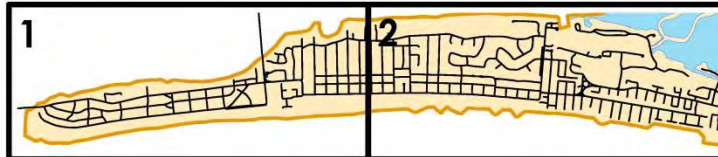


# 9:00 AM



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**LEGEND:**

Percent of Max Parking Utilized  
9:00 AM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

**PROJECT NO:**  
171001448

**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

**1**



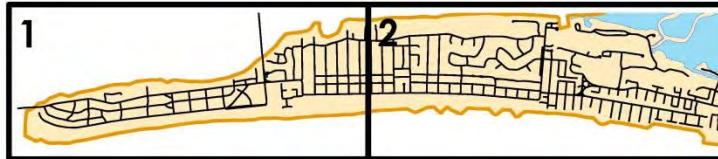


# 10:00 AM



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LEGEND:

Percent of Max Parking Utilized  
10:00 AM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

TITLE:  
Parking Utilization

PROJECT NO:  
171001448

PAGE:  
1 of 2

SCALE:  
0 500 1,000 Feet



SHEET:

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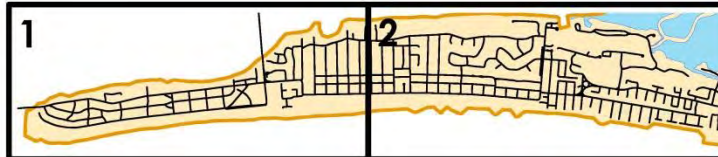


# 11:00 AM



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**LEGEND:**

Percent of Max Parking Utilized  
 11:00 AM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
 Parking Utilization

**PROJECT NO:**  
 171001448

**PAGE:**  
 1 of 2

**SCALE:**  
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**SHEET:**

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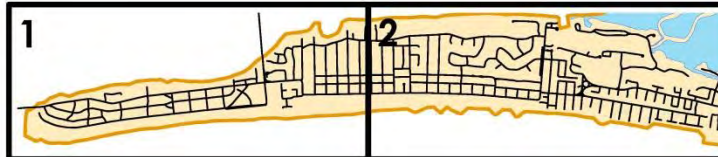


# 12:00 PM



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**LEGEND:**

Percent of Max Parking Utilized  
12:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

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171001448

**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

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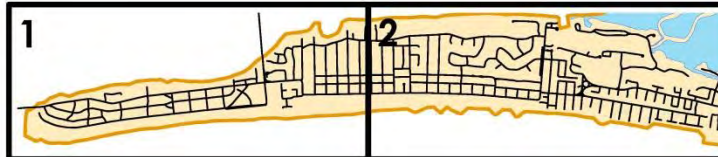


# 1:00 PM



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**LEGEND:**

Percent of Max Parking Utilized  
1:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

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1 of 2

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**SHEET:**

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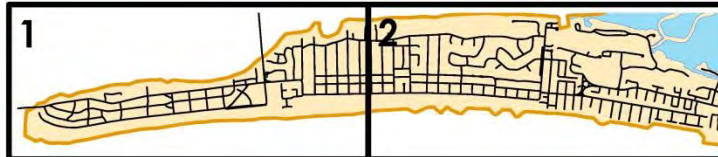


# 2:00 PM



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**LEGEND:**

Percent of Max Parking Utilized  
2:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

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**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

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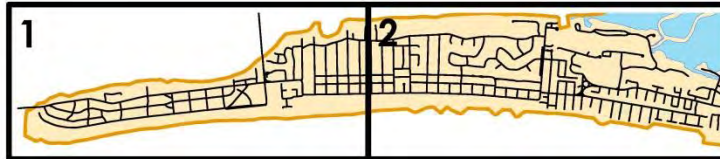


# 3:00 PM



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**LEGEND:**

Percent of Max Parking Utilized  
3:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

**PROJECT NO:**  
171001448

**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

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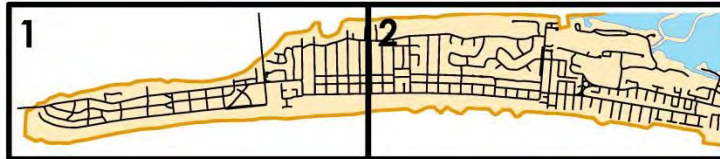


# 4:00 PM



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**LEGEND:**

Percent of Max Parking Utilized  
4:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

**TITLE:**  
Parking Utilization

**PROJECT NO:**  
171001448

**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

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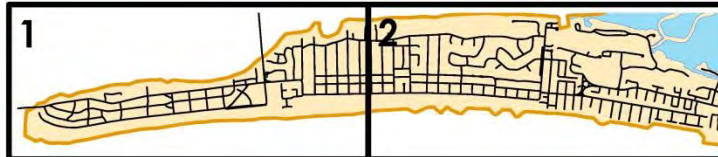


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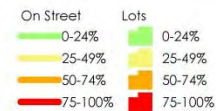
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**LEGEND:**

Percent of Max Parking Utilized  
5:00 PM



**TITLE:**  
Parking Utilization

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171001448

**PAGE:**  
1 of 2

**SCALE:**  
0 500 1,000 Feet

**SHEET:**

**1**



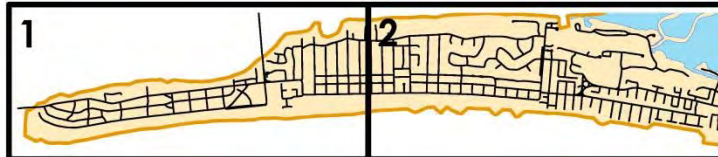


# 6:00 PM



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Percent of Max Parking Utilized  
6:00 PM

On Street	Lots
0-24%	0-24%
25-49%	25-49%
50-74%	50-74%
75-100%	75-100%

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Parking Utilization

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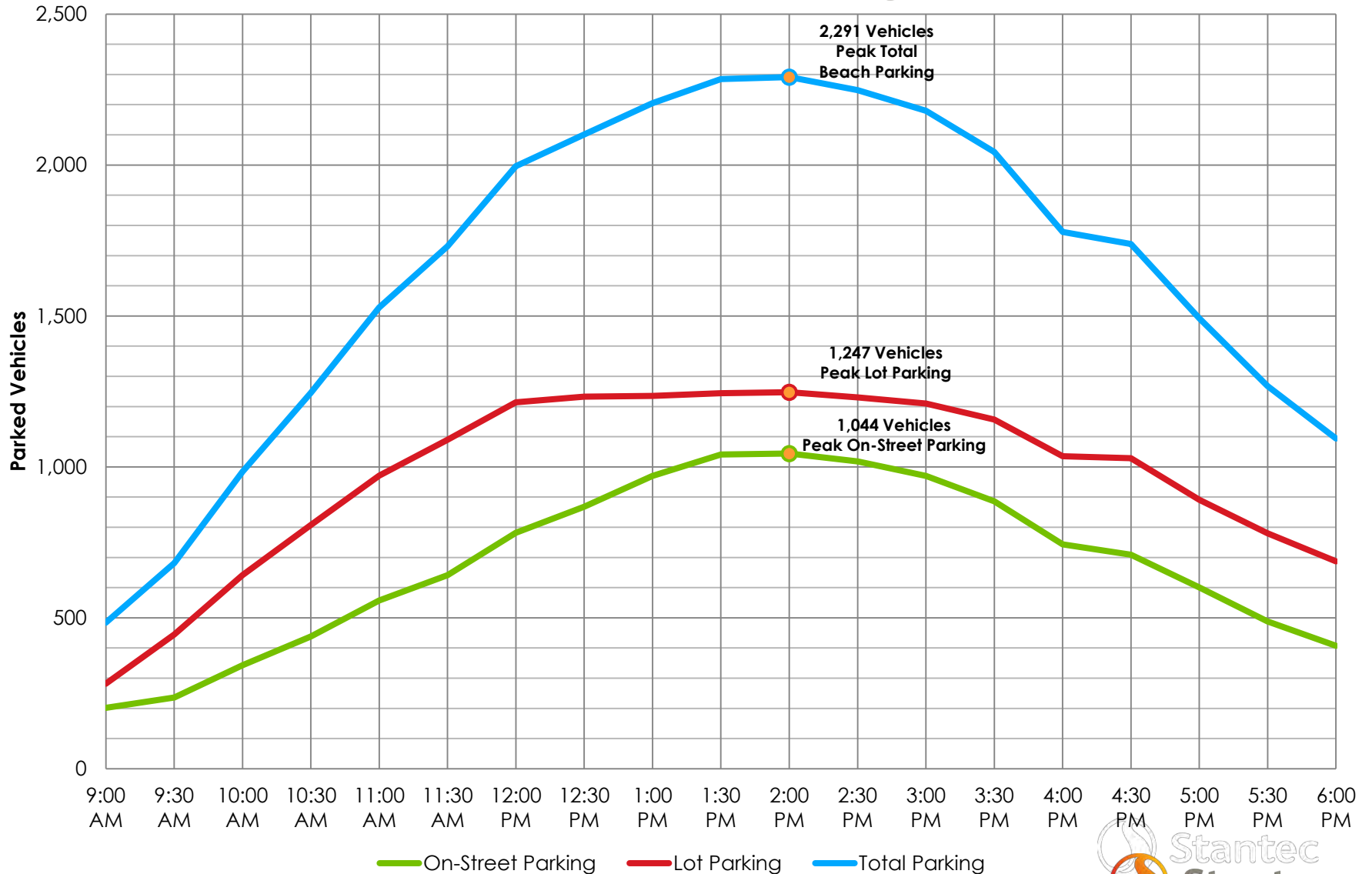
**SHEET:**

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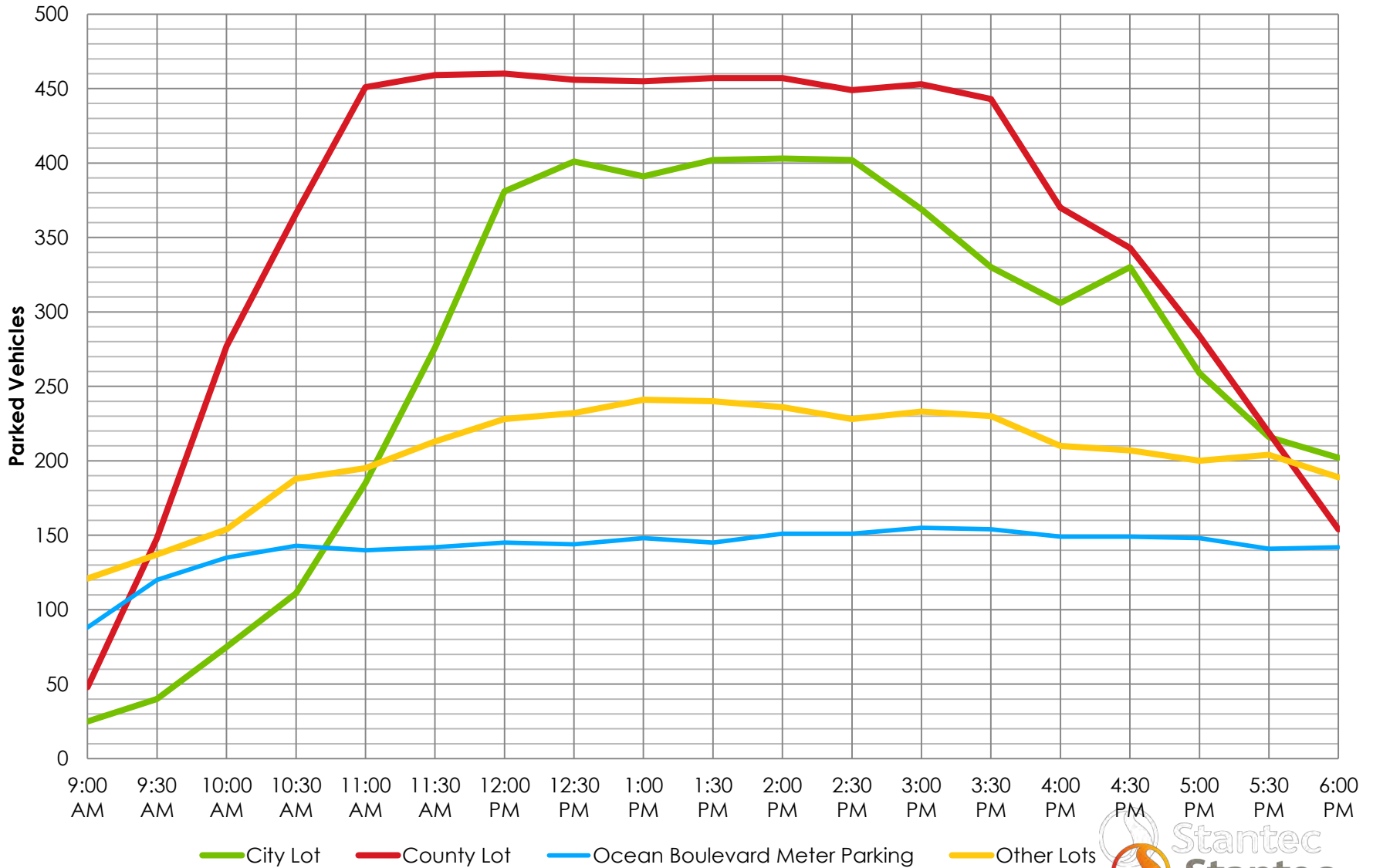




# On-Street & Lot Parking Summary



# Lot Parking Summary



City Lot

County Lot

Ocean Boulevard Meter Parking

Other Lots





# Marina Parking

## Field Observations

- Lots Filled, Vehicles & Trailers
- On-Street Parking along 41<sup>st</sup> Avenue – past Frank Sottile Lane
- On-Street Parking along Waterway Boulevard – past Duck Lane



41<sup>st</sup> Avenue



Waterway Boulevard



Waterway Boulevard



# Marina Parking

## Summary

AREA	CARS	TRAILERS
Marina Lots	218	84
Along 41 <sup>st</sup> Avenue	28	10
Along Waterway Boulevard	40	8
Totals	286	102

# Traffic/Parking Data Collection & Study

## Conclusions

- Congestion for Peak **45** Days of the Year
- Peak **8,566** vehicles arriving onto the island
- 1,247 lot parking
- 1,044 on-street parking

## Estimate of Traffic Destinations

- ~**25%** to/from the beach
- ~25% to/from Wild Dunes
- ~20% to/from Marina & Homes in NE part of island
- ~15% to/from Homes on west part of island
- ~15% to/from Homes on SE part of island



# Estimate of Traffic Destinations



# 5 Managed Parking Program Implementation





# Managed Parking Program Overview

## Tasks

- Managed Parking Program Implementation
- Conceptual Cost Analysis
  - Cost neutral – not an SCDDOT requirement
- Public Information Plan

## Deliverables

- Parking Permit Implementation Plan
- Conceptual Cost Analysis
- Public Information Plan

# Managed Parking Program Overview

## Benefits

- Able to Manage (cap) Number of Permits Sold
- Congestion Pricing – ability to vary prices

## Suggested Parameters

- May 15<sup>th</sup> through September 15<sup>th</sup>
- 8:00 AM to 6:00 PM
- Only where parking is not otherwise restricted



# Managed Parking Program Overview

## Parking Permit Sales

- On-line: Website and “App”
- Public Safety Building during normal business hours

## Types of Permits

- Annual
- Weekly
- Daily

# Managed Parking Program Overview

**License Plate is the parking credential**

## **Enforcement**

- License plate camera & recognition software
- Handheld devices
- Ticketing & follow-up



# Managed Parking Program Overview

## Compliance with Beach Management Plan

- 6 spaces per Public Access Point within 1/8 mile
  - 33 existing Access Points not covered by the County Park = **198** parking spaces required
- **150** spaces per Regional Access Public Park within 1 mile
  - Also Encompasses 23 Public Access Points
- **348** Total Parking Spaces required

# Managed Parking Program

## Preliminary Expense Calculation

TASK	RESPONSIBLE	POTENTIAL COST*
Public Education/Awareness Campaign	City Staff	\$10,000
Software/Website/App/Web Hosting	Contractor	\$30,000 or per transaction charge
In-person Sales at City Hall	City Staff	\$0?
New Signing	Contractor	\$20,000
Parking Enforcement Staff & Equipment	City Staff or Contractor	\$80,000
Parking Adjudication	City Staff or Contractor	\$30,000 or x% per ticket charge
<b>Preliminary Expense Total</b>		<b>\$110,000 to 170,000</b>

\*Note: Expense are preliminary, subject to change as program is finalized.





# Managed Parking Program

## Preliminary Revenue Calculation

CATEGORY	ASSUMPTIONS	POTENTIAL REVENUE*
Annual Permit	Average 200 sold per year at \$100/each	\$20,000
Weekly Permit	Average 20 sold per week for 18 weeks at \$20/each	\$7,200
Daily Permit	Average 200 sold per day for 120 days at \$6/each	\$144,000
Parking Fines	20 per day for 120 days at \$25/each	\$60,000
<b>Preliminary Revenue Total</b>		<b>\$231,200</b>

\*Note: Revenues are preliminary, subject to change as program is finalized.



# Managed Parking Program Summary

## Conclusions

- Managed Parking Program is Cost Feasible
  - High likelihood to be Cost Positive
- Able to Manage (cap) Number of Permits Sold
- Able to implement Congestion Pricing
- Public Education Process will be important



# 5 Next Steps



# Next Steps

## NEED DIRECTION FOR 2015 BEACH SEASON!

2014					2015				
August	September	October	November	December	January	February	March	April	May
Meet with Vendors	Finalize Managed Parking Program Plan	Release RFP/Bid for Vendor(s) & Equipment	Select Vendor(s)	Vendor Develops Program (website, app, etc.) & Test Functionality		Open Ticket Sales	Staffing Hires, Purchase New Equipment, & New Signing Installation		Program Begins
					Initiate Public Education Campaign	Continuing Public Education			



