



KIAWAH ISLAND PARKWAY TRAFFIC UPDATE

Town of Kiawah Island Town Council Meeting
November 1, 2022

OUTLINE

- Introduction
- Development Agreement: Traffic Mitigation (Exhibit 10.1)
- Collected Traffic Data Summary
- Recent Traffic Mitigation & Safety Improvements
- KIP Intersection and Corridor Study
 - KIP & Beachwalker Intersection



INTRODUCTION

The Town monitors traffic along the road it maintains, including the Kiawah Island Parkway and Beachwalker Drive. In 2022, the Town contracted with Quality Counts, LLC to conduct traffic counts along the Kiawah Island Parkway as well as Beachwalker Drive, Flyway Drive, Governors Drive and Ocean Course Drive for a comprehensive understanding of overall Kiawah Island traffic volumes.

EXHIBIT 10.1: TRAFFIC MITIGATION

The executed development agreement between the Town and Kiawah Partners outlines performance standards or criteria specifically for the Kiawah River Bridge and the Kiawah Island Parkway. These standards are to maintain the performance of these facilities in terms of traffic volumes. Both the Town and the developer play a critical role in maintaining the performance of the facilities. This exhibit provides parameters for required traffic mitigation of the developer, once certain thresholds are met. However, this does not preclude traffic mitigation measures from occurring prior to these thresholds being reached. The thresholds are the near capacity traffic volumes of these facilities.

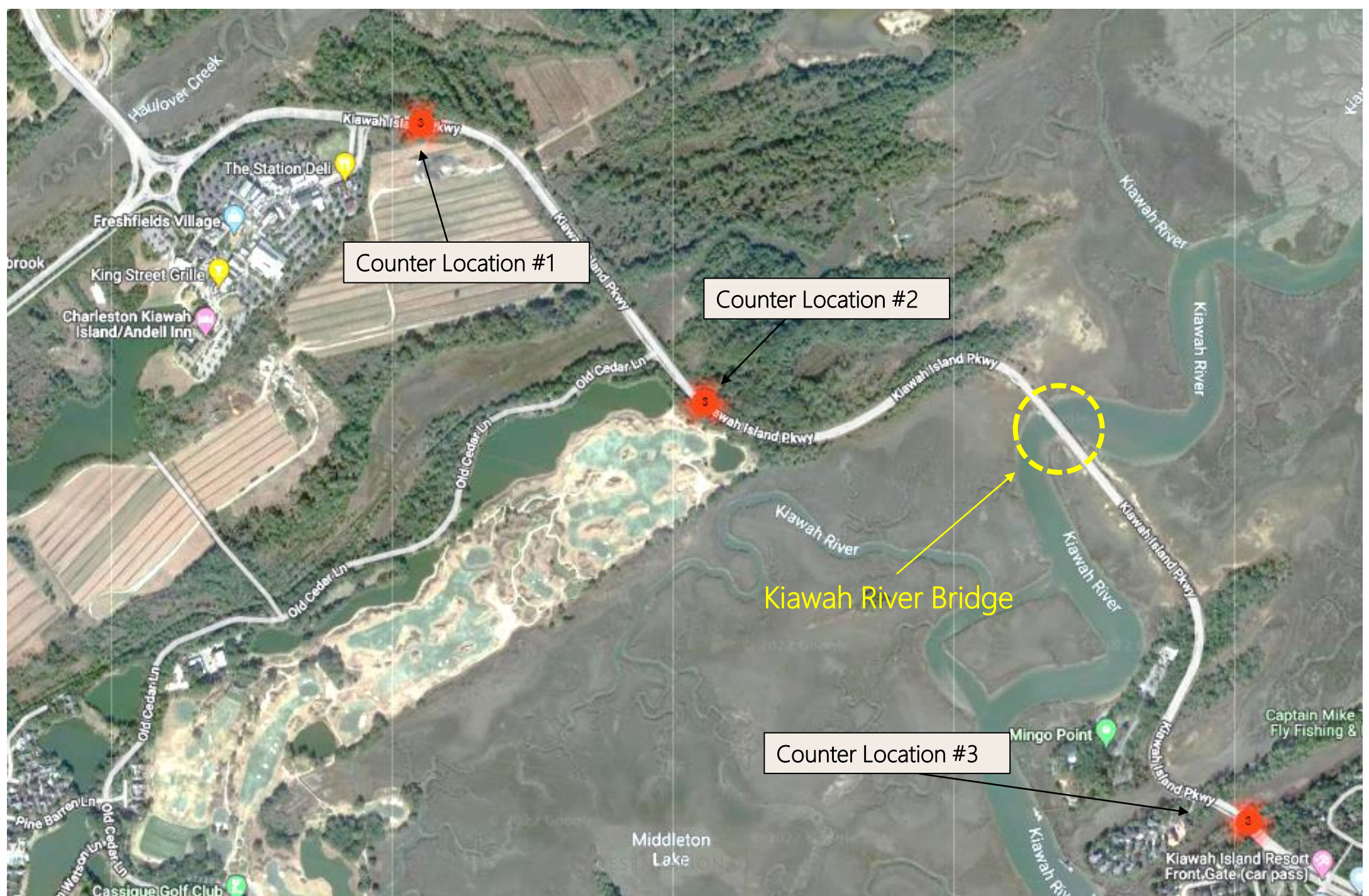
TRAFFIC COUNTING PERIODS



TRAFFIC COUNTER LOCATIONS

- #1 – Kiawah Island Pkwy E of Freshfields Drive
- #2 – Kiawah Island Pkwy E of Old Cedar Lane
- #3 – Kiawah Island Pkwy W of Beachwalker Drive
- #4 – Beachwalker Drive S of Kiawah Island Pkwy
- #5 – Beachwalker Drive E of Cape Point Road
- #6 – Kiawah Island Pkwy S of Oyster Rake Drive
- #7 – Kiawah Island Pkwy W of Sea Forest Drive
- #8 – Kiawah Island Pkwy N of Green Dolphin Way
- #9 – Governors Drive E of Flyway Drive
- #10 – Flyway Drive N of Glen Abbey
- #11 – Ocean Course Drive E of Ocean Marsh Road

In order to develop a comprehensive understanding of Kiawah Island traffic volumes, additional traffic counter locations were included that are not along the Kiawah Island Parkway as outlined within the Development Agreement.

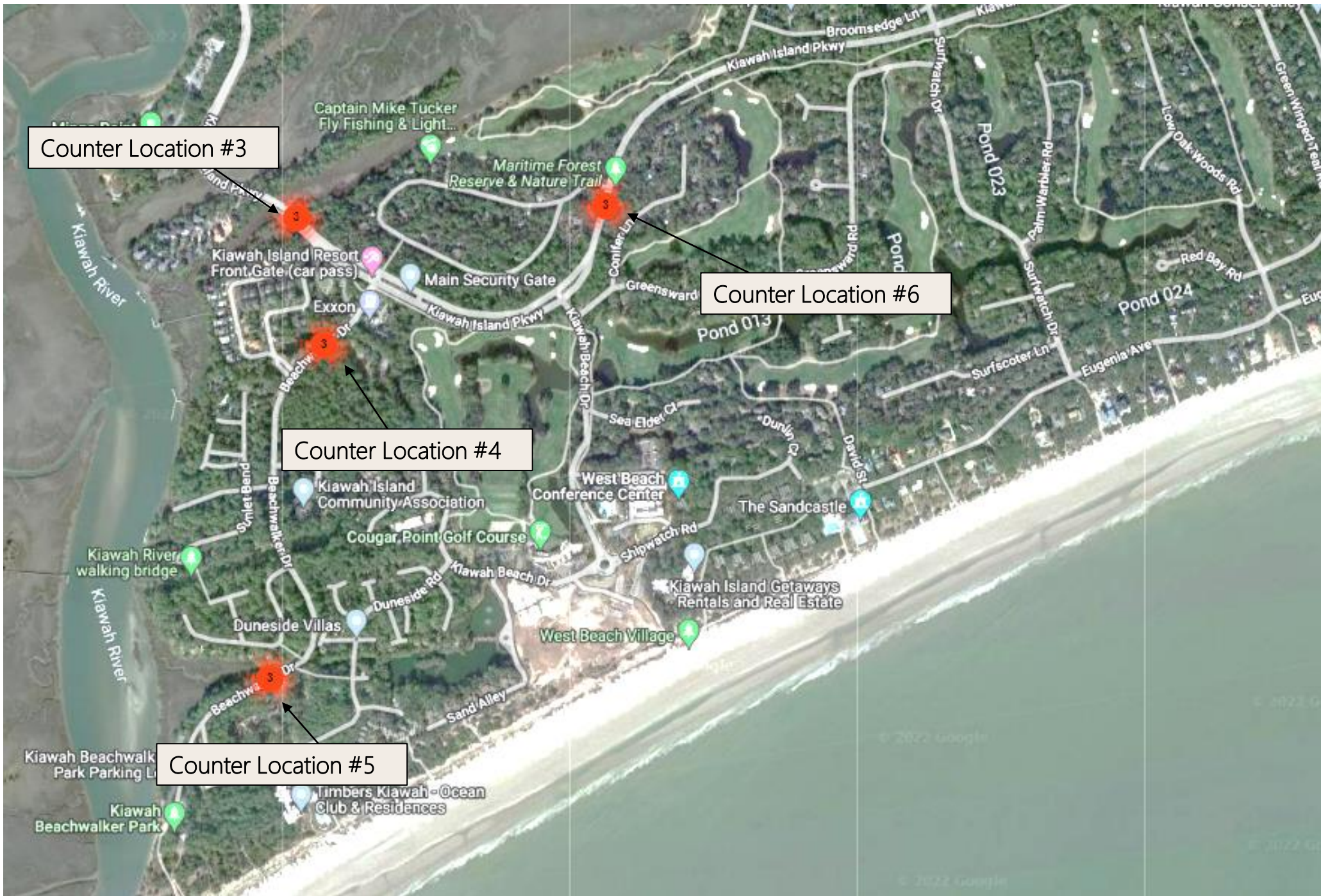


Counter Location #1

Counter Location #2

Kiawah River Bridge

Counter Location #3

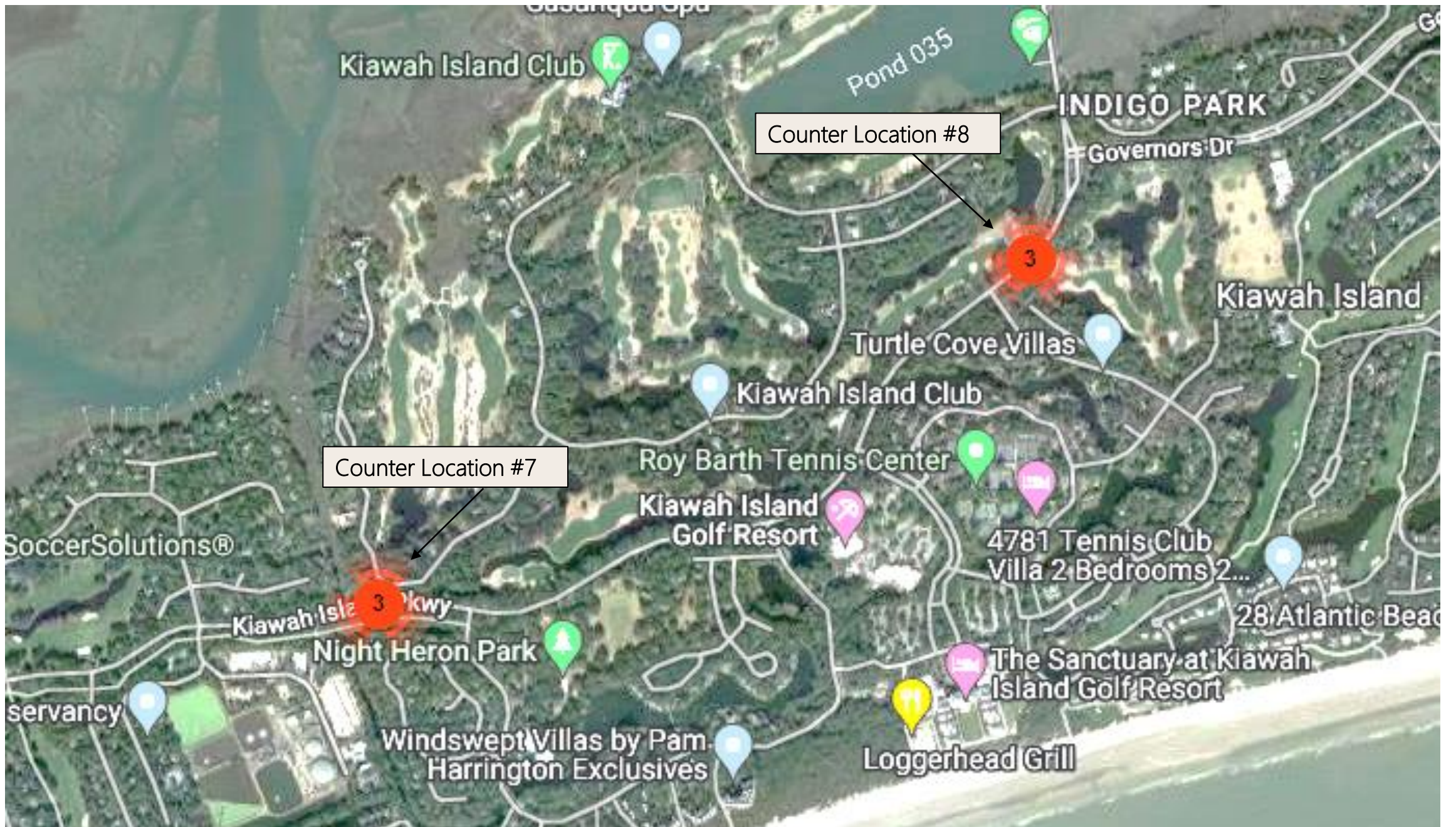


Counter Location #3

Counter Location #6

Counter Location #4

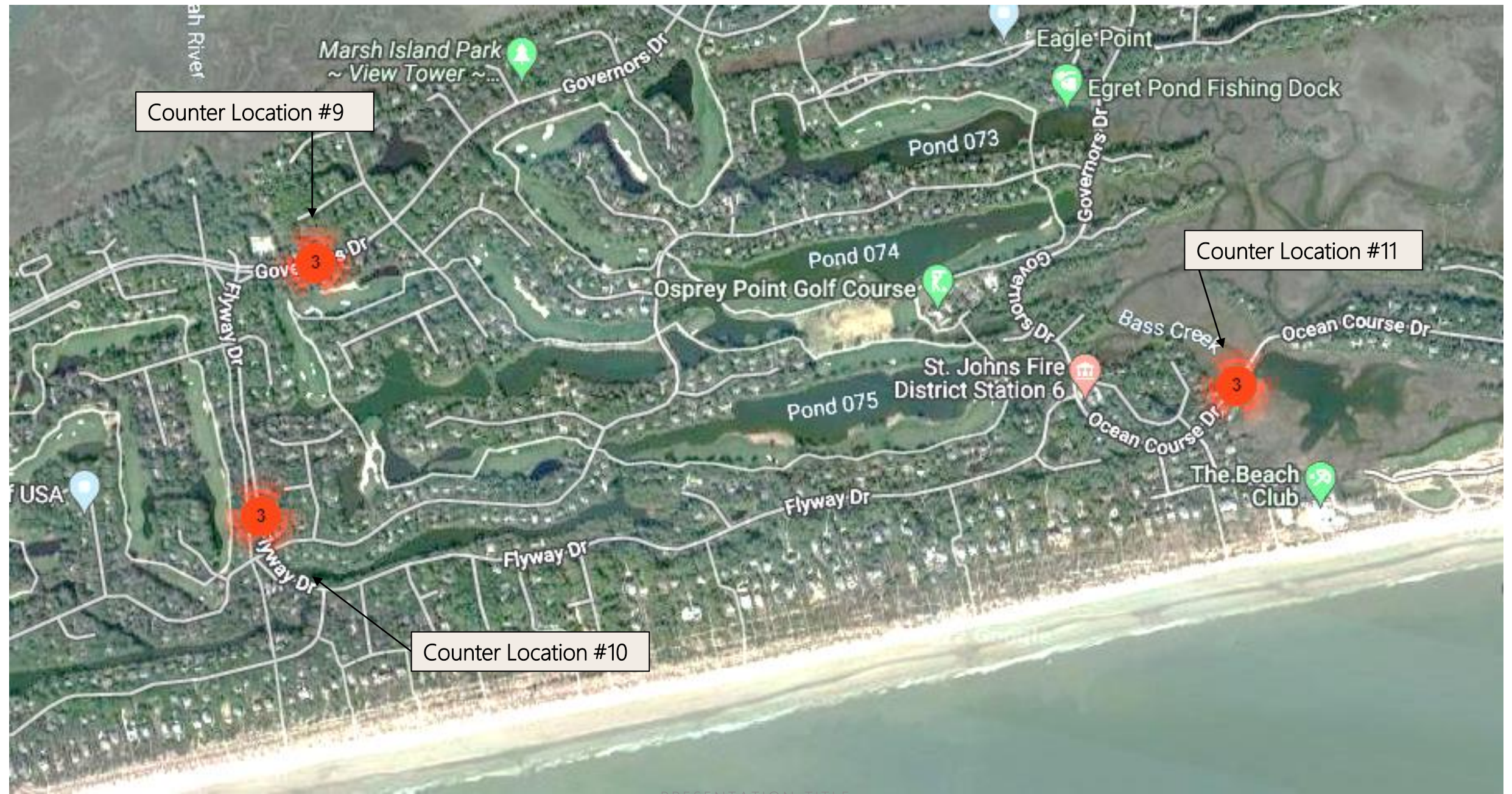
Counter Location #5



Counter Location #9

Counter Location #11

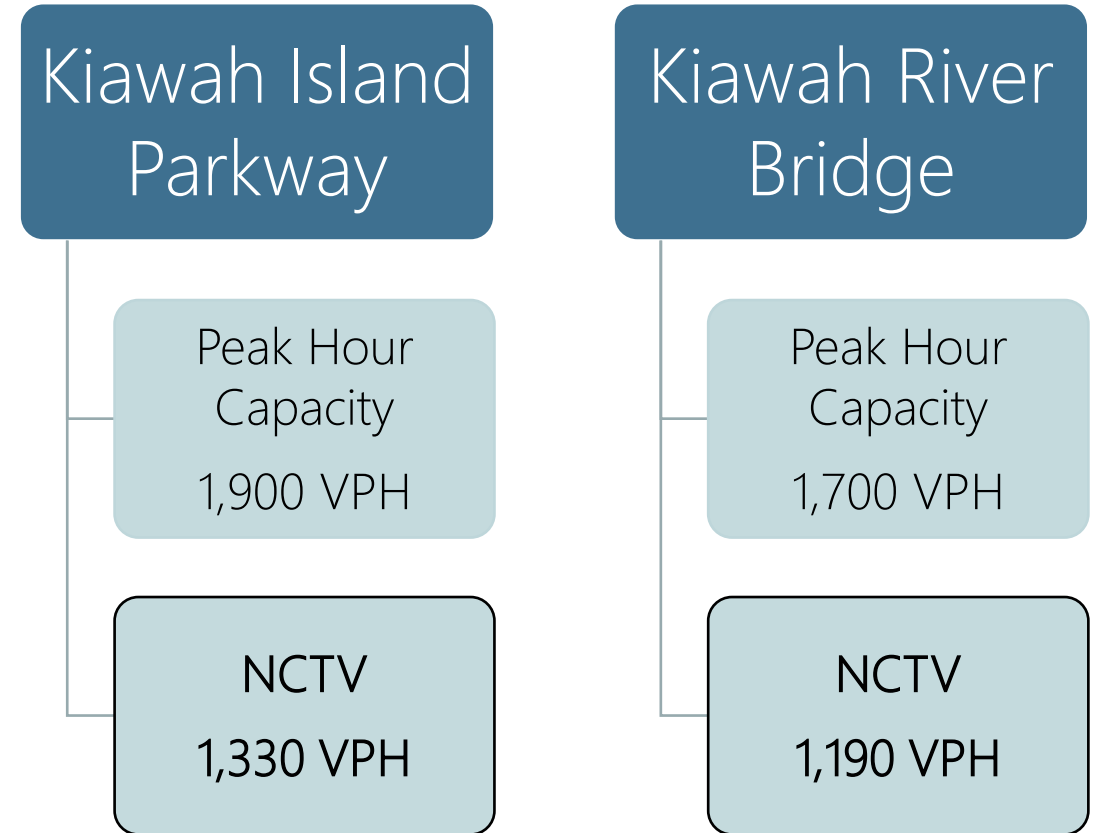
Counter Location #10



EVALUATING TRAFFIC

Near Capacity Traffic Volume (NCTV)

NCTV represents the point at which 70% peak hour capacity is reached on the Kiawah Island Parkway or Kiawah River Bridge determined by vehicles per hour (VPH). In determining the 70% capacity, the NCTV is evaluated per lane for the Kiawah Island Parkway, or the equivalent of one direction as Kiawah Island Parkway East Bound, or Kiawah Island Parkway West Bound.



What happens if the NCTV is reached? EVALUATING TRAFFIC

Traffic Volumes Exceed NCTV

NCTV is exceeded for three (3) consecutive days during designated counting periods.

June 1st – 14th

July 8th – 22nd

August 17th – 31st

This does not include peaking volumes due to special events.

Developed Traffic Mitigation Plan

The Developer submits a traffic mitigation plan to the Town.

The plan shall include measures to reduce the traffic volumes below the NCTV or increase roadway capacity for affected road segments along the Kiawah Island Parkway.

Implemented Traffic Mitigation

The Town reviews and approves the traffic mitigation plan.

The developer shall be liable for implementing the approved traffic mitigation plan and traffic mitigation measures with construction of improvements beginning within six (6) months.

TRAFFIC MITIGATION MEASURES AND TRAFFIC MANAGEMENT STRATEGIES

The Development Agreement states Traffic Mitigation Measures include improvements and or traffic management strategies to restore or maintain acceptable levels of service for the roadway link or links including but not limited to:

- turn lane additions
- acceleration/deceleration lanes
- other road widening alternatives
- vanpools
- alternatives to decrease traffic volume or increase roadway capacity

SUMMARY OF COLLECTED DATA

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday	Sat	Sun	Average Week	Average Week Profile
	11 Jul 22	12 Jul 22	13 Jul 22	14 Jul 22	15 Jul 22	Hourly Traffic	16 Jul 22	17 Jul 22	Hourly Traffic	
12:00 AM	12	12	23	26	20	19	24	10	18	
01:00 AM	13	6	5	5	9	8	15	6	8	
02:00 AM	3	3	2	6	7	4	7	5	5	
03:00 AM	1	1	3	2	7	3	5	7	4	
04:00 AM	32	34	34	36	30	33	28	20	31	
05:00 AM	129	124	130	135	131	130	76	81	115	
06:00 AM	283	329	320	292	297	304	165	129	259	
07:00 AM	411	678	708	662	671	626	286	191	515	
08:00 AM	750	744	742	793	698	745	463	310	643	
09:00 AM	557	702	717	678	651	661	511	364	597	
10:00 AM	479	529	565	568	534	535	443	411	504	
11:00 AM	546	480	594	582	584	557	497	409	527	
12:00 PM	532	485	593	591	558	552	429	421	516	
01:00 PM	532	492	500	505	572	520	455	421	497	
02:00 PM	471	475	475	498	507	485	468	382	468	
03:00 PM	468	383	424	440	445	432	583	361	443	
04:00 PM	383	299	367	411	363	365	568	326	388	
05:00 PM	319	315	308	348	326	323	474	312	343	
06:00 PM	306	305	323	324	321	316	399	266	321	
07:00 PM	298	261	318	322	321	304	351	220	299	
08:00 PM	218	283	272	322	290	277	300	194	268	
09:00 PM	151	204	173	226	250	201	251	136	199	
10:00 PM	67	97	100	112	89	93	115	71	93	
11:00 PM	26	28	38	56	58	41	54	30	41	
Day Total	6987	7269	7734	7940	7739	7534	6967	5083	7102	
% Weekday Average	92.7%	96.5%	102.7%	105.4%	102.7%					
% Week Average	98.4%	102.4%	108.9%	111.8%	109%	106.1%	98.1%	71.6%		
AM Peak Volume	8:00 AM 750	8:00 AM 744	8:00 AM 742	8:00 AM 793	8:00 AM 698	8:00 AM 745	9:00 AM 511	10:00 AM 411	8:00 AM 643	
PM Peak Volume	12:00 PM 532	1:00 PM 492	12:00 PM 593	12:00 PM 591	1:00 PM 572	12:00 PM 552	3:00 PM 583	12:00 PM 421	12:00 PM 516	

Comments:

QC DATA SET EXAMPLE

Counter Location

KIP, East of Freshfields Drive

Traffic Direction

East Bound / West Bound

Counting Period

July 8th – 21st

AM / PM Peak Hours

AM / PM Peak Volumes

Metric

Vehicles Per Hour

KIP TRAFFIC SUMMARY (JUNE)

#1 Freshfields Drive				#2 Old Cedar Lane			
Highest AM Peak Volume				Highest AM Peak Volume			
803 vph	2-Jun	EB	8:00 AM	735 vph	3-Jun	EB	8:00 AM
Highest PM Peak Volume				Highest PM Peak Volume			
865 vph	9-Jun	WB	4:00 PM	792 vph	2-Jun	WB	5:00 PM
Highest AM Three Consecutive Day Peak Volume				Highest AM Three Consecutive Day Peak Volume			
750 vph	1-Jun	EB	8:00 AM	705 vph	1-Jun	EB	8:00 AM
803 vph	2-Jun	EB	8:00 AM	690 vph	2-Jun	EB	8:00 AM
777 vph	3-Jun	EB	8:00 AM	735 vph	3-Jun	EB	8:00 AM
Highest PM Three Consecutive Day Peak Volume				Highest PM Three Consecutive Day Peak Volume			
722 vph	8-Jun	WB	4:00 PM	773 vph	1-Jun	WB	5:00 PM
865 vph	9-Jun	WB	4:00 PM	792 vph	2-Jun	WB	5:00 PM
722 vph	10-Jun	WB	5:00 PM	740 vph	3-Jun	WB	3:00 PM
796 vph	1-Jun	WB	5:00 PM				
815 vph	2-Jun	WB	5:00 PM				
790 vph	3-Jun	WB	3:00 PM				

KIP TRAFFIC SUMMARY (JULY)

#1 Freshfields Drive				#2 Old Cedar Lane			
Highest AM Peak Volume				Highest AM Peak Volume			
793 vph	14-Jul	EB	8:00 AM	720 vph	19-Jul	EB	8:00 AM
Highest PM Peak Volume				Highest PM Peak Volume			
940 vph	13-Jul	WB	5:00 PM	917 vph	13-Jul	WB	5:00 PM
Highest AM Three Consecutive Day Peak Volume				Highest AM Three Consecutive Day Peak Volume			
742 vph	13-Jul	EB	8:00 AM	652 vph	18-Jul	EB	8:00 AM
793 vph	14-Jul	EB	8:00 AM	720 vph	19-Jul	EB	8:00 AM
698 vph	15-Jul	EB	8:00 AM	705 vph	20-Jul	EB	8:00 AM
Highest PM Three Consecutive Day Peak Volume				Highest PM Three Consecutive Day Peak Volume			
758 vph	12-Jul	WB	5:00 PM	765 vph	12-Jul	WB	5:00 PM
940 vph	13-Jul	WB	5:00 PM	917 vph	13-Jul	WB	5:00 PM
752 vph	14-Jul	WB	5:00 PM	781 vph	14-Jul	WB	5:00 PM
Highest AM Three Consecutive Day Peak Volume				Highest AM Three Consecutive Day Peak Volume			
787 vph	18-Jul	WB	4:00 PM	773 vph	18-Jul	WB	5:00 PM
853 vph	19-Jul	WB	4:00 PM	804 vph	19-Jul	WB	4:00 PM
857 vph	20-Jul	WB	3:00 PM	802 vph	20-Jul	WB	3:00 PM

KIP TRAFFIC SUMMARY (AUGUST)

#1 Freshfields Drive				#3 Beachwalker Drive			
Highest AM Peak Volume				Highest AM Peak Volume			
758 vph	17-Aug	EB	8:00 AM	689 vph	17-Aug	EB	8:00 AM
Highest PM Peak Volume				Highest PM Peak Volume			
770 vph	22-Aug	WB	5:00 PM	693 vph	18-Aug	WB	3:00 PM
Highest AM Three Consecutive Day Peak Volume				Highest AM Three Consecutive Day Peak Volume			
758 vph	17-Aug	EB	8:00 AM	689 vph	17-Aug	EB	8:00 AM
716 vph	18-Aug	EB	8:00 AM	659 vph	18-Aug	EB	8:00 AM
698 vph	19-Aug	EB	8:00 AM	652 vph	19-Aug	EB	8:00 AM
715 vph	22-Aug	EB	8:00 AM	642 vph	24-Aug	EB	8:00 AM
730 vph	23-Aug	EB	8:00 AM	669 vph	25-Aug	EB	8:00 AM
716 vph	24-Aug	EB	8:00 AM	661 vph	26-Aug	EB	8:00 AM
Highest PM Three Consecutive Day Peak Volume				Highest PM Three Consecutive Day Peak Volume			
770 vph	22-Aug	WB	3:00 PM	681 vph	17-Aug	WB	3:00 PM
711 vph	23-Aug	WB	5:00 PM	693 vph	18-Aug	WB	3:00 PM
674 vph	24-Aug	WB	3:00 PM	648 vph	19-Aug	WB	3:00 PM
753 vph	17-Aug	WB	3:00 PM	685 vph	22-Aug	WB	3:00 PM
708 vph	18-Aug	WB	3:00 PM	677 vph	23-Aug	WB	5:00 PM
675 vph	19-Aug	WB	3:00 PM	653 vph	24-Aug	WB	3:00 PM

Has the NCTV been reached?

As determined by the standards and criteria outlined within the Development Agreement (Exhibit 10.1), the Near Capacity Traffic Volume has not been reached.

Overall traffic volumes have increased over the previous three years however, traffic volumes have not met or exceeded the near capacity thresholds for required mitigation measures.

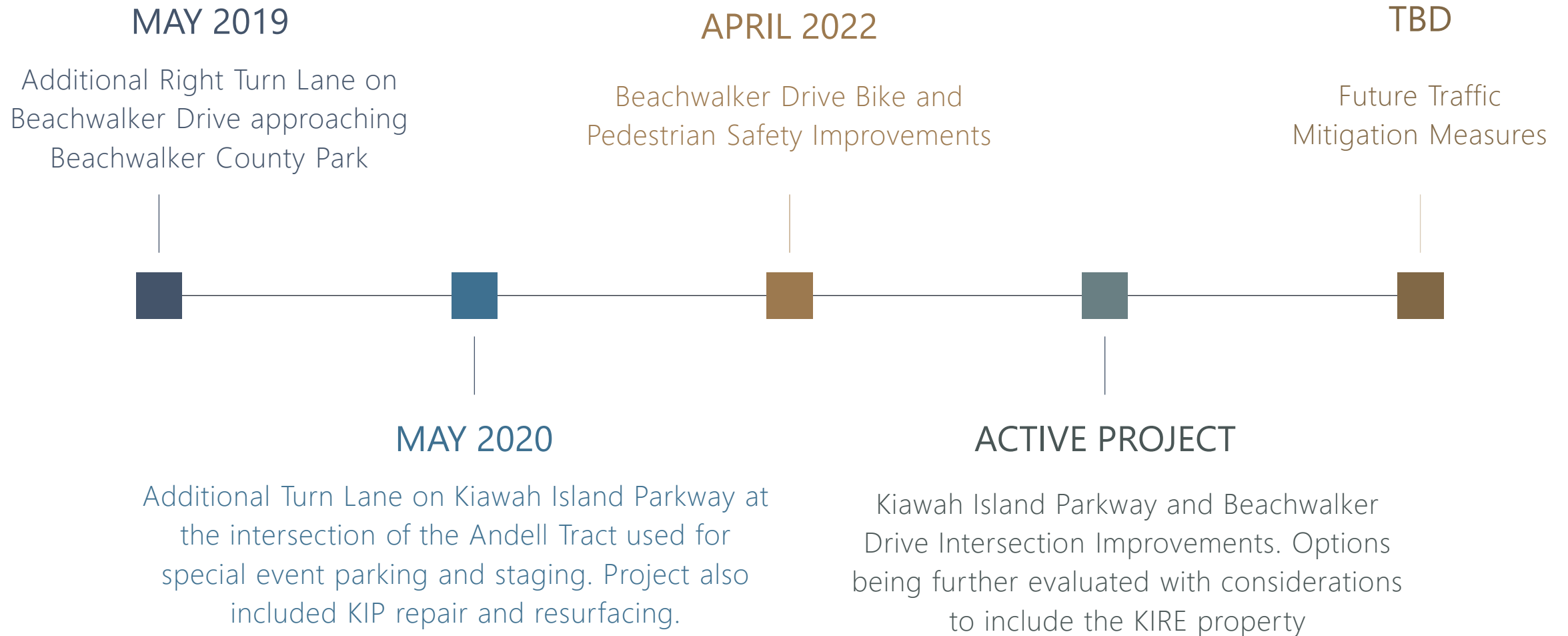
Some traffic mitigation efforts have taken place absent of the required thresholds being met. Furthermore, the Town has proactively studied the KIP for future traffic impacts.

N C T V

Kiawah Island Parkway 1,330 VPH

Kiawah Island Bridge 1,190 VPH

RECENT TRAFFIC MITIGATION & SAFETY IMPROVEMENTS



KIAWAH ISLAND PARKWAY INTERSECTION AND CORRIDOR STUDY

The purpose of the Kiawah Island Parkway Intersection and Corridor Study is to analyze the intersection capacity of select intersections along Kiawah Island Parkway, Betsy Kerrison Parkway, and Seabrook Island Road during existing, short-term, and long-term conditions. For the purposes of this study, existing conditions were in 2021, short-term is 2026 conditions, and long-term is 2036 conditions. The short-term conditions included known upcoming developments in or near the Town of Kiawah Island that can increase the traffic volume on the Town's roads. The long-term conditions included vacant parcels of land that are not currently slated for development but could be developed in the future.



ADDITIONAL RESOURCES

The complete traffic data provided by Quality Counts, LLC may be found online at the Towns Development Resources Webpage.

<https://www.kiawahisland.org/development-resources/>