

HOUSTON-GALVESTON AREA COUNCIL



Temporary Pedestrian/Bicycle Counters Data Summary

Deployment Summary	
Sponsoring Agency	City of Houston: Parks and Recreation Department
Deployment Period	Friday, March 4, 2016 – Monday, March 14, 2016
Number of Counters Deployed	12
Facility Description	Shared-Use Paths along White Oak Bayou between Alabonson Road (Northwest Houston) and Downtown Houston
Locations Deployed (Houston-Galveston Area Council)	
Counter #1	White Oak Trail at Alabonson Road
Counter #2	White Oak Trail at Antoine Drive
Counter #3	White Oak Trail at W. Tidwell Road
Counter #4	White Oak Trail at W. 43 rd Street
Counter #5	White Oak Trail at Ella Boulevard
Counter #6	White Oak Trail at W. T.C. Jester Boulevard Underpass
Counter #7	White Oak Trail at University of Houston – Downtown
Locations Deployed (Texas Transportation Institute)	
Counter A	MKT Trail at 7 th Street/Moy Street (White Oak Bayou Crossing)
Counter B	MKT Trail at Harvard Street
Counter C	White Oak Trail at Stude Community Center
Counter D	White Oak Trail (Main Shared-Use Path) at Greenleaf Street
Counter E	White Oak Trail (Lower Shared-Use Path) at Greenleaf Street

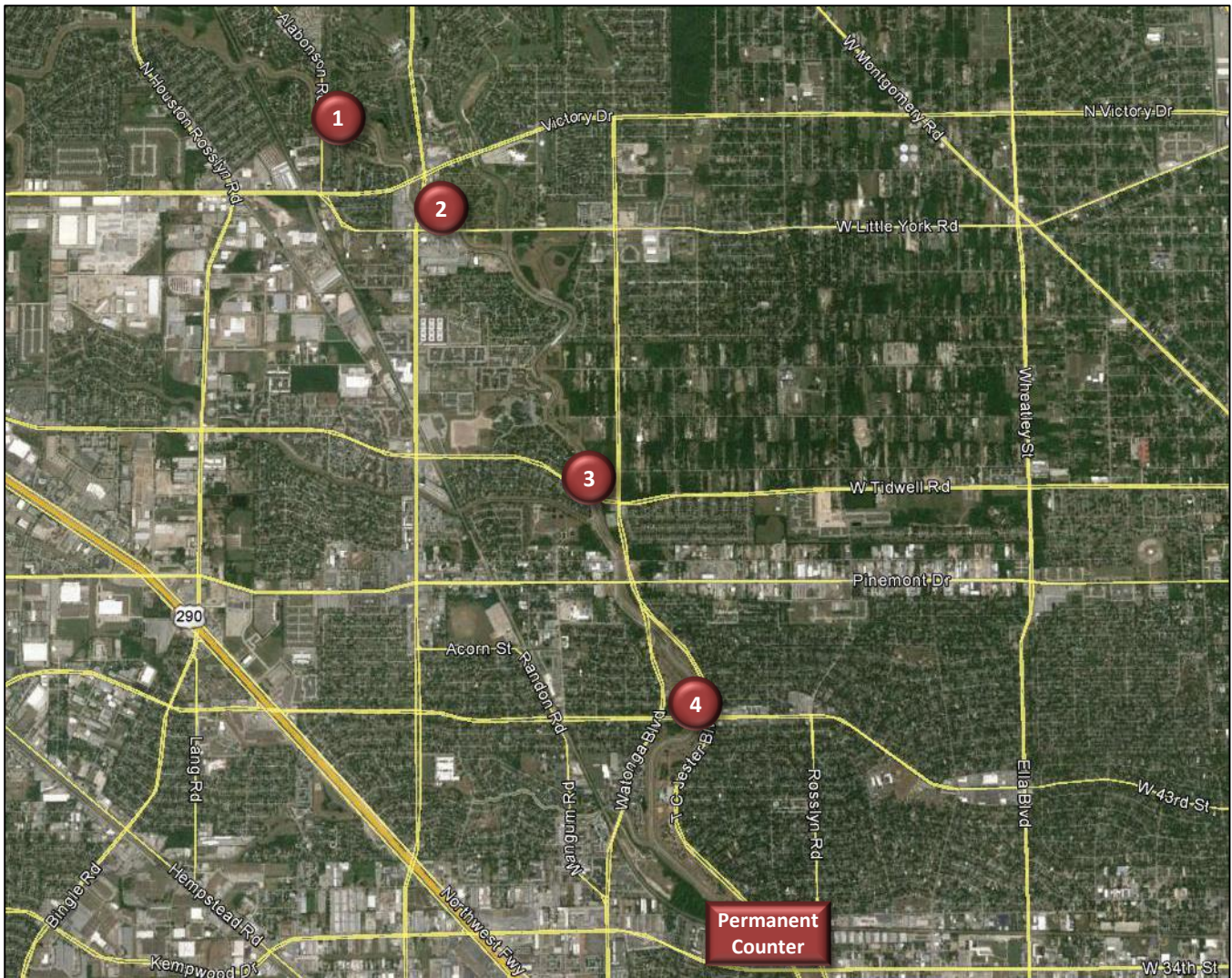
About the Temporary Pedestrian/Bicycle Counters

The Houston-Galveston Area Council (H-GAC) has temporary counters (TRAFx Infrared Trail Counters: Generation III) that can be borrowed by local governments and transportation agencies to count the number of people using off-street pedestrian and bicycle facilities. Infrared technology is used to count the number of people passing the counter. The counters do not differentiate between pedestrians and bicyclists, but count the total number of users.

The Texas Transportation Institute (TTI) owns additional temporary counters that it deploys along off-street pedestrian and bicycle facilities statewide.

Counter Locations

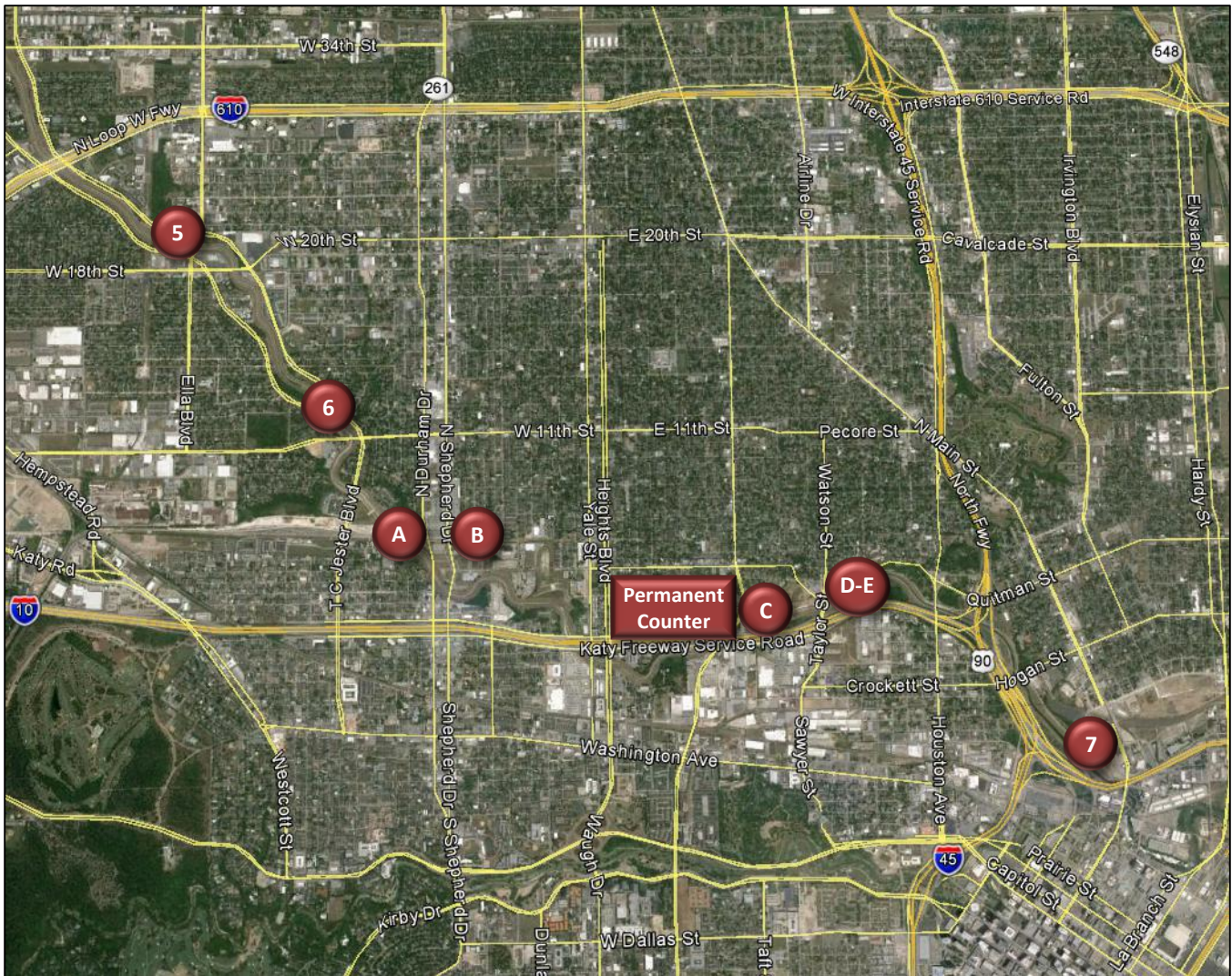
White Oak Trail in Northwest Houston
(Alabonson Road to 34th Street)



Counter	Location	Average Daily Usage	Total Users
1	White Oak Trail at Alabonson Road	170	1,867
2	White Oak Trail at Antoine Drive	99	1,085
3	White Oak Trail at W. Tidwell Road	225	2,477
4	White Oak Trail at W. 43 rd Street	349	3,836
Permanent Counter	White Oak Trail at W. 34 th Street	584	6,427

Counter Locations

White Oak Trail in Central Houston
(Montrose Boulevard/Studemont Street to Interstate 45)



Counter	Location	Average Daily Usage	Total Users
5	White Oak Trail at Ella Boulevard	497	5,464
6	White Oak Trail at W. T.C. Jester Boulevard Underpass	555	6,108
A	MKT Trail at 7 th Street/Moy Street (White Oak Bayou Crossing)	826	9,089
B	MKT Trail at Harvard Street	930	10,225
Permanent Counter	MKT Trail at 5 ½ Street	1,092	12,017
C	White Oak Trail at Stude Community Center	452	4,968
D	White Oak Trail (Main Shared-Use Path) at Greenleaf Street	271	2,977
E	White Oak Trail (Lower Shared-Use Path) at Greenleaf Street*	224	1,913*
7	White Oak Trail at University of Houston – Downtown	633	6,966

* Counter E was retrieved on Tuesday, March 8 at 7:00 a.m. due to flooding concerns and redeployed on Thursday, March 10 at 6:00 p.m.

Overall Trends and Notes

- *Higher Weekend Usage*
At all locations, average daily usage was higher during weekends than on weekdays.
- *Evenings Busiest on Weekdays*
On weekdays, usage peaked in the evening at most locations. Peak usage during weekends was more variable.
- *Rain Impacts Usage*
Rain seems to impact usage. At all locations, the day with the most rainfall (Wednesday, March 9: 1.44" of rain) had the least usage.
Due to heavy rains and the potential for flooding, Counter E (which was deployed at a lower elevation along White Oak Bayou) was removed for a short time during the deployment period.
- *Highest Usage in Houston Heights*
Usage of the White Oak Trail and MKT Trail is highest in the Houston Heights, peaking at H-GAC's permanent counter at the MKT Trail near 5½ Street. Usage generally decreases traveling northwest along the White Oak Trail from the Houston Heights. Currently, the White Oak Trail ends near Alabonson Road (Counter #1).
- *Increased Usage Since Previous Deployments*
At some locations, this is the second or third time temporary pedestrian/bicycle counters were deployed. Average daily usage has increased at all locations where counters were previously deployed.
 - Average daily usage at Counter #1 (White Oak Trail at Alabonson Road) increased 89% between September 2015 and March 2016 (90 users/day to 170 users/day).
 - Average daily usage at Counter #2 (White Oak Trail at Antoine Drive) increased 57% between April 2015 and March 2016 (63 users/day to 99 users/day).
 - Average daily usage at Counter A (MKT Trail at 7th Street/Moy Street: White Oak Bayou Crossing) increased 211% between April 2015 and March 2016 (266 users/day to 826 users/day).



Pedestrians and cyclists using the MKT Trail at Heights Boulevard in March 2016.

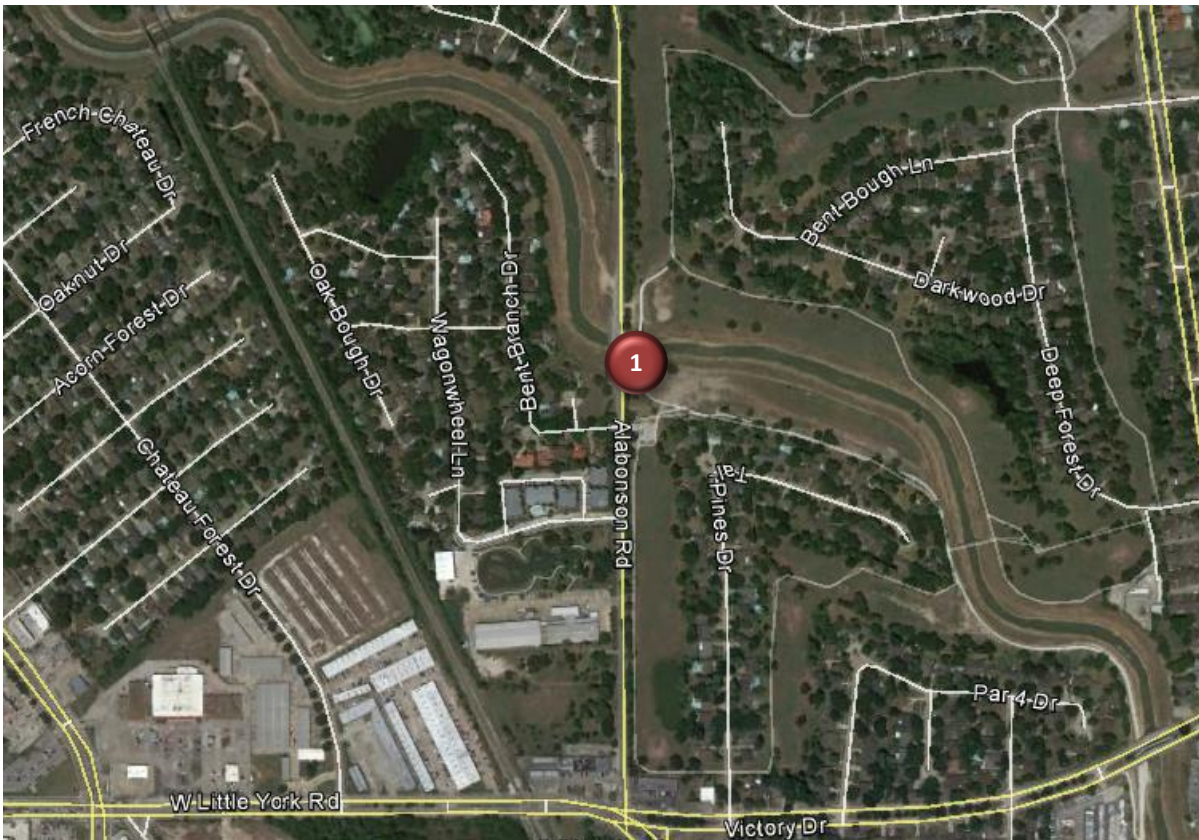
Counter #1

White Oak Trail at Alabonson Road

Location Information		
Location Name	White Oak Trail at Alabonson Road	
Location Description	White Oak Trail: Bridge across White Oak Bayou parallel to Alabonson Road Bridge	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°52'13"N, 95°28'48"W	
Surrounding Land Uses	North	Single-Family Residential
	South	Single-Family Residential, Multi-Family Residential
	East	Single-Family Residential
	West	Single-Family Residential, Multi-Family Residential
What object was device secured to?	Bridge Railing (Near Southern End of Bridge)	
Sidewalk Width	13'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	Yes (Mostly Open with Newly-Planted Trees)	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Excellent	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	No (Mostly Open with Newly-Planted Trees)	
Have counts been collected by H-GAC at this location before?	Yes (August 28, 2015 - September 15, 2015)	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.) and later at night (10:00 p.m. – 11:00 p.m.). The spike in usage between 10:00 p.m. and 11:00 p.m. could be attributed to an unusually high level of activity on Friday, March 11 during that period (see following note). • During weekends, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). There is also an increase in usage earlier in the morning (9:00 a.m. – 11:00 a.m.). • There was an unusually high level of activity on Friday, March 11 between 10:00 p.m. and 11:00 p.m. During that period, 127 users passed Counter #1. During the other 10 days, the average number of users between 10:00 p.m. and 11:00 p.m. was 2.8 (28 total users). • Between September 2015 and March 2016, average daily usage increased 89% (90 users/day to 170 users/day). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (17 users).

Location Information: Map



Location Information: Photos

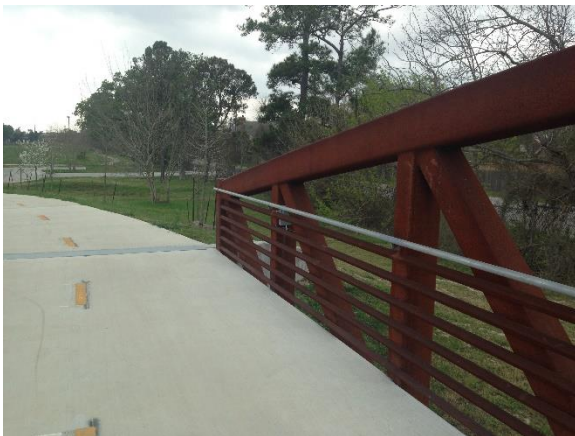


Image 1: White Oak Trail at Alabonson Road
Facing East

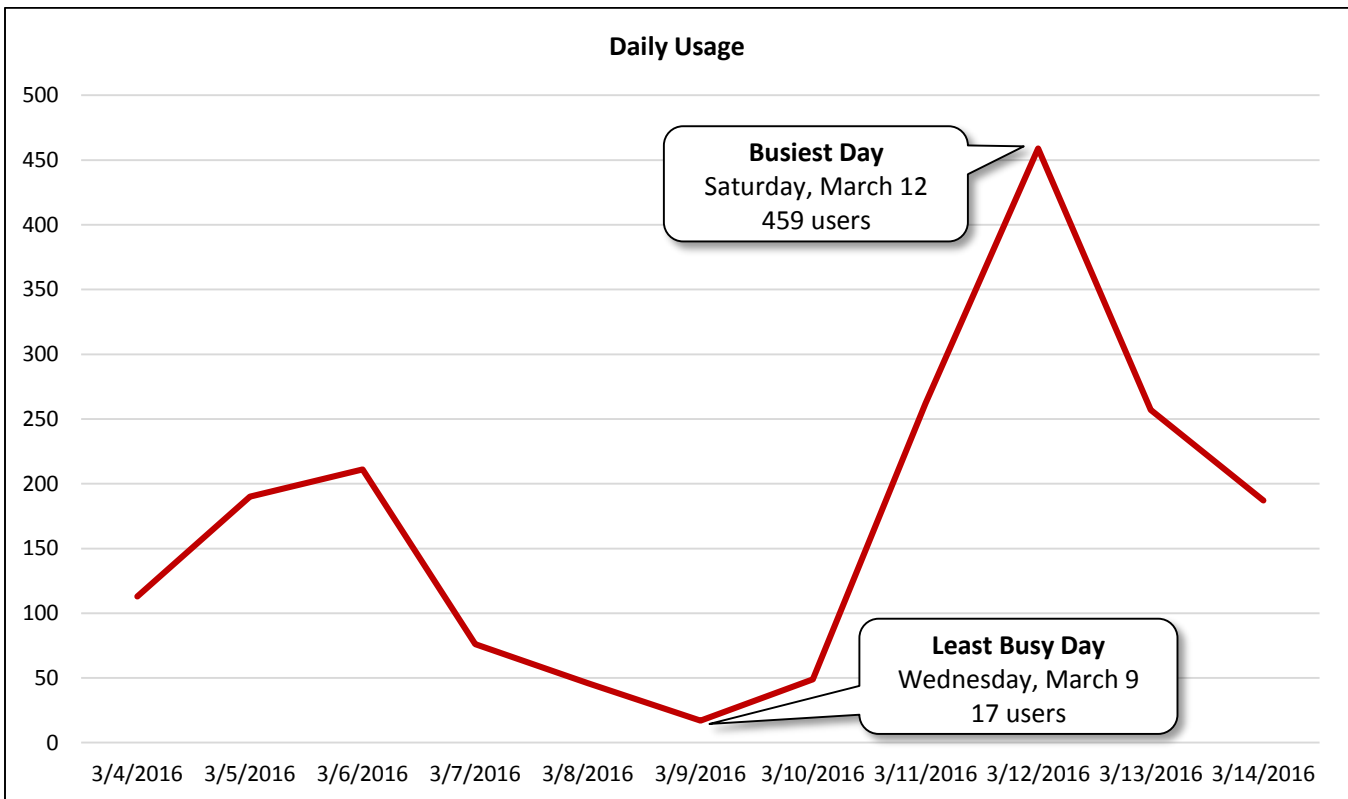


Image 2: White Oak Trail at Alabonson Road
Facing West

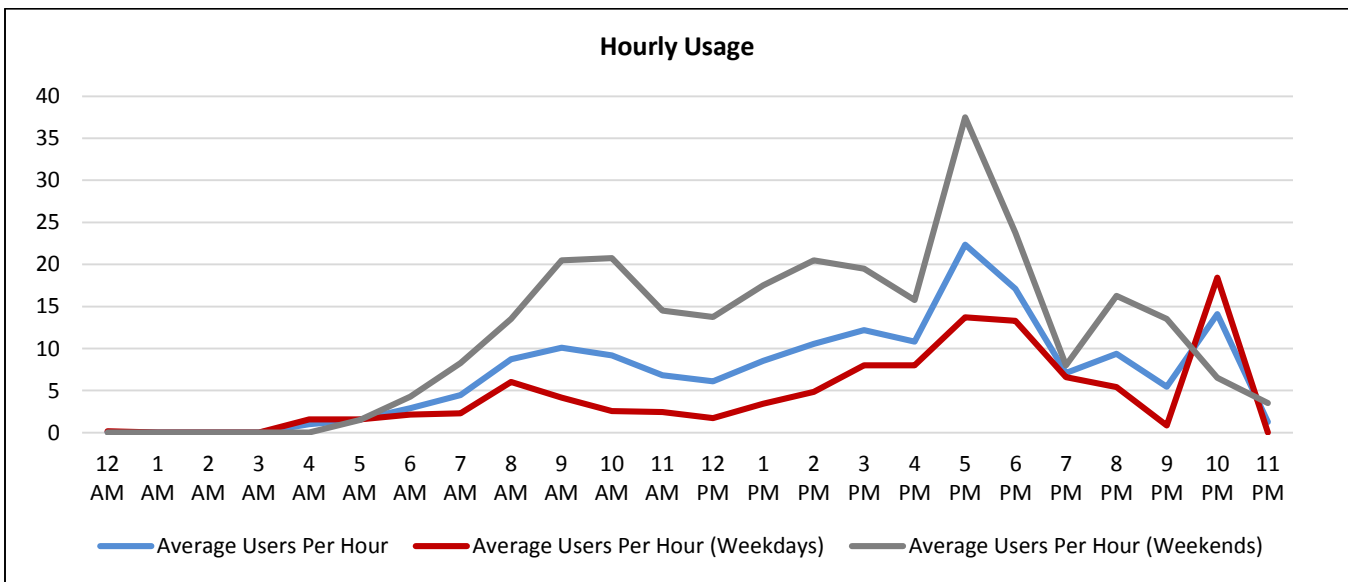
Daily Usage White Oak Trail at Alabonson Road				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	113	74	48	0
Saturday, March 5, 2016	190	76	47	0
Sunday, March 6, 2016	211	75	47	0
Monday, March 7, 2016	76	75	62	T
Tuesday, March 8, 2016	46	72	67	0.22
Wednesday, March 9, 2016	17	73	61	1.44
Thursday, March 10, 2016	49	76	63	0.9
Friday, March 11, 2016	262	74	63	0.11
Saturday, March 12, 2016	459	75	60	0.02
Sunday, March 13, 2016	257	82	56	0
Monday, March 14, 2016	187	87	56	0
Total	1,867			
Average Daily Usage	170			
Average Daily Usage (Weekday)	107			
Average Daily Usage (Weekend)	279			

Notes	
Houston ISD Spring Break: March 14 – March 18, 2016	

*Weather conditions recorded at KHOU.



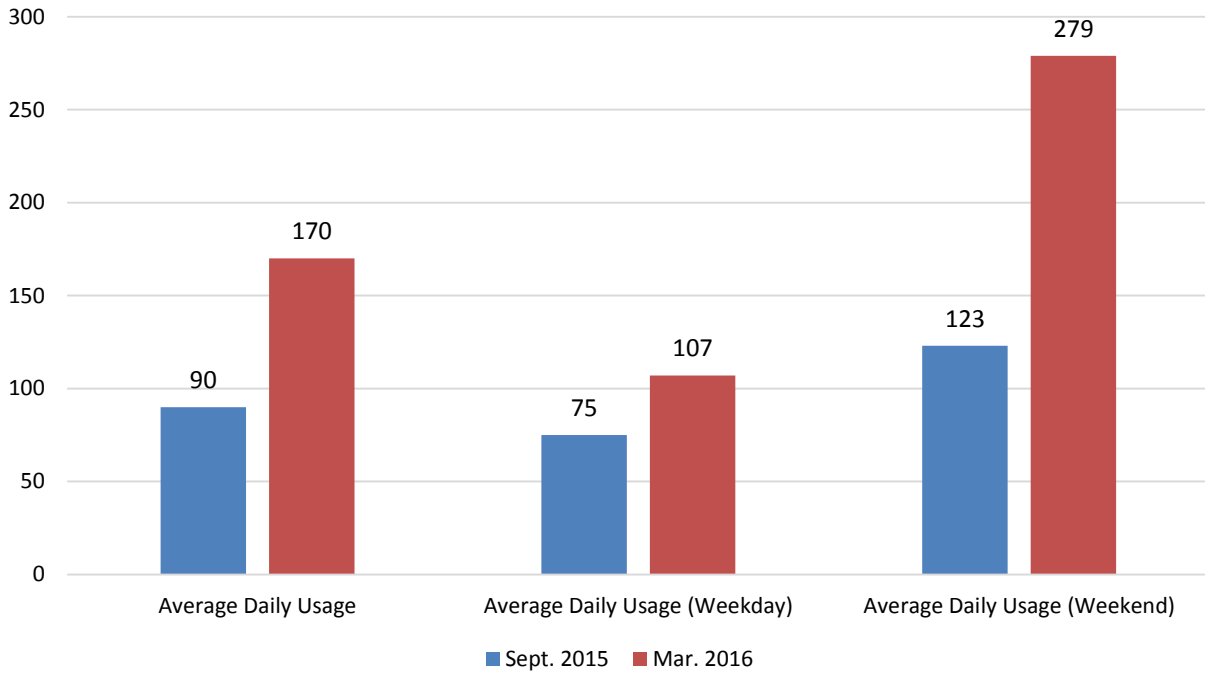
Hourly Usage			
White Oak Trail at Alabonson Road			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.1	0.1	0.0
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.0	0.0	0.0
4:00 a.m.	1.0	1.6	0.0
5:00 a.m.	1.5	1.6	1.5
6:00 a.m.	2.9	2.1	4.3
7:00 a.m.	4.5	2.3	8.3
8:00 a.m.	8.7	6.0	13.5
9:00 a.m.	10.1	4.1	20.5
10:00 a.m.	9.2	2.6	20.8
11:00 a.m.	6.8	2.4	14.5
12:00 p.m.	6.1	1.7	13.8
1:00 p.m.	8.5	3.4	17.5
2:00 p.m.	10.5	4.9	20.5
3:00 p.m.	12.2	8.0	19.5
4:00 p.m.	10.8	8.0	15.8
5:00 p.m.	22.4	13.7	37.5
6:00 p.m.	17.1	13.3	23.8
7:00 p.m.	7.1	6.6	8.0
8:00 p.m.	9.4	5.4	16.3
9:00 p.m.	5.5	0.9	13.5
10:00 p.m.	14.1	18.4	6.5
11:00 p.m.	1.3	0.0	3.5



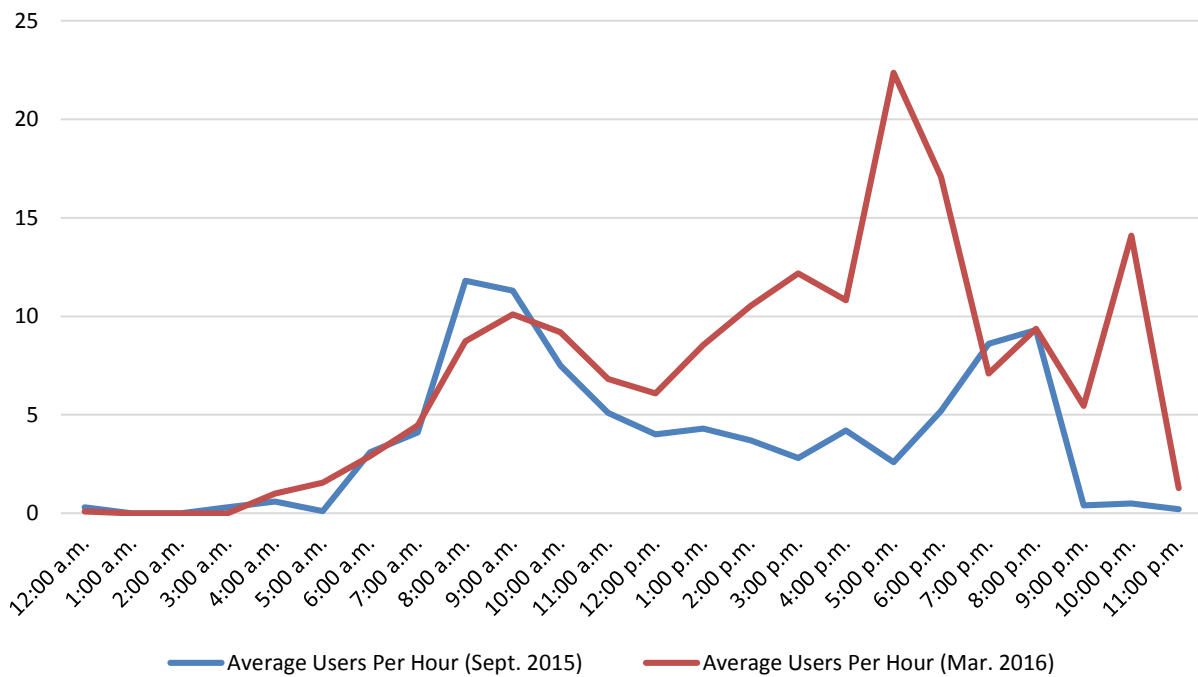
Historical Comparison

White Oak Trail at Alabonson Road

Comparison: Average Daily Usage



Comparison: Hourly Usage



Counter #2

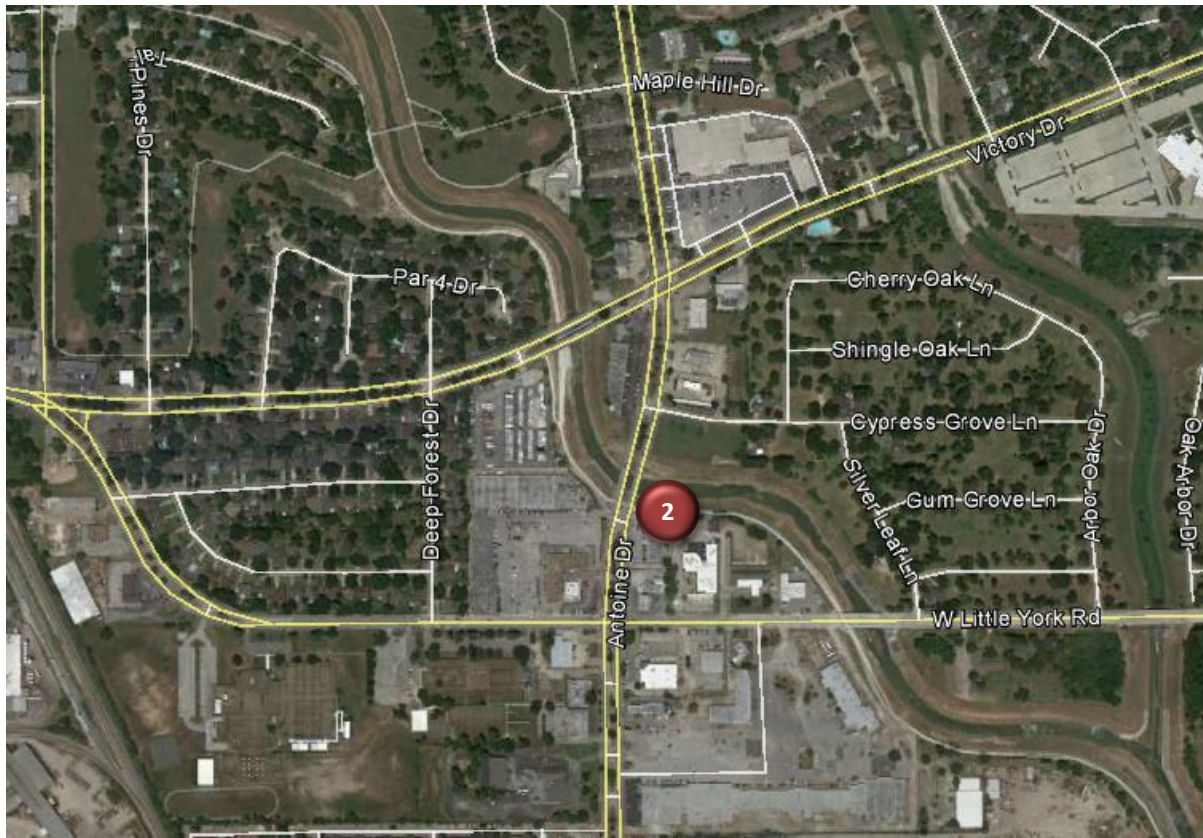
White Oak Trail at Antoine Drive

Location Information		
Location Name	White Oak Trail at Antoine Drive	
Location Description	White Oak Trail approximately 150 feet east of Antoine Drive on Sign Post (No Motor Vehicles)	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°51'51.83"N, 95°28'20.97"W	
Surrounding Land Uses	North	Commercial/Retail
	South	Commercial/Retail
	East	Commercial/Retail
	West	Commercial/Retail, Single-Family Residential
What object was device secured to?	Sign Post (No Motor Vehicles)	
Sidewalk Width	10'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	No (Mostly Open with Some Shade Trees)	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Excellent	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	None	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Nearby (METRO Bus Stops 450' Southwest at Antoine Drive/W. Little York Road Intersection)	
Shade	No (Mostly Open with Some Shade Trees)	
Have counts been collected by H-GAC at this location before?	Yes (March 31, 2015 - April 22, 2015; August 28, 2015 - September 15, 2015)	

Trends

- Usage tends to be much higher during weekends than on weekdays.
- On weekdays, usage is highest midday (12:00 p.m. – 1:00 p.m.) and in the evening (6:00 p.m. – 7:00 p.m.).
- During weekends, usage is highest midday (10:00 a.m. – 1:00 p.m.).
- Between April 2015 (when pedestrian/bicycle counts were first collected at this location) and March 2016, average daily usage increased 57% (63 users/day to 99 users/day).
- Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (3 users).

Location Information: Map



Location Information: Photos



Image 3: White Oak Trail at Antoine Drive Facing East

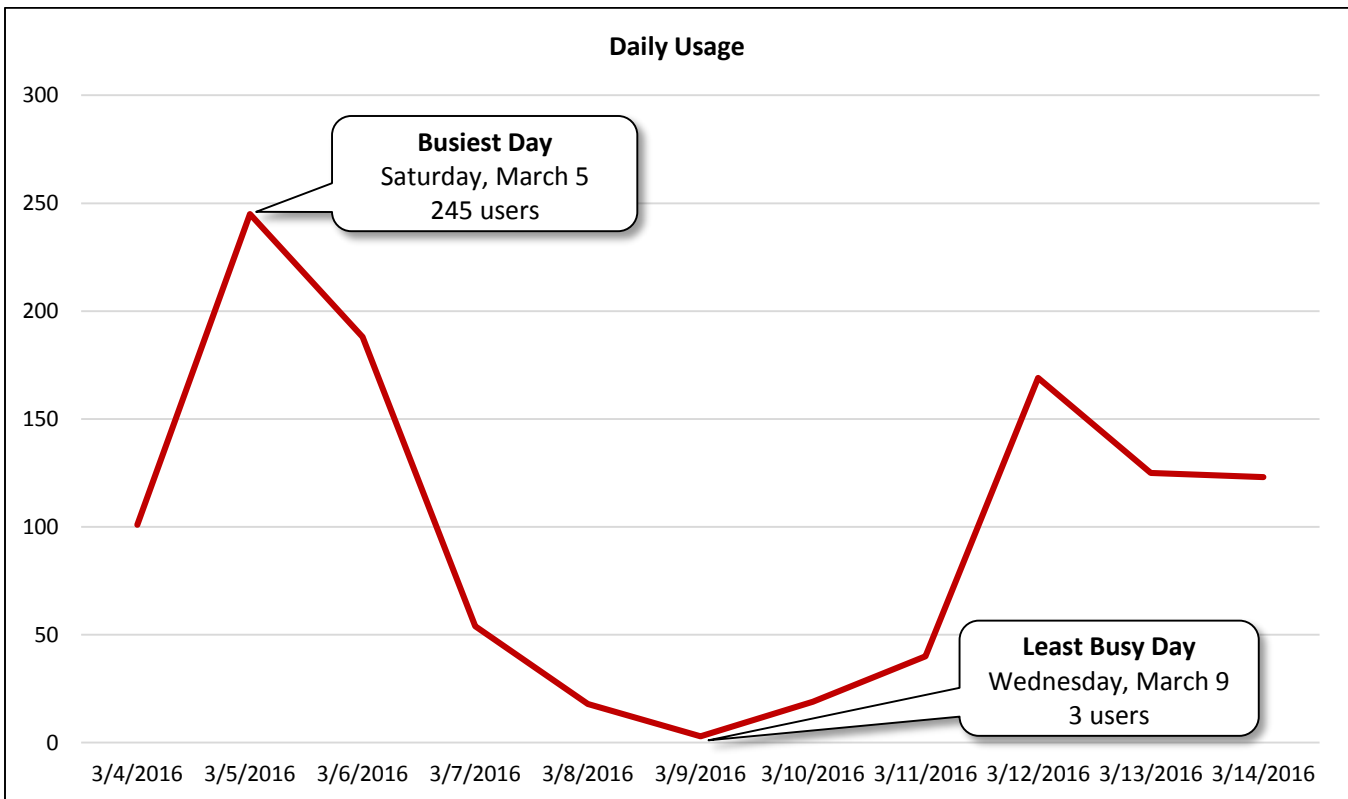


Image 4: White Oak Trail at Antoine Drive Facing West

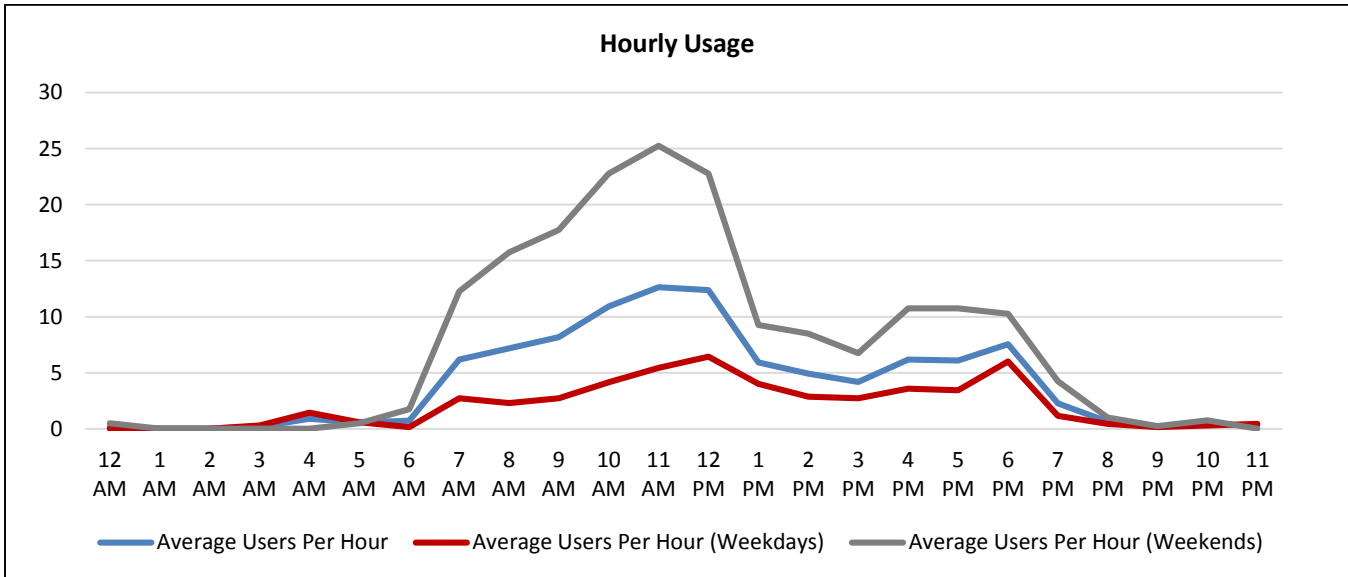
Daily Usage White Oak Trail at Antoine Drive				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	101	74	48	0
Saturday, March 5, 2016	245	76	47	0
Sunday, March 6, 2016	188	75	47	0
Monday, March 7, 2016	54	75	62	T
Tuesday, March 8, 2016	18	72	67	0.22
Wednesday, March 9, 2016	3	73	61	1.44
Thursday, March 10, 2016	19	76	63	0.9
Friday, March 11, 2016	40	74	63	0.11
Saturday, March 12, 2016	169	75	60	0.02
Sunday, March 13, 2016	125	82	56	0
Monday, March 14, 2016	123	87	56	0
Total	1,085			
Average Daily Usage	99			
Average Daily Usage (Weekday)	51			
Average Daily Usage (Weekend)	182			

Notes	
Houston ISD Spring Break: March 14 – March 18, 2016	

*Weather conditions recorded at KHOU.



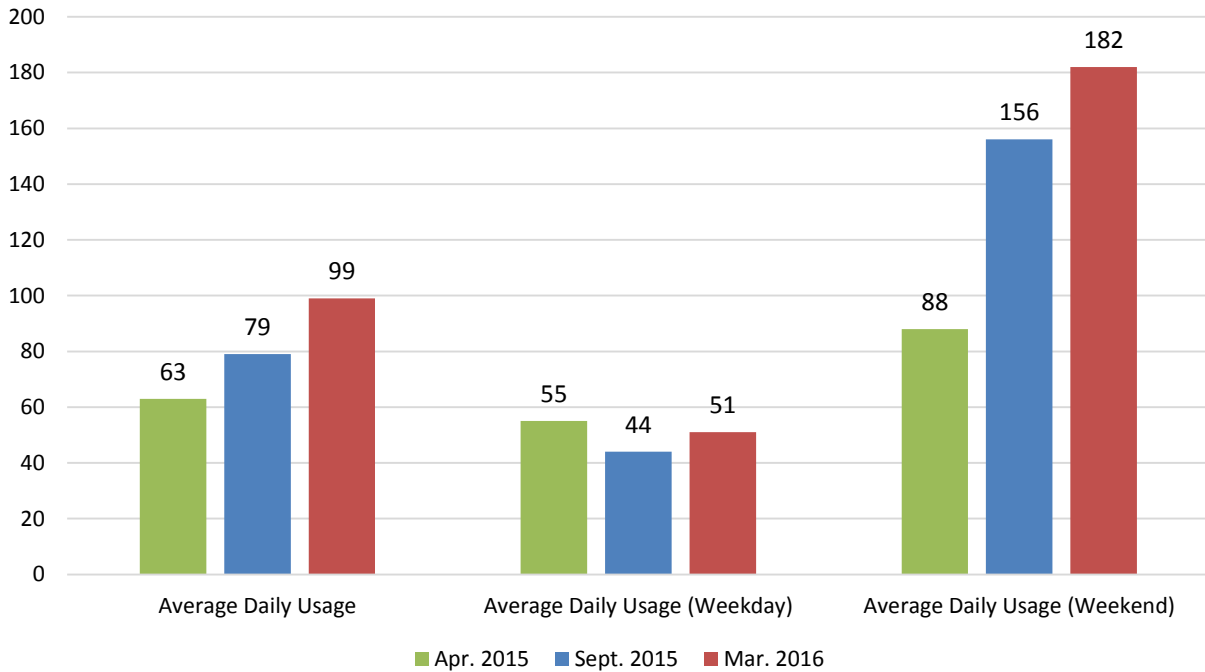
Hourly Usage			
White Oak Trail at Antoine Drive			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.2	0.0	0.5
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.2	0.3	0.0
4:00 a.m.	0.9	1.4	0.0
5:00 a.m.	0.5	0.6	0.5
6:00 a.m.	0.7	0.1	1.8
7:00 a.m.	6.2	2.7	12.3
8:00 a.m.	7.2	2.3	15.8
9:00 a.m.	8.2	2.7	17.8
10:00 a.m.	10.9	4.1	22.8
11:00 a.m.	12.6	5.4	25.3
12:00 p.m.	12.4	6.4	22.8
1:00 p.m.	5.9	4.0	9.3
2:00 p.m.	4.9	2.9	8.5
3:00 p.m.	4.2	2.7	6.8
4:00 p.m.	6.2	3.6	10.8
5:00 p.m.	6.1	3.4	10.8
6:00 p.m.	7.5	6.0	10.3
7:00 p.m.	2.3	1.1	4.3
8:00 p.m.	0.6	0.4	1.0
9:00 p.m.	0.2	0.1	0.3
10:00 p.m.	0.5	0.3	0.8
11:00 p.m.	0.3	0.4	0.0



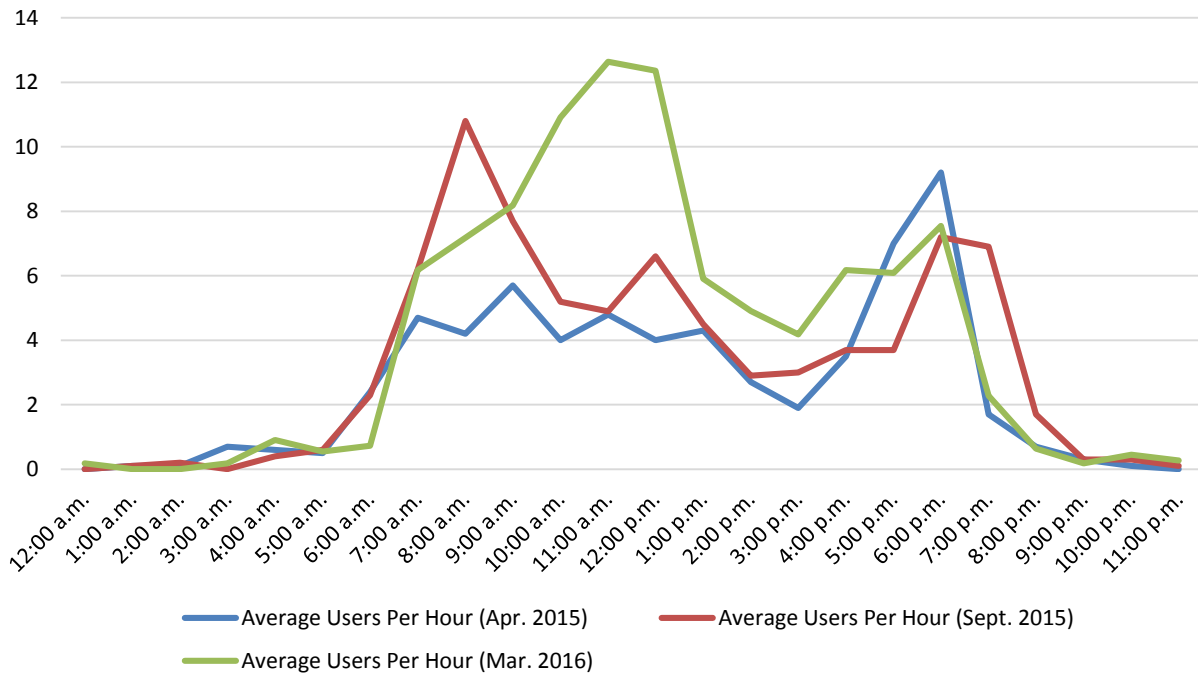
Historical Comparison

White Oak Trail at Antoine Drive

Comparison: Daily Usage



Comparison: Hourly Usage



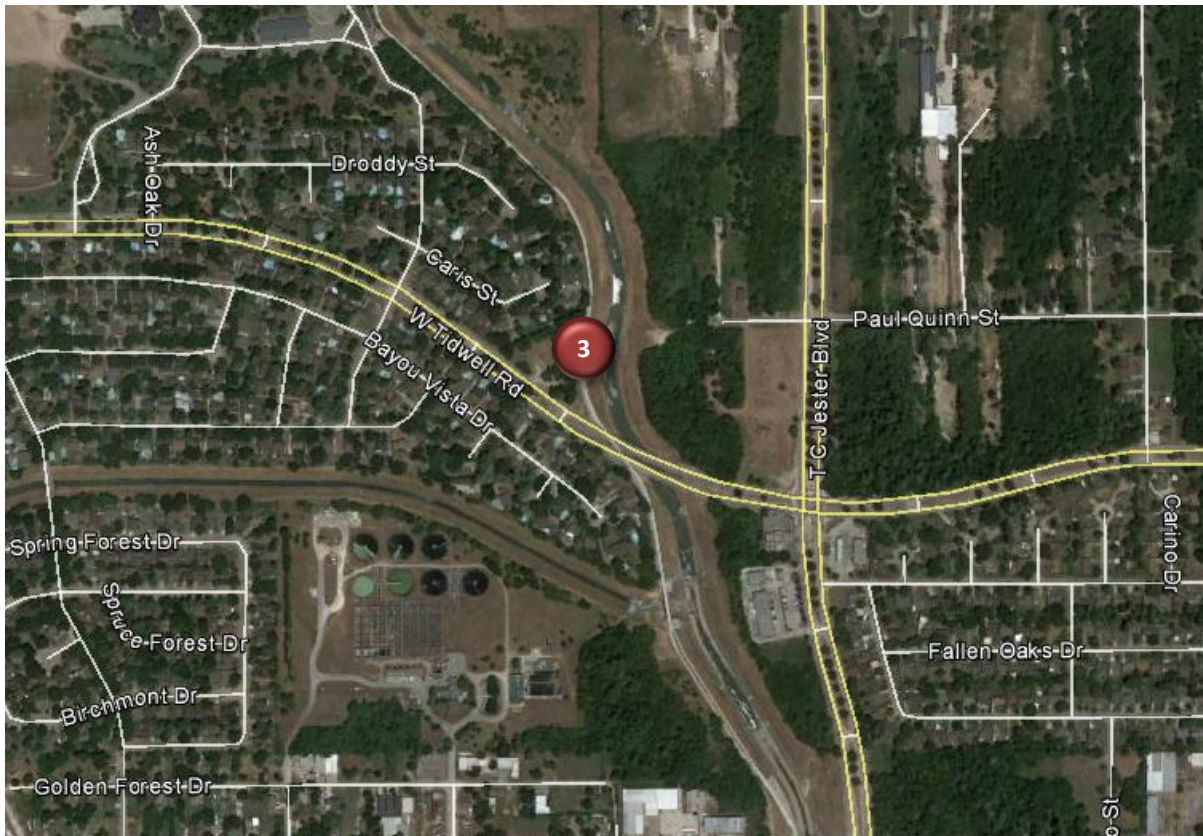
Counter #3

White Oak Trail at W. Tidwell Road

Location Information		
Location Name	White Oak Trail at W. Tidwell Road	
Location Description	White Oak Trail North of W. Tidwell Road	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°50'52.29"N, 95°27'41.26"W	
Surrounding Land Uses	North	Single-Family Residential, Vacant
	South	Vacant, Single-Family Residential
	East	Vacant
	West	Single-Family Residential
What object was device secured to?	Sign Post (Steep Grade/Hill)	
Sidewalk Width	10' (widens to 16' under W. Tidwell Road)	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	N/A (Off-Road Shared-Use Path)	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Yes (METRO Bus Stop 1000' West at W. Tidwell Road/Deepcreek Lane)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	The counter was placed near property where a future trailhead is planned (currently undeveloped).	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evenings (5:00 p.m. – 6:00 p.m.). • During weekends, usage is highest in the mornings (9:00 a.m. – 10:00 a.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (20 users).

Location Information: Map



Location Information: Photos

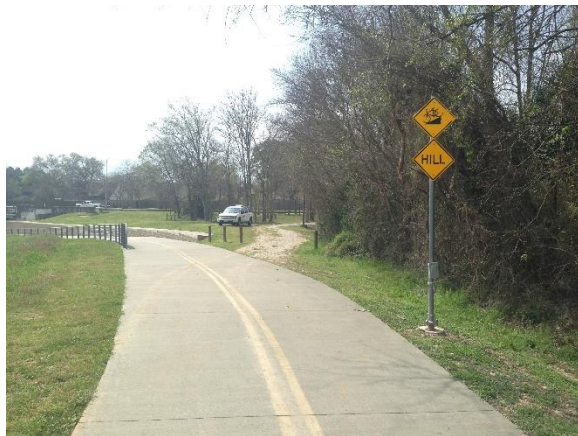


Image 5: White Oak Trail at W. Tidwell Road Facing East

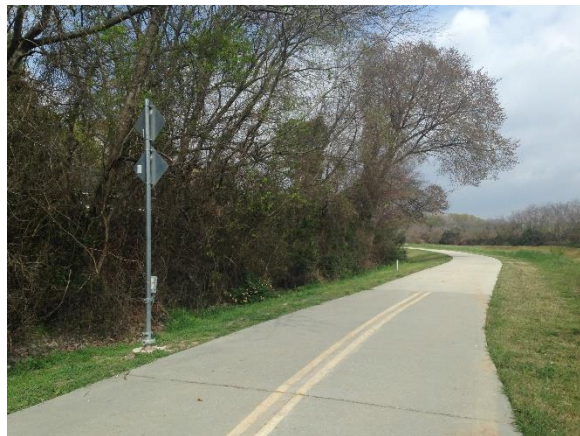


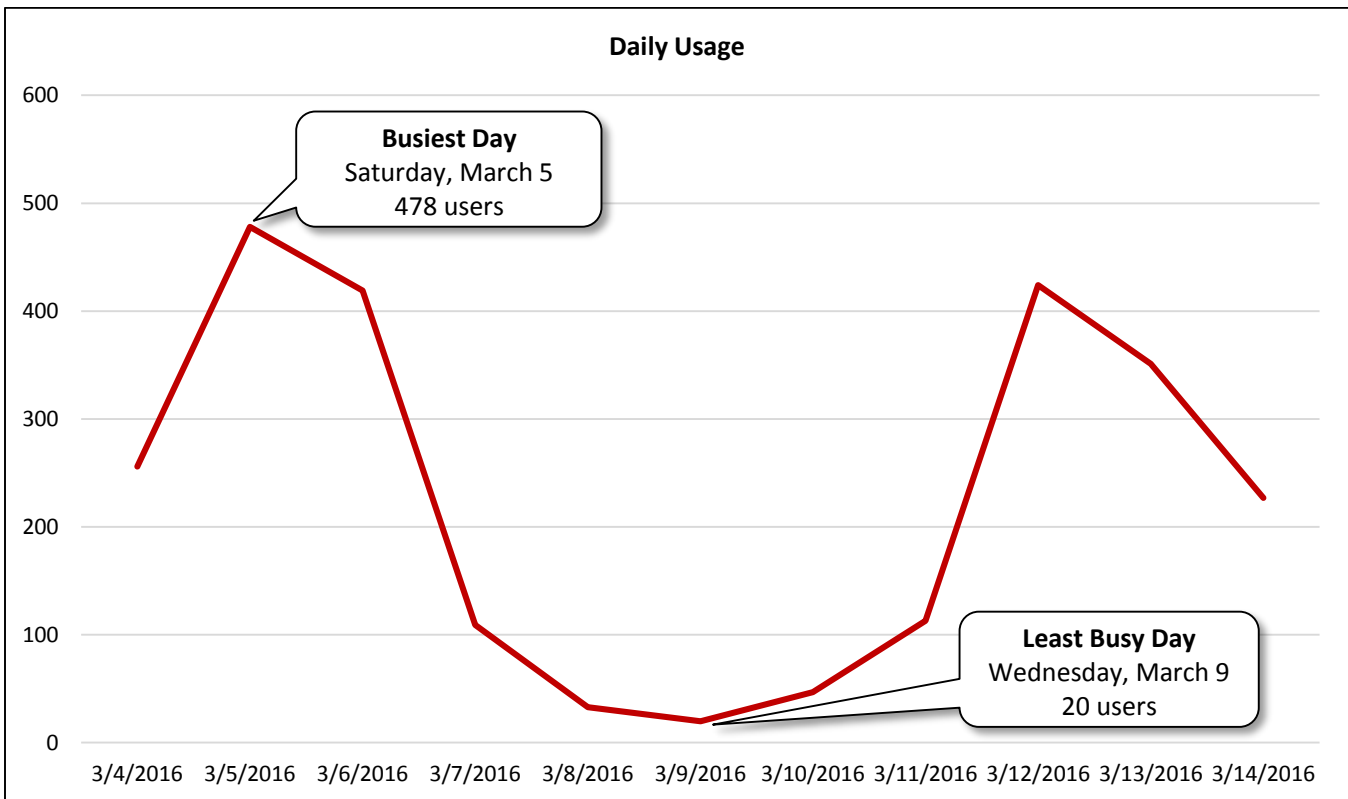
Image 6: White Oak Trail at W. Tidwell Road Facing West

Daily Usage				
White Oak Trail at W. Tidwell Road				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	256	74	48	0
Saturday, March 5, 2016	478	76	47	0
Sunday, March 6, 2016	419	75	47	0
Monday, March 7, 2016	109	75	62	T
Tuesday, March 8, 2016	33	72	67	0.22
Wednesday, March 9, 2016	20	73	61	1.44
Thursday, March 10, 2016	47	76	63	0.9
Friday, March 11, 2016	113	74	63	0.11
Saturday, March 12, 2016	424	75	60	0.02
Sunday, March 13, 2016	351	82	56	0
Monday, March 14, 2016	227	87	56	0

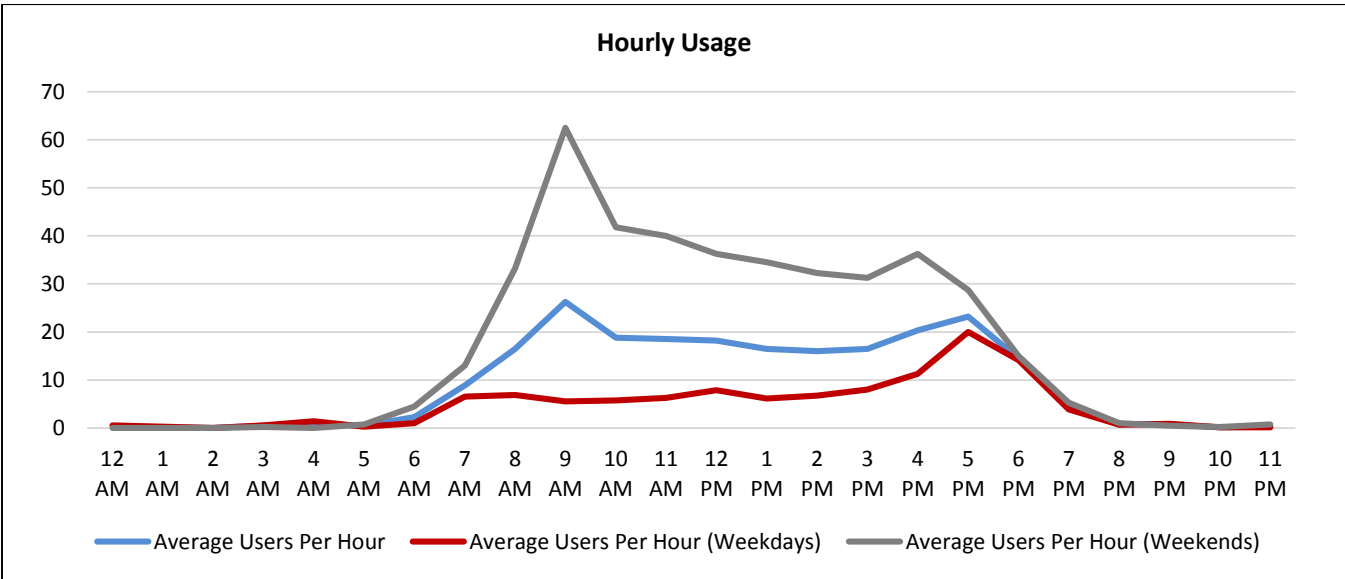
Total	2,477
Average Daily Usage	225
Average Daily Usage (Weekday)	115
Average Daily Usage (Weekend)	418

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail at W. Tidwell Road			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.4	0.6	0.0
1:00 a.m.	0.2	0.3	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.5	0.6	0.3
4:00 a.m.	0.9	1.4	0.0
5:00 a.m.	0.5	0.3	0.8
6:00 a.m.	2.3	1.0	4.5
7:00 a.m.	8.9	6.6	13.0
8:00 a.m.	16.5	6.9	33.3
9:00 a.m.	26.3	5.6	62.5
10:00 a.m.	18.8	5.7	41.8
11:00 a.m.	18.5	6.3	40.0
12:00 p.m.	18.2	7.9	36.3
1:00 p.m.	16.5	6.1	34.5
2:00 p.m.	16.0	6.7	32.3
3:00 p.m.	16.5	8.0	31.3
4:00 p.m.	20.4	11.3	36.3
5:00 p.m.	23.2	20.0	28.8
6:00 p.m.	14.5	14.1	15.0
7:00 p.m.	4.4	3.9	5.3
8:00 p.m.	0.8	0.7	1.0
9:00 p.m.	0.7	0.9	0.5
10:00 p.m.	0.2	0.1	0.3
11:00 p.m.	0.4	0.1	0.8

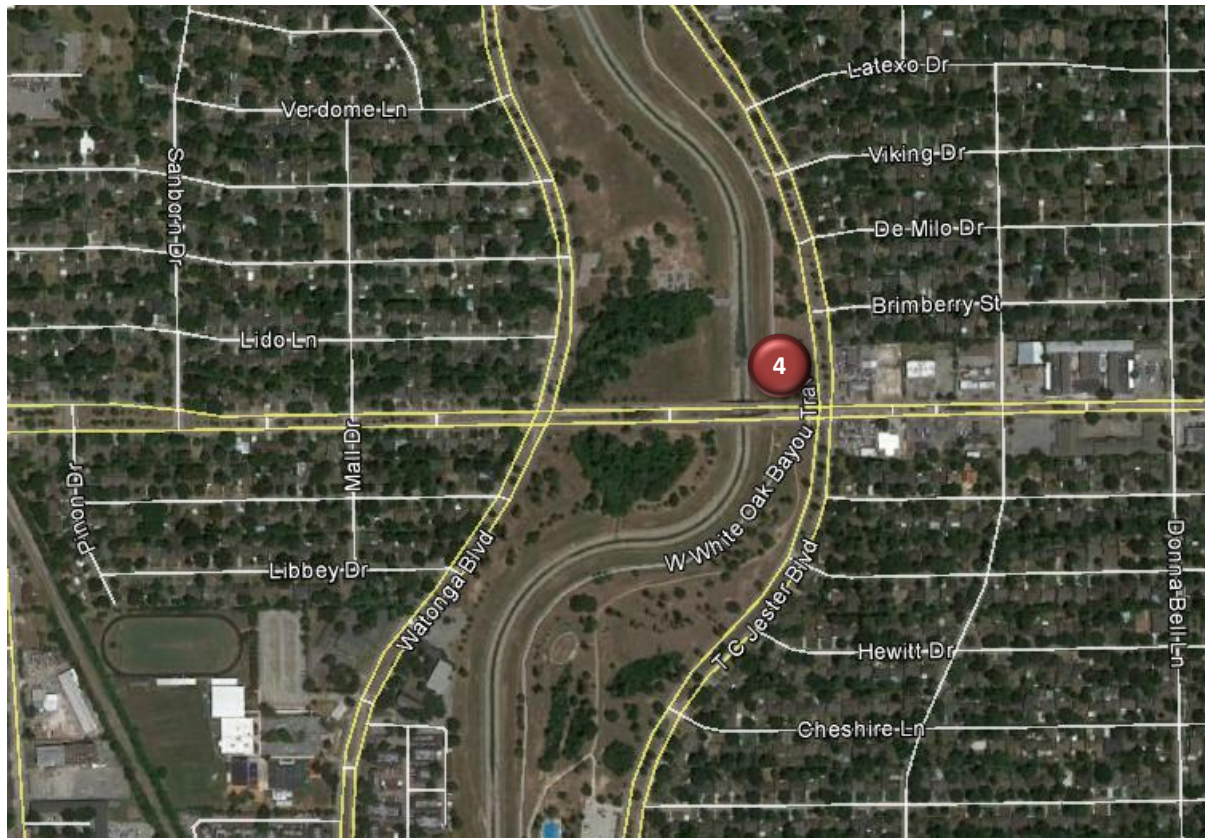


Counter #4White Oak Trail at W. 43rd Street

Location Information		
Location Name	White Oak Trail at W. 43 rd Street	
Location Description	White Oak Trail north of W. 43 rd Street (parallel to T.C. Jester Boulevard)	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°49'58.84"N, 95°27'9.09"W	
Surrounding Land Uses	North	Single-Family Residential
	South	Single-Family Residential, Park
	East	Commercial/Retail, Single-Family Residential, Multi-Family Residential, Institutional (Church)
	West	Park, Single-Family Residential
What object was device secured to?	Light Post (First Light Post North of W. 43 rd Street)	
Sidewalk Width	10'	
Buffer Width	50' (Varies)	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	No	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Asphalt	
ADA Ramps	Yes	
Sidewalk Condition	Good (Some Minor Cracking)	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	17,007 (4500 T.C. Jester Boulevard: City of Houston – 2016)	
Transit	Yes (METRO Bus Stop 175' South at W. 43 rd Street/T.C. Jester Blvd.)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	Sidewalk ramps at White Oak Trail/W. 43 rd Street/T.C. Jester Boulevard were recently reconstructed.	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the morning (9:00 a.m. – 11:00 a.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (27 users).

Location Information: Map



Location Information: Photos



Image 7: White Oak Trail at W. 43rd Street Facing East

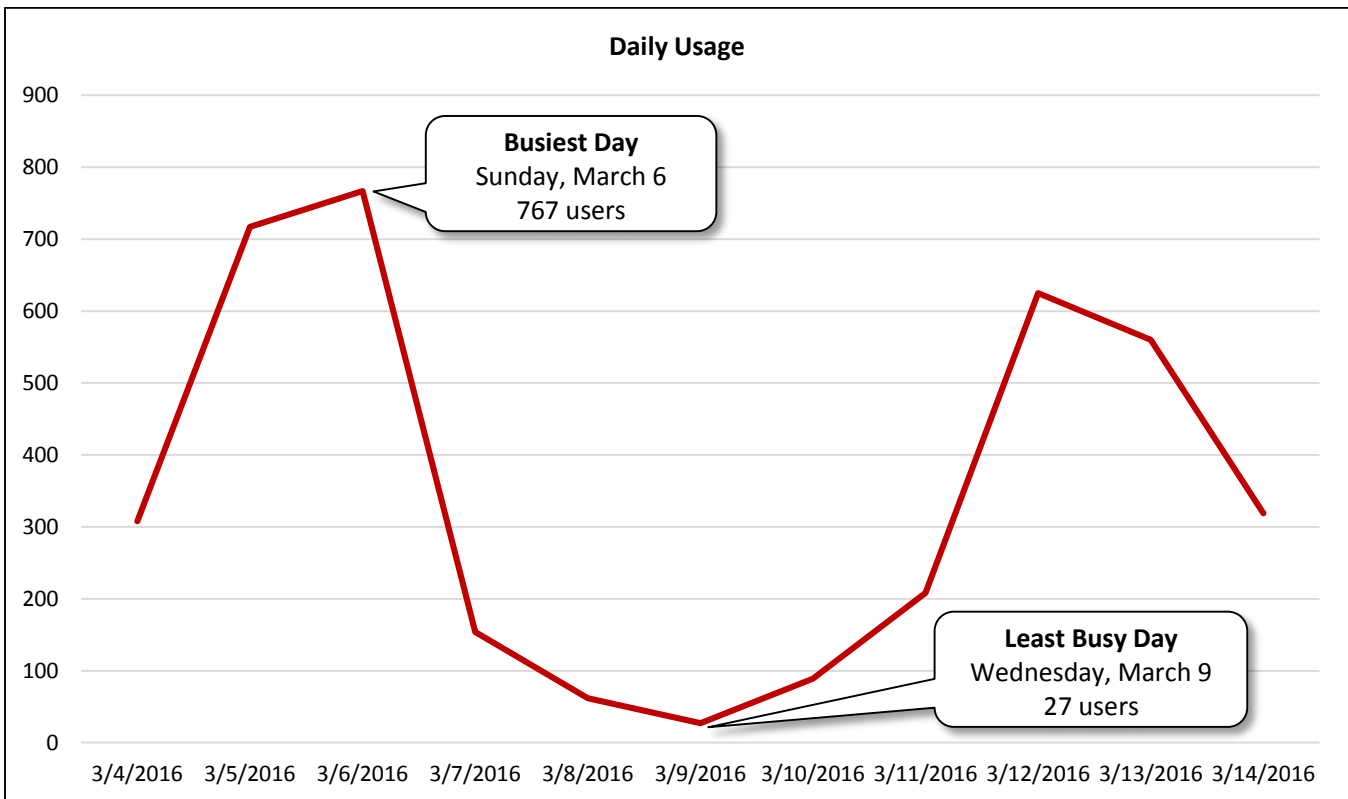


Image 8: White Oak Trail at W. 43rd Street Facing West

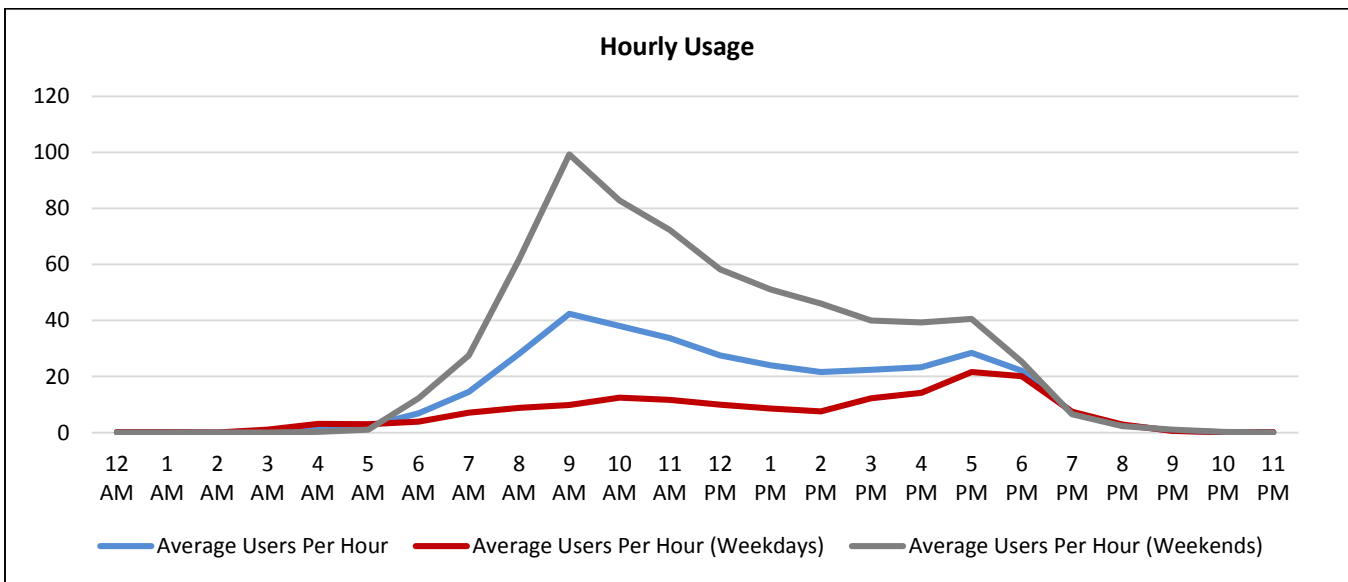
Daily Usage White Oak Trail at W. 43 rd Street				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	308	74	48	0
Saturday, March 5, 2016	717	76	47	0
Sunday, March 6, 2016	767	75	47	0
Monday, March 7, 2016	154	75	62	T
Tuesday, March 8, 2016	62	72	67	0.22
Wednesday, March 9, 2016	27	73	61	1.44
Thursday, March 10, 2016	89	76	63	0.9
Friday, March 11, 2016	208	74	63	0.11
Saturday, March 12, 2016	625	75	60	0.02
Sunday, March 13, 2016	560	82	56	0
Monday, March 14, 2016	319	87	56	0
Total	3,836			
Average Daily Usage	349			
Average Daily Usage (Weekday)	167			
Average Daily Usage (Weekend)	667			

Notes	
Houston ISD Spring Break: March 14 – March 18, 2016	

*Weather conditions recorded at KHOU.



Hourly Usage White Oak Trail at W. 43 rd Street			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.1	0.1	0.0
1:00 a.m.	0.1	0.1	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.6	1.0	0.0
4:00 a.m.	2.1	3.1	0.3
5:00 a.m.	2.3	3.0	1.0
6:00 a.m.	6.9	3.9	12.3
7:00 a.m.	14.5	7.1	27.5
8:00 a.m.	28.1	8.9	61.8
9:00 a.m.	42.4	9.9	99.3
10:00 a.m.	38.0	12.4	82.8
11:00 a.m.	33.7	11.7	72.3
12:00 p.m.	27.5	10.0	58.3
1:00 p.m.	24.0	8.6	51.0
2:00 p.m.	21.5	7.6	46.0
3:00 p.m.	22.4	12.3	40.0
4:00 p.m.	23.3	14.1	39.3
5:00 p.m.	28.5	21.6	40.5
6:00 p.m.	22.0	20.1	25.3
7:00 p.m.	7.1	7.4	6.5
8:00 p.m.	2.6	2.9	2.3
9:00 p.m.	0.7	0.6	1.0
10:00 p.m.	0.2	0.1	0.3
11:00 p.m.	0.1	0.1	0.0



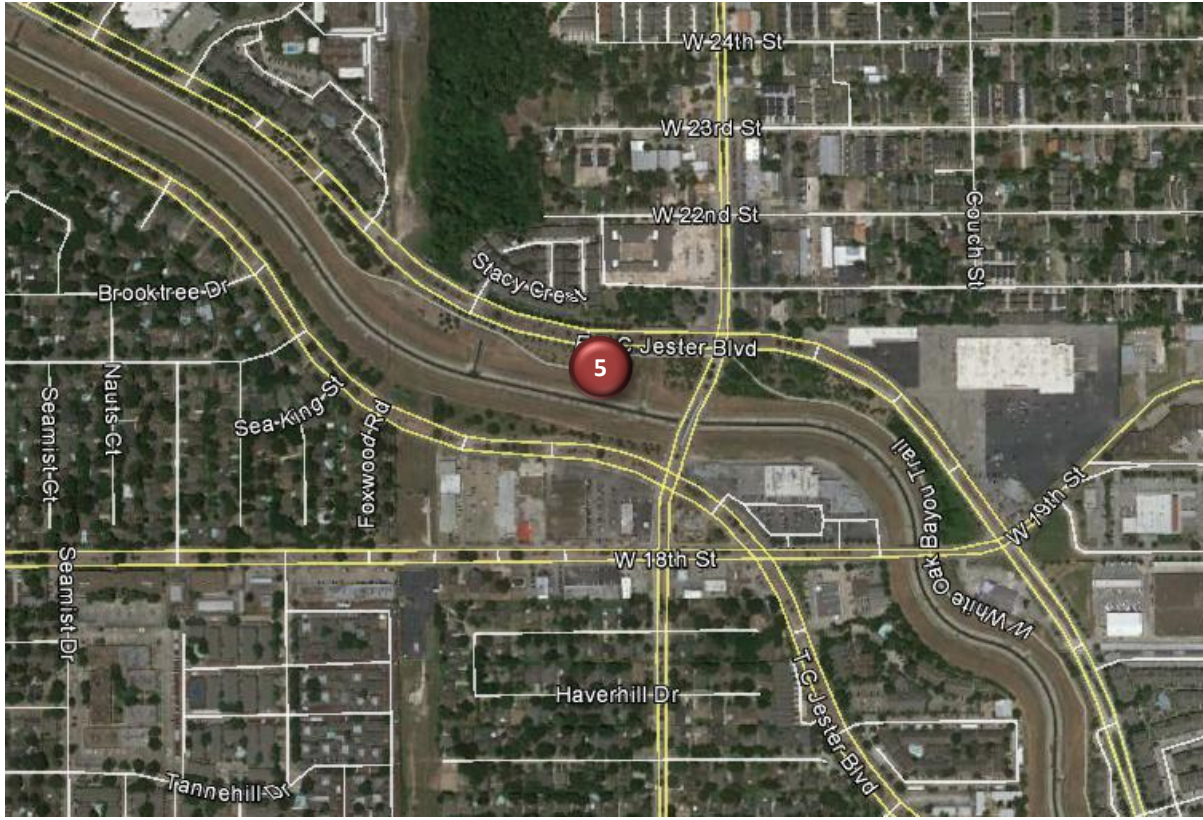
Counter #5

White Oak Trail at Ella Boulevard

Location Information		
Location Name	White Oak Trail at Ella Boulevard	
Location Description	White Oak Trail west of Ella Boulevard (parallel to E. T.C. Jester Boulevard)	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°48'13.84"N, 95°25'51.30"W	
Surrounding Land Uses	North	Multi-Family Residential, Commercial/Retail, Single-Family Residential
	South	Park, Commercial/Retail
	East	Park, Commercial/Retail, Single-Family Residential
	West	Park, Multi-Family Residential
What object was device secured to?	Light Post	
Sidewalk Width	10'	
Buffer Width	90' (Varies)	
Street Width	Four-Lane Divided Highway	
Parallel Parking	No	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	40 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	7,343 (2400 E. T. C. Jester Boulevard: City of Houston – 2016)	
Transit	Nearby (METRO Bus Stop 600' Northeast at Ella Boulevard/21 st Street)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the morning (9:00 a.m. – 12:00 p.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (53 users).

Location Information: Map



Location Information: Photos



Image 9: White Oak Trail at Ella Boulevard
Facing East



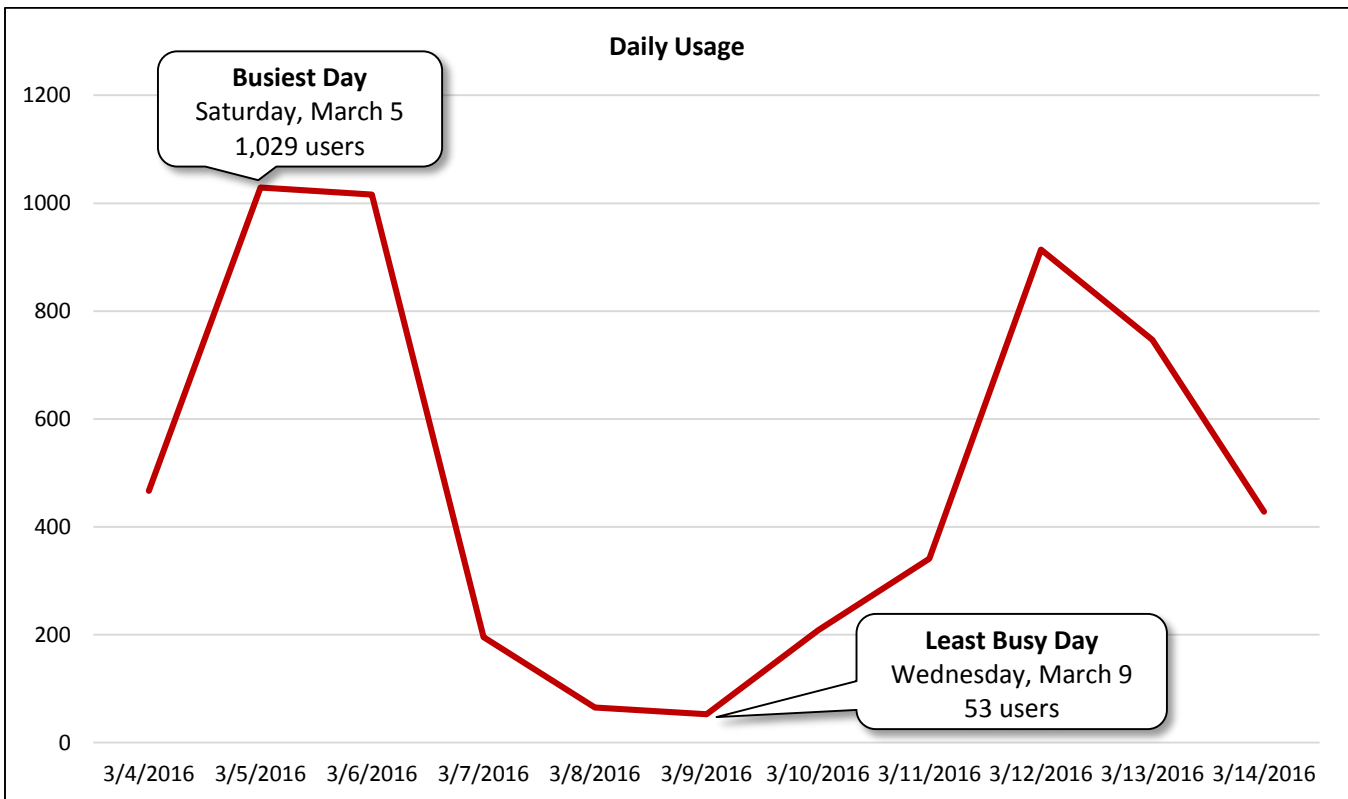
Image 10: White Oak Trail at Ella Boulevard
Facing West

Daily Usage White Oak Trail at Ella Boulevard				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	467	74	48	0
Saturday, March 5, 2016	1,029	76	47	0
Sunday, March 6, 2016	1,016	75	47	0
Monday, March 7, 2016	196	75	62	T
Tuesday, March 8, 2016	65	72	67	0.22
Wednesday, March 9, 2016	53	73	61	1.44
Thursday, March 10, 2016	208	76	63	0.9
Friday, March 11, 2016	341	74	63	0.11
Saturday, March 12, 2016	914	75	60	0.02
Sunday, March 13, 2016	747	82	56	0
Monday, March 14, 2016	428	87	56	0

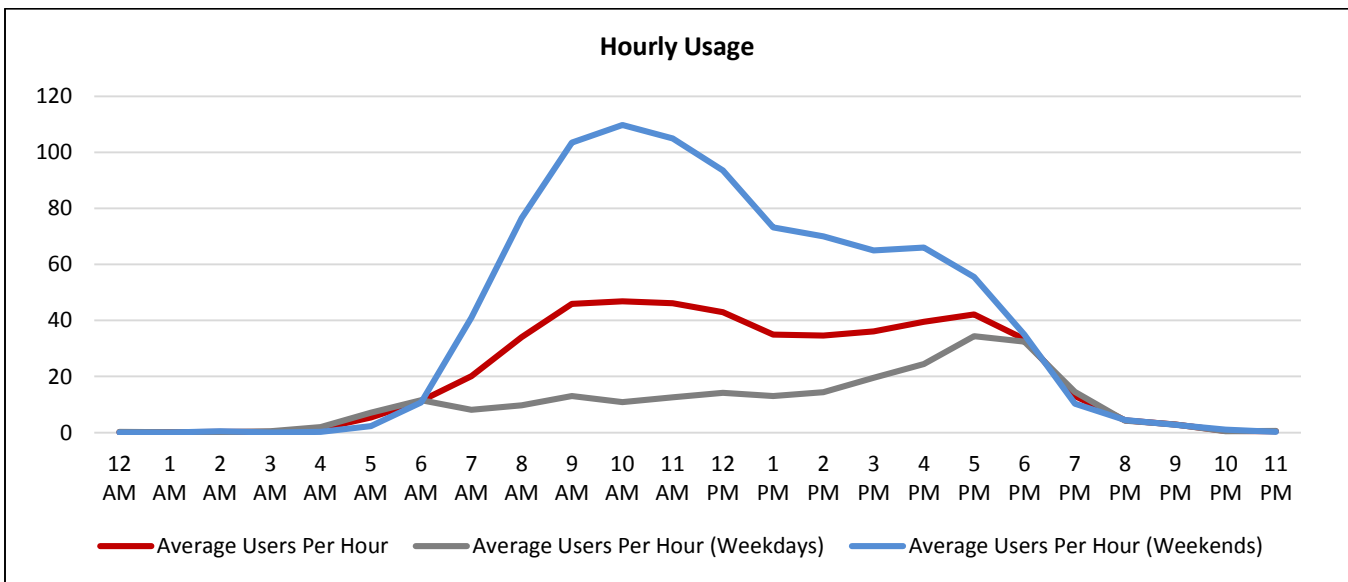
Total	5,464
Average Daily Usage	497
Average Daily Usage (Weekday)	251
Average Daily Usage (Weekend)	927

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage White Oak Trail at Ella Boulevard			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.2	0.3	0.0
1:00 a.m.	0.1	0.1	0.0
2:00 a.m.	0.3	0.1	0.5
3:00 a.m.	0.3	0.4	0.0
4:00 a.m.	1.4	2.0	0.3
5:00 a.m.	5.4	7.1	2.3
6:00 a.m.	11.3	11.6	10.8
7:00 a.m.	20.1	8.1	41.0
8:00 a.m.	34.0	9.7	76.5
9:00 a.m.	45.9	13.0	103.5
10:00 a.m.	46.8	10.9	109.8
11:00 a.m.	46.2	12.6	105.0
12:00 p.m.	43.0	14.1	93.5
1:00 p.m.	34.9	13.0	73.3
2:00 p.m.	34.6	14.4	70.0
3:00 p.m.	36.1	19.6	65.0
4:00 p.m.	39.5	24.4	66.0
5:00 p.m.	42.1	34.4	55.5
6:00 p.m.	33.4	32.4	35.0
7:00 p.m.	13.0	14.6	10.3
8:00 p.m.	4.4	4.3	4.5
9:00 p.m.	2.8	2.9	2.8
10:00 p.m.	0.6	0.4	1.0
11:00 p.m.	0.5	0.6	0.3



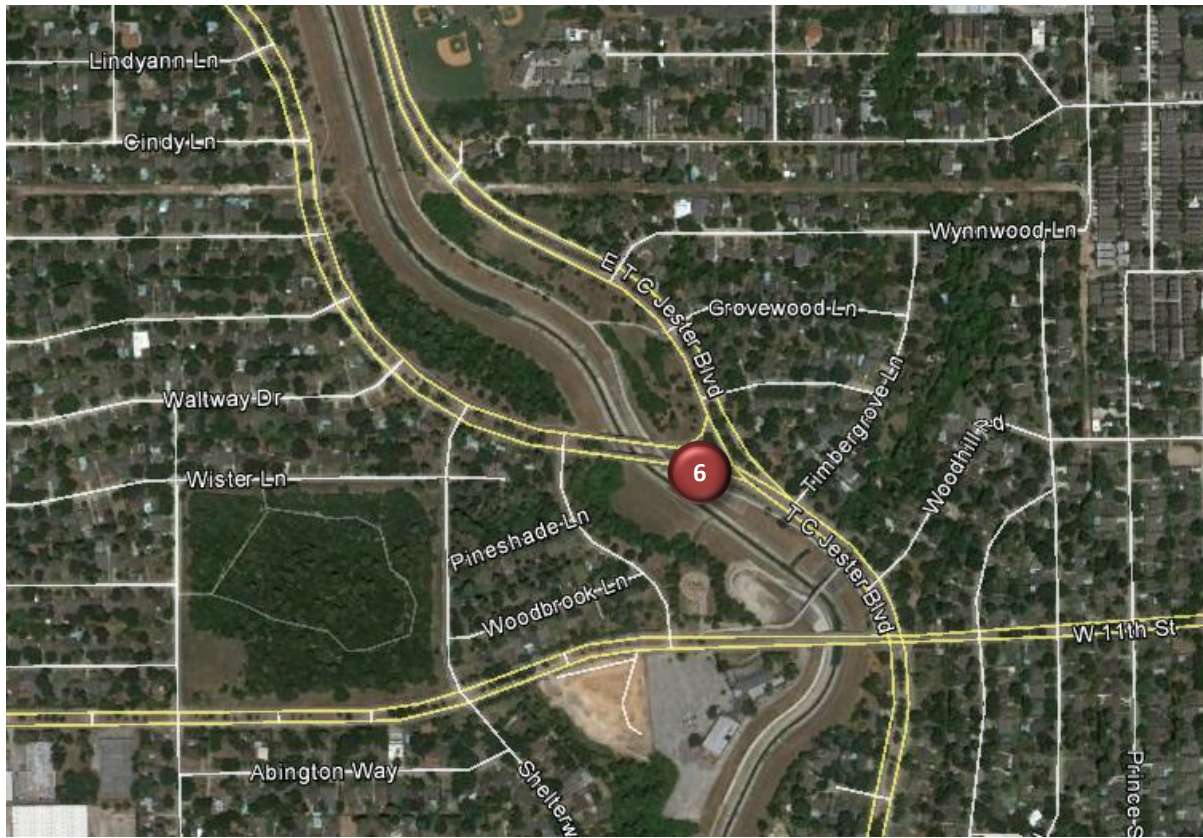
Counter #6

White Oak Trail at W. T.C. Jester Boulevard Underpass

Location Information		
Location Name	White Oak Trail at W. T.C. Jester Boulevard Underpass	
Location Description	White Oak Trail south of W. T.C. Jester Boulevard underpass, near where E. T.C. Jester Boulevard and W. T.C. Jester Boulevard diverge in Timbergrove	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°47'30.49"N, 95°25'7.65"W	
Surrounding Land Uses	North	Park, Single-Family Residential
	South	Park, Single-Family Residential, Institutional (Church)
	East	Single-Family Residential
	West	Park, Single-Family Residential
What object was device secured to?	Railing Adjacent to Shared-Use Path	
Sidewalk Width	14'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	No	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest mid-day, peaking between 11:00 a.m. and noon. • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (53 users).

Location Information: Map



Location Information: Photos



Image 11: White Oak Trail at T.C. Jester Boulevard Facing East

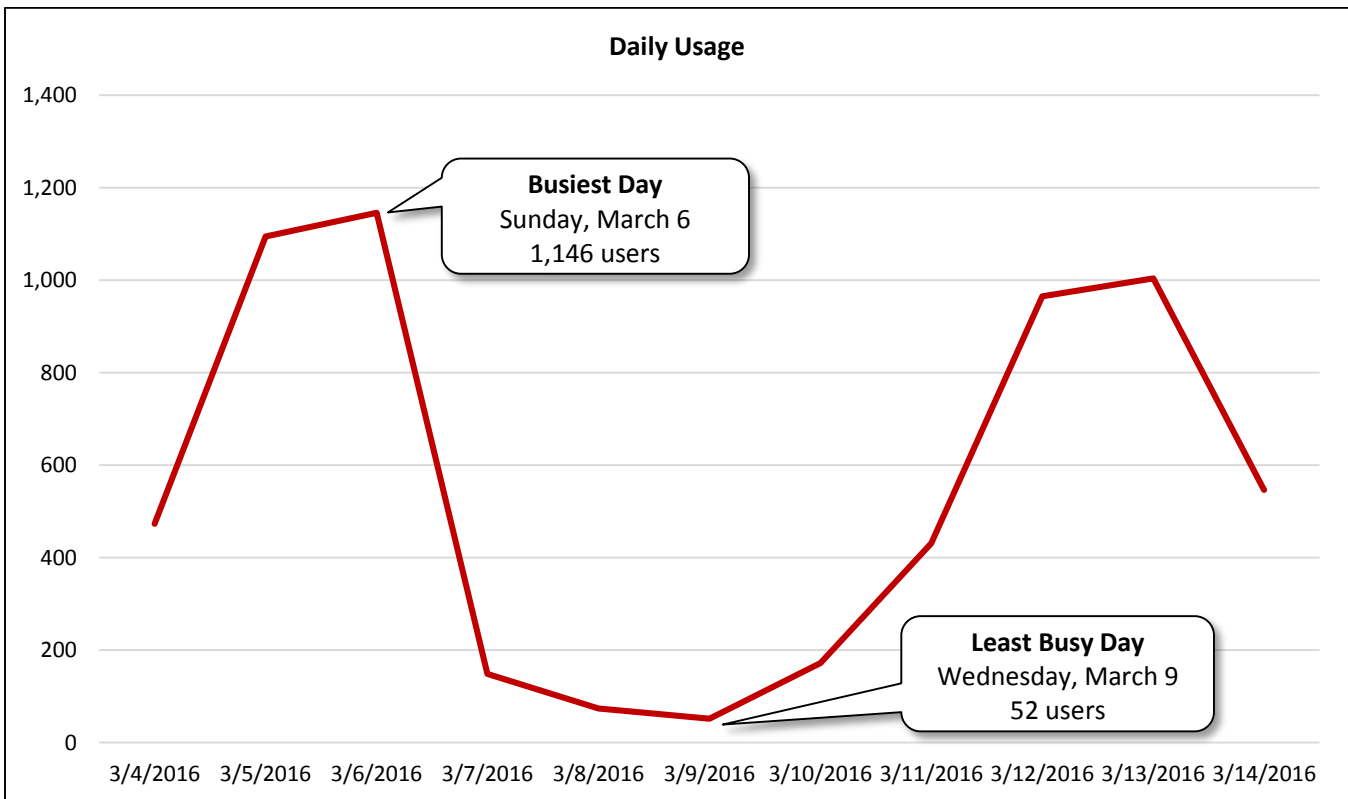


Image 12: White Oak Trail at T.C. Jester Boulevard Facing West

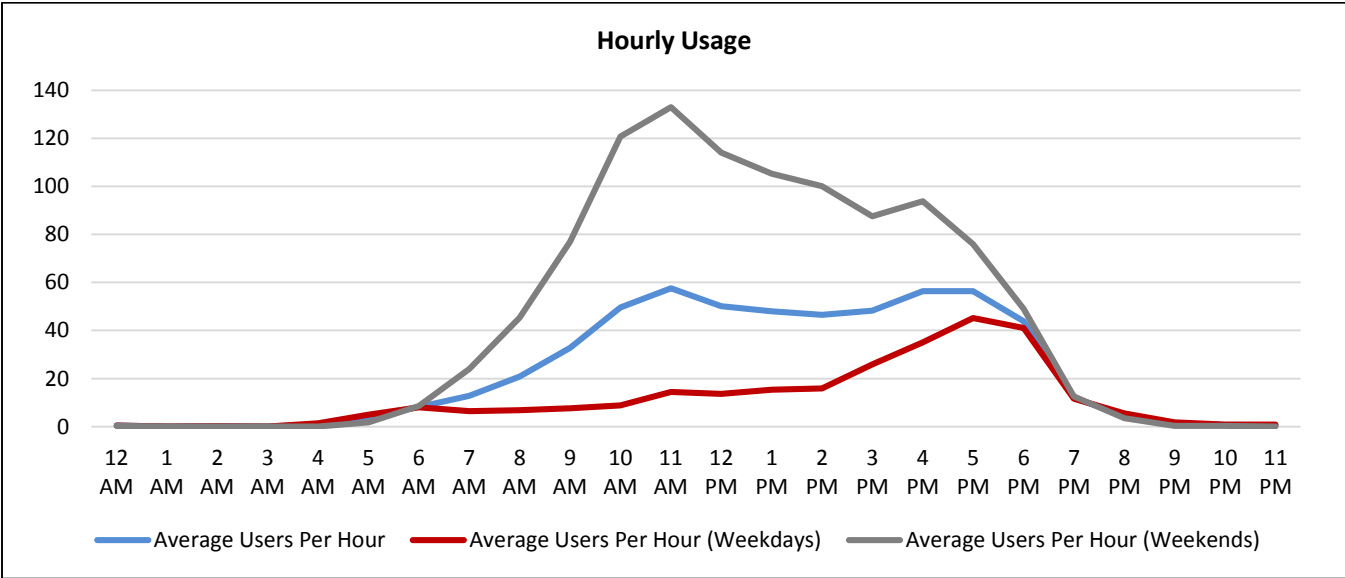
Daily Usage White Oak Trail at W. T.C. Jester Boulevard Underpass				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	473	74	48	0
Saturday, March 5, 2016	1,095	76	47	0
Sunday, March 6, 2016	1,146	75	47	0
Monday, March 7, 2016	149	75	62	T
Tuesday, March 8, 2016	74	72	67	0.22
Wednesday, March 9, 2016	52	73	61	1.44
Thursday, March 10, 2016	172	76	63	0.9
Friday, March 11, 2016	431	74	63	0.11
Saturday, March 12, 2016	965	75	60	0.02
Sunday, March 13, 2016	1,004	82	56	0
Monday, March 14, 2016	547	87	56	0
Total	6,108			
Average Daily Usage	555			
Average Daily Usage (Weekday)	271			
Average Daily Usage (Weekend)	1,053			

Notes	
Houston ISD Spring Break: March 14 – March 18, 2016	

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail at W. T.C. Jester Boulevard Underpass			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.4	0.4	0.3
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.1	0.1	0.0
3:00 a.m.	0.0	0.0	0.0
4:00 a.m.	0.8	1.3	0.0
5:00 a.m.	3.8	5.0	1.8
6:00 a.m.	8.2	8.0	8.5
7:00 a.m.	12.8	6.4	24.0
8:00 a.m.	20.8	6.9	45.3
9:00 a.m.	32.8	7.6	77.0
10:00 a.m.	49.5	8.9	120.8
11:00 a.m.	57.5	14.4	133.0
12:00 p.m.	50.1	13.6	114.0
1:00 p.m.	48.0	15.3	105.3
2:00 p.m.	46.5	15.9	100.0
3:00 p.m.	48.3	25.9	87.5
4:00 p.m.	56.4	35.0	93.8
5:00 p.m.	56.4	45.1	76.0
6:00 p.m.	43.9	41.0	49.0
7:00 p.m.	11.9	11.6	12.5
8:00 p.m.	4.7	5.4	3.5
9:00 p.m.	1.2	1.7	0.3
10:00 p.m.	0.6	0.9	0.3
11:00 p.m.	0.5	0.9	0.0



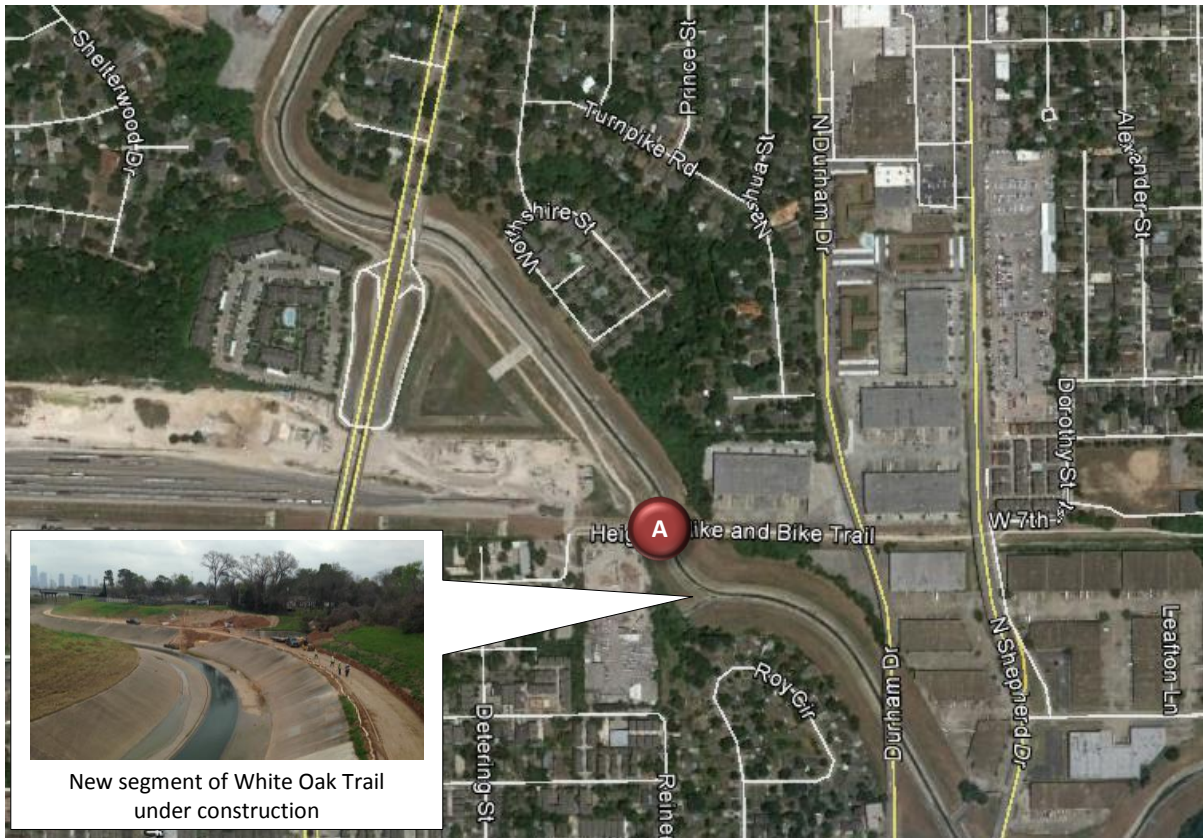
Counter A

MKT Trail at 7th Street/Moy Street (White Oak Bayou Crossing)

Location Information		
Location Name	MKT Trail at 7th Street/Moy Street (White Oak Bayou Crossing)	
Location Description	MKT Trail at 7th Street/Moy Street (White Oak Bayou Crossing)	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks & Recreation Department	
GPS Coordinates	29°46'59.96"N, 95°24'48.94"W	
Surrounding Land Uses	North	Single-Family Residential, Multi-Family Residential
	South	Industrial
	East	Industrial
	West	Industrial, Single-Family Residential, Multi-Family Residential
What object was device secured to?	Bridge Railing (Near Western End of Bridge)	
Sidewalk Width	14'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	Yes (Mostly Open with Newly-Planted Trees)	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Excellent	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	None	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	No (Mostly Open with Newly-Planted Trees)	
Have counts been collected by H-GAC at this location before?	Yes (March 31, 2015 - April 22, 2015; August 28, 2015 - September 15, 2015)	
Notes	Construction was underway to extend the White Oak Trail east, closing an existing gap. Construction crews were working under the bridge that carries the MKT Trail over White Oak Bayou, where Counter A was deployed.	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the morning (9:00 a.m. – 12:00 p.m.) and gradually decreases as the day progresses. • Between April 2015 (when pedestrian/bicycle counts were first collected at this location) and March 2016, average daily usage increased 211% (266 users/day to 826 users/day). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44” of rain) had the least usage (116 users).

Location Information: Map



Location Information: Photos



Image 13: Bridge over White Oak Bayou Facing East



Image 14: Bridge over White Oak Bayou Facing West

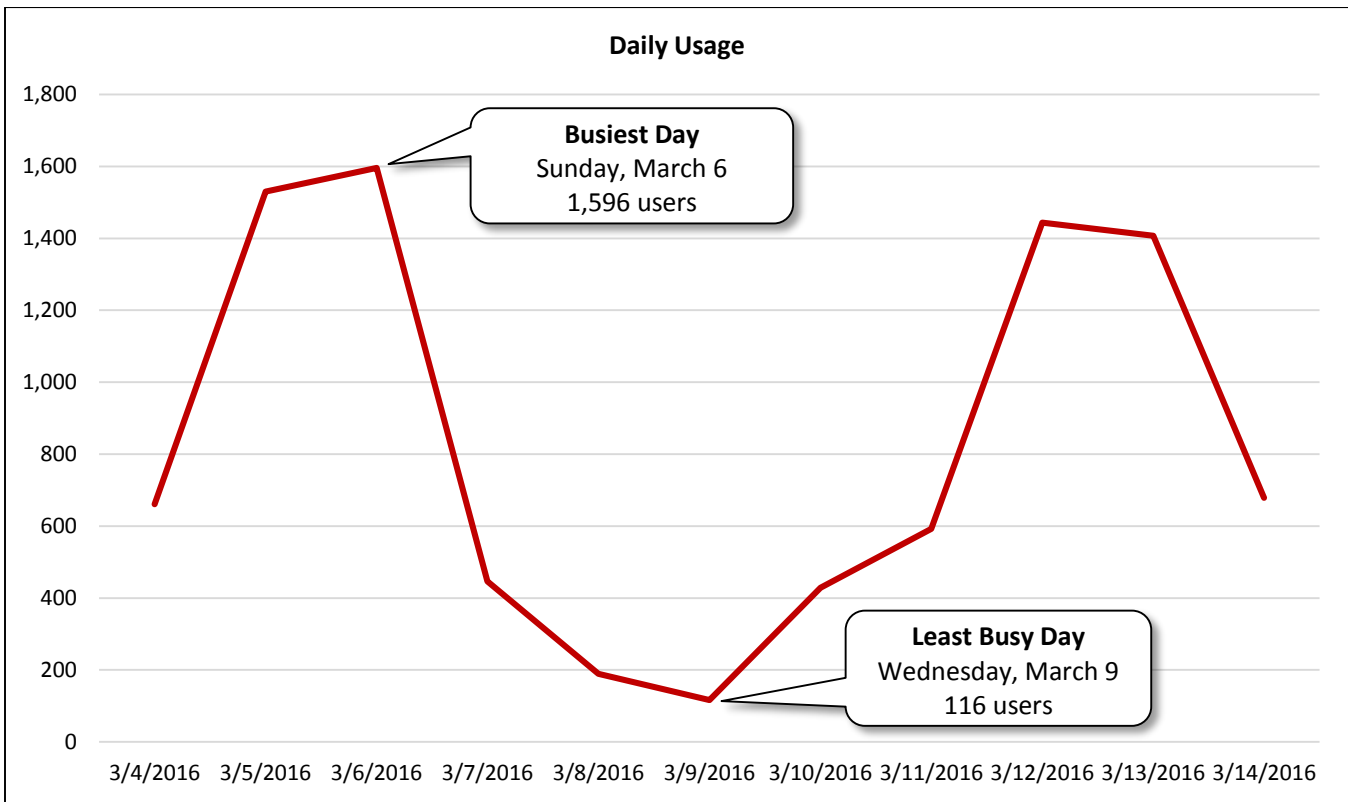
Daily Usage
MKT Trail at 7th Street/Moy Street (White Oak Bayou Crossing)

Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	661	74	48	0
Saturday, March 5, 2016	1,530	76	47	0
Sunday, March 6, 2016	1,596	75	47	0
Monday, March 7, 2016	446	75	62	T
Tuesday, March 8, 2016	189	72	67	0.22
Wednesday, March 9, 2016	116	73	61	1.44
Thursday, March 10, 2016	429	76	63	0.9
Friday, March 11, 2016	592	74	63	0.11
Saturday, March 12, 2016	1,444	75	60	0.02
Sunday, March 13, 2016	1,407	82	56	0
Monday, March 14, 2016	679	87	56	0

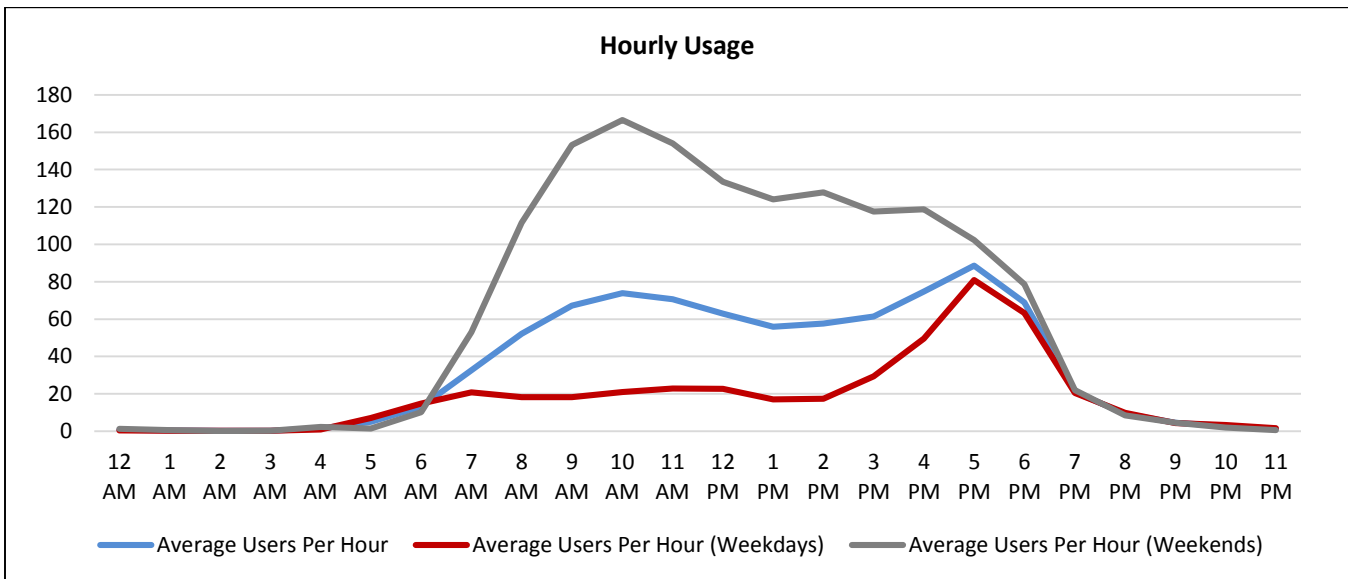
Total	9,089
Average Daily Usage	826
Average Daily Usage (Weekday)	445
Average Daily Usage (Weekend)	1,494

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



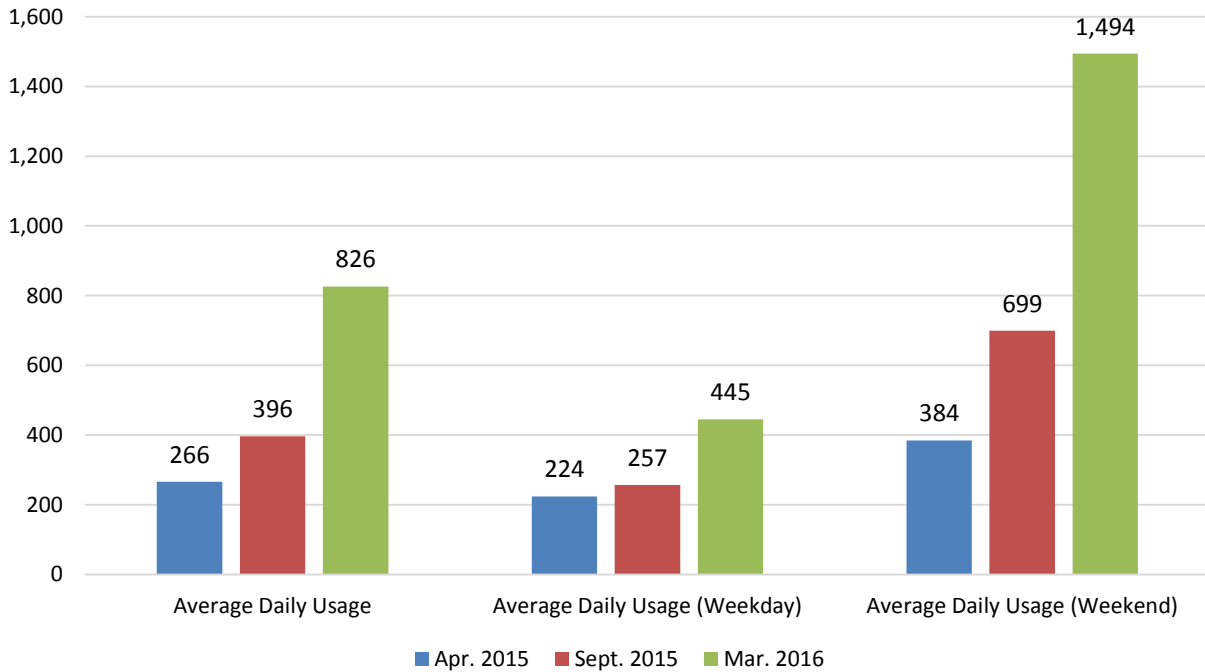
Hourly Usage			
MKT Trail at 7 th Street/Moy Street (White Oak Bayou Crossing)			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.7	0.4	1.3
1:00 a.m.	0.4	0.3	0.5
2:00 a.m.	0.2	0.3	0.0
3:00 a.m.	0.3	0.3	0.3
4:00 a.m.	1.4	0.9	2.3
5:00 a.m.	5.0	7.0	1.5
6:00 a.m.	13.1	14.7	10.3
7:00 a.m.	32.5	20.9	53.0
8:00 a.m.	52.1	18.1	111.5
9:00 a.m.	67.3	18.1	153.3
10:00 a.m.	73.9	21.0	166.5
11:00 a.m.	70.5	22.9	154.0
12:00 p.m.	63.0	22.7	133.5
1:00 p.m.	55.9	17.0	124.0
2:00 p.m.	57.5	17.4	127.8
3:00 p.m.	61.4	29.3	117.5
4:00 p.m.	74.7	49.6	118.8
5:00 p.m.	88.6	80.9	102.3
6:00 p.m.	68.9	63.3	78.8
7:00 p.m.	21.0	20.4	22.0
8:00 p.m.	9.4	9.9	8.5
9:00 p.m.	4.5	4.4	4.5
10:00 p.m.	2.8	3.3	2.0
11:00 p.m.	1.2	1.6	0.5



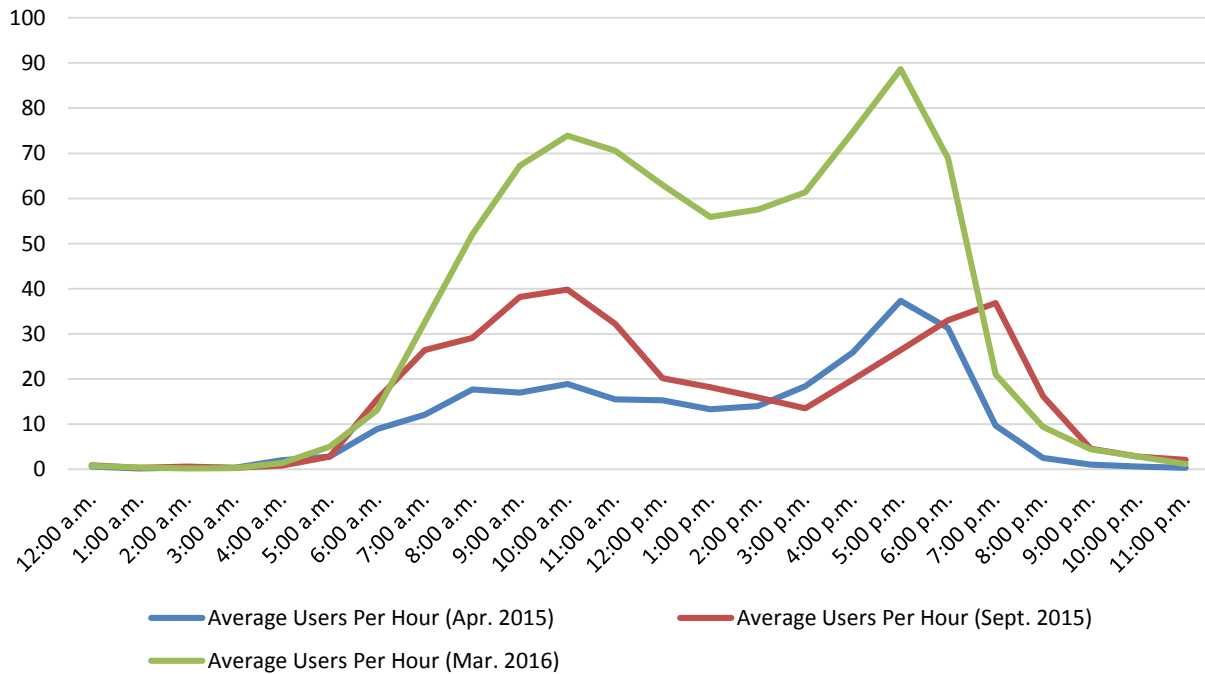
Historical Comparison

MKT Trail at 7th Street/Moy Street (White Oak Bayou Crossing)

Comparison: Daily Usage



Comparison: Hourly Usage



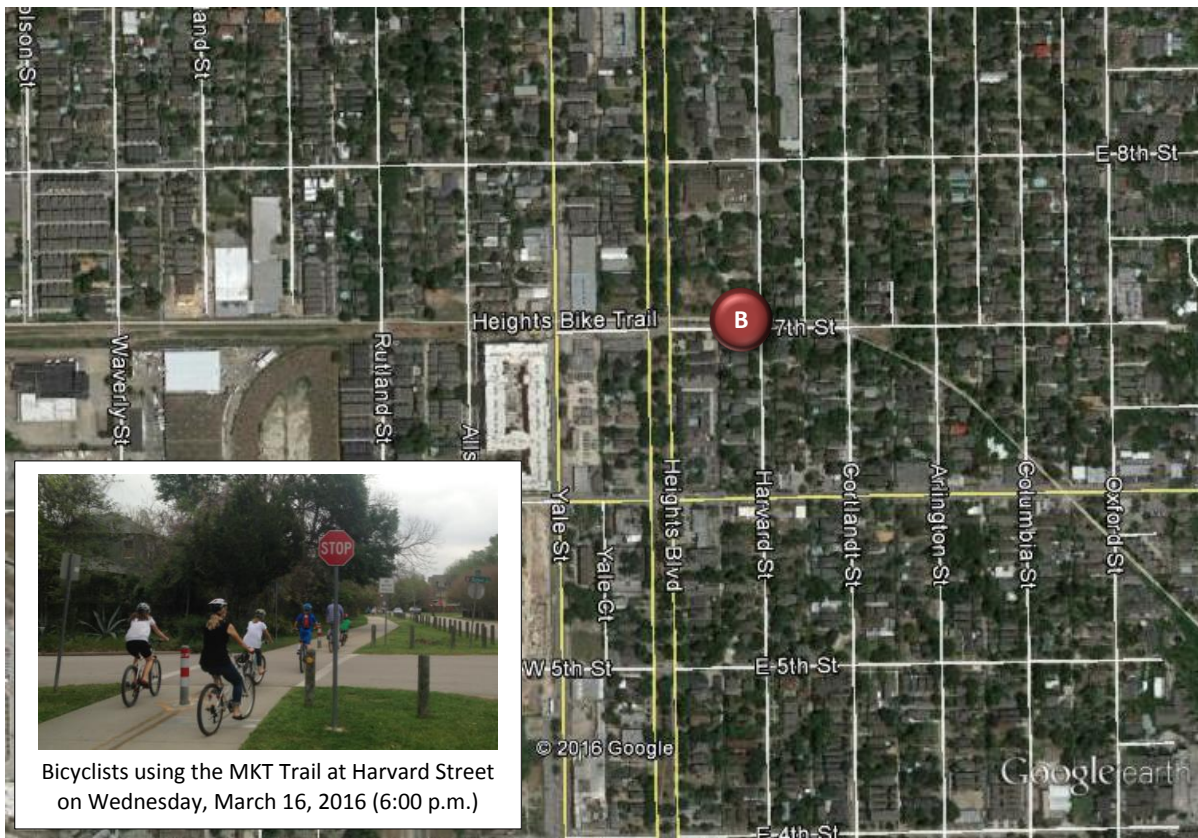
Counter B

MKT Trail at Harvard Street

Location Information		
Location Name	MKT Trail at Harvard Street	
Location Description	MKT Trail west of Harvard Street (parallel to 7 th Street)	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°47'0.36"N, 95°23'47.98"W	
Surrounding Land Uses	North	Single-Family Residential, Multi-Family Residential, Harvard Elementary School
	South	Single-Family Residential, Multi-Family Residential, Commercial/Retail
	East	Single-Family Residential
	West	Park, Office, Single-Family Residential, Multi-Family Residential
What object was device secured to?	Oak Tree (Second Tree West of Harvard Street)	
Sidewalk Width	10'	
Buffer Width	20'	
Street Width	Two-Lane Undivided Roadway	
Parallel Parking	Yes	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	30 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	N/A	
Transit	Nearby (METRO Bus Stop 400' West at Heights Boulevard/W. 7th Street)	
Shade	Intermittent	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is high throughout the day, peaking in the morning (10:00 a.m. – 11:00 a.m.) and late afternoon (3:00 pm. – 4:00 p.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (177 users).

Location Information: Map



Bicyclists using the MKT Trail at Harvard Street on Wednesday, March 16, 2016 (6:00 p.m.)

Location Information: Photos



Image 15: MKT Trail at Harvard Street Facing East



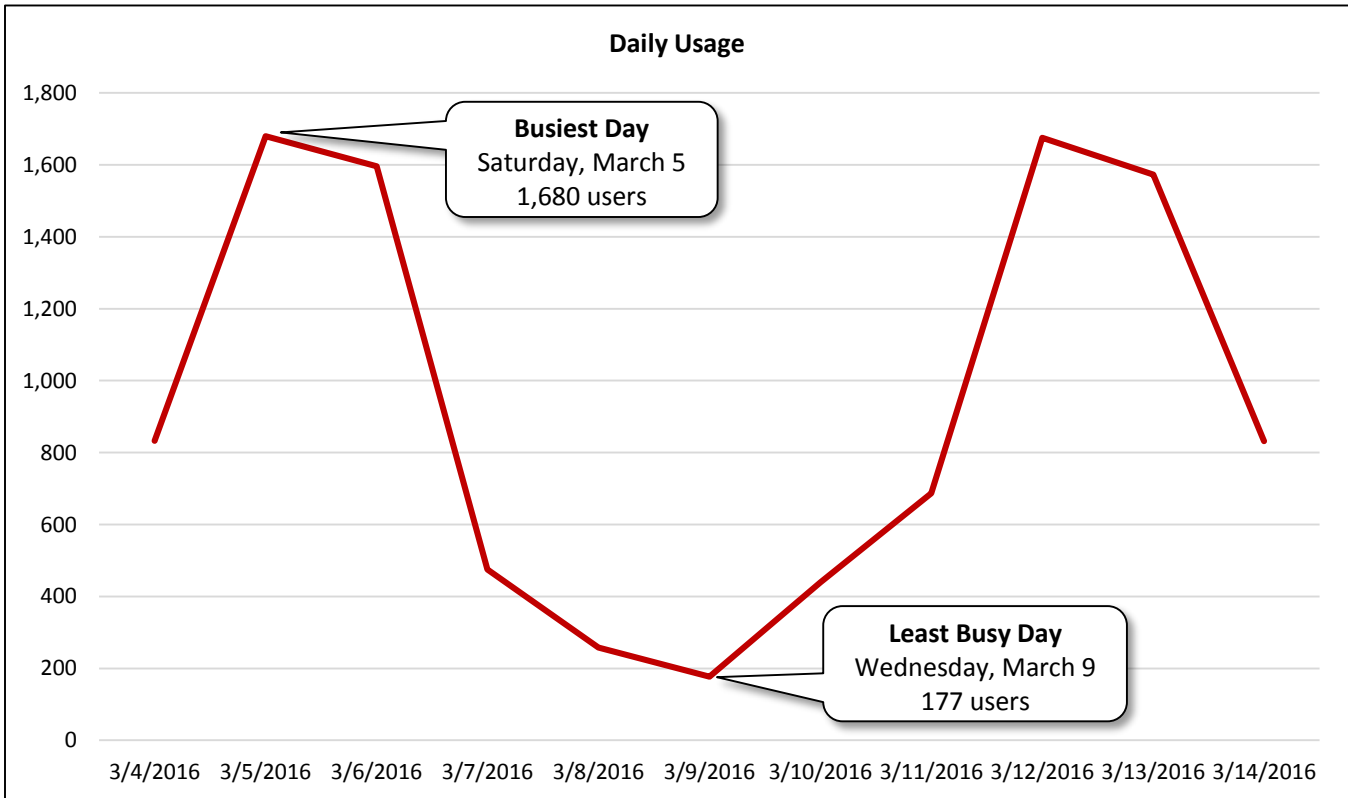
Image 16: MKT Trail at Harvard Street Facing West

Daily Usage MKT Trail at Harvard Street				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	833	74	48	0
Saturday, March 5, 2016	1,680	76	47	0
Sunday, March 6, 2016	1,596	75	47	0
Monday, March 7, 2016	475	75	62	T
Tuesday, March 8, 2016	258	72	67	0.22
Wednesday, March 9, 2016	177	73	61	1.44
Thursday, March 10, 2016	439	76	63	0.9
Friday, March 11, 2016	687	74	63	0.11
Saturday, March 12, 2016	1,675	75	60	0.02
Sunday, March 13, 2016	1,573	82	56	0
Monday, March 14, 2016	832	87	56	0

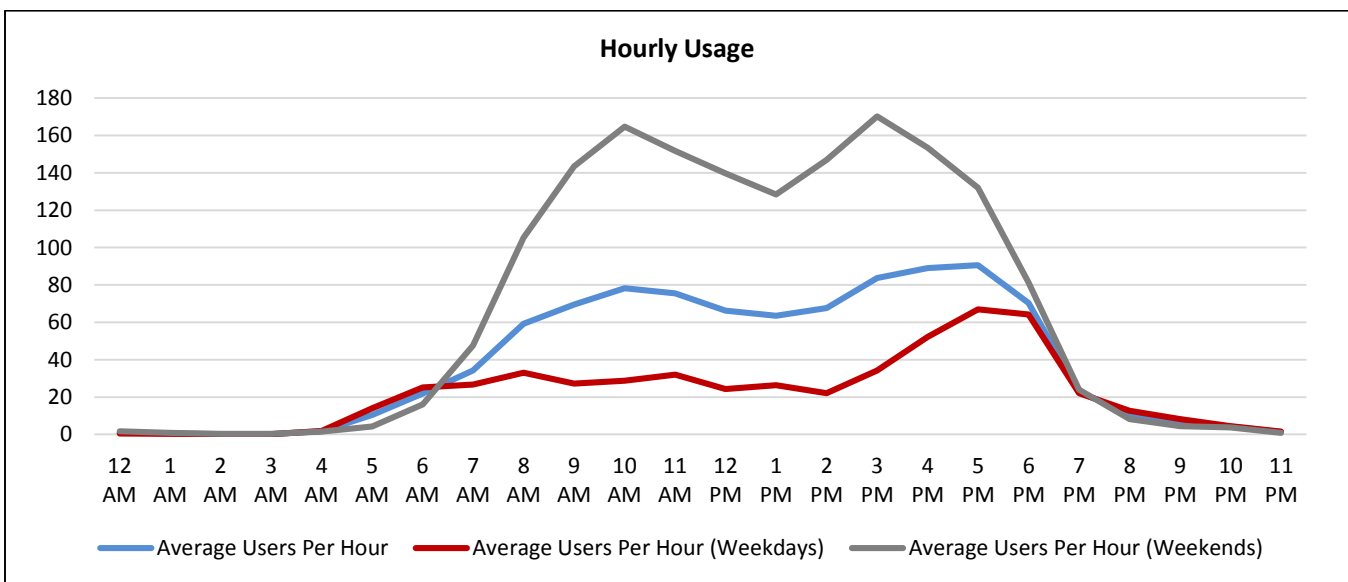
Total	10,225
Average Daily Usage	930
Average Daily Usage (Weekday)	529
Average Daily Usage (Weekend)	1,631

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage MKT Trail at Harvard Street			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.0	0.6	1.8
1:00 a.m.	0.5	0.3	0.8
2:00 a.m.	0.2	0.1	0.3
3:00 a.m.	0.2	0.1	0.3
4:00 a.m.	1.7	1.9	1.5
5:00 a.m.	10.5	14.0	4.3
6:00 a.m.	21.8	25.1	16.0
7:00 a.m.	34.3	26.7	47.5
8:00 a.m.	59.3	33.0	105.3
9:00 a.m.	69.5	27.1	143.5
10:00 a.m.	78.2	28.7	164.8
11:00 a.m.	75.5	32.0	151.8
12:00 p.m.	66.3	24.3	139.8
1:00 p.m.	63.5	26.3	128.5
2:00 p.m.	67.5	22.1	147.0
3:00 p.m.	83.6	34.1	170.3
4:00 p.m.	89.1	52.3	153.5
5:00 p.m.	90.5	66.9	132.0
6:00 p.m.	70.4	64.1	81.3
7:00 p.m.	22.7	22.0	24.0
8:00 p.m.	11.1	12.7	8.3
9:00 p.m.	6.8	8.1	4.5
10:00 p.m.	4.2	4.4	3.8
11:00 p.m.	1.3	1.6	0.8



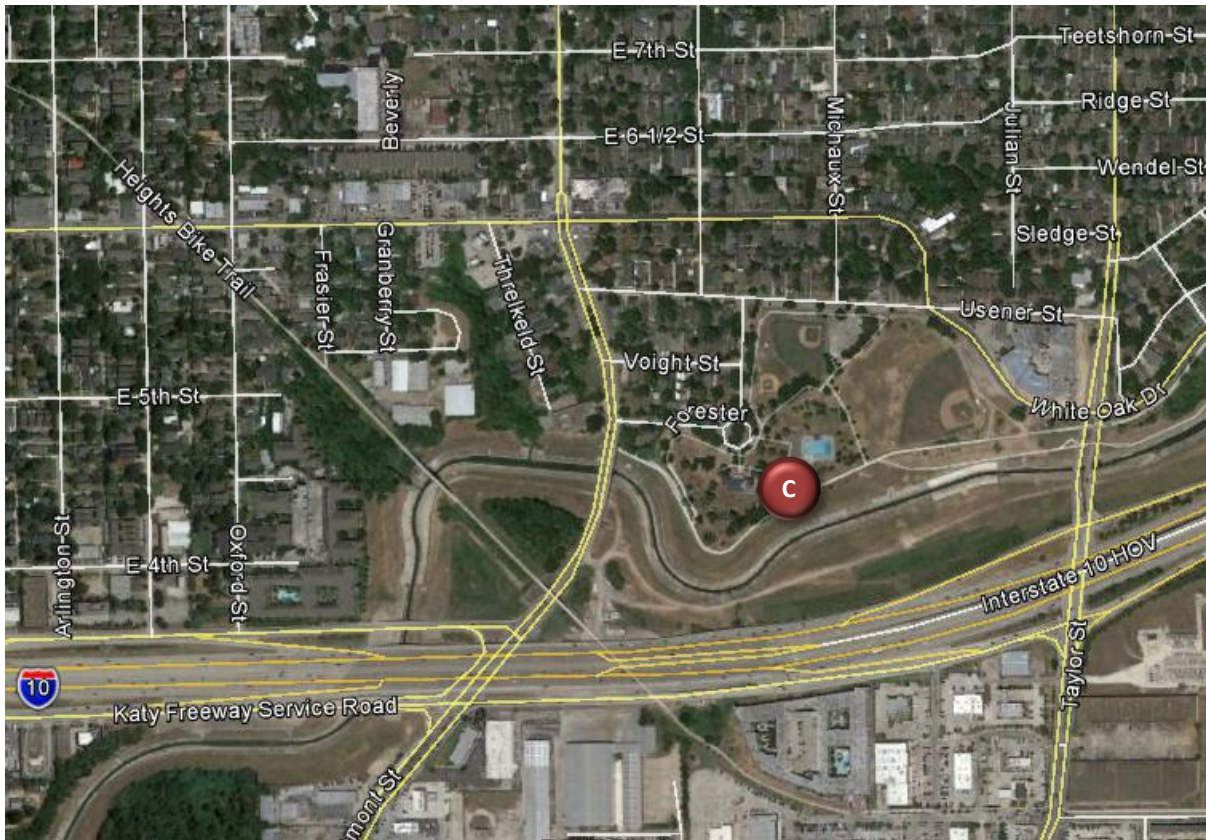
Counter C

White Oak Trail at Stude Community Center

Location Information		
Location Name	White Oak Trail at Stude Community Center	
Location Description	White Oak Trail near Pool at Stude Community Center/Stude Park	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°46'43.40"N, 95°23'4.10"W	
Surrounding Land Uses	North	Park/Community Center, Single-Family Residential
	South	White Oak Bayou, Interstate 10, Multi-Family Residential, Commercial/Retail
	East	Park, Multi-Family Residential (Under Construction)
	West	Park, Single-Family Residential
What object was device secured to?	Sign Post (Curves Ahead)	
Sidewalk Width	10'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	A Houston B-cycle station is located 400' northwest of Counter C in front of Stude Community Center.	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the evening (4:00 p.m. – 6:00 p.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (84 users).

Location Information: Map



Location Information: Photos



Image 17: White Oak Trail at Stude Park Facing East

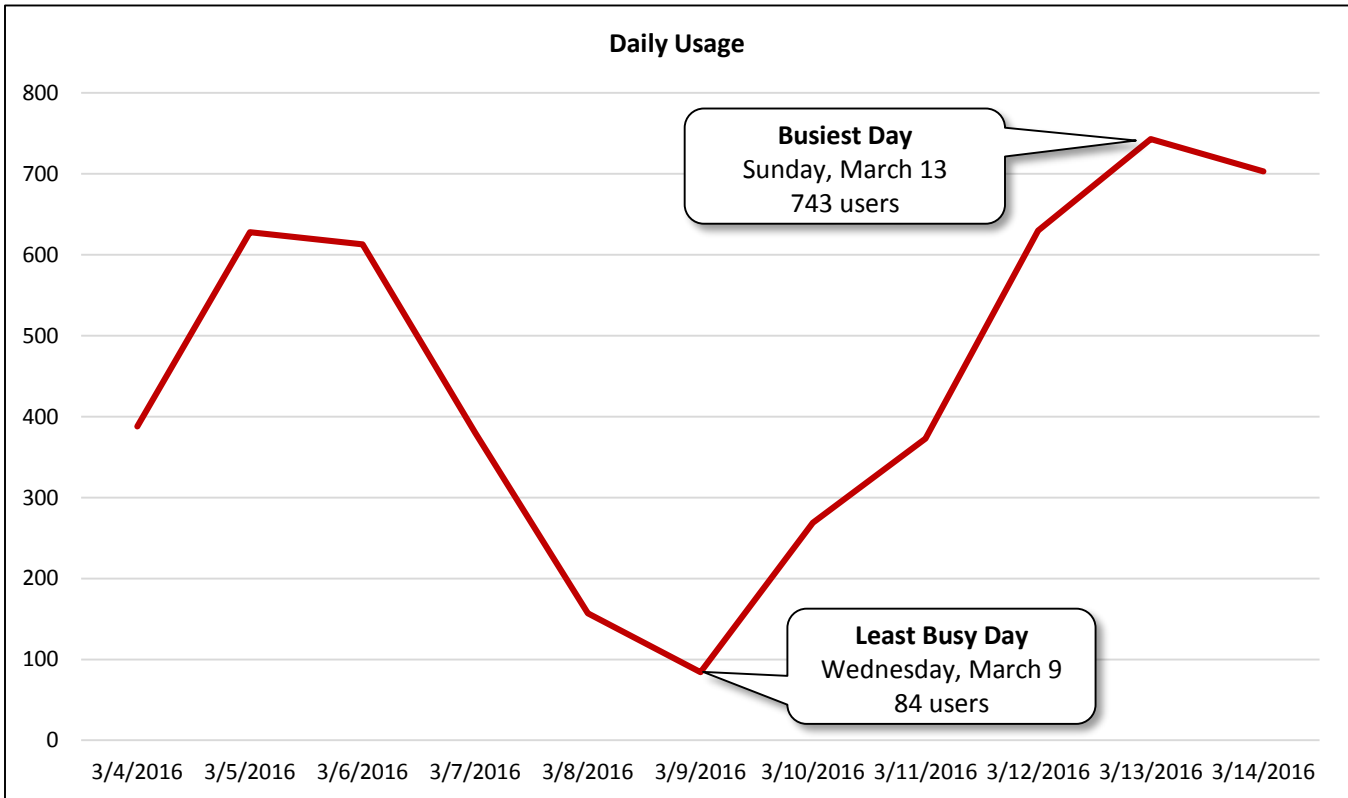


Image 18: White Oak Trail at Stude Park Facing West

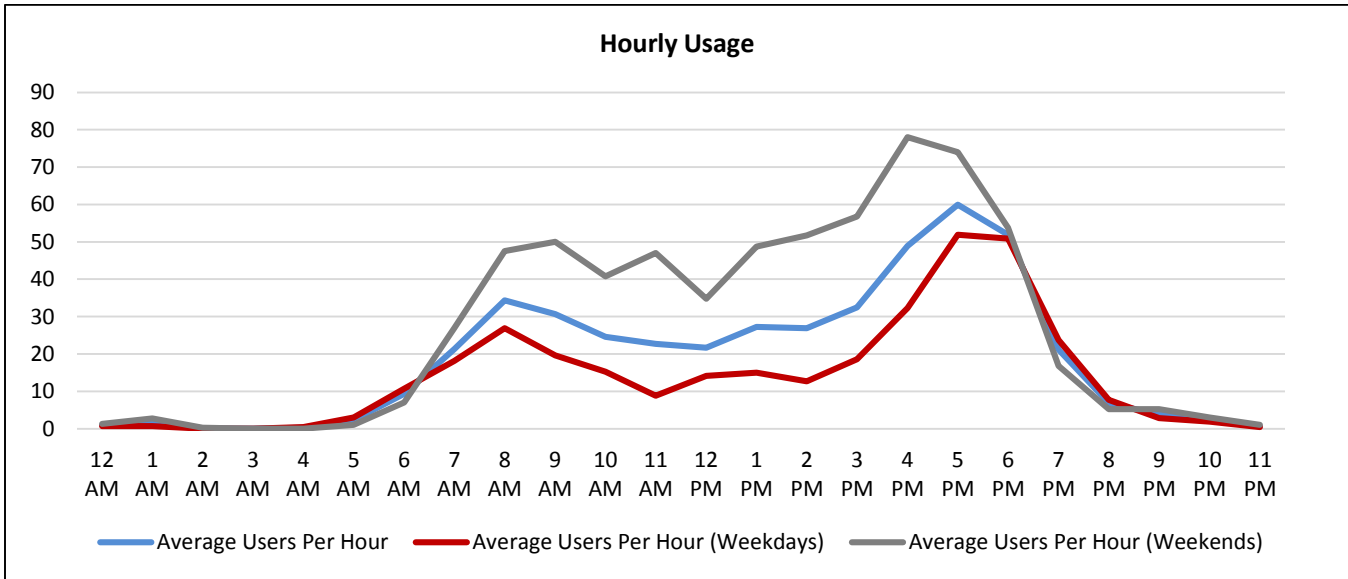
Daily Usage White Oak Trail at Stude Community Center				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	388	74	48	0
Saturday, March 5, 2016	628	76	47	0
Sunday, March 6, 2016	613	75	47	0
Monday, March 7, 2016	380	75	62	T
Tuesday, March 8, 2016	157	72	67	0.22
Wednesday, March 9, 2016	84	73	61	1.44
Thursday, March 10, 2016	269	76	63	0.9
Friday, March 11, 2016	373	74	63	0.11
Saturday, March 12, 2016	630	75	60	0.02
Sunday, March 13, 2016	743	82	56	0
Monday, March 14, 2016	703	87	56	0
Total	4,968			
Average Daily Usage	452			
Average Daily Usage (Weekday)	336			
Average Daily Usage (Weekend)	654			

Notes	
Houston ISD Spring Break: March 14 – March 18, 2016	

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail at Stude Community Center			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.9	0.7	1.3
1:00 a.m.	1.5	0.7	2.8
2:00 a.m.	0.1	0.0	0.3
3:00 a.m.	0.0	0.0	0.0
4:00 a.m.	0.3	0.4	0.0
5:00 a.m.	2.3	3.0	1.0
6:00 a.m.	9.4	10.7	7.0
7:00 a.m.	21.4	18.1	27.0
8:00 a.m.	34.4	26.9	47.5
9:00 a.m.	30.6	19.6	50.0
10:00 a.m.	24.5	15.3	40.8
11:00 a.m.	22.7	8.9	47.0
12:00 p.m.	21.6	14.1	34.8
1:00 p.m.	27.3	15.0	48.8
2:00 p.m.	26.9	12.7	51.8
3:00 p.m.	32.5	18.6	56.8
4:00 p.m.	48.9	32.3	78.0
5:00 p.m.	59.9	51.9	74.0
6:00 p.m.	51.9	50.9	53.8
7:00 p.m.	21.2	23.7	16.8
8:00 p.m.	6.8	7.7	5.3
9:00 p.m.	3.7	2.9	5.3
10:00 p.m.	2.3	1.9	3.0
11:00 p.m.	0.6	0.4	1.0



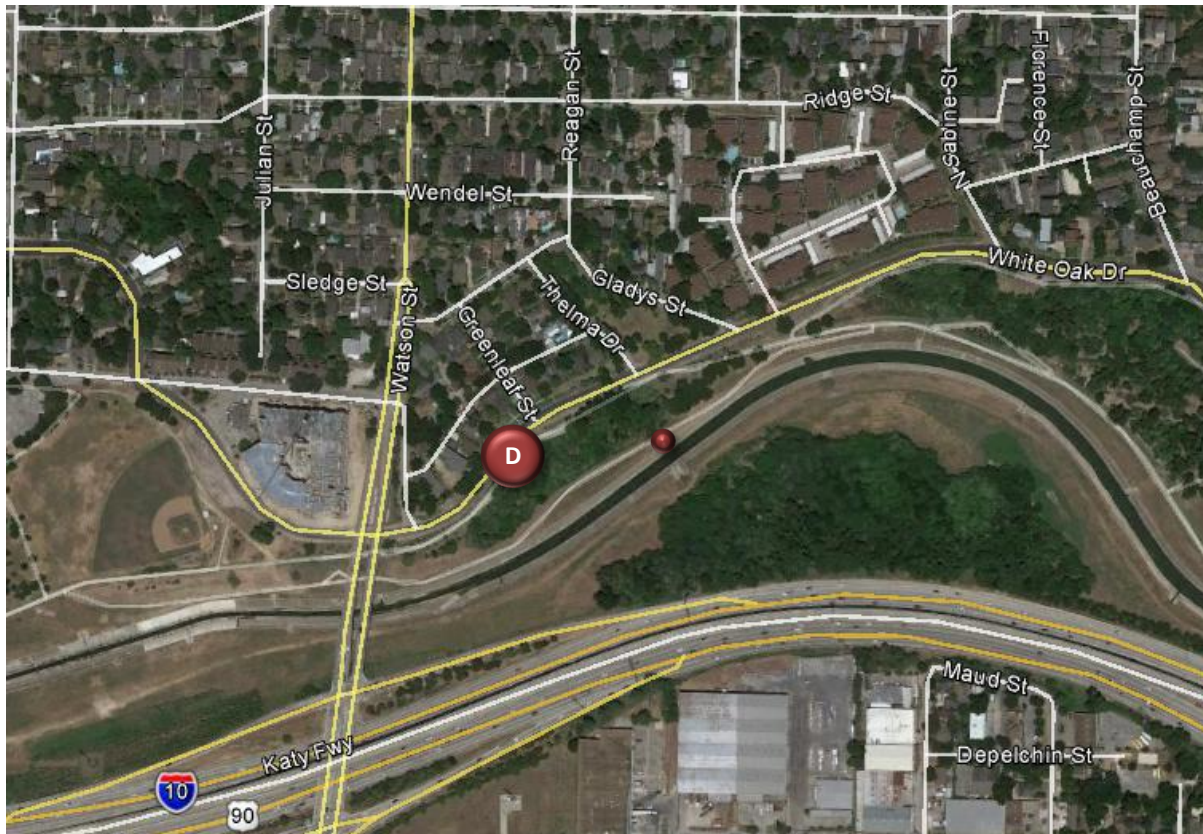
Counter D

White Oak Trail (Main Shared-Use Path) at Greenleaf Street

Location Information		
Location Name	White Oak Trail (Main Shared-Use Path) at Greenleaf Street	
Location Description	White Oak Trail (Main Shared-Use Path) west of Greenleaf Street parallel to White Oak Drive	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°46'48.03"N, 95°22'47.46"W	
Surrounding Land Uses	North	Single-Family Residential
	South	White Oak Bayou, Interstate 10, Industrial
	East	Park, Single-Family Residential, Multi-Family Residential
	West	Single-Family Residential, Multi-Family Residential (Under Construction), Park
What object was device secured to?	Sign Post (Curve Ahead)	
Sidewalk Width	10'	
Buffer Width	15' (Varies)	
Street Width	Two-Lane Undivided Roadway	
Parallel Parking	No	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	30 miles per hour	
Street Lighting	Adjacent street has lighting, but shared-use path does not.	
Street Traffic Volume	4,216 (2100 White Oak Drive: City of Houston – 2012)	
Transit	Nearby (METRO Bus Stop 600' Northwest at Usener Street/Watson Street)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (6:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the morning (9:00 a.m. – 10:00 a.m.), but there is also a pronounced spike in usage in the late afternoon (4:00 p.m. – 6:00 p.m.). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44" of rain) had the least usage (52 users).

Location Information: Map



Location Information: Photos



Image 19: White Oak Trail at Greenleaf Street Facing East



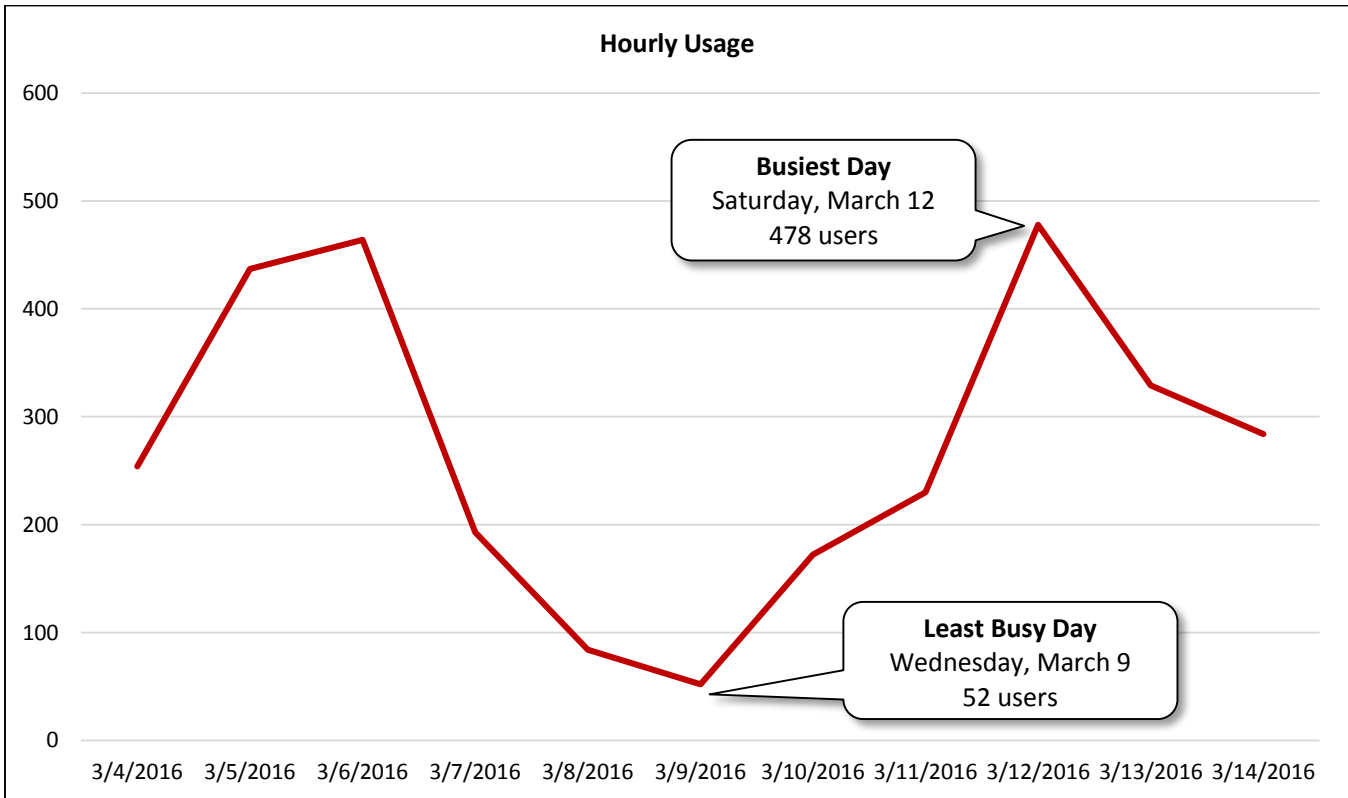
Image 20: White Oak Trail at Greenleaf Street Facing West

Daily Usage					
White Oak Trail (Main Shared-Use Path) at Greenleaf Street					
Date	Users	Select Weather Data*			
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)	
Friday, March 4, 2016	254	74	48	0	
Saturday, March 5, 2016	437	76	47	0	
Sunday, March 6, 2016	464	75	47	0	
Monday, March 7, 2016	193	75	62	T	
Tuesday, March 8, 2016	84	72	67	0.22	
Wednesday, March 9, 2016	52	73	61	1.44	
Thursday, March 10, 2016	172	76	63	0.9	
Friday, March 11, 2016	230	74	63	0.11	
Saturday, March 12, 2016	478	75	60	0.02	
Sunday, March 13, 2016	329	82	56	0	
Monday, March 14, 2016	284	87	56	0	

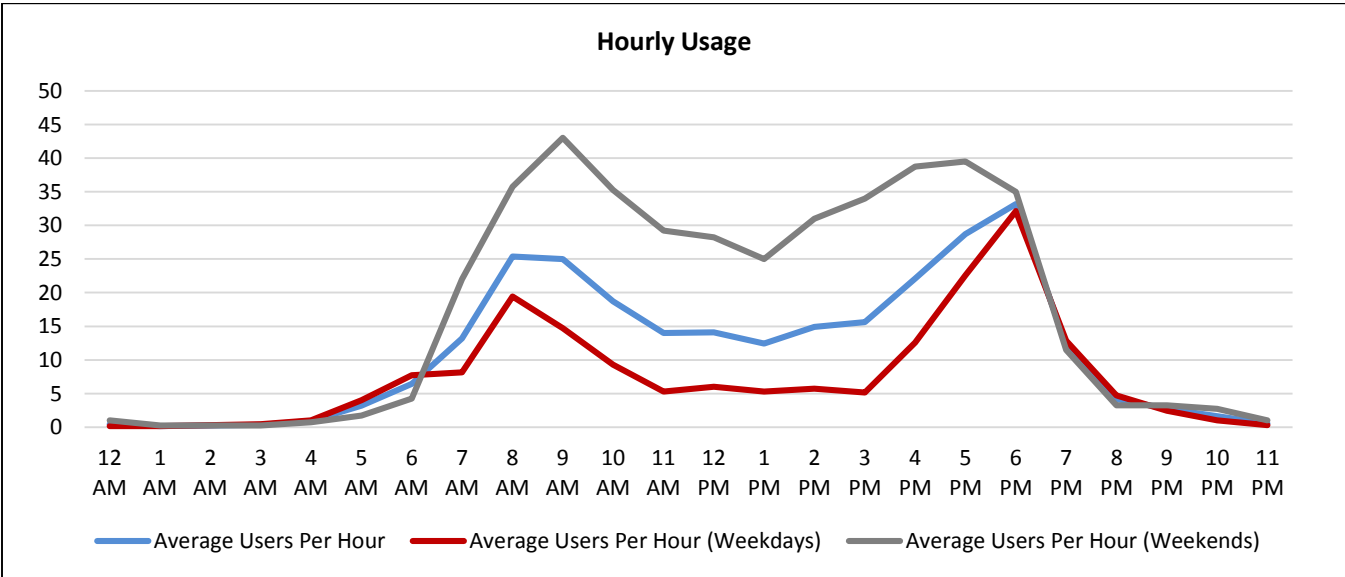
Total	2,977
Average Daily Usage	271
Average Daily Usage (Weekday)	181
Average Daily Usage (Weekend)	427

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail (Main Shared-Use Path) at Greenleaf Street			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.5	0.1	1.0
1:00 a.m.	0.2	0.1	0.3
2:00 a.m.	0.3	0.3	0.3
3:00 a.m.	0.4	0.4	0.3
4:00 a.m.	0.9	1.0	0.8
5:00 a.m.	3.2	4.0	1.8
6:00 a.m.	6.5	7.7	4.3
7:00 a.m.	13.2	8.1	22.0
8:00 a.m.	25.4	19.4	35.8
9:00 a.m.	25.0	14.7	43.0
10:00 a.m.	18.7	9.3	35.3
11:00 a.m.	14.0	5.3	29.3
12:00 p.m.	14.1	6.0	28.3
1:00 p.m.	12.5	5.3	25.0
2:00 p.m.	14.9	5.7	31.0
3:00 p.m.	15.6	5.1	34.0
4:00 p.m.	22.1	12.6	38.8
5:00 p.m.	28.7	22.6	39.5
6:00 p.m.	33.2	32.1	35.0
7:00 p.m.	12.4	12.9	11.5
8:00 p.m.	4.2	4.7	3.3
9:00 p.m.	2.7	2.4	3.3
10:00 p.m.	1.6	1.0	2.8
11:00 p.m.	0.5	0.3	1.0



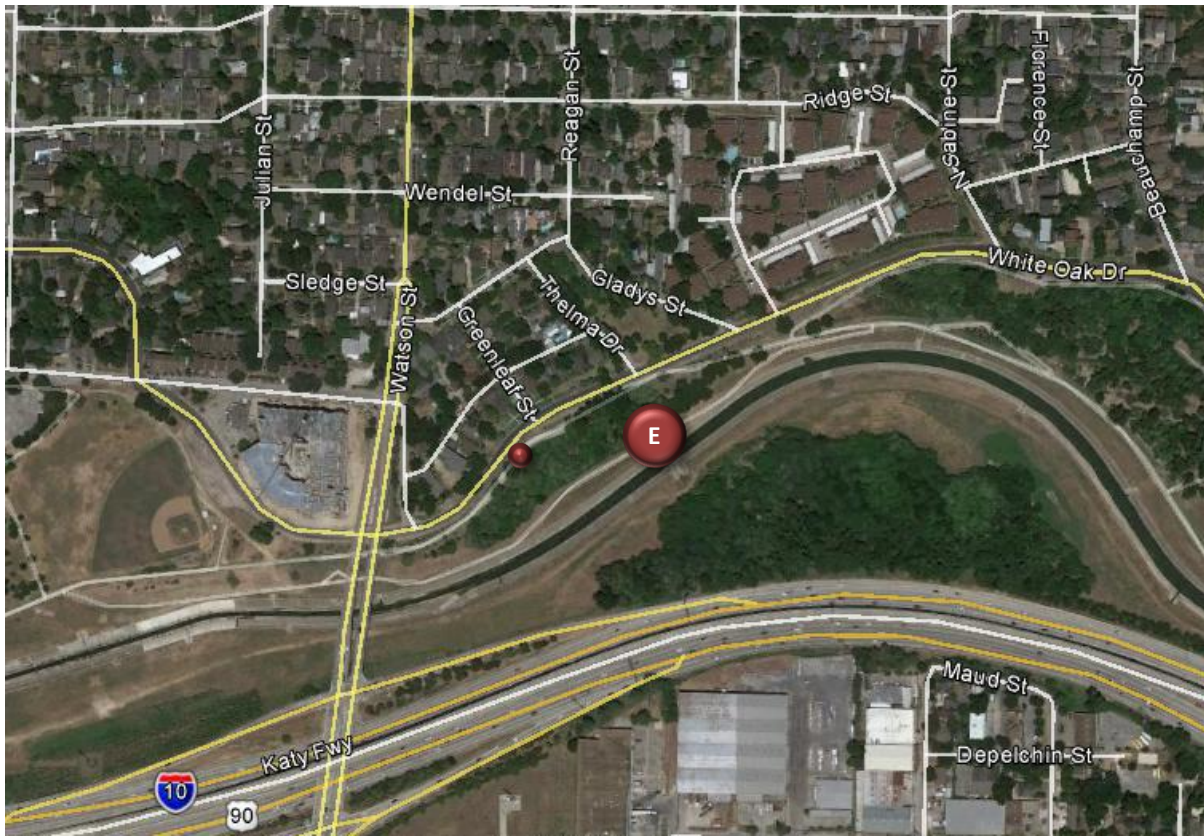
Counter E

White Oak Trail (Lower Shared-Use Path) at Greenleaf Street

Location Information		
Location Name	White Oak Trail (Lower Shared-Use Path) at Greenleaf Street	
Location Description	Shared-use path immediately adjacent to White Oak Bayou, south of the main White Oak Trail	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°46'49.31"N, 95°22'42.28"W	
Surrounding Land Uses	North	Single-Family Residential
	South	White Oak Bayou, Interstate 10, Industrial
	East	Park, Single-Family Residential, Multi-Family Residential
	West	Single-Family Residential, Multi-Family Residential (Under Construction), Park
What object was device secured to?	Bridge Railing (Wooden Bridge over White Oak Bayou Tributary)	
Sidewalk Width	4'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Asphalt	
ADA Ramps	No	
Sidewalk Condition	Poor (Significant Cracking and Debris)	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	Counter E was retrieved on Tuesday, March 8 at 7:00 a.m. due to flooding concerns and redeployed on Thursday, March 10 at 6:00 p.m.	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the evening (4:00 p.m. – 6:00 p.m.).

Location Information: Map



Location Information: Photos



Image 21: White Oak Trail (Lower Shared-Use Path) at Greenleaf Street Facing East



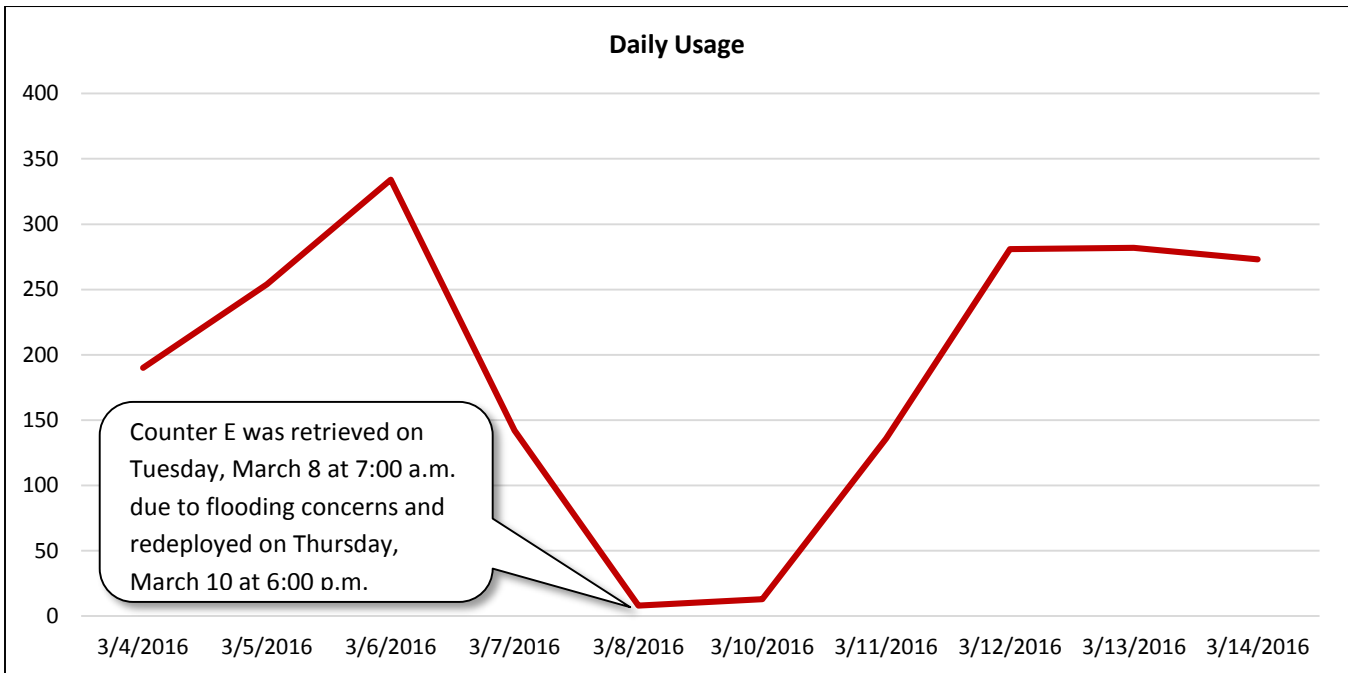
Image 22: White Oak Trail (Lower Shared-Use Path) at Greenleaf Street Facing West

Daily Usage White Oak Trail (Lower Shared-Use Path) at Greenleaf Street				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	190	74	48	0
Saturday, March 5, 2016	254	76	47	0
Sunday, March 6, 2016	334	75	47	0
Monday, March 7, 2016	142	75	62	T
Tuesday, March 8, 2016 (12:00 a.m. – 7:00 a.m.)	8	72	67	0.22
Wednesday, March 9, 2016	N/A	73	61	1.44
Thursday, March 10, 2016 (6:00 p.m. – 12:00 p.m.)	13	76	63	0.9
Friday, March 11, 2016	136	74	63	0.11
Saturday, March 12, 2016	281	75	60	0.02
Sunday, March 13, 2016	282	82	56	0
Monday, March 14, 2016	273	87	56	0

Total	1,913
Average Daily Usage	224
Average Daily Usage (Weekday)	167
Average Daily Usage (Weekend)	288

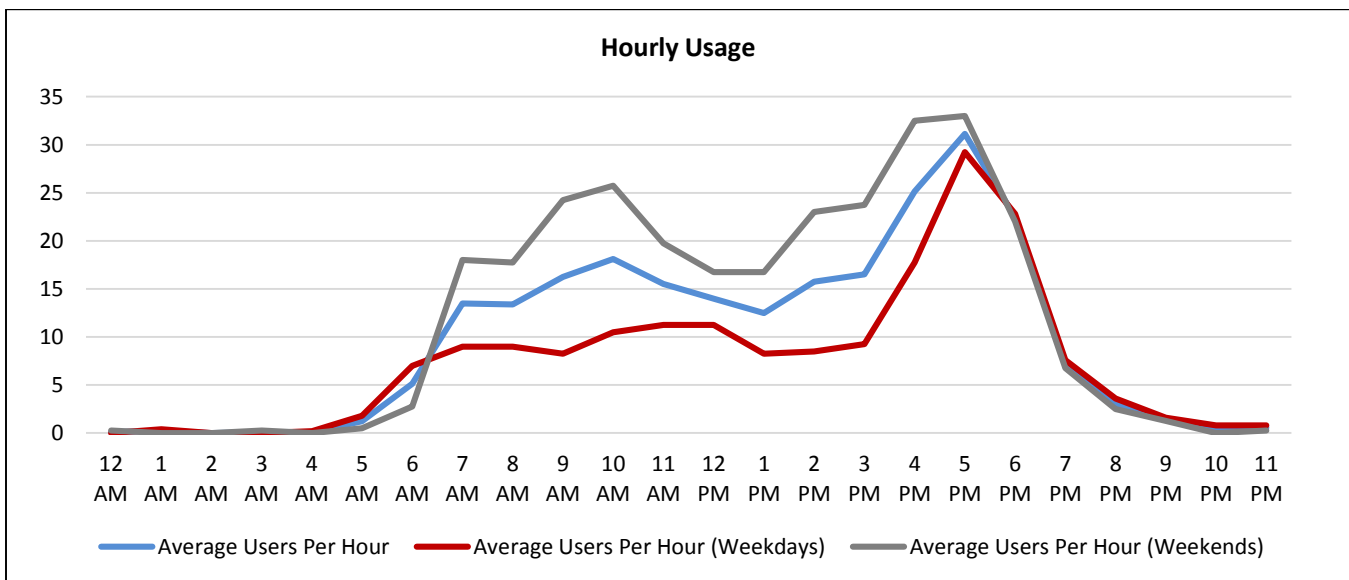
Notes
Counter E was retrieved on Tuesday, March 8 at 7:00 a.m. due to flooding concerns and redeployed on Thursday, March 10 at 6:00 p.m.
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail (Lower Shared-Use Path) at Greenleaf Street			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.1	0.0	0.3
1:00 a.m.	0.2	0.4	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.1	0.0	0.3
4:00 a.m.	0.1	0.2	0.0
5:00 a.m.	1.2	1.8	0.5
6:00 a.m.	5.1	7.0	2.8
7:00 a.m.	13.5	9.0	18.0
8:00 a.m.	13.4	9.0	17.8
9:00 a.m.	16.3	8.3	24.3
10:00 a.m.	18.1	10.5	25.8
11:00 a.m.	15.5	11.3	19.8
12:00 p.m.	14.0	11.3	16.8
1:00 p.m.	12.5	8.3	16.8
2:00 p.m.	15.8	8.5	23.0
3:00 p.m.	16.5	9.3	23.8
4:00 p.m.	25.1	17.8	32.5
5:00 p.m.	31.1	29.3	33.0
6:00 p.m.	22.4	22.8	22.0
7:00 p.m.	7.2	7.6	6.8
8:00 p.m.	3.1	3.6	2.5
9:00 p.m.	1.4	1.6	1.3
10:00 p.m.	0.4	0.8	0.0
11:00 p.m.	0.6	0.8	0.3

Note: Counter E was retrieved on Tuesday, March 8 at 7:00 a.m. due to flooding concerns and redeployed on Thursday, March 10 at 6:00 p.m.



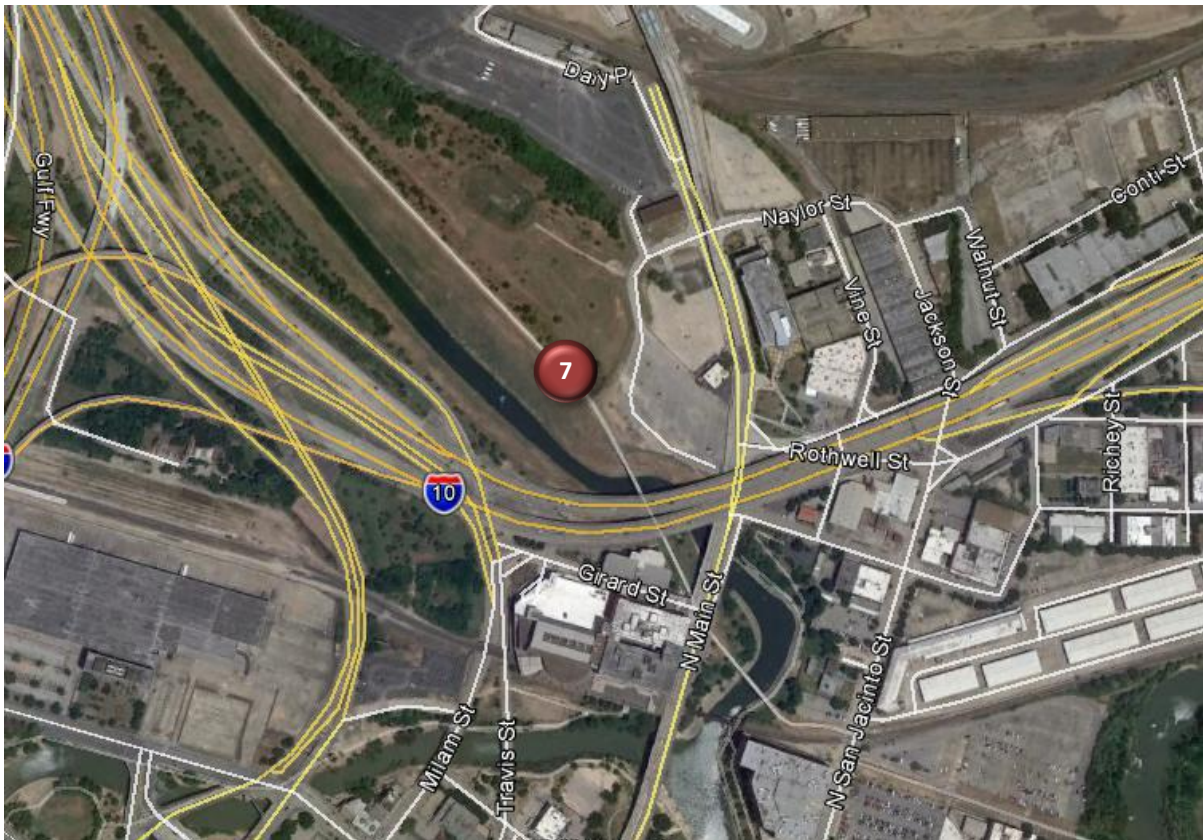
Counter #7

White Oak Trail at University of Houston – Downtown

Location Information		
Location Name	White Oak Trail at University of Houston - Downtown	
Location Description	White Oak Trail northwest of University of Houston - Downtown	
Jurisdiction	City of Houston	
Agency Deployed	City of Houston: Parks and Recreation Department	
GPS Coordinates	29°46'7.17"N, 95°21'37.25"W	
Surrounding Land Uses	North	Vacant, Parking Lots for University of Houston – Downtown
	South	Interstate 10, University of Houston – Downtown
	East	Parking Lots for University of Houston – Downtown
	West	White Oak Bayou, Interstate 10
What object was device secured to?	Post (Water Quality Monitoring Equipment)	
Sidewalk Width	10'	
Buffer Width	N/A (Off-Road Shared-Use Path)	
Street Width	N/A (Off-Road Shared-Use Path)	
Parallel Parking	N/A (Off-Road Shared-Use Path)	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	N/A (Off-Road Shared-Use Path)	
Street Lighting	No	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Nearby (METRO Bus Stop 650' Northwest at Main Street/Naylor Street)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • Usage tends to be much higher during weekends than on weekdays. • On weekdays, usage is highest in the evening (5:00 p.m. – 7:00 p.m.). • During weekends, usage is highest in the early morning (8:00 a.m. – 9:00 p.m.), with another increase in usage in the late morning (10:00 a.m. – 12:00 p.m.). • There was an unusually high level of activity on Sunday, March 6 between 8:00 a.m. and 9:00 a.m. During that period, 577 users passed Counter #7. During the other 10 days, the average number of users between 8:00 a.m. and 9:00 a.m. was 29.7 (297 total users). • Rain seems to impact usage. The wettest day (Wednesday, March 9: 1.44” of rain) had the least usage (78 users).

Location Information: Map



Location Information: Photos



Image 23: White Oak Trail at University of Houston – Downtown Facing East



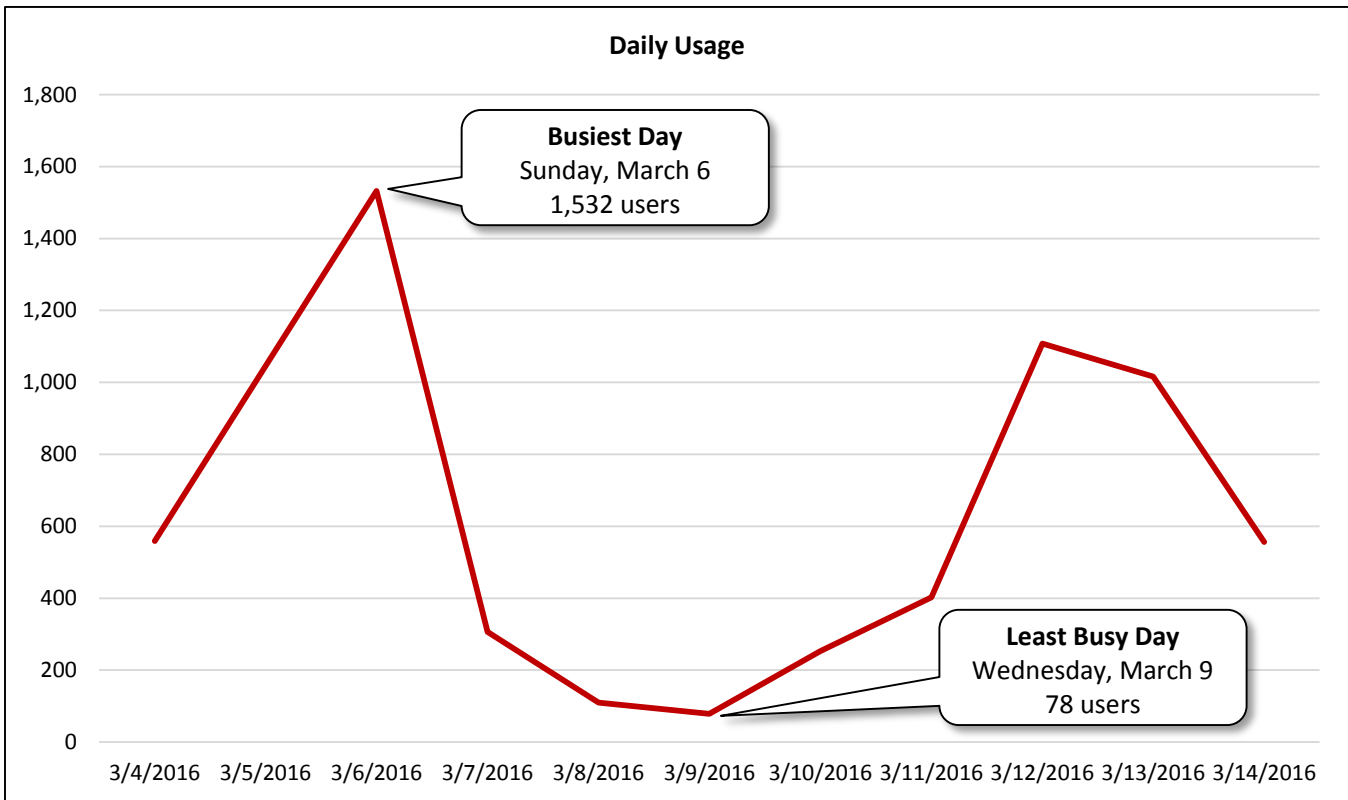
Image 24: White Oak Trail at University of Houston – Downtown Facing West

Daily Usage				
White Oak Trail at University of Houston – Downtown				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Friday, March 4, 2016	559	74	48	0
Saturday, March 5, 2016	1046	76	47	0
Sunday, March 6, 2016	1532	75	47	0
Monday, March 7, 2016	306	75	62	T
Tuesday, March 8, 2016	110	72	67	0.22
Wednesday, March 9, 2016	78	73	61	1.44
Thursday, March 10, 2016	253	76	63	0.9
Friday, March 11, 2016	402	74	63	0.11
Saturday, March 12, 2016	1108	75	60	0.02
Sunday, March 13, 2016	1016	82	56	0
Monday, March 14, 2016	556	87	56	0

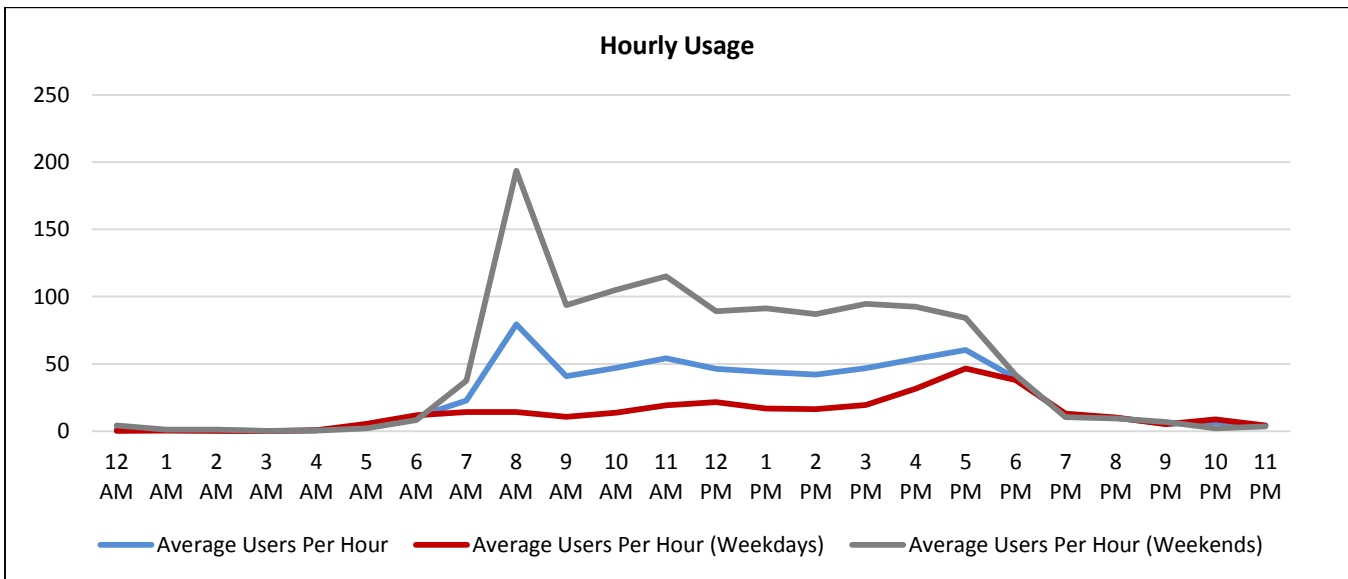
Total	6,966
Average Daily Usage	633
Average Daily Usage (Weekday)	323
Average Daily Usage (Weekend)	1,176

Notes
Houston ISD Spring Break: March 14 – March 18, 2016

*Weather conditions recorded at KHOU.



Hourly Usage			
White Oak Trail at University of Houston – Downtown			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.7	0.3	4.3
1:00 a.m.	0.7	0.4	1.3
2:00 a.m.	0.6	0.3	1.3
3:00 a.m.	0.1	0.0	0.3
4:00 a.m.	0.6	0.7	0.5
5:00 a.m.	4.2	5.4	2.0
6:00 a.m.	10.5	11.9	8.3
7:00 a.m.	22.7	14.3	37.5
8:00 a.m.	79.5	14.3	193.5
9:00 a.m.	40.8	10.6	93.8
10:00 a.m.	47.0	13.9	105.0
11:00 a.m.	54.1	19.3	115.0
12:00 p.m.	46.3	21.7	89.3
1:00 p.m.	43.9	16.9	91.3
2:00 p.m.	42.0	16.3	87.0
3:00 p.m.	46.9	19.6	94.8
4:00 p.m.	53.7	31.6	92.5
5:00 p.m.	60.3	46.6	84.3
6:00 p.m.	39.5	38.1	41.8
7:00 p.m.	12.1	13.0	10.5
8:00 p.m.	10.0	10.3	9.5
9:00 p.m.	5.7	5.1	6.8
10:00 p.m.	6.4	8.9	2.0
11:00 p.m.	3.9	4.1	3.5



Permanent Counters

H-GAC has worked with the City of Houston to install permanent pedestrian and bicycle counters at two locations in early 2013. One counter is located along the White Oak Trail near 34th Street in Oak Forest/Garden Oaks, and the other is located along the MKT Trail near 5½ Street in Houston Heights.

Below is total daily usage (pedestrians and cyclists) at each location during the period temporary counters were deployed nearby.

Daily Usage					
Permanent Counters					
Date	Total Users: White Oak Trail at 34 th Street	Total Users: MKT Trail at 5½ Street	Select Weather Data*		
			High Temp. (°F)	Low Temp. (°F)	Precipitation (inches)
Friday, March 4, 2016	404	920	74	48	0
Saturday, March 5, 2016	1,107	1,910	76	47	0
Sunday, March 6, 2016	1,137	1,922	75	47	0
Monday, March 7, 2016	218	551	75	62	T
Tuesday, March 8, 2016	50	329	72	67	0.22
Wednesday, March 9, 2016	38	239	73	61	1.44
Thursday, March 10, 2016	165	574	76	63	0.9
Friday, March 11, 2016	363	807	74	63	0.11
Saturday, March 12, 2016	1,454	1,880	75	60	0.02
Sunday, March 13, 2016	994	1,956	82	56	0
Monday, March 14, 2016	497	929	87	56	0
Total	6,427	12,017			
Average Daily Usage	584	1,092			
Average Daily Usage (Weekday)	248	621			
Average Daily Usage (Weekend)	1,173	1,917			

Participants

City of Houston: Parks and Recreation Department

www.houstontx.gov/parks/

Houston-Galveston Area Council: Pedestrian-Bicyclist Planning

www.h-gac.com/go/pedbike

Texas Transportation Institute

<http://tti.tamu.edu/>