

HOUSTON-GALVESTON AREA COUNCIL



Temporary Pedestrian/Bicycle Counters Data Summary

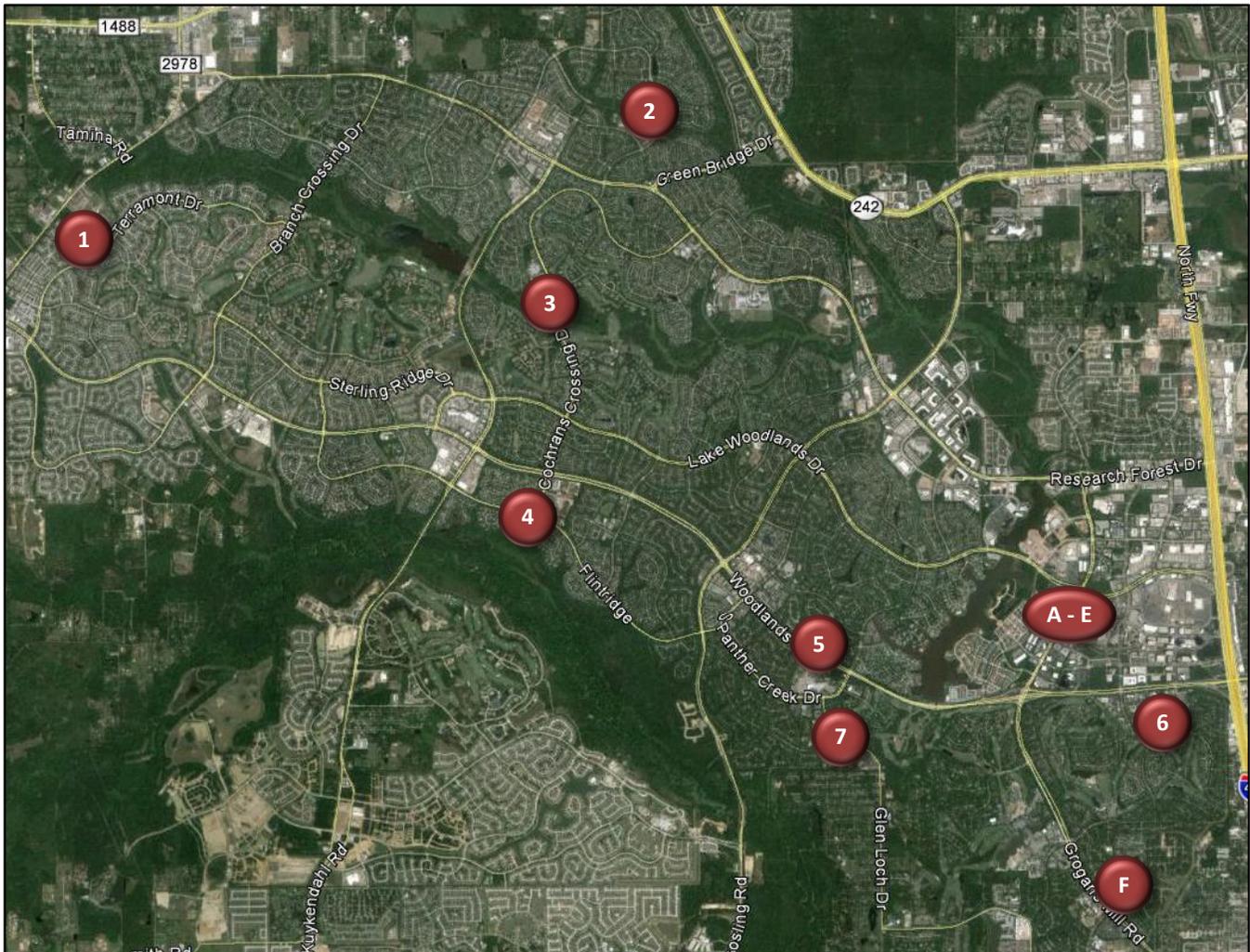
Deployment Summary	
Sponsoring Agency	Houston-Galveston Area Council Texas Transportation Institute
Deployment Period	Tuesday, October 13, 2015 – Monday, October 26, 2015
Number of Counters Deployed	13
Locations Deployed (Houston-Galveston Area Council)	
Counter #1	Terramont Drive at Deretchin Elementary School
Counter #2	Alden Bridge Drive at Wooded Brook Drive
Counter #3	Cochrans Crossing Drive South of Cattail Park
Counter #4	Flintridge Drive at John Cooper Drive
Counter #5	Woodlands Parkway at McCullough Junior High School
Counter #6	N. Millbend Drive at Cedarwing Lane
Counter #7	Glen Loch Drive at Tangle Brush Drive
Locations Deployed (Texas Transportation Institute)	
Counter A	The Woodlands Waterway at Grogans Mill Road (North Bank: High Path)
Counter B	The Woodlands Waterway at Grogans Mill Road (North Bank: Service Road)
Counter C	The Woodlands Waterway at Grogans Mill Road (North Bank: Waterside Path)
Counter D	The Woodlands Waterway at Grogans Mill Road (South Bank: Waterside Path)
Counter E	Grogans Mill Road at The Woodlands Waterway (Sidepath)
Counter F	Grogans Mill Road at Sawmill Road (Pedestrian Overpass)

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



Counter	Location	Total Users	Average Daily Usage
1	Terramont Drive at Deretchin Elementary School	4,169	298
2	Alden Bridge Drive at Wooded Brook Drive	3,533	252
3	Cochrans Crossing Drive South of Cattail Park	2,112	151
4	Flintridge Drive at John Cooper Drive	2,265	162
5	Woodlands Parkway at McCullough Junior High School	1,572	112
6	N. Millbend Drive at Cedarwing Lane	3,209	229
7	Glen Loch Drive at Tangle Brush Drive	979	70
A	The Woodlands Waterway at Grogans Mill Road (North Bank: High Path)	1,499	107
B	The Woodlands Waterway at Grogans Mill Road (North Bank: Service Road)	1,752	125
C	The Woodlands Waterway at Grogans Mill Road (North Bank: Waterside Path)	811	58
D	The Woodlands Waterway at Grogans Mill Road (South Bank: Waterside Path)	2,590	185
E	Grogans Mill Road at The Woodlands Waterway (Sidepath)	1,901	136
F	Grogans Mill Road at Sawmill Road (Pedestrian Overpass)	2,073	148

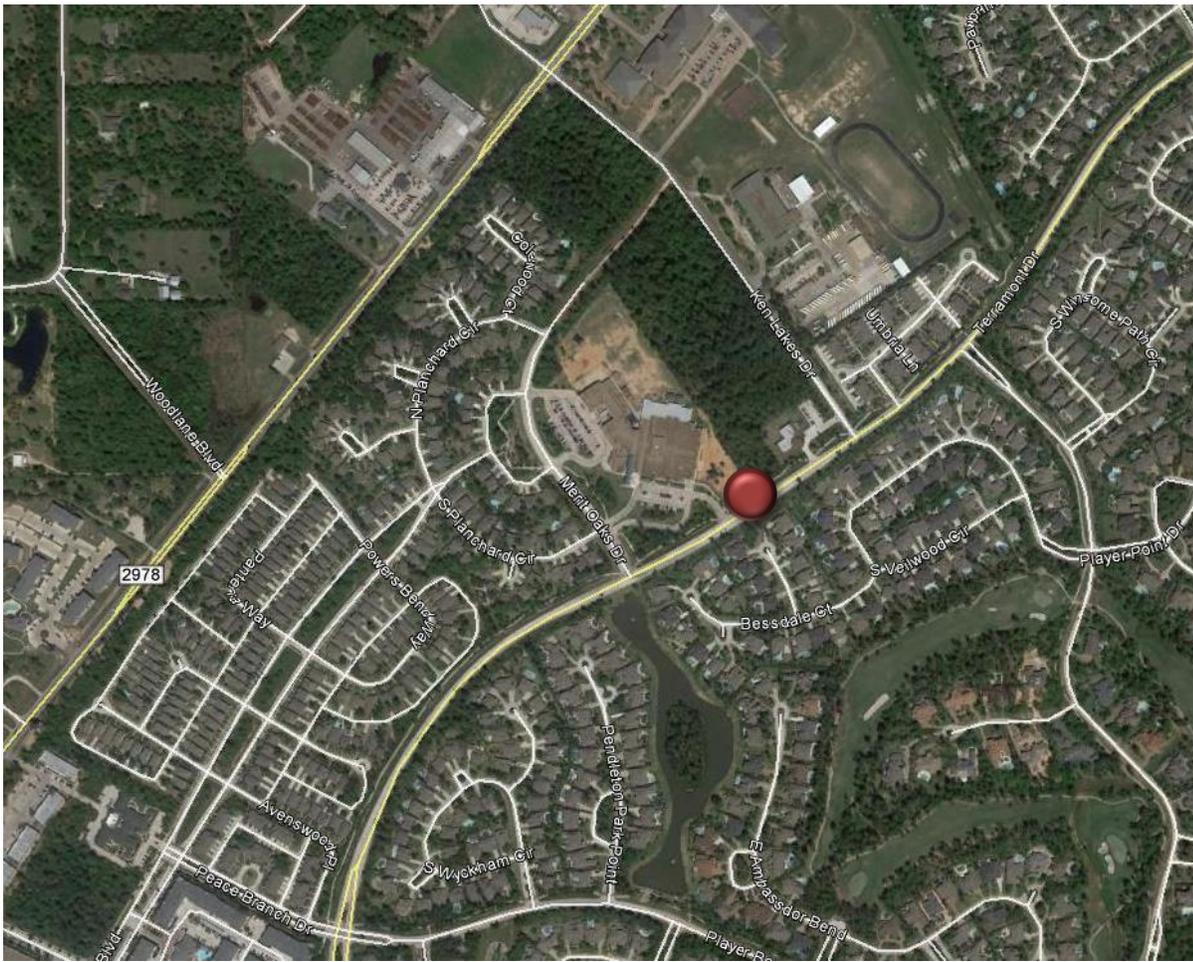
Counter #1

Terramont Drive at Deretchin Elementary School

Location Information		
Location Name	Terramont Drive at Deretchin Elementary School	
Location Description	Shared-Use Path along Terramont Drive at Deretchin Elementary School	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30°11'54.40"N, 95°34'41.70"W	
Surrounding Land Uses	North	Deretchin Elementary School
	South	Single-Family Residential
	East	Commercial (Daycare), Single-Family Residential, Multi-Family Residential, School (Bear Branch Sixth Grade School)
	West	Deretchin Elementary School, Single-Family Residential
What object was device secured to?	Pine Tree on West Side of Shared-Use Path Northeast of Terramont Drive Entrance to Deretchin Elementary School	
Sidewalk Width	8'	
Buffer Width	20'	
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	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	Not Available	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be much higher usage on weekdays than during weekends. • On weekdays, usage is highest in the morning (7:00 a.m. – 9:00 a.m.) and late afternoon (3:00 p.m. – 4:00 p.m.). Peak usage corresponds with the opening and closing of nearby Deretchin Elementary School. Classes begin at 8:05 a.m. and end at 3:05 p.m. • On weekends, usage is highest in the morning (8:00 a.m. – 10:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos

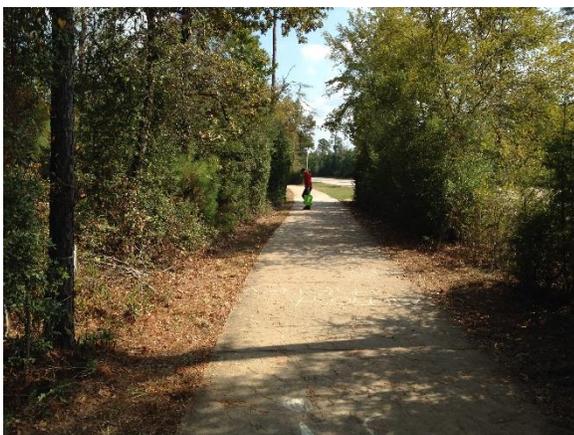


Image 1: Trail along Terramont Drive Facing Northeast

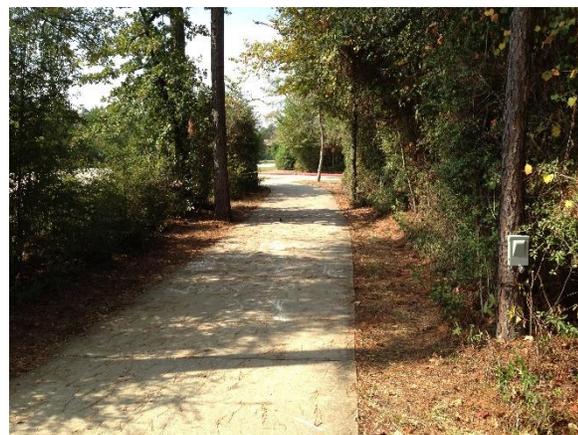
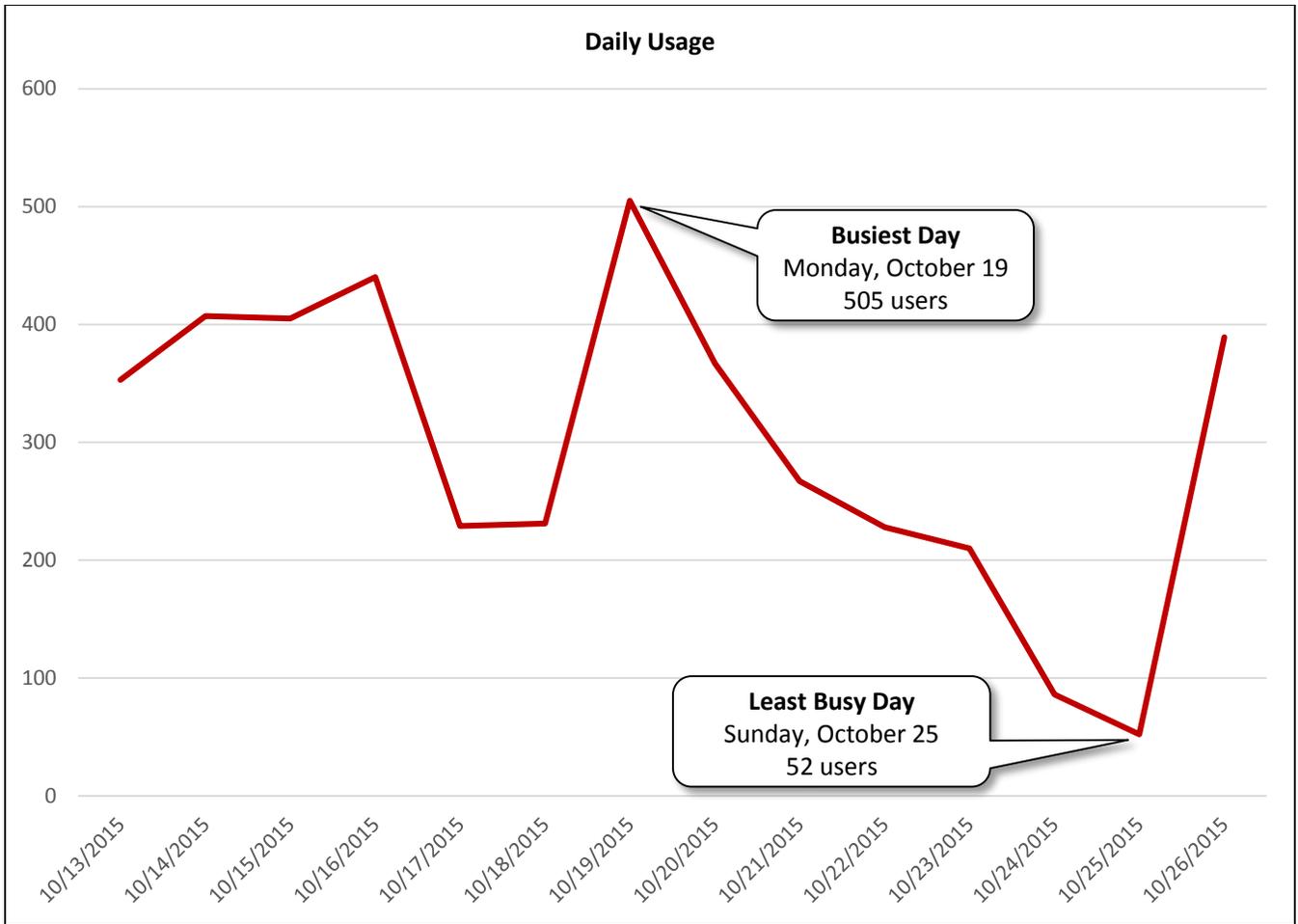


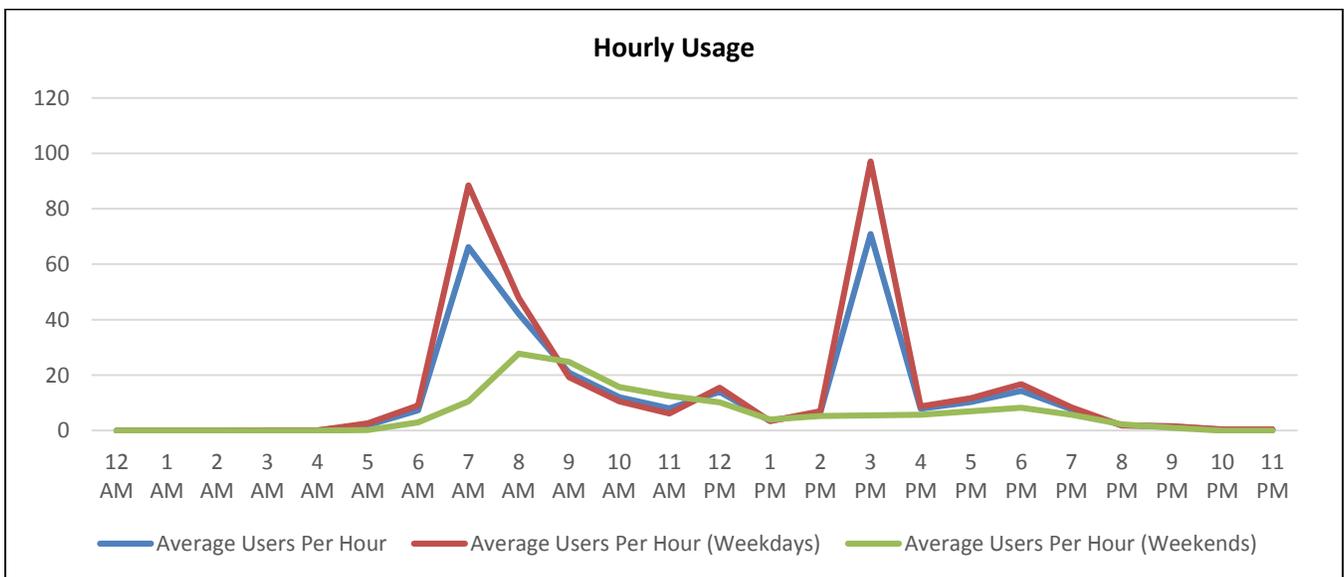
Image 2: Trail along Terramont Drive Facing Southwest

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	353	95	61	0
Wednesday, October 14, 2015	407	93	54	0
Thursday, October 15, 2015	405	93	54	0
Friday, October 16, 2015	440	91	55	0
Saturday, October 17, 2015	229	86	62	0
Sunday, October 18, 2015	231	82	55	0
Monday, October 19, 2015	505	82	53	0
Tuesday, October 20, 2015	367	77	57	0
Wednesday, October 21, 2015	267	86	69	0
Thursday, October 22, 2015	228	84	72	0.11
Friday, October 23, 2015	210	82	75	0.04
Saturday, October 24, 2015	86	77	69	3.78
Sunday, October 25, 2015	52	68	60	1.89
Monday, October 26, 2015	389	73	60	0.01
Total	4,169			
Average Daily Usage	298			
Average Daily Usage (Weekday)	357			
Average Daily Usage (Weekend)	150			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.0	0.0	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.	0.1	0.1	0.0
4:00 a.m.	0.1	0.1	0.0
5:00 a.m.	1.9	2.6	0.3
6:00 a.m.	7.4	9.1	3.0
7:00 a.m.	66.1	88.4	10.5
8:00 a.m.	42.1	47.8	27.8
9:00 a.m.	20.9	19.3	24.8
10:00 a.m.	12.1	10.6	15.8
11:00 a.m.	8.0	6.2	12.5
12:00 p.m.	14.0	15.5	10.3
1:00 p.m.	3.6	3.4	4.0
2:00 p.m.	6.5	7.0	5.3
3:00 p.m.	70.9	97.1	5.5
4:00 p.m.	7.9	8.7	5.8
5:00 p.m.	10.4	11.7	7.0
6:00 p.m.	14.4	16.8	8.3
7:00 p.m.	7.6	8.4	5.8
8:00 p.m.	1.9	1.8	2.3
9:00 p.m.	1.4	1.6	1.0
10:00 p.m.	0.4	0.5	0.0
11:00 p.m.	0.3	0.4	0.0



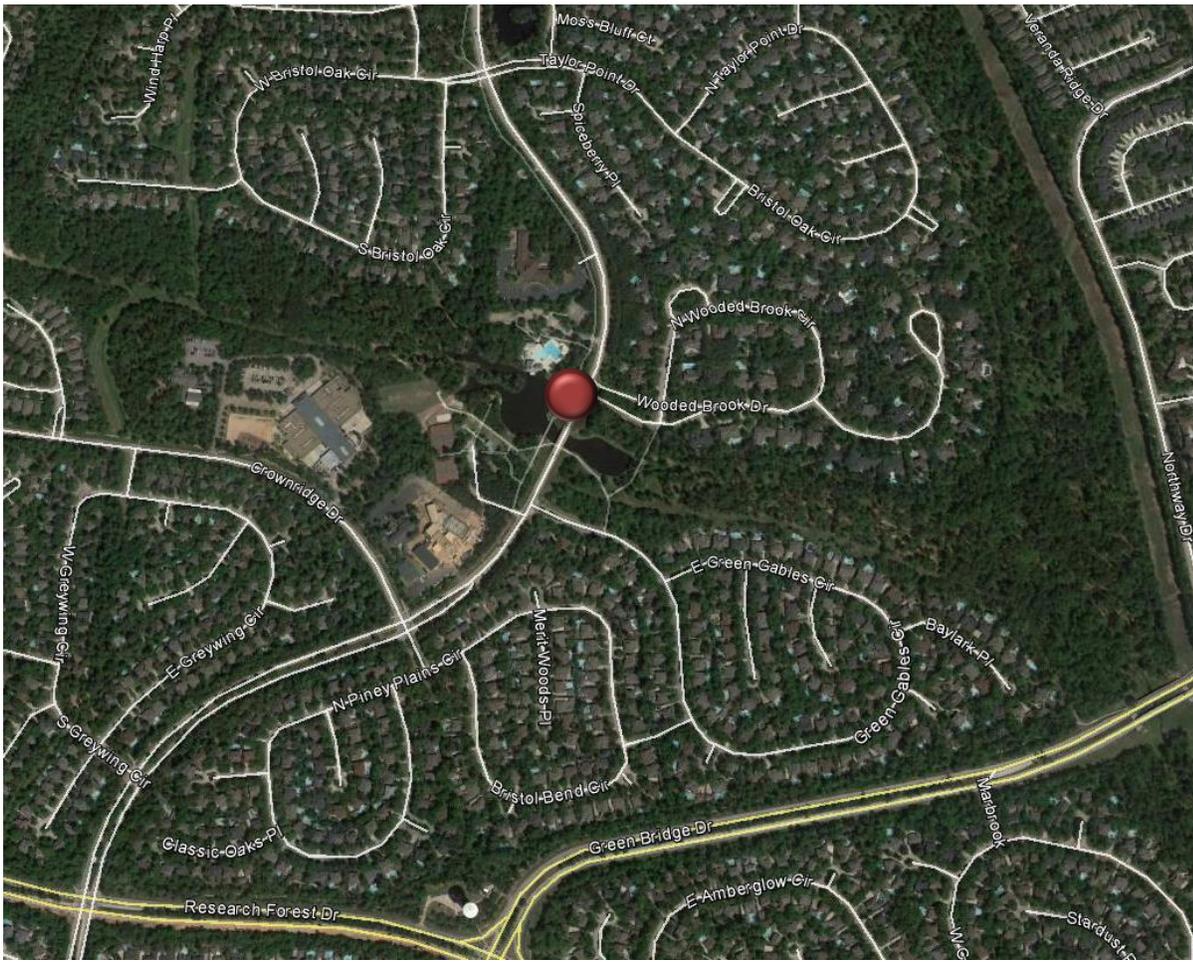
Counter #2

Alden Bridge Drive at Wooded Brook Drive

Location Information		
Location Name	Alden Bridge Drive at Wooded Brook Drive	
Location Description	Shared-Use Path along Alden Bridge Drive opposite Wooded Brook Drive (next to Alden Bridge Park)	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30°12'40.70"N, 95°30'50.20"W	
Surrounding Land Uses	North	Park (Alden Bridge Park), Institutional (Church), Single-Family Residential
	South	Park (Alden Bridge Park), Institutional (Church), Single-Family Residential
	East	Single-Family Residential
	West	Park (Alden Bridge Park)
What object was device secured to?	Oak Tree on West Side of Shared-Use Path	
Sidewalk Width	8'	
Buffer Width	25' (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	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	Not Available	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage on weekdays than during weekends. • On weekdays, usage peaks in the morning (7:00 a.m. – 10:00 a.m.). Usage drops mid-day, but increases in the late afternoon (3:00 p.m. – 7:00 p.m.). • On weekends, usage peaks in the morning (8:00 a.m. – 12:00 p.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had significantly less pedestrian and bicycle traffic than most days with little or no rain.

Location Information: Map



Location Information: Photos

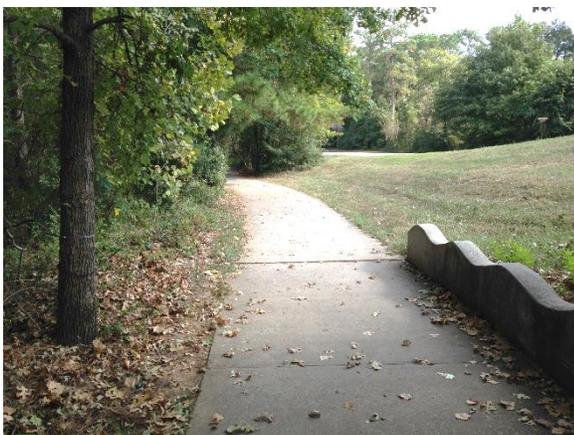


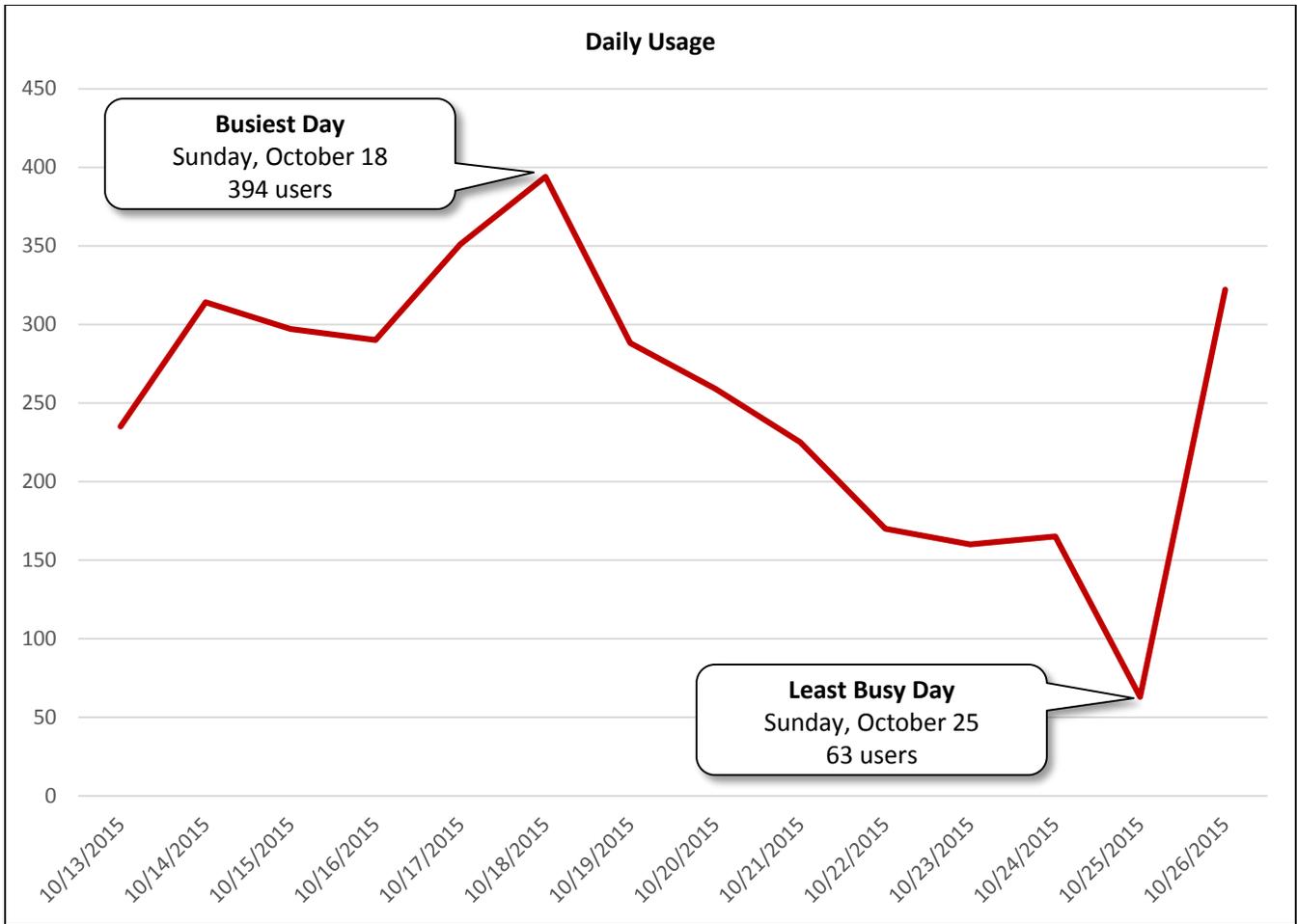
Image 3: Trail along Alden Bridge Drive Facing North



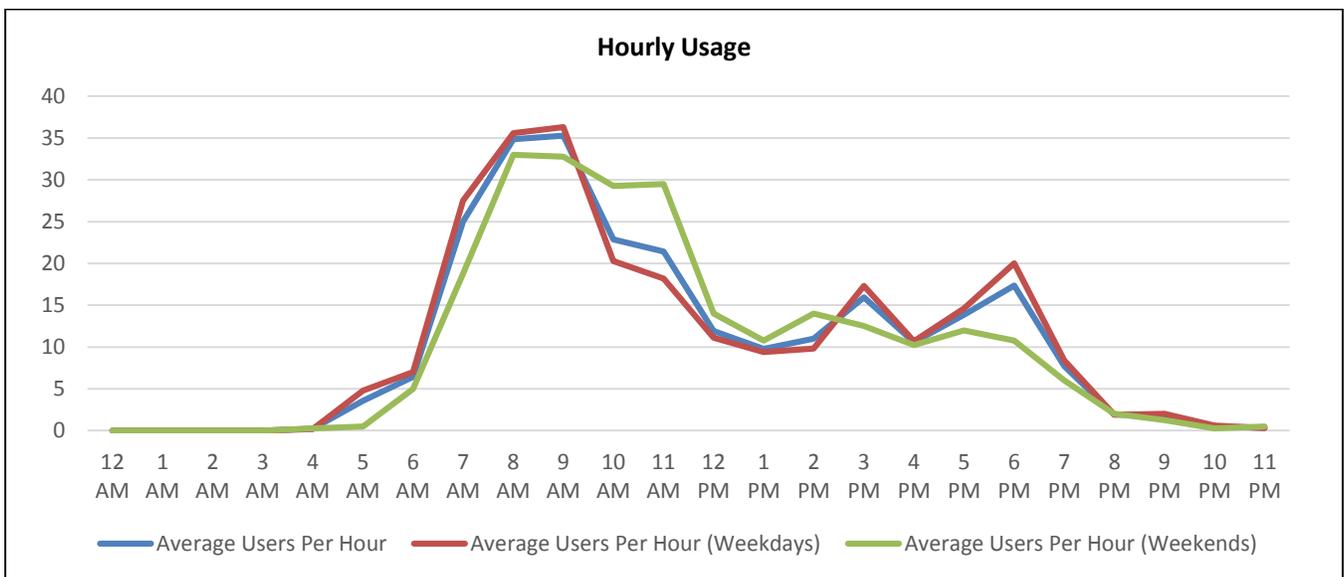
Image 4: Trail along Alden Bridge Drive Facing South

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	235	95	61	0
Wednesday, October 14, 2015	314	93	54	0
Thursday, October 15, 2015	297	93	54	0
Friday, October 16, 2015	290	91	55	0
Saturday, October 17, 2015	351	86	62	0
Sunday, October 18, 2015	394	82	55	0
Monday, October 19, 2015	288	82	53	0
Tuesday, October 20, 2015	259	77	57	0
Wednesday, October 21, 2015	225	86	69	0
Thursday, October 22, 2015	170	84	72	0.11
Friday, October 23, 2015	160	82	75	0.04
Saturday, October 24, 2015	165	77	69	3.78
Sunday, October 25, 2015	63	68	60	1.89
Monday, October 26, 2015	322	73	60	0.01
Total	3,533			
Average Daily Usage	252			
Average Daily Usage (Weekday)	256			
Average Daily Usage (Weekend)	243			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.0	0.0	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.	0.2	0.2	0.3
5:00 a.m.	3.6	4.8	0.5
6:00 a.m.	6.4	7.0	5.0
7:00 a.m.	25.0	27.5	18.8
8:00 a.m.	34.9	35.6	33.0
9:00 a.m.	35.3	36.3	32.8
10:00 a.m.	22.9	20.3	29.3
11:00 a.m.	21.4	18.2	29.5
12:00 p.m.	11.9	11.1	14.0
1:00 p.m.	9.8	9.4	10.8
2:00 p.m.	11.0	9.8	14.0
3:00 p.m.	15.9	17.3	12.5
4:00 p.m.	10.6	10.7	10.3
5:00 p.m.	13.9	14.6	12.0
6:00 p.m.	17.4	20.0	10.8
7:00 p.m.	7.7	8.4	6.0
8:00 p.m.	1.9	1.9	2.0
9:00 p.m.	1.8	2.0	1.3
10:00 p.m.	0.5	0.6	0.3
11:00 p.m.	0.4	0.3	0.5



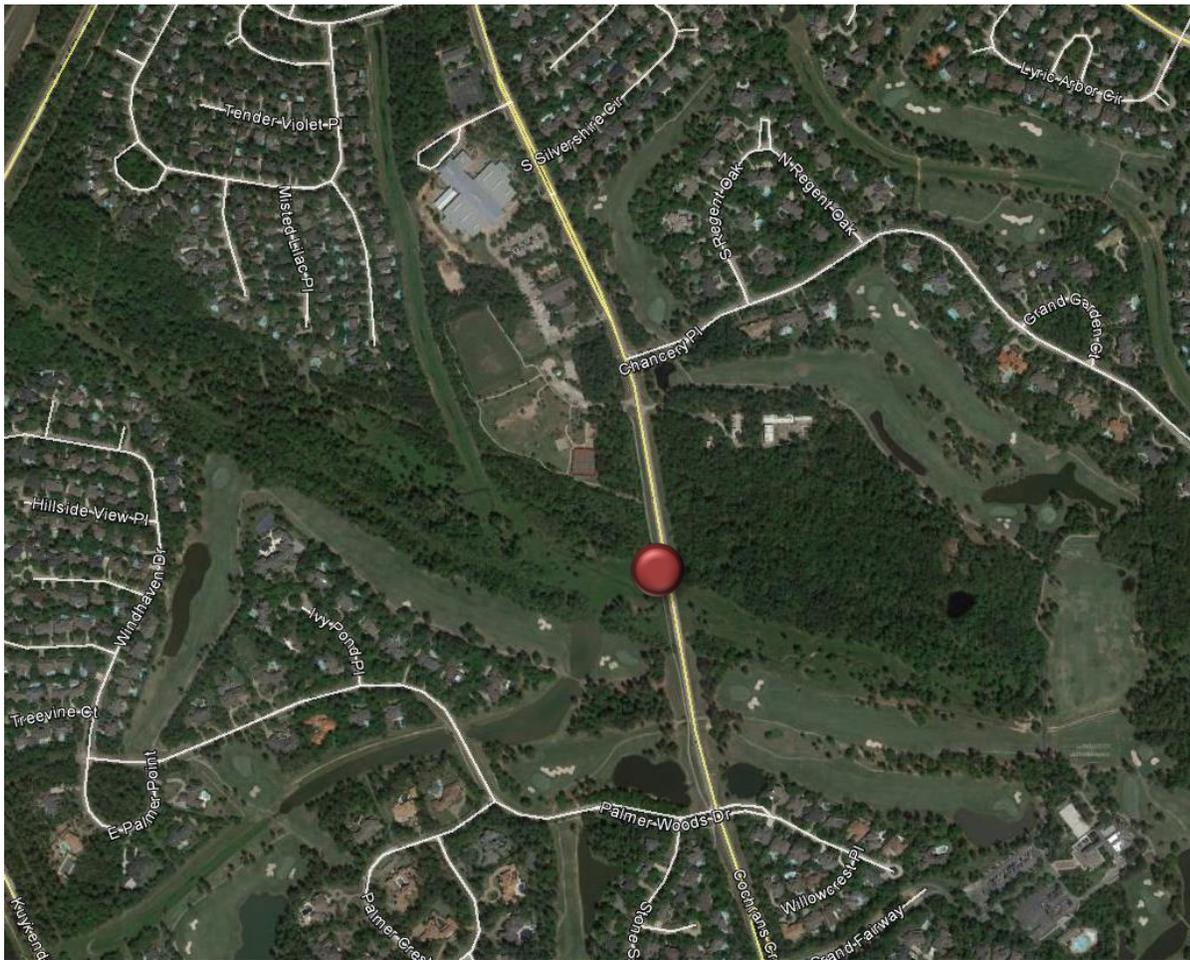
Counter #3

Cochrans Crossing Drive South of Cattail Park

Location Information		
Location Name	Cochrans Crossing Drive South of Cattail Park	
Location Description	Shared-Use Path along Cochrans Crossing Drive South of Cattail Park, Along Bridge across Bear Branch	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30°11'32.30"N, 95°31'31.50"W	
Surrounding Land Uses	North	Cattail Park, Institutional (Churches), Single-Family Residential, Galatas Elementary School
	South	Golf Course, Single-Family Residential
	East	Vacant
	West	Park (Cattail Park)
What object was device secured to?	Railing on Pedestrian/Bicycle Bridge (North End) Parallel to Cochrans Crossing Drive	
Sidewalk Width	8'	
Buffer Width	15' (Varies)	
Street Width	Two-Lane Undivided Roadway	
Parallel Parking	No	
Landscaping or Trees	Yes (Some Trees)	
Sidewalk Pavement Type	Concrete (Wood on Bridge)	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	8,156 (Cochrans Crossing Drive North of Bear Branch: 2015)	
Transit	No	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage during weekends than on weekdays. • On weekdays, usage peaks in the morning (7:00 a.m. – 10:00 a.m.). Usage drops mid-day, but increases in the evening (6:00 p.m. – 7:00 p.m.). • On weekends, usage peaks in the morning (9:00 a.m. – 11:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos



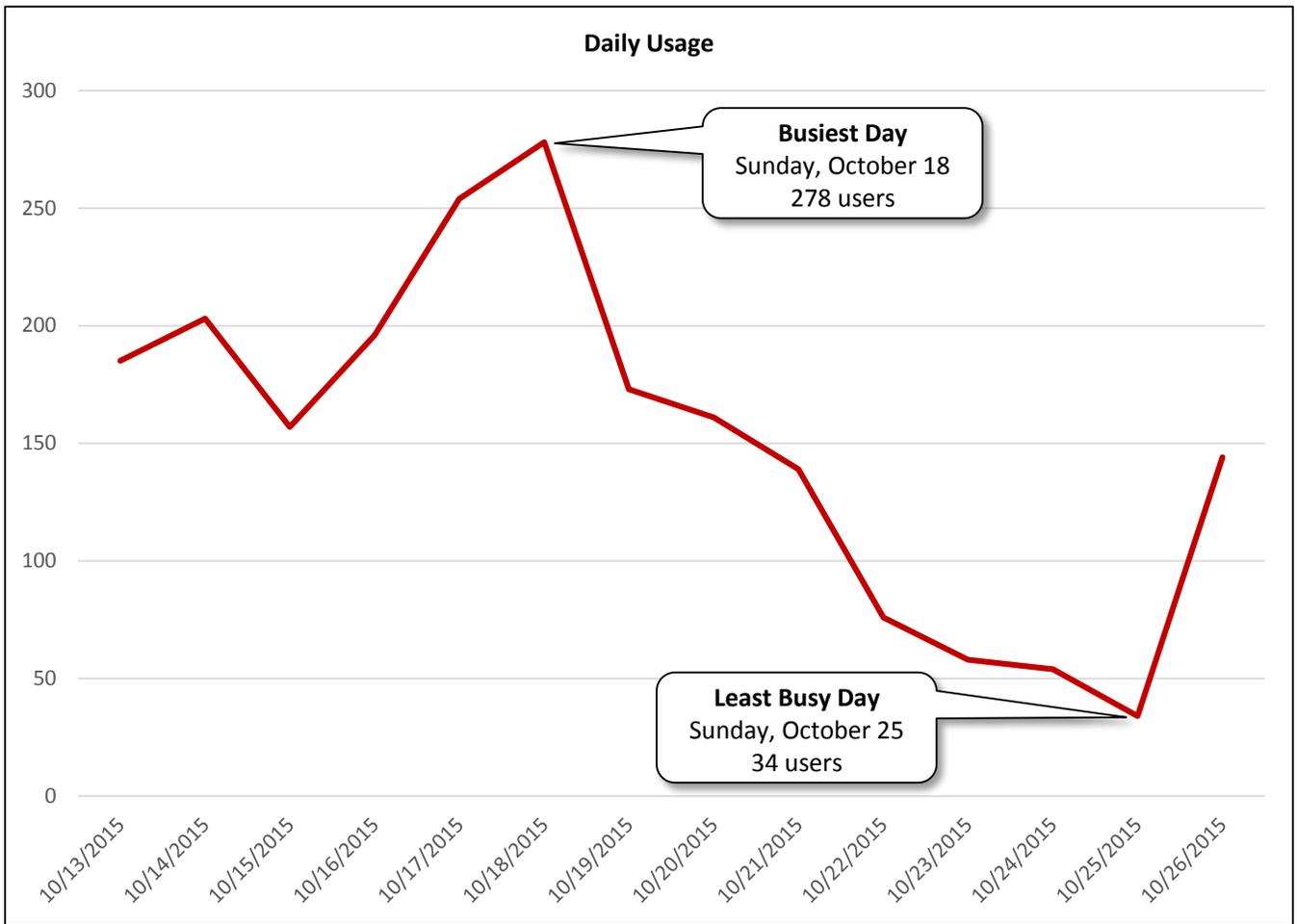
Image 5: Trail along Cochrans Crossing Drive Facing North



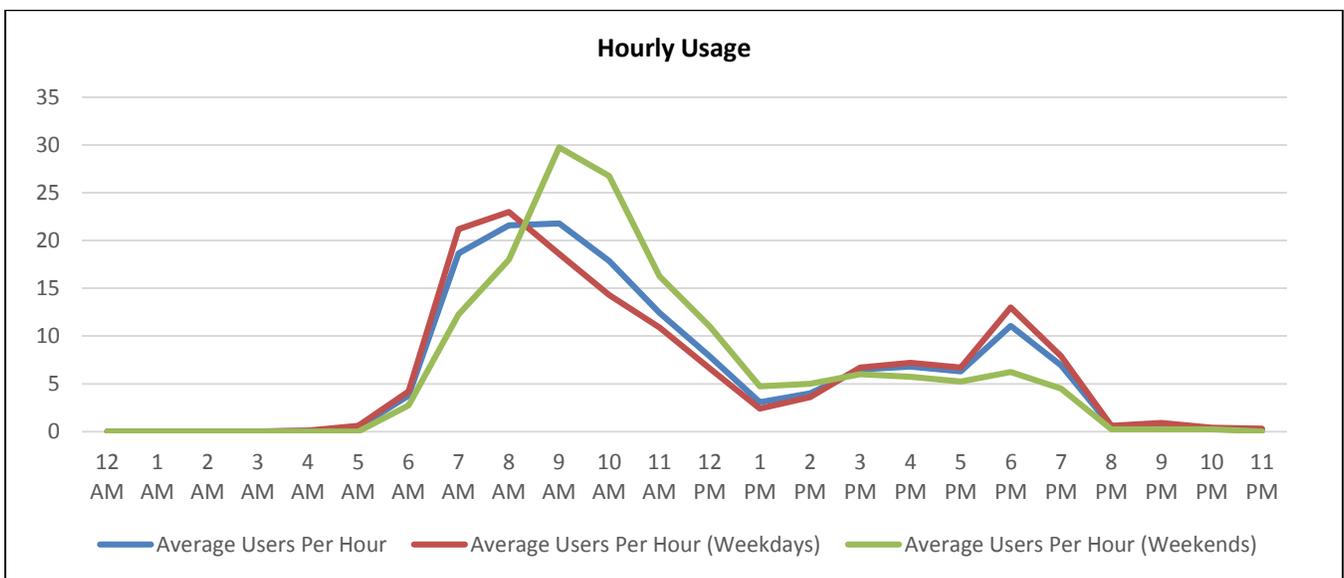
Image 6: Trail along Cochrans Crossing Drive Facing South

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	185	95	61	0
Wednesday, October 14, 2015	203	93	54	0
Thursday, October 15, 2015	157	93	54	0
Friday, October 16, 2015	196	91	55	0
Saturday, October 17, 2015	254	86	62	0
Sunday, October 18, 2015	278	82	55	0
Monday, October 19, 2015	173	82	53	0
Tuesday, October 20, 2015	161	77	57	0
Wednesday, October 21, 2015	139	86	69	0
Thursday, October 22, 2015	76	84	72	0.11
Friday, October 23, 2015	58	82	75	0.04
Saturday, October 24, 2015	54	77	69	3.78
Sunday, October 25, 2015	34	68	60	1.89
Monday, October 26, 2015	144	73	60	0.01
Total	2,112			
Average Daily Usage	151			
Average Daily Usage (Weekday)	149			
Average Daily Usage (Weekend)	155			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.0	0.0	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.	0.1	0.1	0.0
5:00 a.m.	0.4	0.6	0.0
6:00 a.m.	3.8	4.2	2.8
7:00 a.m.	18.6	21.2	12.3
8:00 a.m.	21.6	23.0	18.0
9:00 a.m.	21.8	18.6	29.8
10:00 a.m.	17.9	14.3	26.8
11:00 a.m.	12.4	10.9	16.3
12:00 p.m.	7.9	6.6	11.0
1:00 p.m.	3.1	2.4	4.8
2:00 p.m.	4.0	3.6	5.0
3:00 p.m.	6.5	6.7	6.0
4:00 p.m.	6.8	7.2	5.8
5:00 p.m.	6.3	6.7	5.3
6:00 p.m.	11.1	13.0	6.3
7:00 p.m.	6.9	7.9	4.5
8:00 p.m.	0.5	0.6	0.3
9:00 p.m.	0.7	0.9	0.3
10:00 p.m.	0.4	0.4	0.3
11:00 p.m.	0.2	0.3	0.0



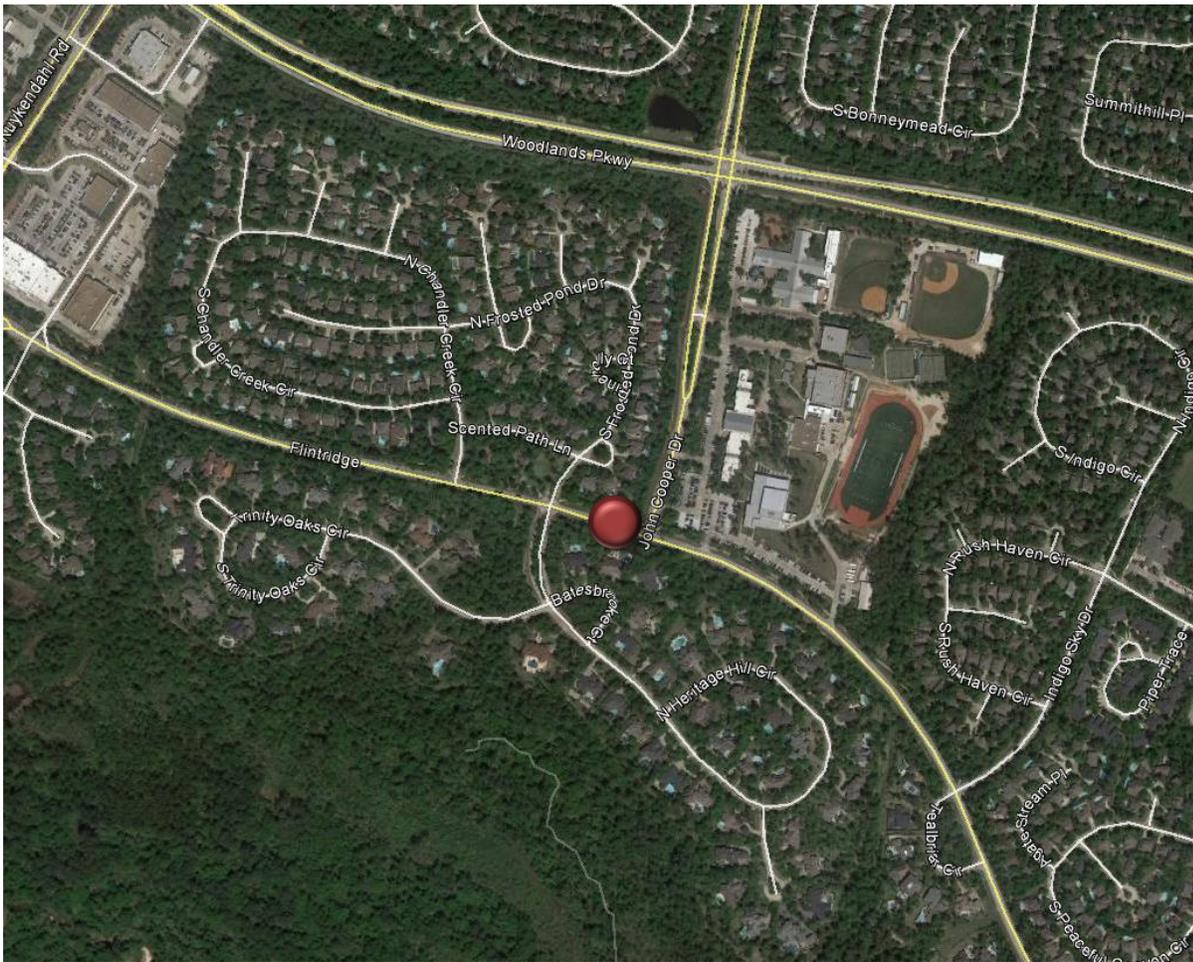
Counter #4

Flintridge Drive at John Cooper Drive

Location Information		
Location Name	Flintridge Drive at John Cooper Drive	
Location Description	Shared-Use Path along Flintridge Drive West of John Cooper Drive	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30°10'23.30"N, 95°31'41.40"W	
Surrounding Land Uses	North	Single-Family Residential, The John Cooper School
	South	Single-Family Residential
	East	The John Cooper School, Single-Family Residential
	West	Single-Family Residential
What object was device secured to?	Pine Tree on South Side of Shared-Use Path West of John Cooper Drive	
Sidewalk Width	8'	
Buffer Width	30' (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	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	8,236 (Just West of Gosling Road: 2015)	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be higher usage during weekends than on weekdays. • On weekdays, usage peaks in the morning (8:00 a.m. – 10:00 a.m.). • On weekends, usage peaks in the morning (8:00 a.m. – 11:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos

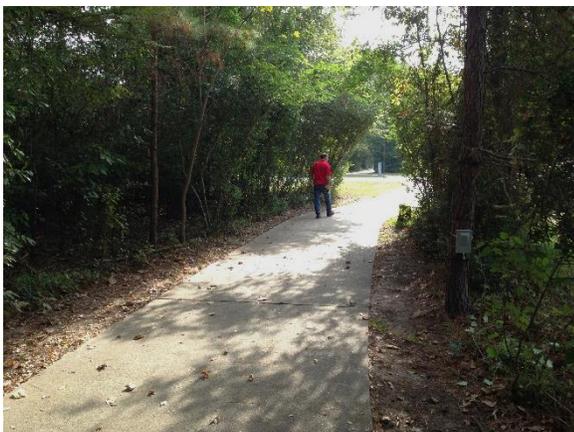


Image 7: Trail along Flintridge Drive Facing East

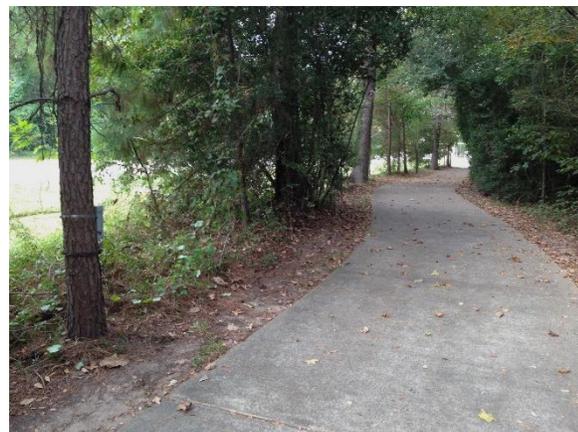
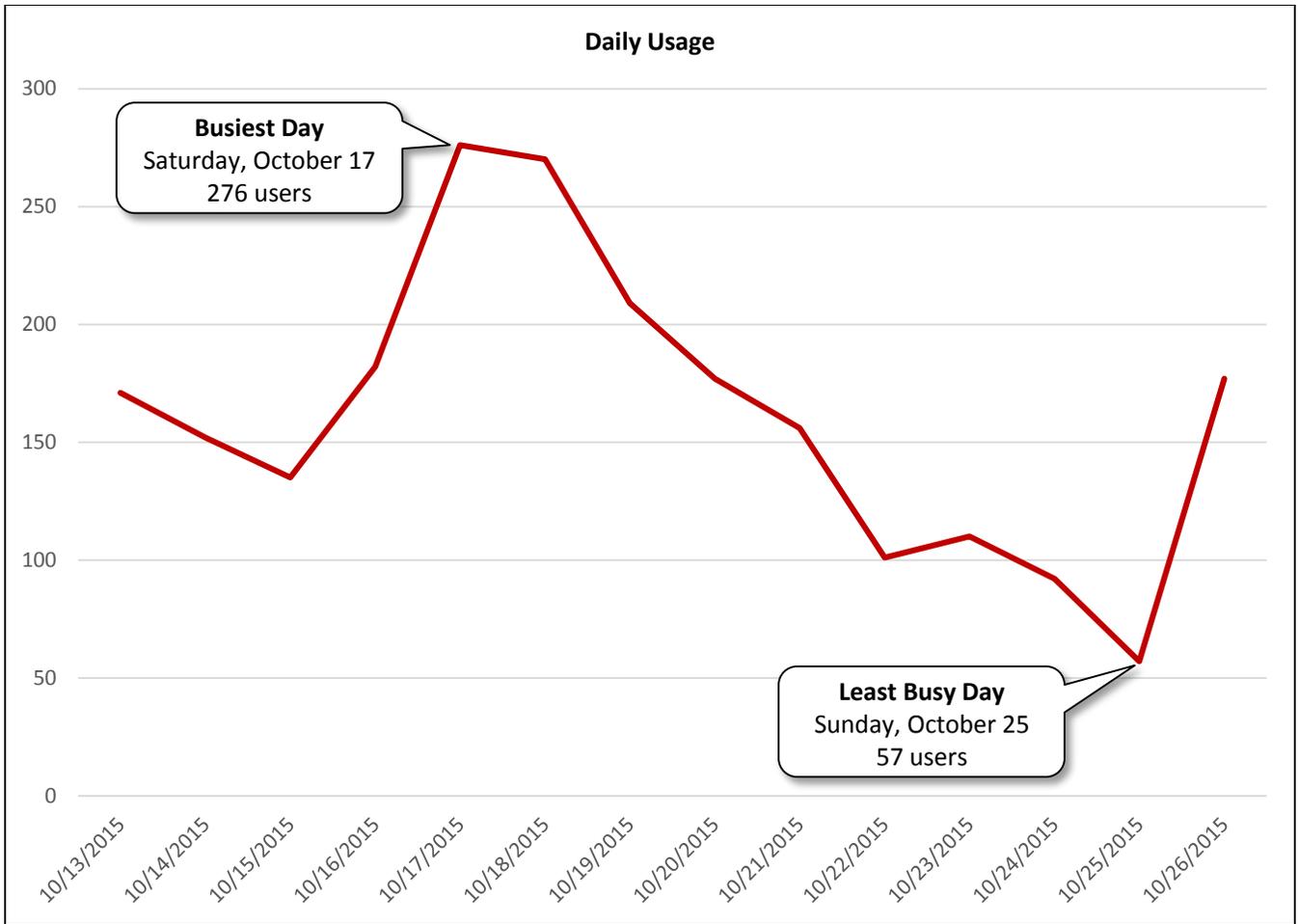


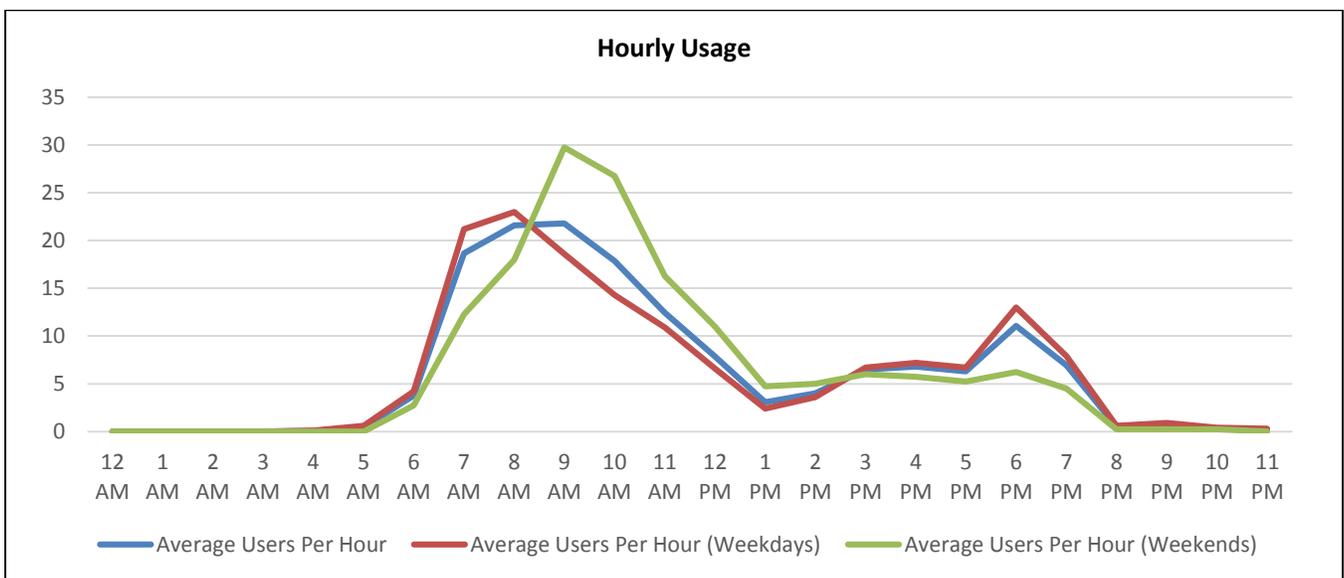
Image 8: Trail along Flintridge Drive Facing West

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	171	95	61	0
Wednesday, October 14, 2015	152	93	54	0
Thursday, October 15, 2015	135	93	54	0
Friday, October 16, 2015	182	91	55	0
Saturday, October 17, 2015	276	86	62	0
Sunday, October 18, 2015	270	82	55	0
Monday, October 19, 2015	209	82	53	0
Tuesday, October 20, 2015	177	77	57	0
Wednesday, October 21, 2015	156	86	69	0
Thursday, October 22, 2015	101	84	72	0.11
Friday, October 23, 2015	110	82	75	0.04
Saturday, October 24, 2015	92	77	69	3.78
Sunday, October 25, 2015	57	68	60	1.89
Monday, October 26, 2015	177	73	60	0.01
Total	2,265			
Average Daily Usage	162			
Average Daily Usage (Weekday)	157			
Average Daily Usage (Weekend)	174			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
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.	0.2	0.3	0.0
5:00 a.m.	1.2	1.0	1.8
6:00 a.m.	3.3	2.2	6.0
7:00 a.m.	14.4	15.4	12.0
8:00 a.m.	22.9	22.2	24.5
9:00 a.m.	23.6	25.7	18.5
10:00 a.m.	16.2	14.8	19.8
11:00 a.m.	11.2	9.0	16.8
12:00 p.m.	7.6	6.6	10.0
1:00 p.m.	5.4	3.7	9.5
2:00 p.m.	6.5	6.2	7.3
3:00 p.m.	12.0	10.1	16.8
4:00 p.m.	8.4	8.0	9.3
5:00 p.m.	9.9	10.8	7.8
6:00 p.m.	10.9	11.7	9.0
7:00 p.m.	5.4	6.0	4.0
8:00 p.m.	1.4	1.7	0.5
9:00 p.m.	0.8	1.0	0.3
10:00 p.m.	0.4	0.5	0.3
11:00 p.m.	0.0	0.0	0.0



Counter #5

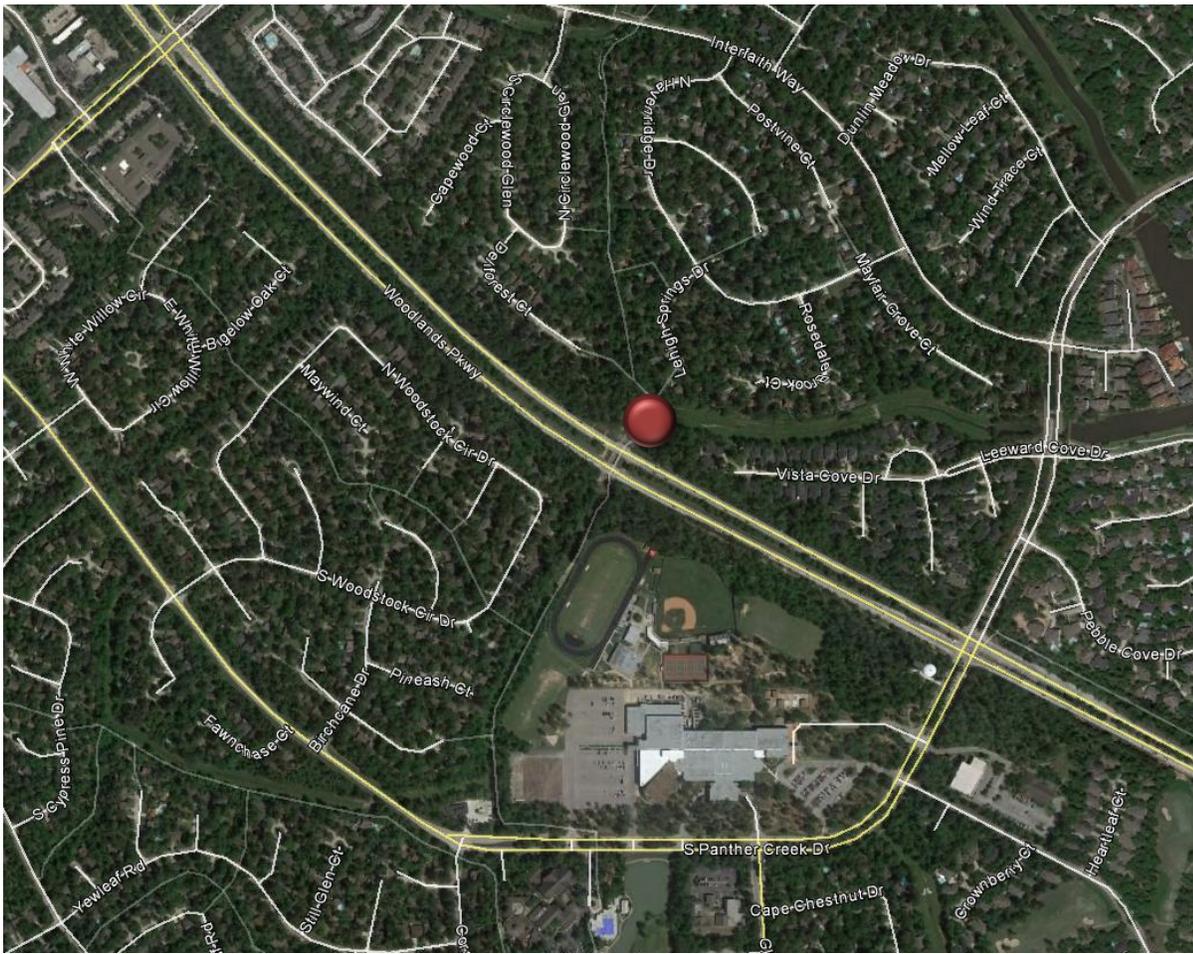
Woodlands Parkway at McCullough Junior High School

Location Information		
Location Name	Woodlands Parkway at McCullough Junior High School	
Location Description	North of Pedestrian/Bicycle Underpass Connecting McCullough Junior High School with Dellforest Court and Lehigh Springs Drive	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30° 9'38.40"N, 95°29'49.20"W	
Surrounding Land Uses	North	Single-Family Residential
	South	Single-Family Residential, McCullough Junior High School
	East	Single-Family Residential
	West	Single-Family Residential
What object was device secured to?	Railing on Pedestrian/Bicycle Bridge (South End) Across Drainage Ditch	
Sidewalk Width	8'	
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	N/A (Off-Road Shared-Use Path)	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Note: The underpass allows pedestrians and cyclists to travel under Woodlands Parkway, a six-lane divided roadway. It has a speed limit of 45 miles per hour and carries 59,771 vehicle per day (between E. Panther Creek and Grogans Mill Road).

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage on weekdays than during weekends. • On weekdays, usage peaks in the late afternoon (3:00 p.m. – 5:00 p.m.). • On weekends, usage peaks in the late morning hours (10:00 a.m. – 12:00 p.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had significantly less pedestrian and bicycle traffic than most days with little or no rain.

Location Information: Map



Location Information: Photos



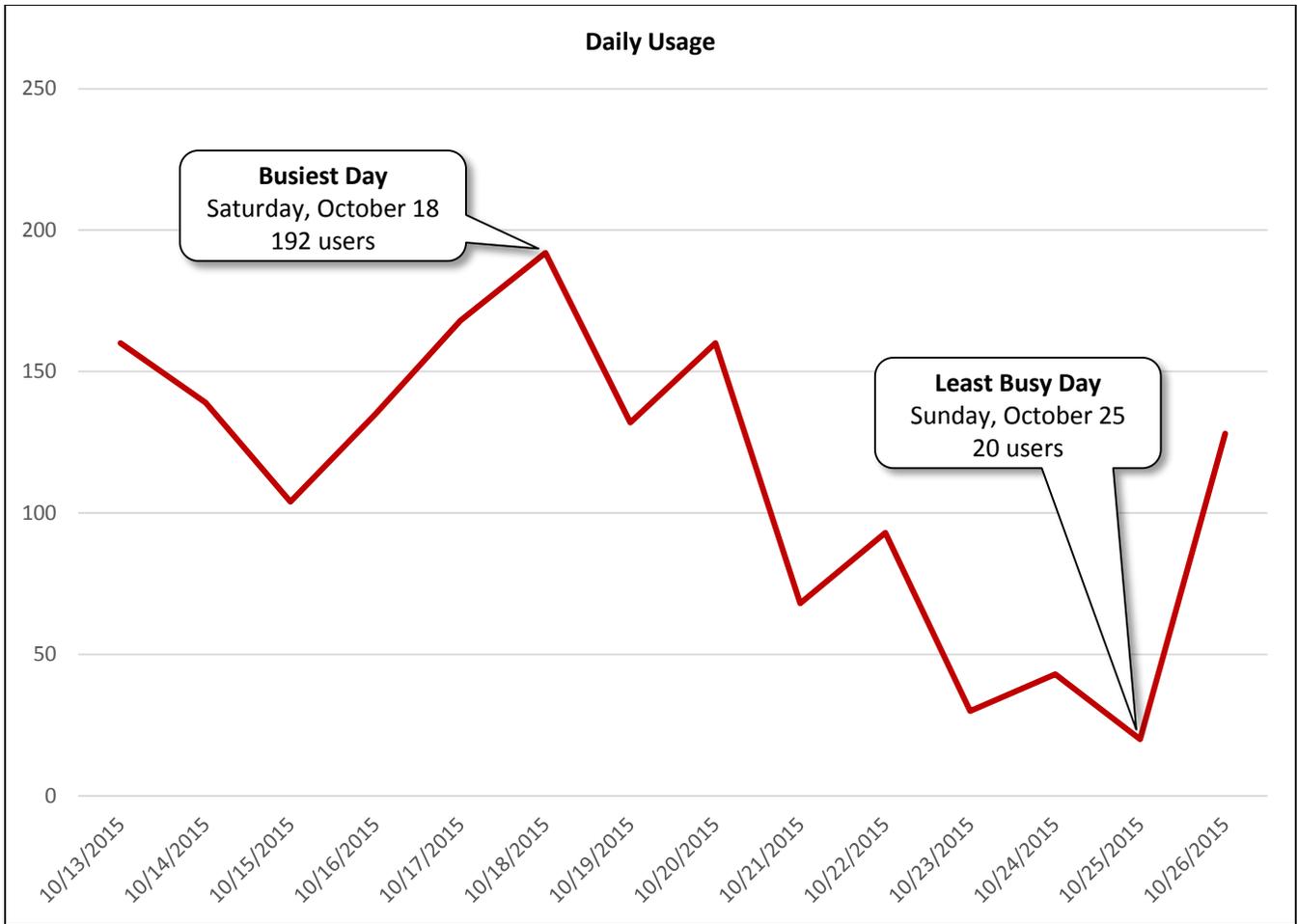
Image 9: Trail Facing Northwest



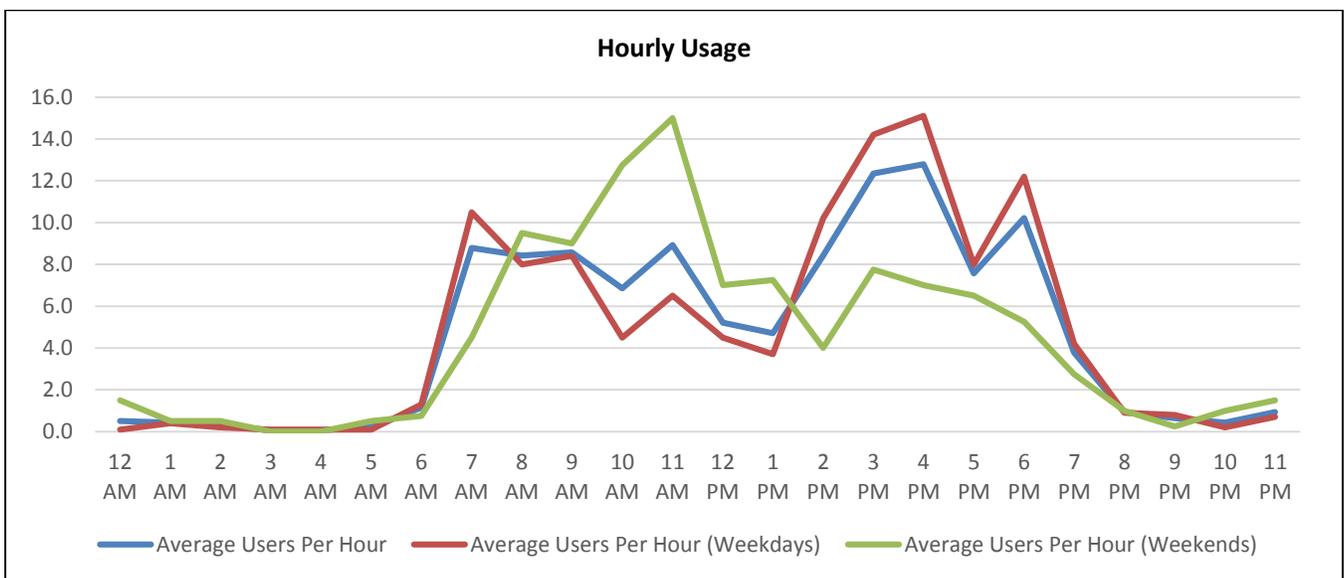
Image 10: Trail Facing South

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	160	95	61	0
Wednesday, October 14, 2015	139	93	54	0
Thursday, October 15, 2015	104	93	54	0
Friday, October 16, 2015	135	91	55	0
Saturday, October 17, 2015	168	86	62	0
Sunday, October 18, 2015	192	82	55	0
Monday, October 19, 2015	132	82	53	0
Tuesday, October 20, 2015	160	77	57	0
Wednesday, October 21, 2015	68	86	69	0
Thursday, October 22, 2015	93	84	72	0.11
Friday, October 23, 2015	30	82	75	0.04
Saturday, October 24, 2015	43	77	69	3.78
Sunday, October 25, 2015	20	68	60	1.89
Monday, October 26, 2015	128	73	60	0.01
Total	1,572			
Average Daily Usage	112			
Average Daily Usage (Weekday)	115			
Average Daily Usage (Weekend)	106			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
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	1.5
1:00 a.m.	0.4	0.4	0.5
2:00 a.m.	0.3	0.2	0.5
3:00 a.m.	0.1	0.1	0.0
4:00 a.m.	0.1	0.1	0.0
5:00 a.m.	0.2	0.1	0.5
6:00 a.m.	1.1	1.3	0.8
7:00 a.m.	8.8	10.5	4.5
8:00 a.m.	8.4	8.0	9.5
9:00 a.m.	8.6	8.4	9.0
10:00 a.m.	6.9	4.5	12.8
11:00 a.m.	8.9	6.5	15.0
12:00 p.m.	5.2	4.5	7.0
1:00 p.m.	4.7	3.7	7.3
2:00 p.m.	8.4	10.2	4.0
3:00 p.m.	12.4	14.2	7.8
4:00 p.m.	12.8	15.1	7.0
5:00 p.m.	7.6	8.0	6.5
6:00 p.m.	10.2	12.2	5.3
7:00 p.m.	3.8	4.2	2.8
8:00 p.m.	0.9	0.9	1.0
9:00 p.m.	0.6	0.8	0.3
10:00 p.m.	0.4	0.2	1.0
11:00 p.m.	0.9	0.7	1.5



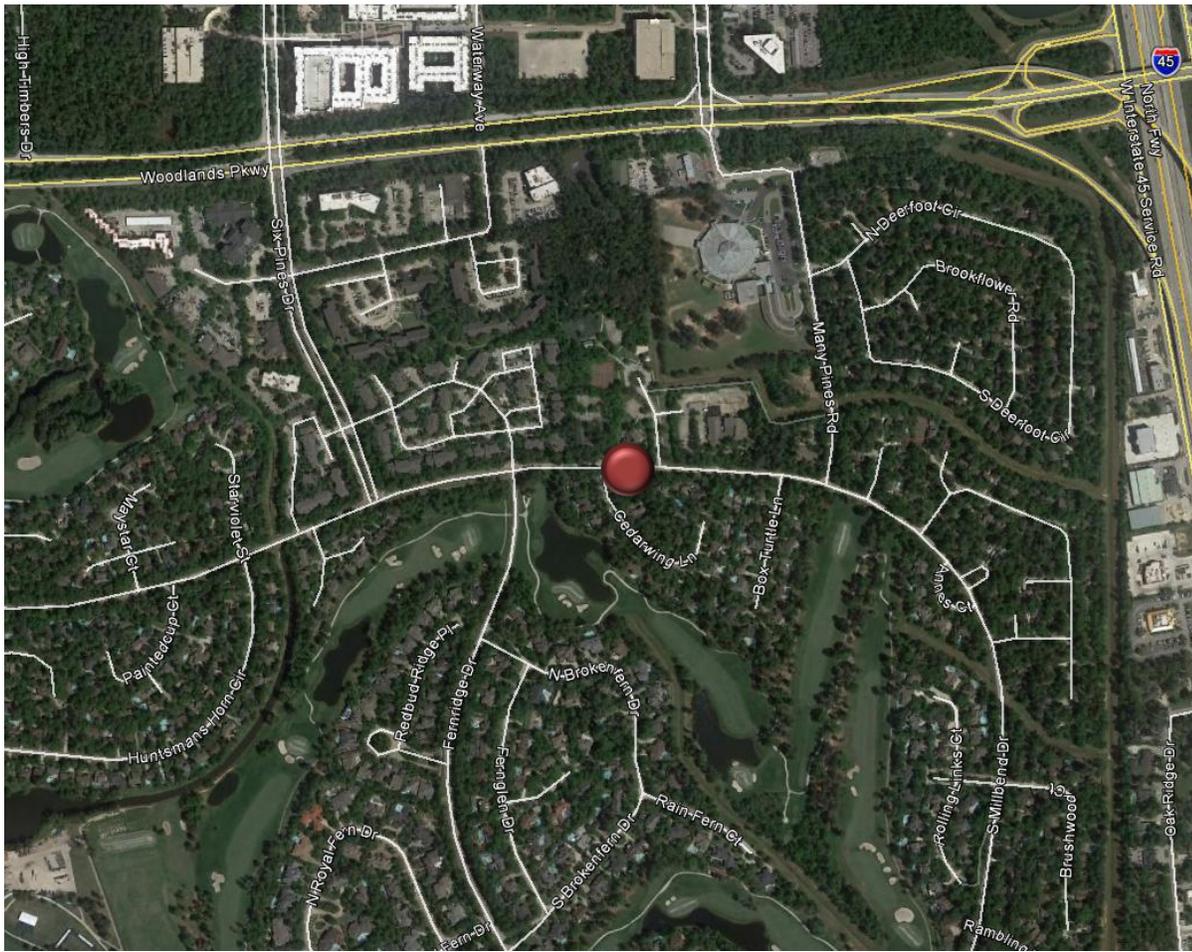
Counter #6

N. Millbend Drive at Cedarwing Lane

Location Information		
Location Name	N. Millbend Drive at Cedarwing Lane	
Location Description	Shared-Use Path along N. Millbend Drive East of Cedarwing Lane	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30° 9'7.40"N, 95°27'25.00"W	
Surrounding Land Uses	North	Institutional (Church), Tamarac Park
	South	Single-Family Residential, Golf Course
	East	Single-Family Residential, Institutional (Church), The Woodlands Montessori School
	West	Single-Family Residential, Multi-Family Residential, Golf Course
What object was device secured to?	Pine Tree East of Cedarwing Lane	
Sidewalk Width	8.5'	
Buffer Width	25' (Varies)	
Street Width	Two-Lane Undivided Roadway	
Parallel Parking	None	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Asphalt	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	Not Available	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be higher usage on weekdays than during weekends. • On weekdays, usage peaks in the morning (7:00 a.m. – 11:00 a.m.) and evening (6:00 p.m. – 7:00 p.m.). • On weekends, usage peaks in the morning (8:00 a.m. – 11:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos

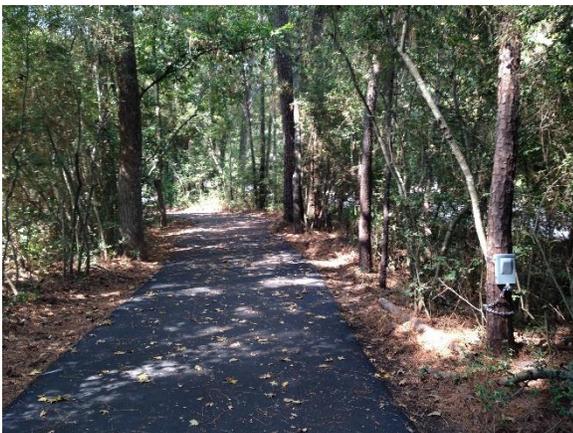


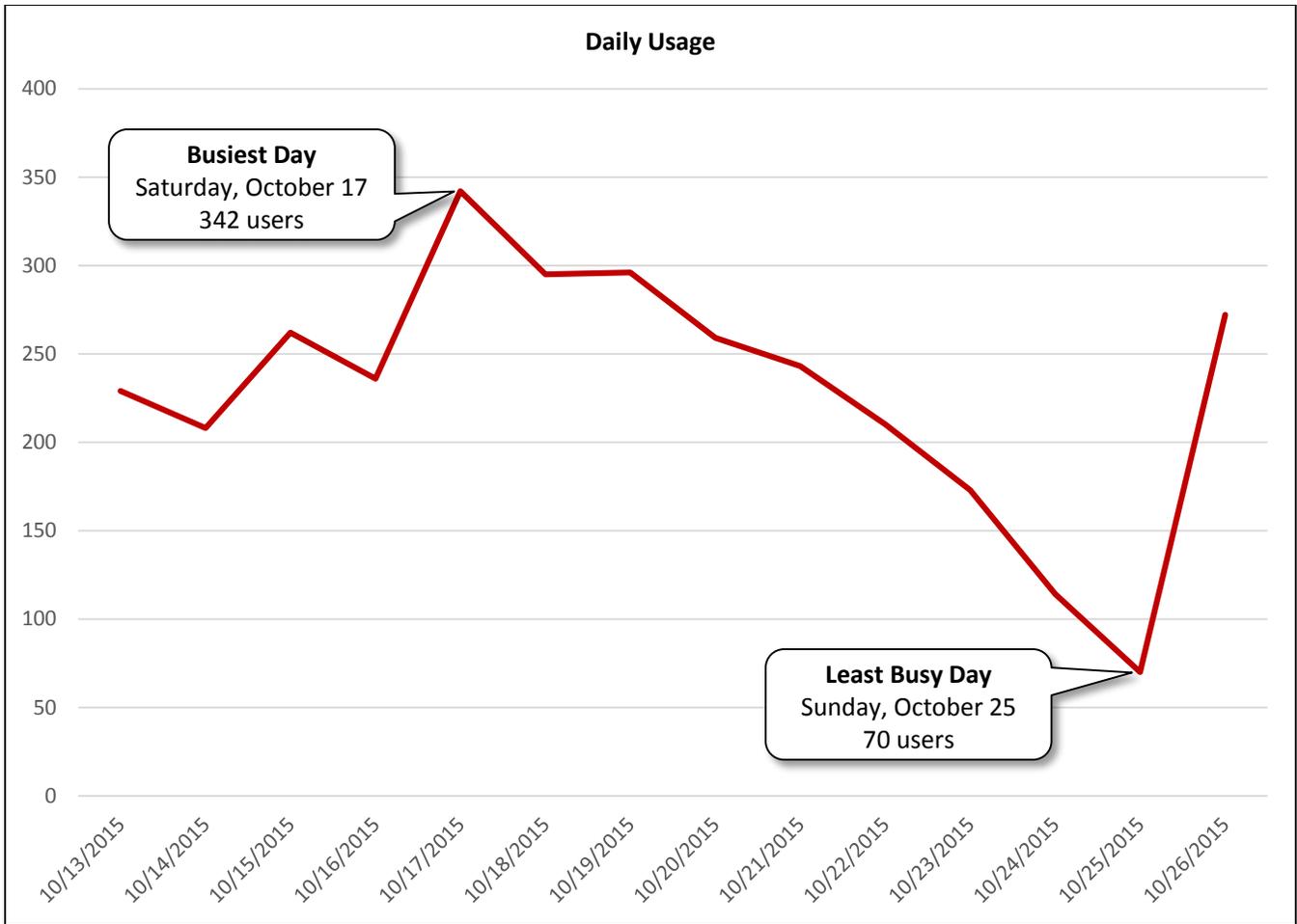
Image 11: Trail along N. Millbend Drive Facing West



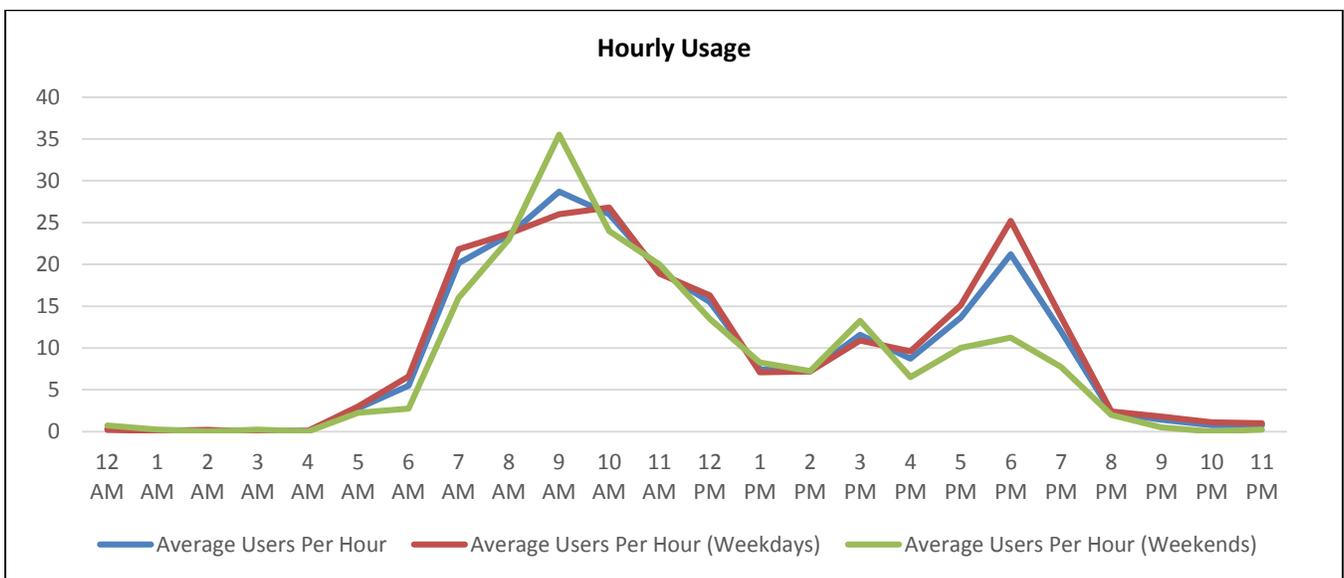
Image 12: Trail along N. Millbend Drive Facing East

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	229	95	61	0
Wednesday, October 14, 2015	208	93	54	0
Thursday, October 15, 2015	262	93	54	0
Friday, October 16, 2015	236	91	55	0
Saturday, October 17, 2015	342	86	62	0
Sunday, October 18, 2015	295	82	55	0
Monday, October 19, 2015	296	82	53	0
Tuesday, October 20, 2015	259	77	57	0
Wednesday, October 21, 2015	243	86	69	0
Thursday, October 22, 2015	210	84	72	0.11
Friday, October 23, 2015	173	82	75	0.04
Saturday, October 24, 2015	114	77	69	3.78
Sunday, October 25, 2015	70	68	60	1.89
Monday, October 26, 2015	272	73	60	0.01
Total	3,209			
Average Daily Usage	229			
Average Daily Usage (Weekday)	239			
Average Daily Usage (Weekend)	205			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.4	0.2	0.8
1:00 a.m.	0.1	0.1	0.3
2:00 a.m.	0.1	0.2	0.0
3:00 a.m.	0.1	0.0	0.3
4:00 a.m.	0.1	0.1	0.0
5:00 a.m.	2.8	3.0	2.3
6:00 a.m.	5.5	6.6	2.8
7:00 a.m.	20.1	21.8	16.0
8:00 a.m.	23.5	23.7	23.0
9:00 a.m.	28.7	26.0	35.5
10:00 a.m.	26.0	26.8	24.0
11:00 a.m.	19.2	18.9	20.0
12:00 p.m.	15.5	16.3	13.5
1:00 p.m.	7.4	7.1	8.3
2:00 p.m.	7.2	7.2	7.3
3:00 p.m.	11.6	10.9	13.3
4:00 p.m.	8.7	9.6	6.5
5:00 p.m.	13.6	15.1	10.0
6:00 p.m.	21.2	25.2	11.3
7:00 p.m.	12.0	13.7	7.8
8:00 p.m.	2.3	2.4	2.0
9:00 p.m.	1.4	1.8	0.5
10:00 p.m.	0.8	1.1	0.0
11:00 p.m.	0.8	1.0	0.3



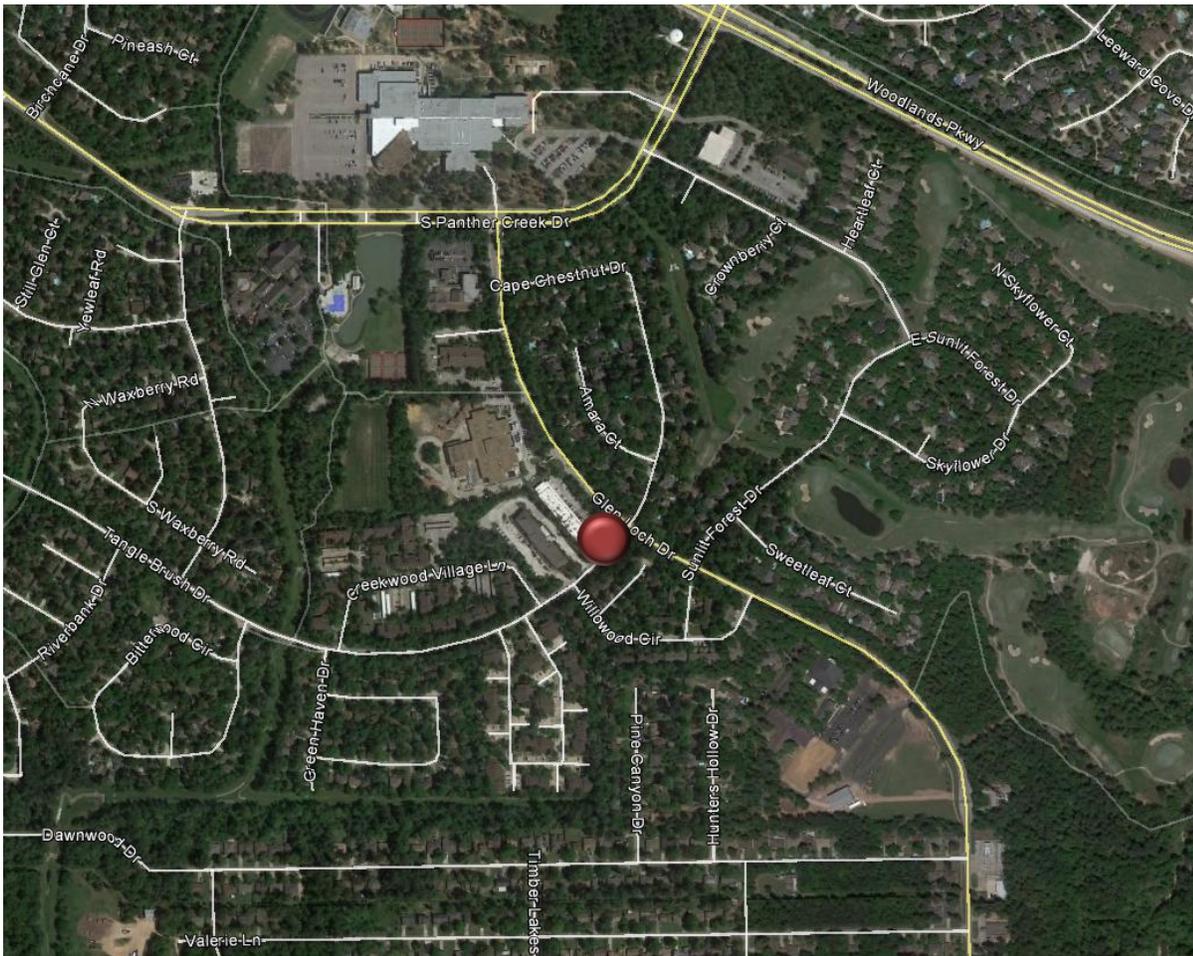
Counter #7

Glen Loch Drive at Tangle Brush Drive

Location Information		
Location Name	Glen Loch Drive at Tangle Brush Drive	
Location Description	Shared-Use Path along Glen Loch Drive at Southwest Corner of Glen Loch Drive/Tangle Brush Drive Intersection	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30°9'6.13"N, 95°29'38.08"W	
Surrounding Land Uses	North	Single-Family Residential, Commercial, Glen Loch Elementary School, Institutional (Church)
	South	Multi-Family Residential, Single-Family Residential
	East	Single-Family Residential, Golf Course
	West	Commercial, Multi-Family Residential, Single-Family Residential
What object was device secured to?	Pine Tree	
Sidewalk Width	8'	
Buffer Width	20' (Varies)	
Street Width	Two-Lane Undivided Roadway	
Parallel Parking	None	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	25 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	Not Available	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage on weekdays than during weekends. • On weekdays, usage peaks in the morning (8:00 a.m. – 9:00 a.m.) and evening (6:00 p.m. – 7:00 p.m.). • On weekends, usage peaks in the morning (8:00 a.m. – 11:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos



Image 13: Trail along Glen Loch Drive Facing Northwest

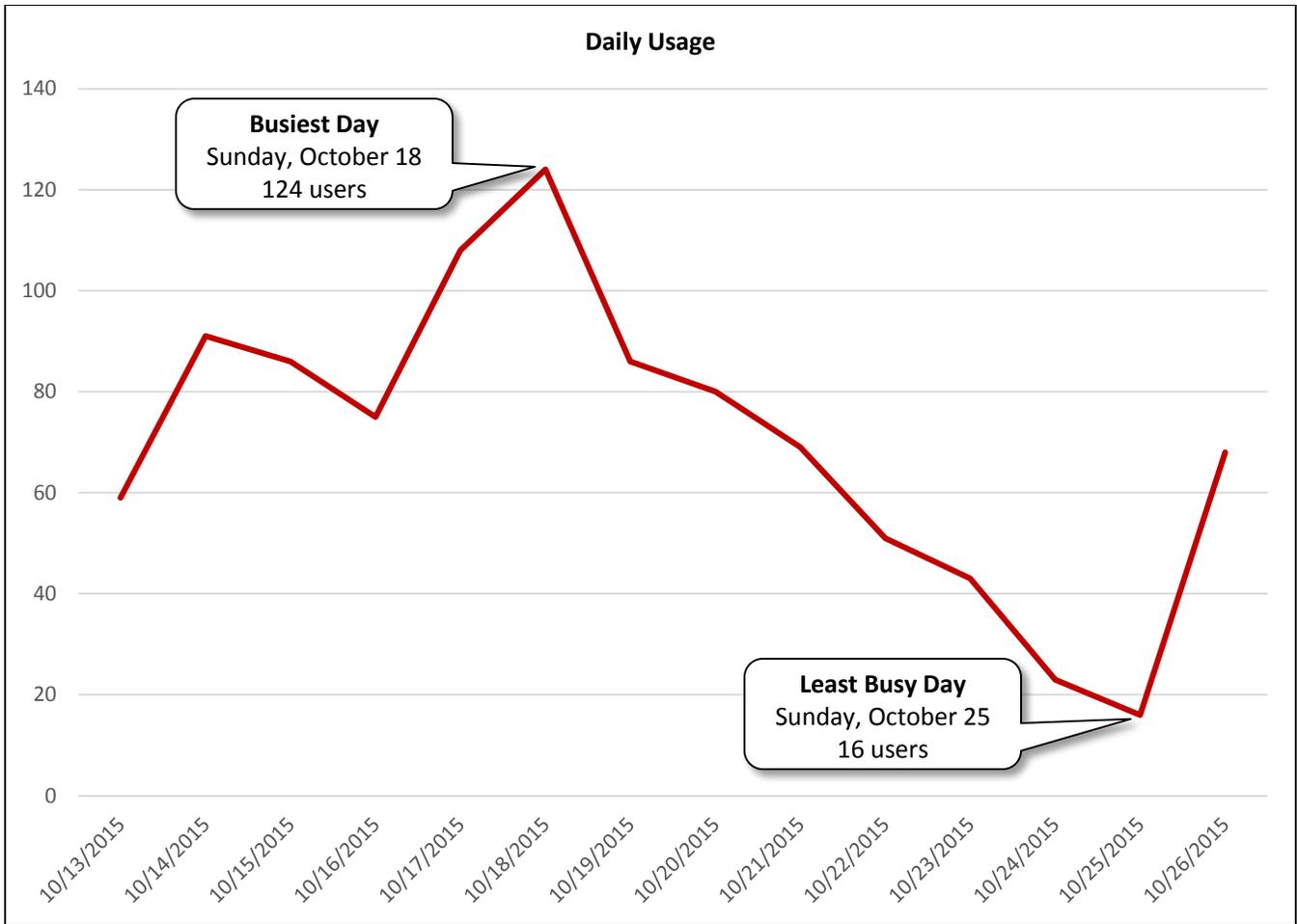


Image 14: Trail along Glen Loch Drive Facing Southeast

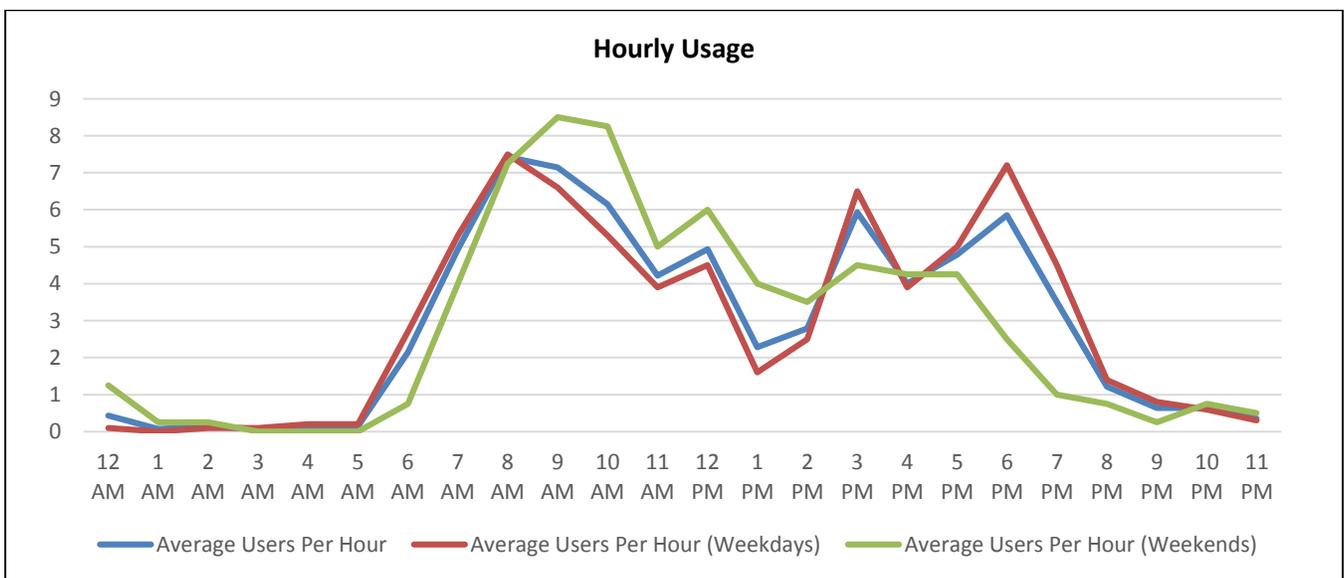
Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	59	95	61	0
Wednesday, October 14, 2015	91	93	54	0
Thursday, October 15, 2015	86	93	54	0
Friday, October 16, 2015	75	91	55	0
Saturday, October 17, 2015	108	86	62	0
Sunday, October 18, 2015	124	82	55	0
Monday, October 19, 2015	86	82	53	0
Tuesday, October 20, 2015	80	77	57	0
Wednesday, October 21, 2015	69	86	69	0
Thursday, October 22, 2015	51	84	72	0.11
Friday, October 23, 2015	43	82	75	0.04
Saturday, October 24, 2015	23	77	69	3.78
Sunday, October 25, 2015	16	68	60	1.89
Monday, October 26, 2015	68	73	60	0.01

Total	979
Average Daily Usage	70
Average Daily Usage (Weekday)	71
Average Daily Usage (Weekend)	68

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.4	0.1	1.3
1:00 a.m.	0.1	0.0	0.3
2:00 a.m.	0.1	0.1	0.3
3:00 a.m.	0.1	0.1	0.0
4:00 a.m.	0.1	0.2	0.0
5:00 a.m.	0.1	0.2	0.0
6:00 a.m.	2.1	2.7	0.8
7:00 a.m.	4.9	5.3	4.0
8:00 a.m.	7.4	7.5	7.3
9:00 a.m.	7.1	6.6	8.5
10:00 a.m.	6.1	5.3	8.3
11:00 a.m.	4.2	3.9	5.0
12:00 p.m.	4.9	4.5	6.0
1:00 p.m.	2.3	1.6	4.0
2:00 p.m.	2.8	2.5	3.5
3:00 p.m.	5.9	6.5	4.5
4:00 p.m.	4.0	3.9	4.3
5:00 p.m.	4.8	5.0	4.3
6:00 p.m.	5.9	7.2	2.5
7:00 p.m.	3.5	4.5	1.0
8:00 p.m.	1.2	1.4	0.8
9:00 p.m.	0.6	0.8	0.3
10:00 p.m.	0.6	0.6	0.8
11:00 p.m.	0.4	0.3	0.5



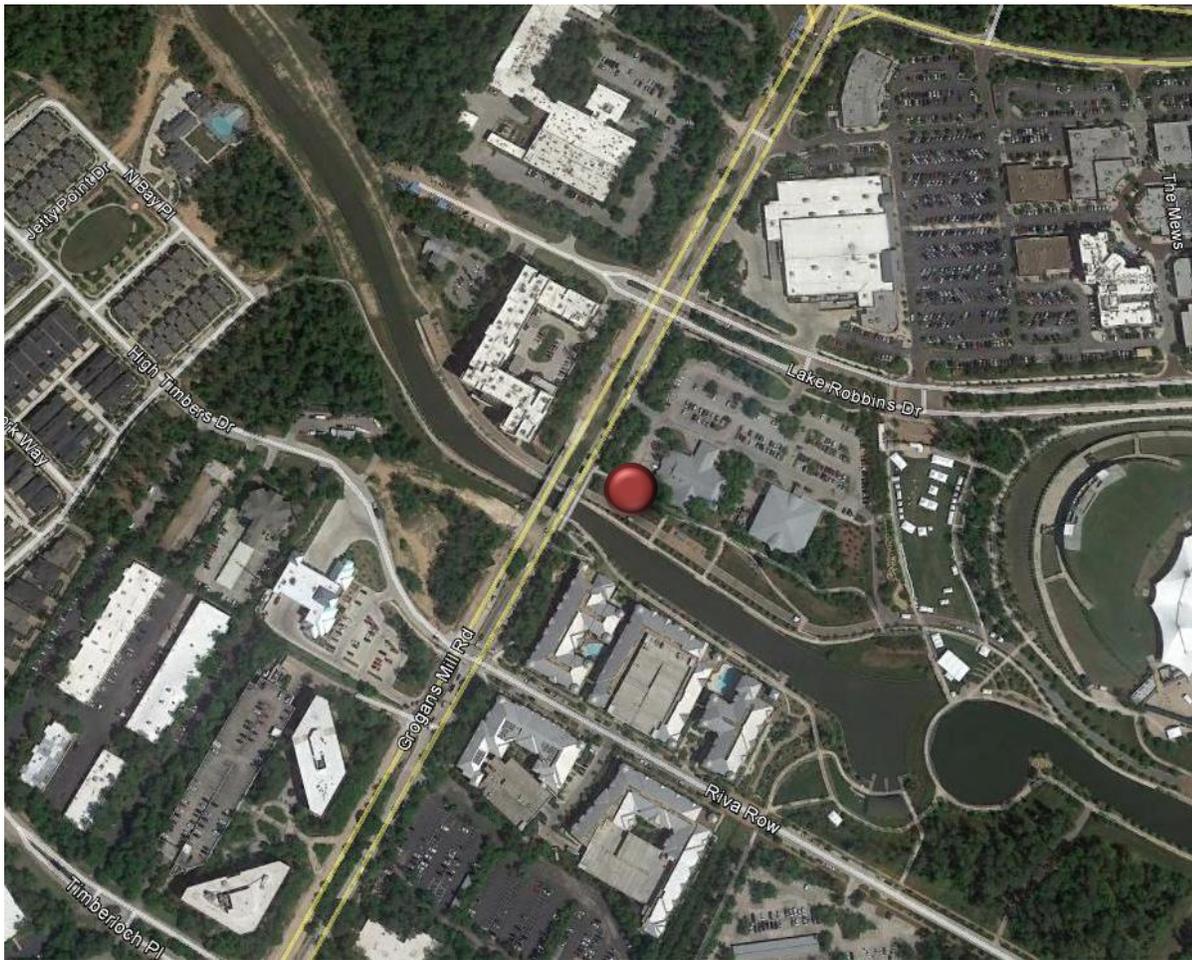
Counter A

The Woodlands Waterway at Grogans Mill Road (North Bank: High Path)

Location Information		
Location Name	The Woodlands Waterway at Grogans Mill Road (North Bank: High Path)	
Location Description	Shared-Use Path along North Bank of The Woodlands Waterway (Highest Path: Connects to Grogans Mill Road Northbound at North End of Bridge)	
Jurisdiction	The Woodlands Township	
Agency Deployed	Texas Transportation Institute	
GPS Coordinates	30° 9'43.20"N, 95°28'6.10"W	
Surrounding Land Uses	North	Senior Center, Library, Commercial
	South	Multi-Family Residential
	East	Senior Center, Library, Park, Cynthia Woods Mitchell Pavilion
	West	Multi-Family Residential
What object was device secured to?	Light Post along Shared-Use Path East of Grogans Mill Road	
Sidewalk Width	8'	
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	Yes (Lighting along Shared-Use Path)	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Yes The Woodlands Trolley stops 250' northeast at the entrance to a community center.	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage on weekdays than during weekends. • On weekdays, usage varies throughout the day. The middle of the day (12:00 p.m. – 1:00 p.m.) is the busiest. • On weekends, usage peaks in the morning (8:00 a.m. – 9:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos

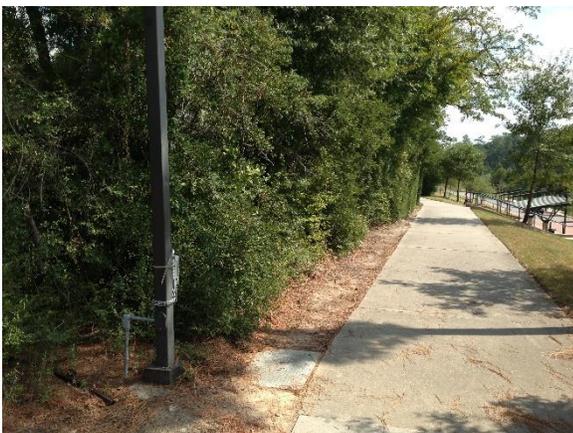


Image 15: Trail along The Woodlands Waterway (North Bank) Facing East

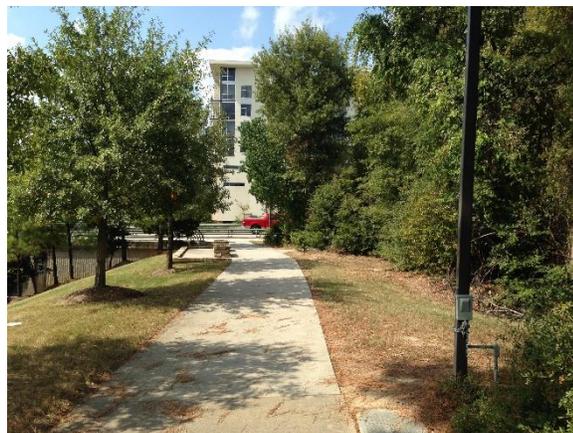
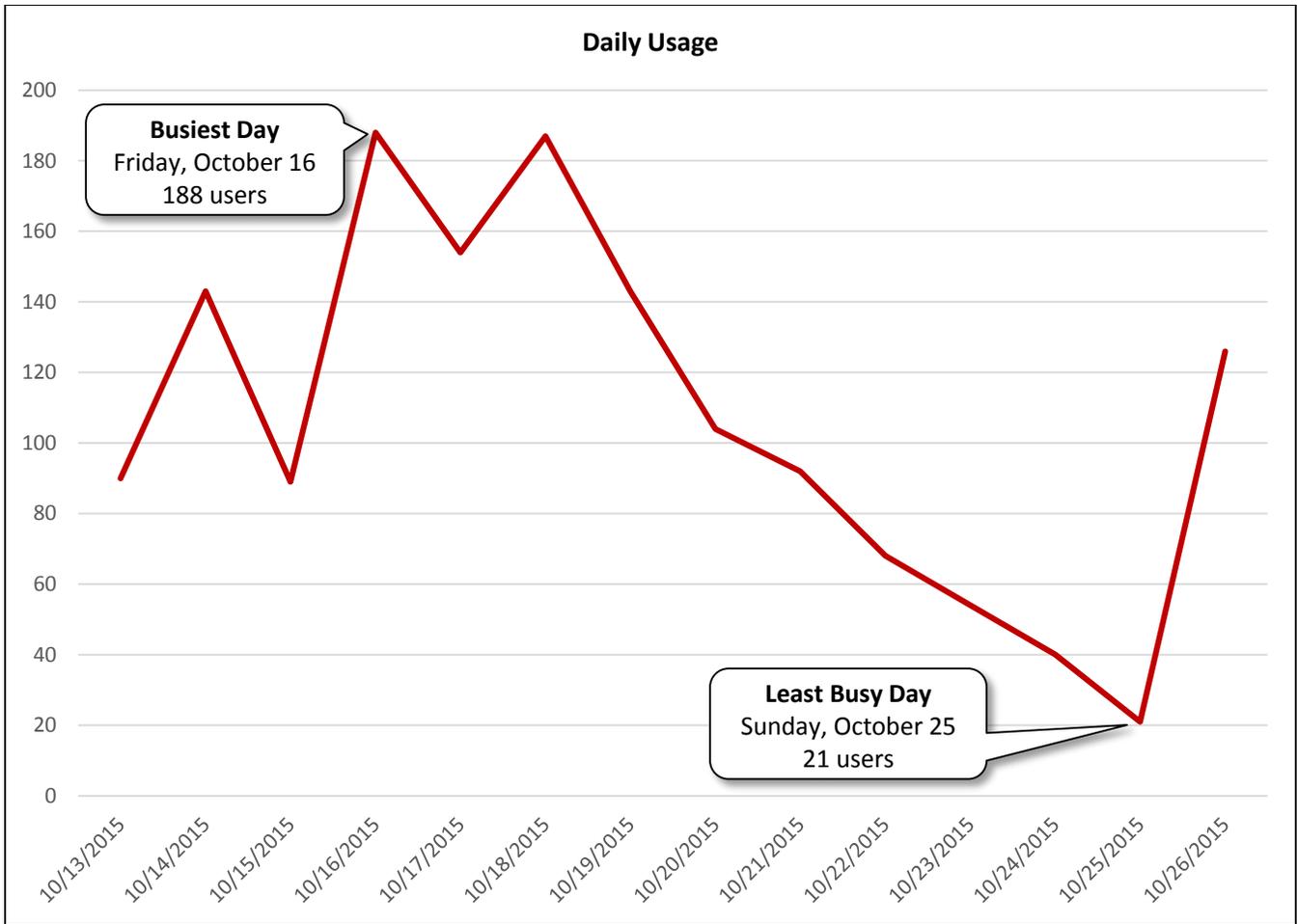


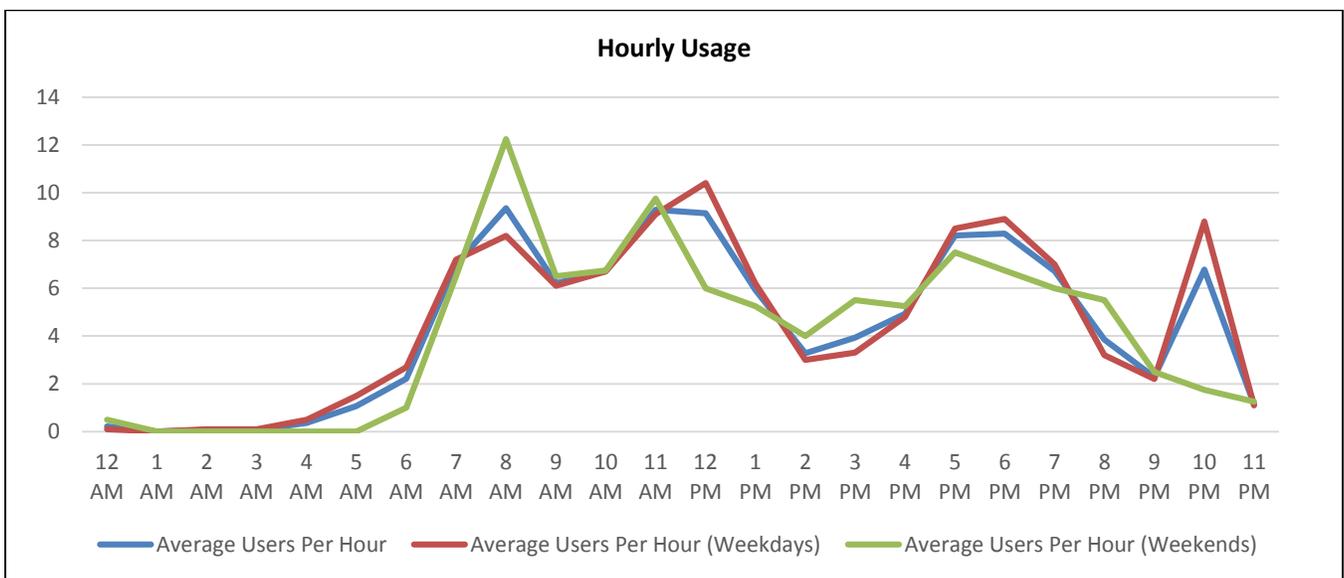
Image 16: Trail along The Woodlands Waterway (North Bank) Facing West

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	90	95	61	0
Wednesday, October 14, 2015	143	93	54	0
Thursday, October 15, 2015	89	93	54	0
Friday, October 16, 2015	188	91	55	0
Saturday, October 17, 2015	154	86	62	0
Sunday, October 18, 2015	187	82	55	0
Monday, October 19, 2015	143	82	53	0
Tuesday, October 20, 2015	104	77	57	0
Wednesday, October 21, 2015	92	86	69	0
Thursday, October 22, 2015	68	84	72	0.11
Friday, October 23, 2015	54	82	75	0.04
Saturday, October 24, 2015	40	77	69	3.78
Sunday, October 25, 2015	21	68	60	1.89
Monday, October 26, 2015	126	73	60	0.01
Total	1,499			
Average Daily Usage	107			
Average Daily Usage (Weekday)	110			
Average Daily Usage (Weekend)	101			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.2	0.1	0.5
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.1	0.1	0.0
3:00 a.m.	0.1	0.1	0.0
4:00 a.m.	0.4	0.5	0.0
5:00 a.m.	1.1	1.5	0.0
6:00 a.m.	2.2	2.7	1.0
7:00 a.m.	7.0	7.2	6.5
8:00 a.m.	9.4	8.2	12.3
9:00 a.m.	6.2	6.1	6.5
10:00 a.m.	6.7	6.7	6.8
11:00 a.m.	9.3	9.1	9.8
12:00 p.m.	9.1	10.4	6.0
1:00 p.m.	5.9	6.2	5.3
2:00 p.m.	3.3	3.0	4.0
3:00 p.m.	3.9	3.3	5.5
4:00 p.m.	4.9	4.8	5.3
5:00 p.m.	8.2	8.5	7.5
6:00 p.m.	8.3	8.9	6.8
7:00 p.m.	6.7	7.0	6.0
8:00 p.m.	3.9	3.2	5.5
9:00 p.m.	2.3	2.2	2.5
10:00 p.m.	6.8	8.8	1.8
11:00 p.m.	1.1	1.1	1.3



Counter B

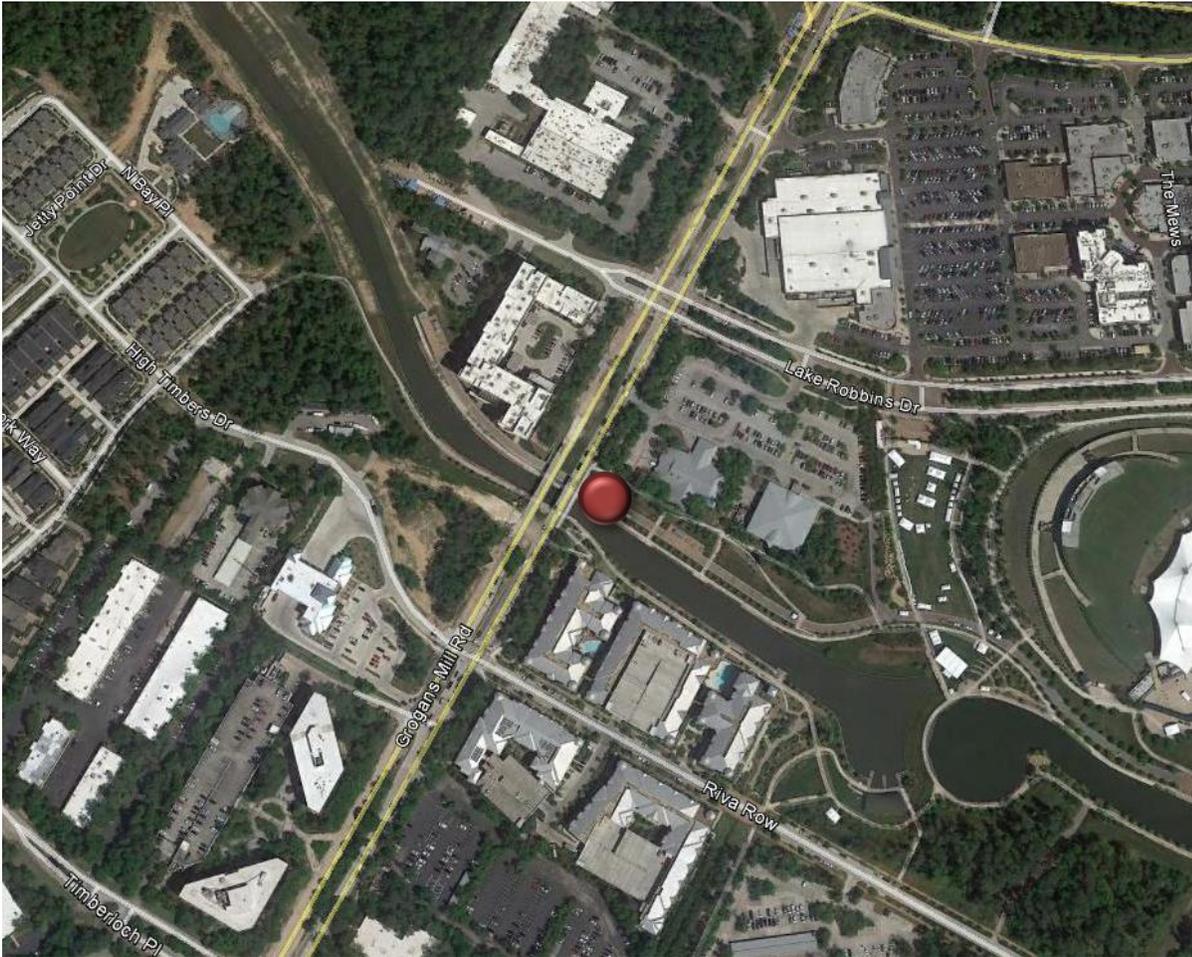
The Woodlands Waterway at Grogans Mill Road (North Bank: Service Road)

Location Information		
Location Name	The Woodlands Waterway at Grogans Mill Road (North Bank: Service Road)	
Location Description	Service Road along North Bank of The Woodlands Waterway (Service Road: Passes Under Grogans Mill Road Bridge)	
Jurisdiction	The Woodlands Township	
Agency Deployed	Texas Transportation Institute	
GPS Coordinates	30° 9'43.10"N, 95°28'7.0"W	
Surrounding Land Uses	North	Senior Center, Library, Commercial
	South	Multi-Family Residential
	East	Senior Center, Library, Park, Cynthia Woods Mitchell Pavilion
	West	Multi-Family Residential
What object was device secured to?	Bald Cypress Tree (Second Tree East of Grogans Mill Road Bridge)	
Sidewalk Width	22'	
Buffer Width	N/A (Off-Road Facility)	
Street Width	N/A (Off-Road Facility)	
Parallel Parking	N/A (Off-Road Facility)	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete (Concrete Pavers along Edge of Roadway)	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	N/A (Off-Road Facility)	
Street Lighting	Yes (Lighting along Service Road)	
Street Traffic Volume	N/A (Off-Road Facility)	
Transit	Yes The Woodlands Trolley stops 300' northeast at the entrance to a community center.	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Note: Just west of the counter’s location, an underpass allows pedestrians and cyclists to travel under Grogans Mill Road, a four-lane divided roadway. It has a speed limit of 45 miles per hour and carries 22,858 vehicle per day (just south of Lake Woodlands Parkway).

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage during weekends than on weekdays. • On weekdays, usage varies throughout the day. It is slightly busier in the evening (6:00 p.m. – 7:00 p.m.) than during other periods. • On weekends, usage varies throughout the day. The late morning (10:00 a.m. – 11:00 a.m.) is the busiest time of day. • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos

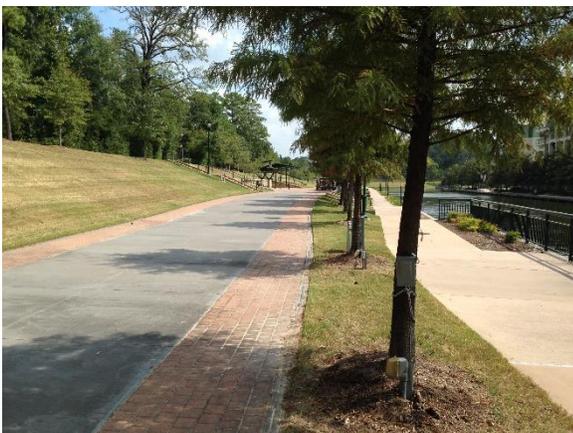


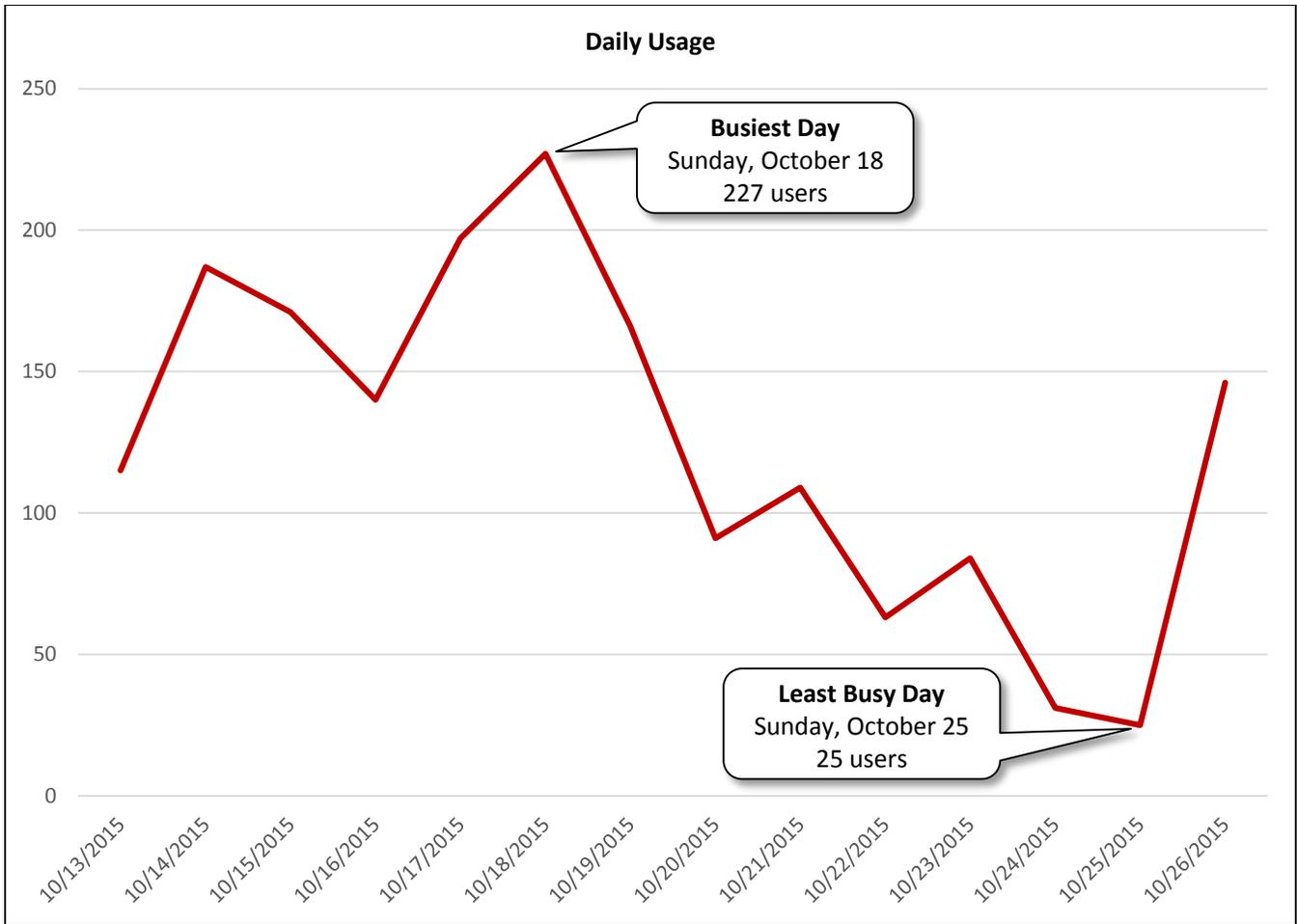
Image 17: Service Road Facing East



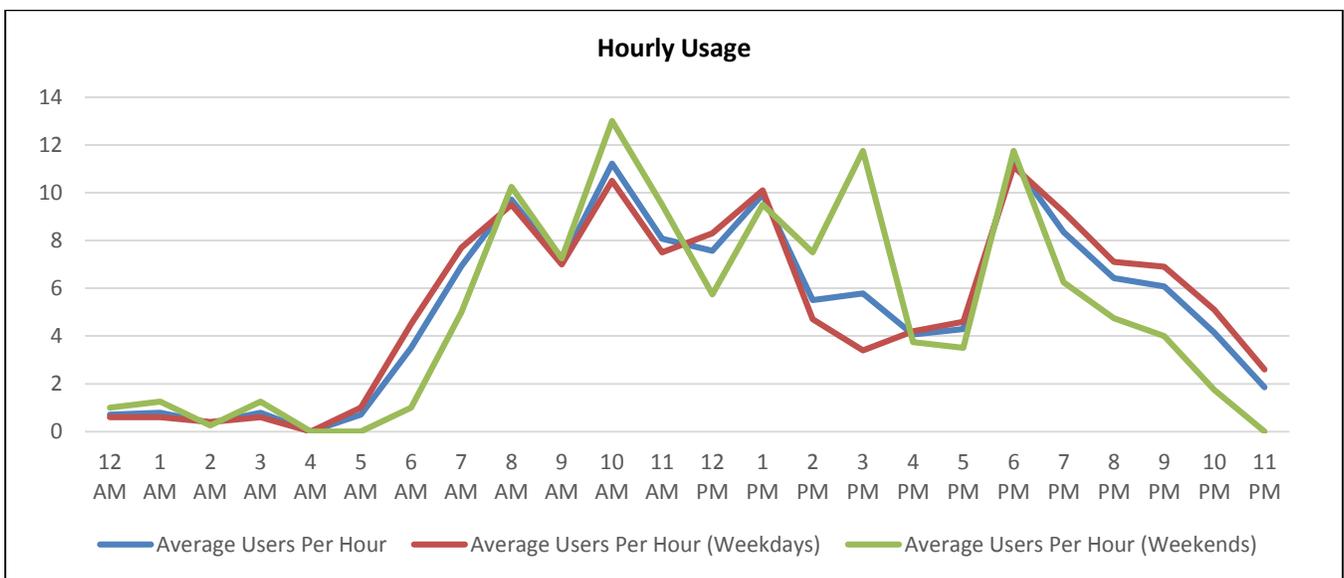
Image 18: Service Road Facing West

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	115	95	61	0
Wednesday, October 14, 2015	187	93	54	0
Thursday, October 15, 2015	171	93	54	0
Friday, October 16, 2015	140	91	55	0
Saturday, October 17, 2015	197	86	62	0
Sunday, October 18, 2015	227	82	55	0
Monday, October 19, 2015	166	82	53	0
Tuesday, October 20, 2015	91	77	57	0
Wednesday, October 21, 2015	109	86	69	0
Thursday, October 22, 2015	63	84	72	0.11
Friday, October 23, 2015	84	82	75	0.04
Saturday, October 24, 2015	31	77	69	3.78
Sunday, October 25, 2015	25	68	60	1.89
Monday, October 26, 2015	146	73	60	0.01
Total	1,752			
Average Daily Usage	125			
Average Daily Usage (Weekday)	120			
Average Daily Usage (Weekend)	127			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.7	0.6	1.0
1:00 a.m.	0.8	0.6	1.3
2:00 a.m.	0.4	0.4	0.3
3:00 a.m.	0.8	0.6	1.3
4:00 a.m.	0.0	0.0	0.0
5:00 a.m.	0.7	1.0	0.0
6:00 a.m.	3.5	4.5	1.0
7:00 a.m.	6.9	7.7	5.0
8:00 a.m.	9.7	9.5	10.3
9:00 a.m.	7.1	7.0	7.3
10:00 a.m.	11.2	10.5	13.0
11:00 a.m.	8.1	7.5	9.5
12:00 p.m.	7.6	8.3	5.8
1:00 p.m.	9.9	10.1	9.5
2:00 p.m.	5.5	4.7	7.5
3:00 p.m.	5.8	3.4	11.8
4:00 p.m.	4.1	4.2	3.8
5:00 p.m.	4.3	4.6	3.5
6:00 p.m.	11.3	11.1	11.8
7:00 p.m.	8.4	9.2	6.3
8:00 p.m.	6.4	7.1	4.8
9:00 p.m.	6.1	6.9	4.0
10:00 p.m.	4.1	5.1	1.8
11:00 p.m.	1.9	2.6	0.0



Counter C

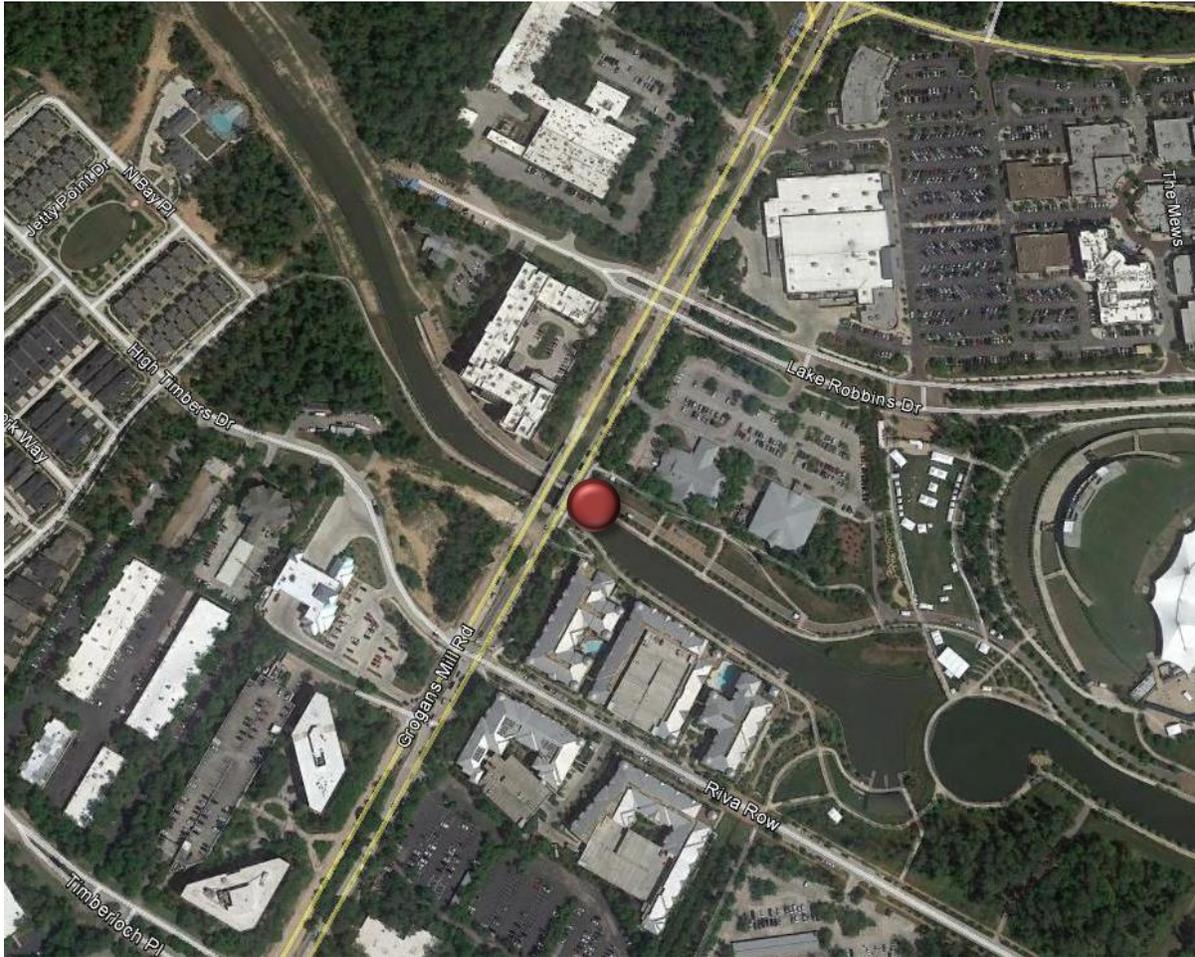
The Woodlands Waterway at Grogans Mill Road (North Bank: Waterside Path)

Location Information		
Location Name	The Woodlands Waterway at Grogans Mill Road (North Bank: Waterside Path)	
Location Description	Shared-Use Path along North Bank of The Woodlands Waterway (Adjacent to The Woodlands Waterway: Passes Under Grogans Mill Road Bridge)	
Jurisdiction	The Woodlands Township	
Agency Deployed	Texas Transportation Institute	
GPS Coordinates	30° 9'42.90"N, 95°28'7.20"W	
Surrounding Land Uses	North	Senior Center, Library, Commercial
	South	Multi-Family Residential
	East	Senior Center, Library, Park, Cynthia Woods Mitchell Pavilion
	West	Multi-Family Residential
What object was device secured to?	Bald Cypress Tree (Second Tree East of Grogans Mill Road Bridge)	
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	Yes (Lighting along Off-Road Shared-Use Path)	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Yes The Woodlands Trolley stops 300' northeast at the entrance to a community center.	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Note: Just west of the counter’s location, an underpass allows pedestrians and cyclists to travel under Grogans Mill Road, a four-lane divided roadway. It has a speed limit of 45 miles per hour and carries 22,858 vehicle per day (just south of Lake Woodlands Parkway).

Trends
<ul style="list-style-type: none"> • There tends to be higher usage on weekdays than during weekends. • On weekdays, usage peaks mid-day (11:00 a.m. – 12:00 p.m.). • On weekends, usage peaks in the morning (8:00 a.m. – 9:00 a.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos



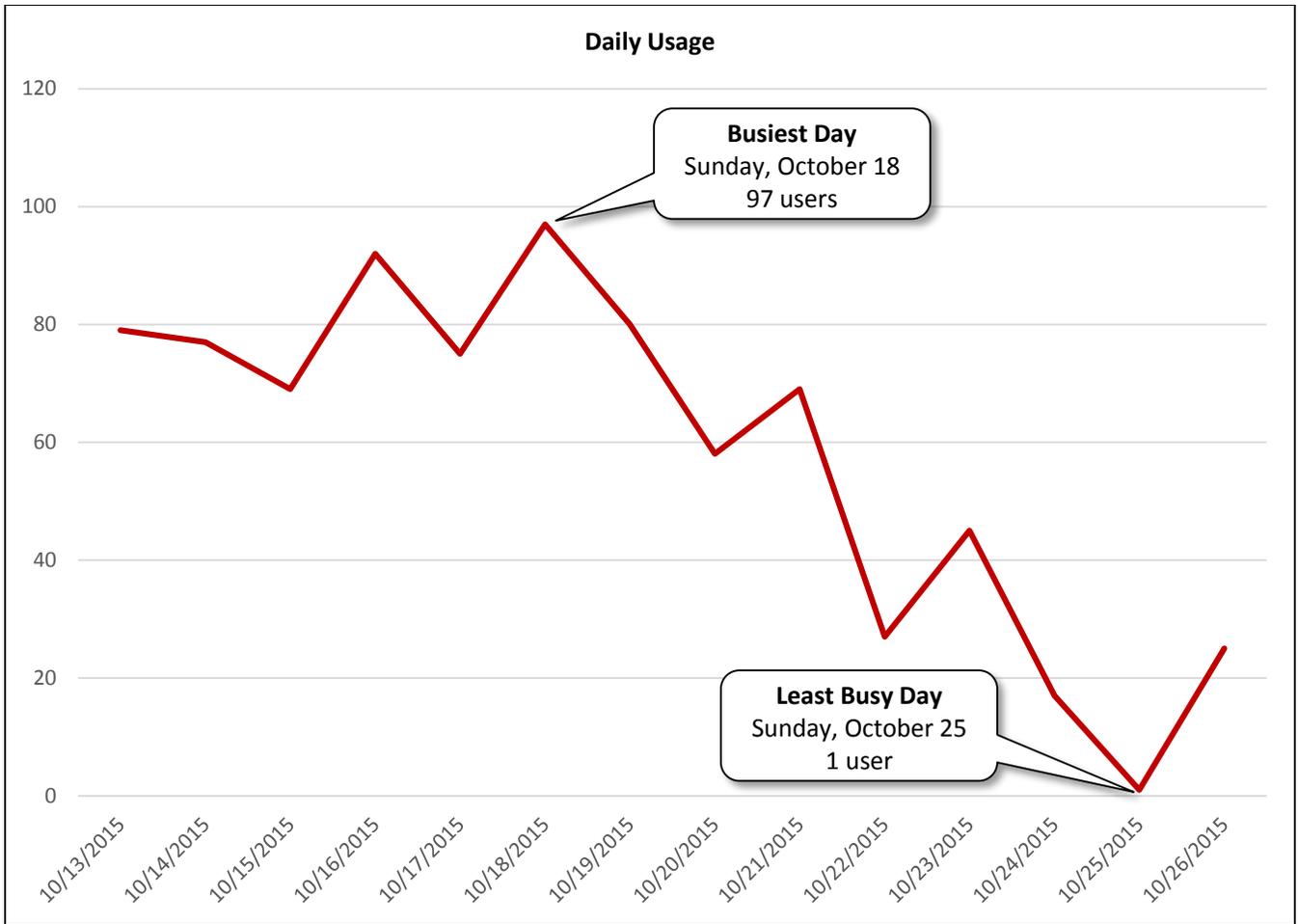
Image 19: Trail along The Woodlands Waterway (North Bank) Facing East



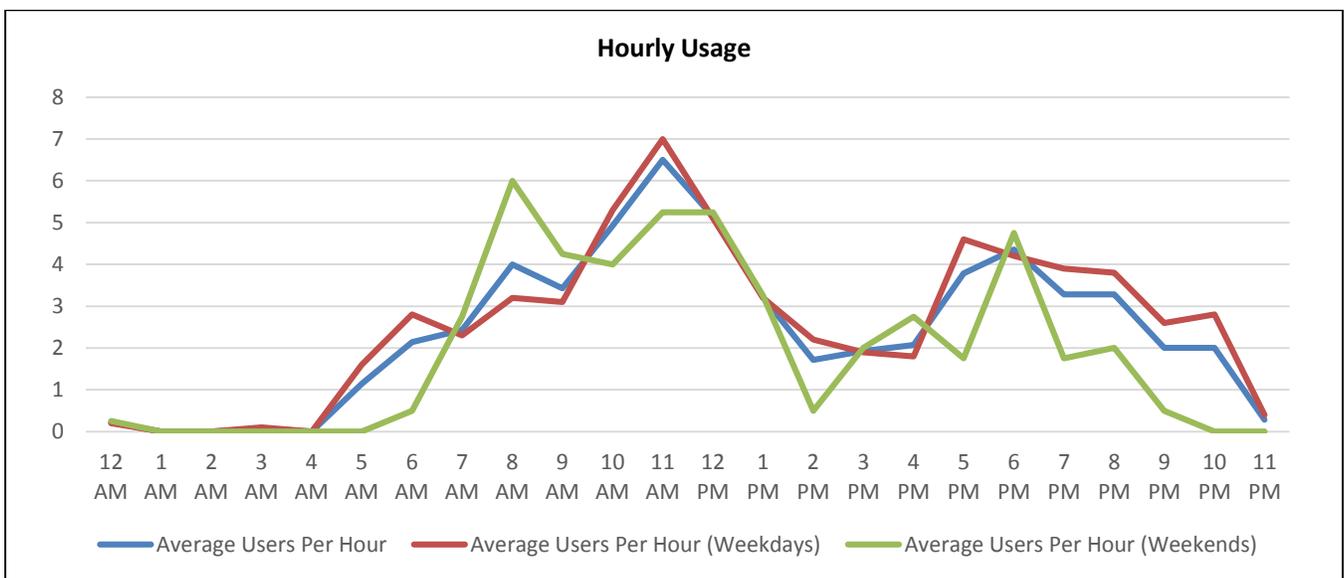
Image 20: Trail along The Woodlands Waterway (North Bank) Facing West

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	79	95	61	0
Wednesday, October 14, 2015	77	93	54	0
Thursday, October 15, 2015	69	93	54	0
Friday, October 16, 2015	92	91	55	0
Saturday, October 17, 2015	75	86	62	0
Sunday, October 18, 2015	97	82	55	0
Monday, October 19, 2015	80	82	53	0
Tuesday, October 20, 2015	58	77	57	0
Wednesday, October 21, 2015	69	86	69	0
Thursday, October 22, 2015	27	84	72	0.11
Friday, October 23, 2015	45	82	75	0.04
Saturday, October 24, 2015	17	77	69	3.78
Sunday, October 25, 2015	1	68	60	1.89
Monday, October 26, 2015	25	73	60	0.01
Total	811			
Average Daily Usage	58			
Average Daily Usage (Weekday)	62			
Average Daily Usage (Weekend)	48			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.2	0.2	0.3
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.1	0.1	0.0
4:00 a.m.	0.0	0.0	0.0
5:00 a.m.	1.1	1.6	0.0
6:00 a.m.	2.1	2.8	0.5
7:00 a.m.	2.4	2.3	2.8
8:00 a.m.	4.0	3.2	6.0
9:00 a.m.	3.4	3.1	4.3
10:00 a.m.	4.9	5.3	4.0
11:00 a.m.	6.5	7.0	5.3
12:00 p.m.	5.1	5.1	5.3
1:00 p.m.	3.2	3.2	3.3
2:00 p.m.	1.7	2.2	0.5
3:00 p.m.	1.9	1.9	2.0
4:00 p.m.	2.1	1.8	2.8
5:00 p.m.	3.8	4.6	1.8
6:00 p.m.	4.4	4.2	4.8
7:00 p.m.	3.3	3.9	1.8
8:00 p.m.	3.3	3.8	2.0
9:00 p.m.	2.0	2.6	0.5
10:00 p.m.	2.0	2.8	0.0
11:00 p.m.	0.3	0.4	0.0



Counter D

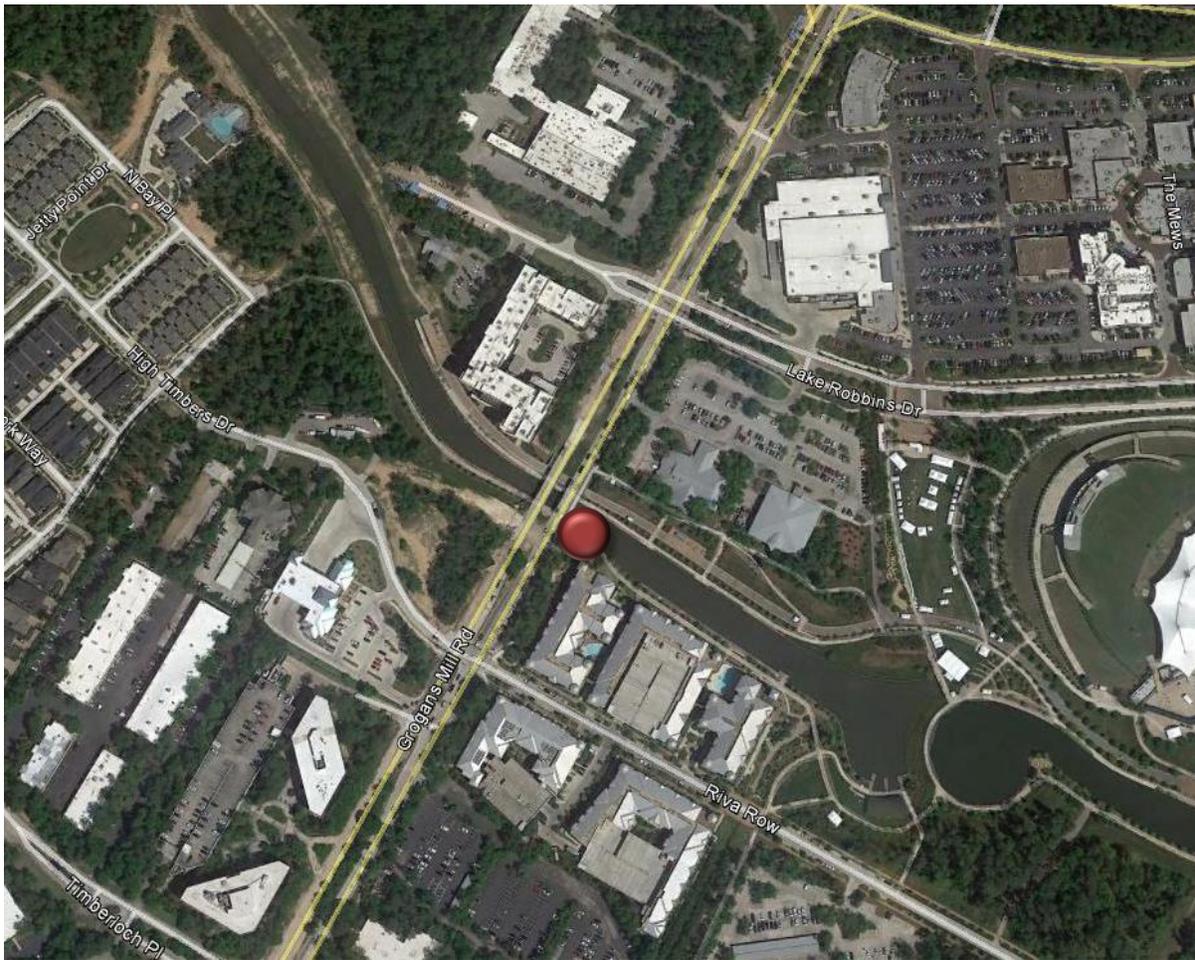
The Woodlands Waterway at Grogans Mill Road (South Bank: Waterside Path)

Location Information		
Location Name	The Woodlands Waterway at Grogans Mill Road (South Bank: Waterside Path)	
Location Description	Shared-Use Path along South Bank of The Woodlands Waterway (Adjacent to The Woodlands Waterway: Passes Under Grogans Mill Road Bridge)	
Jurisdiction	The Woodlands Township	
Agency Deployed	Texas Transportation Institute	
GPS Coordinates	30° 9'42.30"N, 95°28'7.50"W	
Surrounding Land Uses	North	Senior Center, Library, Multi-Family Residential
	South	Multi-Family Residential
	East	Multi-Family Residential
	West	Vacant, Institutional (Fire Station)
What object was device secured to?	Light Post East of Grogans Mill Road (Located at Bottom of Stairs Connecting to Grogans Mill Road Bridge)	
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	Yes (Lighting along Off-Road Shared-Use Path)	
Street Traffic Volume	N/A (Off-Road Shared-Use Path)	
Transit	Yes The Woodlands Trolley stops 600' northeast at the entrance to a community center.	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Note: Just west of the counter’s location, an underpass allows pedestrians and cyclists to travel under Grogans Mill Road, a four-lane divided roadway. It has a speed limit of 45 miles per hour and carries 22,858 vehicle per day (just south of Lake Woodlands Parkway).

Trends
<ul style="list-style-type: none"> • There tends to be slightly higher usage on weekdays than during weekends. • On weekdays, usage peaks mid-day (11:00 a.m. – 1:00 p.m.). • On weekends, usage peaks in the late morning (10:00 a.m. – 12:00 p.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos



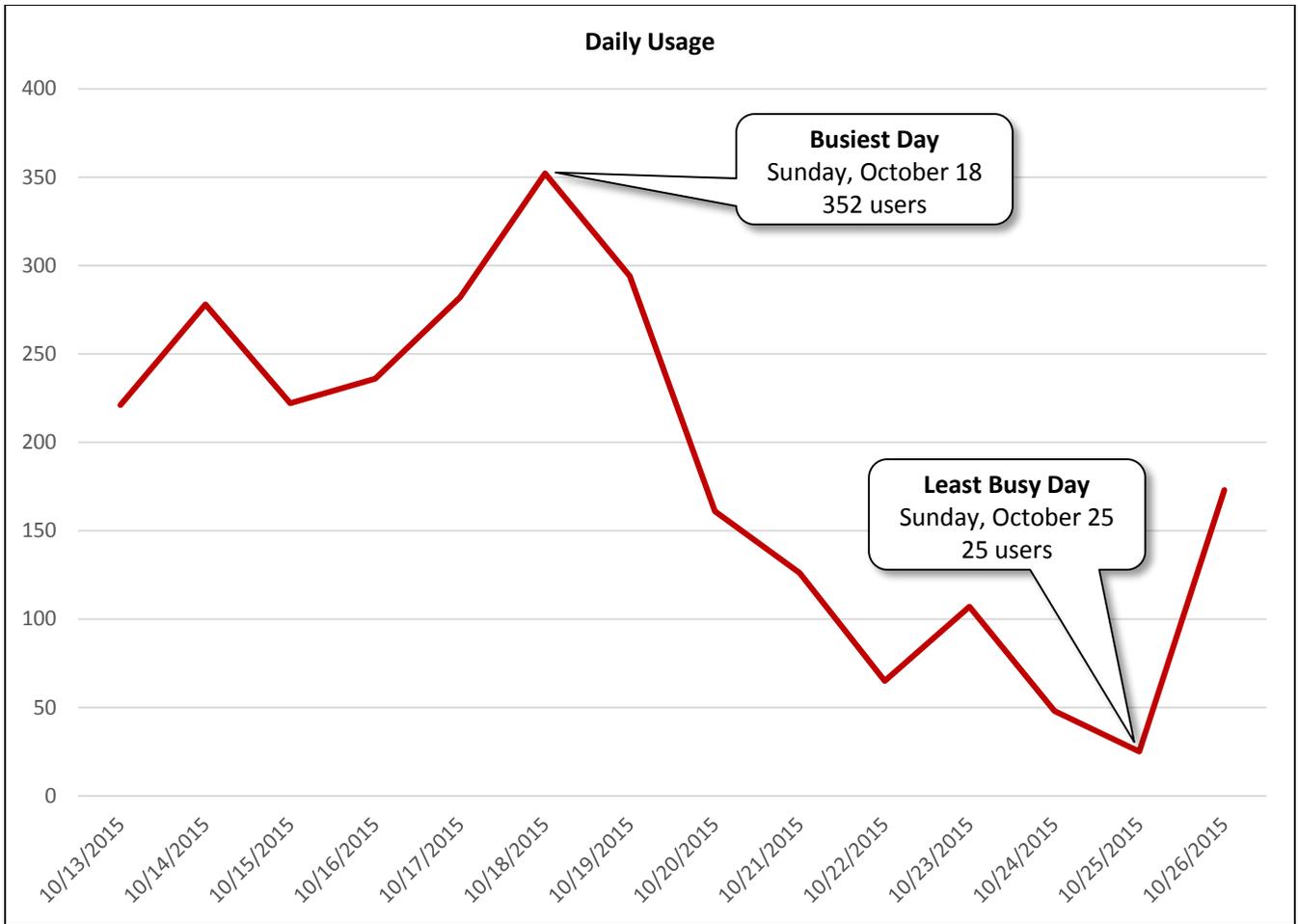
Image 21: Trail along The Woodlands Waterway (South Bank) Facing East



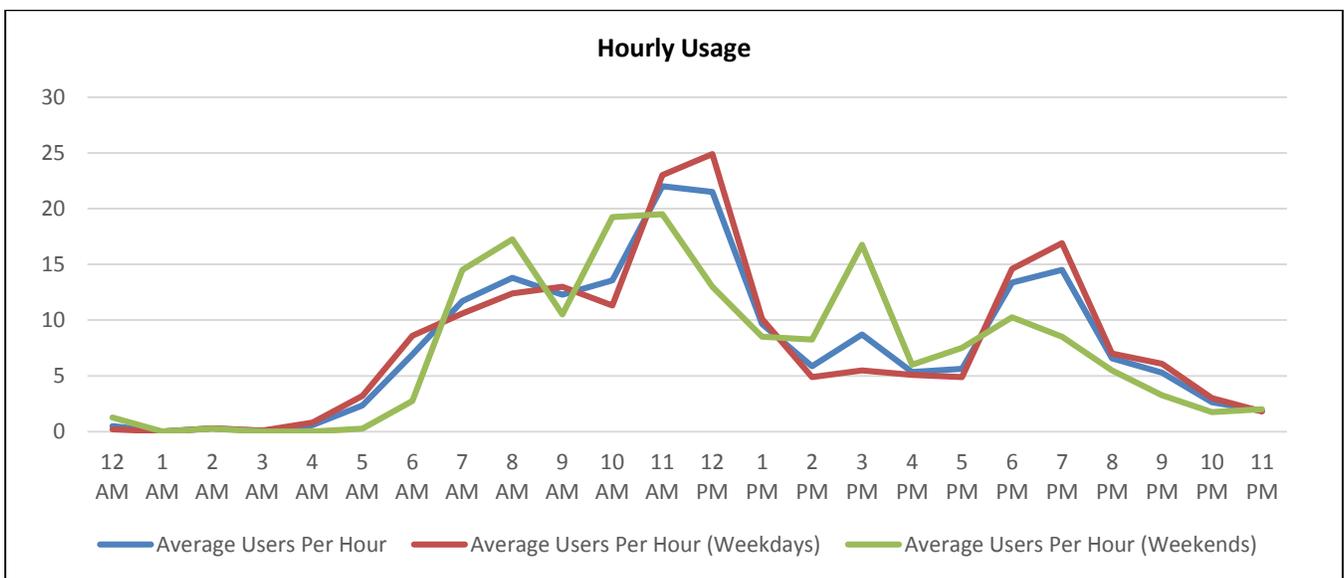
Image 22: Trail along The Woodlands Waterway (South Bank) Facing West

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	221	95	61	0
Wednesday, October 14, 2015	278	93	54	0
Thursday, October 15, 2015	222	93	54	0
Friday, October 16, 2015	236	91	55	0
Saturday, October 17, 2015	282	86	62	0
Sunday, October 18, 2015	352	82	55	0
Monday, October 19, 2015	294	82	53	0
Tuesday, October 20, 2015	161	77	57	0
Wednesday, October 21, 2015	126	86	69	0
Thursday, October 22, 2015	65	84	72	0.11
Friday, October 23, 2015	107	82	75	0.04
Saturday, October 24, 2015	48	77	69	3.78
Sunday, October 25, 2015	25	68	60	1.89
Monday, October 26, 2015	173	73	60	0.01
Total	2,590			
Average Daily Usage	185			
Average Daily Usage (Weekday)	188			
Average Daily Usage (Weekend)	177			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.5	0.2	1.3
1:00 a.m.	0.0	0.0	0.0
2:00 a.m.	0.3	0.3	0.3
3:00 a.m.	0.1	0.1	0.0
4:00 a.m.	0.6	0.8	0.0
5:00 a.m.	2.4	3.2	0.3
6:00 a.m.	6.9	8.6	2.8
7:00 a.m.	11.7	10.6	14.5
8:00 a.m.	13.8	12.4	17.3
9:00 a.m.	12.3	13.0	10.5
10:00 a.m.	13.6	11.3	19.3
11:00 a.m.	22.0	23.0	19.5
12:00 p.m.	21.5	24.9	13.0
1:00 p.m.	9.6	10.1	8.5
2:00 p.m.	5.9	4.9	8.3
3:00 p.m.	8.7	5.5	16.8
4:00 p.m.	5.4	5.1	6.0
5:00 p.m.	5.6	4.9	7.5
6:00 p.m.	13.4	14.6	10.3
7:00 p.m.	14.5	16.9	8.5
8:00 p.m.	6.6	7.0	5.5
9:00 p.m.	5.3	6.1	3.3
10:00 p.m.	2.6	3.0	1.8
11:00 p.m.	1.9	1.8	2.0



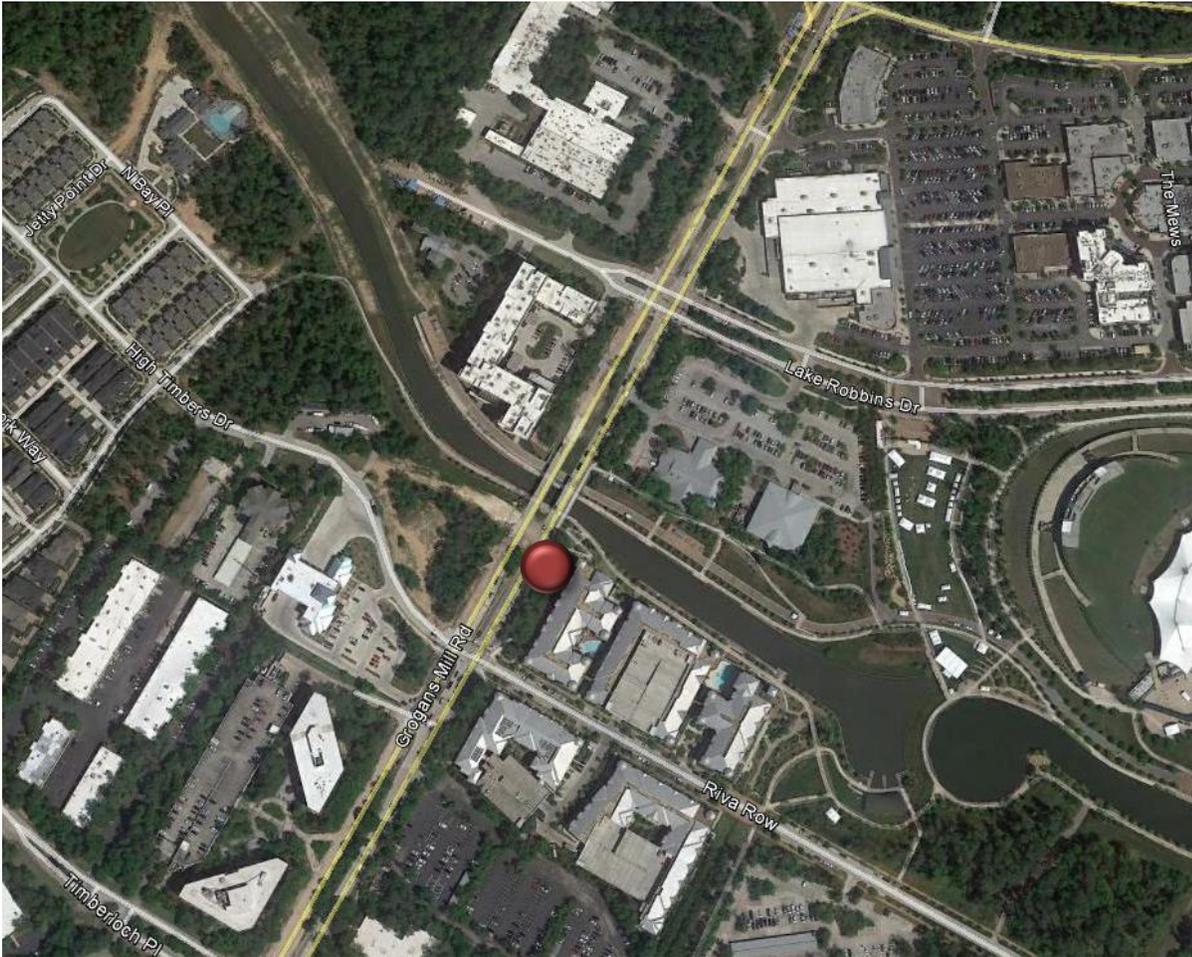
Counter E

Grogans Mill Road at The Woodlands Waterway (Sidepath)

Location Information		
Location Name	Grogans Mill Road at The Woodlands Waterway (Sidepath)	
Location Description	Shared-Use Path along Grogans Mill Road South of Bridge Crossing The Woodlands Waterway	
Jurisdiction	The Woodlands Township	
Agency Deployed	Houston-Galveston Area Council	
GPS Coordinates	30° 9'41.50"N, 95°28'8.10"W	
Surrounding Land Uses	North	Senior Center, Library, Multi-Family Residential
	South	Multi-Family Residential
	East	Multi-Family Residential
	West	Vacant, Institutional (Fire Station)
What object was device secured to?	Pine Tree	
Sidewalk Width	8'	
Buffer Width	15' (Varies) (Note: Barrier Separates Shared-Use Path from Roadway Across Nearby Bridge)	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	None	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	45 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	22,858 (just south of Lake Woodlands Parkway: 2015)	
Transit	Yes The Woodlands Trolley stops 550' northeast at the entrance to a community center.	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Trends
<ul style="list-style-type: none"> • There tends to be higher usage during weekends than on weekdays. • On weekdays, usage peaks mid-day (12:00 p.m. – 1:00 p.m.). There is a less pronounced peak in usage between 10:00 p.m. and 11:00 p.m. • On weekends, usage peaks in the morning (8:00 a.m. – 9:00 a.m.).

Location Information: Map



Location Information: Photos

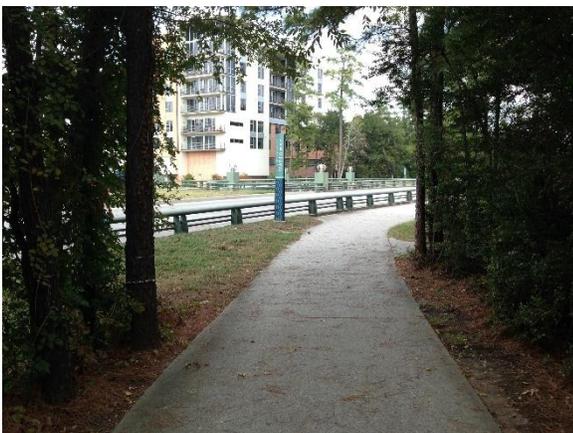


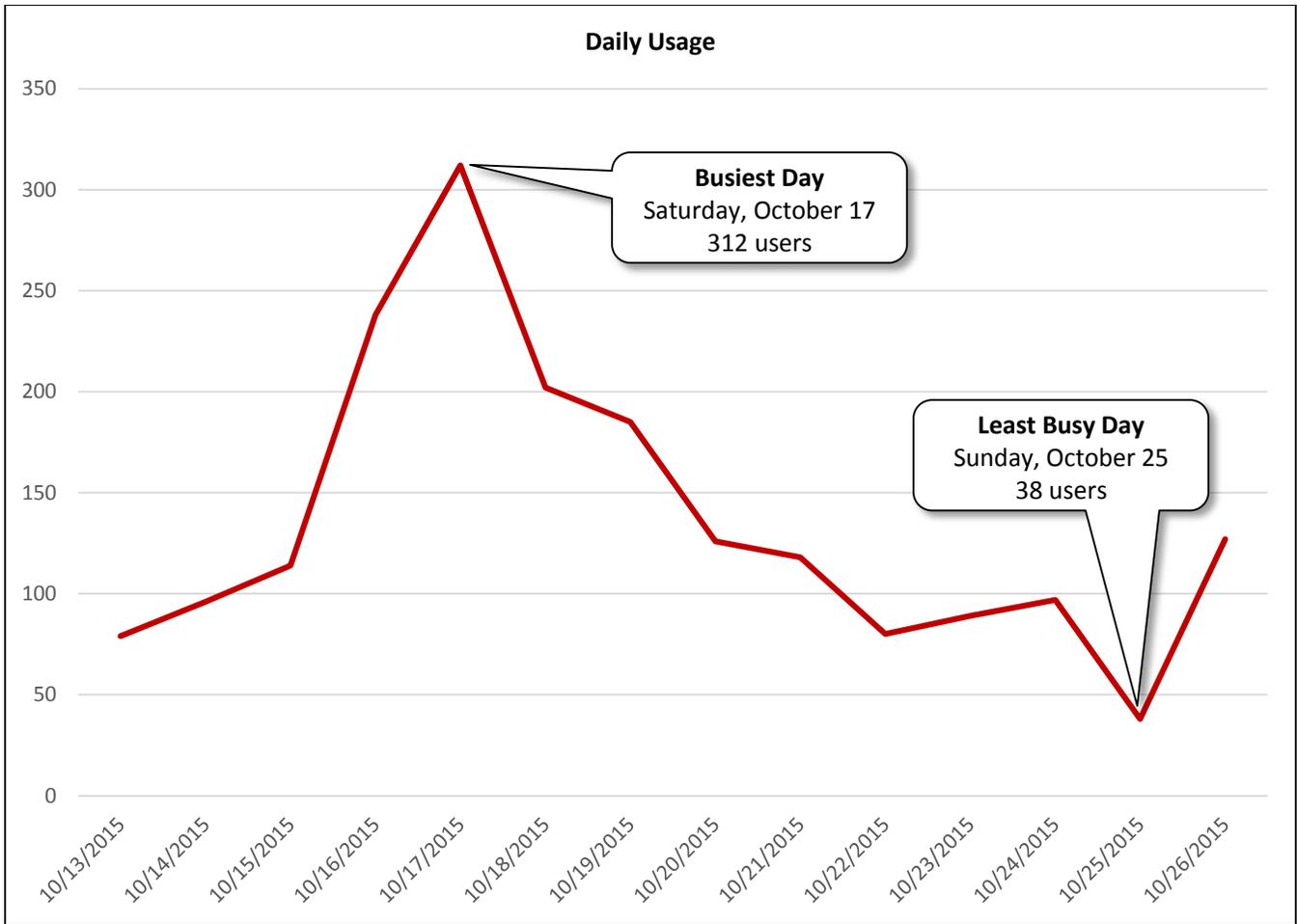
Image 23: Trail along Grogans Mill Road Facing North



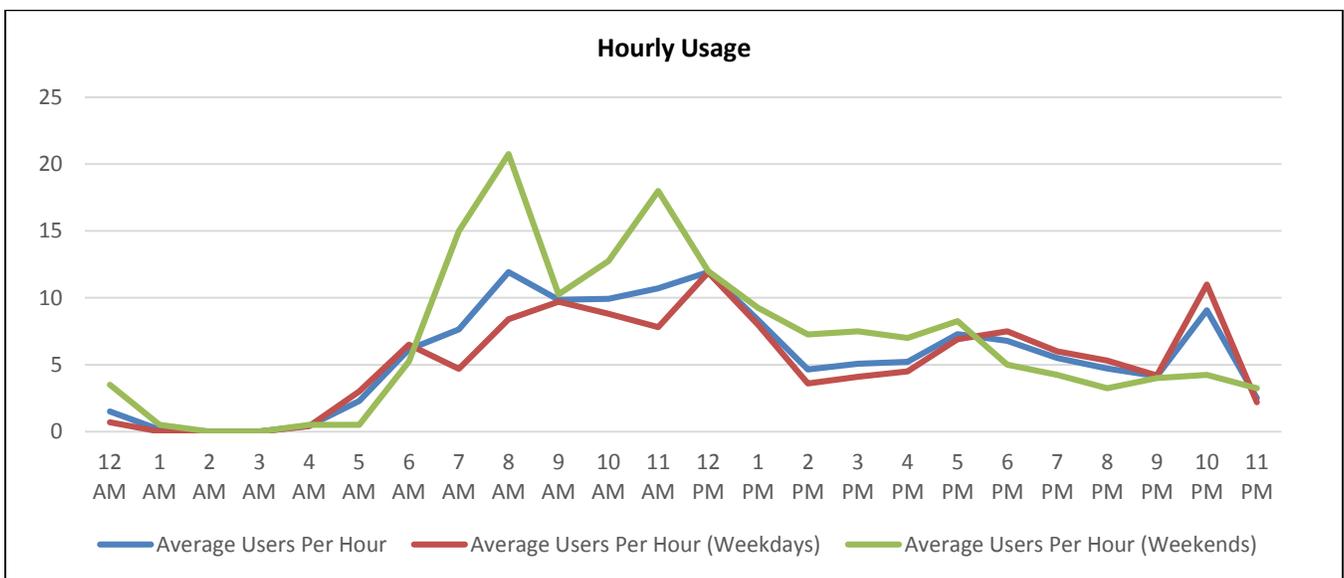
Image 24: Trail along Grogans Mill Road Facing South

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	79	95	61	0
Wednesday, October 14, 2015	96	93	54	0
Thursday, October 15, 2015	114	93	54	0
Friday, October 16, 2015	238	91	55	0
Saturday, October 17, 2015	312	86	62	0
Sunday, October 18, 2015	202	82	55	0
Monday, October 19, 2015	185	82	53	0
Tuesday, October 20, 2015	126	77	57	0
Wednesday, October 21, 2015	118	86	69	0
Thursday, October 22, 2015	80	84	72	0.11
Friday, October 23, 2015	89	82	75	0.04
Saturday, October 24, 2015	97	77	69	3.78
Sunday, October 25, 2015	38	68	60	1.89
Monday, October 26, 2015	127	73	60	0.01
Total	1,901			
Average Daily Usage	136			
Average Daily Usage (Weekday)	125			
Average Daily Usage (Weekend)	162			

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.5	0.7	3.5
1:00 a.m.	0.1	0.0	0.5
2:00 a.m.	0.0	0.0	0.0
3:00 a.m.	0.0	0.0	0.0
4:00 a.m.	0.4	0.4	0.5
5:00 a.m.	2.3	3.0	0.5
6:00 a.m.	6.1	6.5	5.3
7:00 a.m.	7.6	4.7	15.0
8:00 a.m.	11.9	8.4	20.8
9:00 a.m.	9.9	9.7	10.3
10:00 a.m.	9.9	8.8	12.8
11:00 a.m.	10.7	7.8	18.0
12:00 p.m.	11.9	11.9	12.0
1:00 p.m.	8.4	8.0	9.3
2:00 p.m.	4.6	3.6	7.3
3:00 p.m.	5.1	4.1	7.5
4:00 p.m.	5.2	4.5	7.0
5:00 p.m.	7.3	6.9	8.3
6:00 p.m.	6.8	7.5	5.0
7:00 p.m.	5.5	6.0	4.3
8:00 p.m.	4.7	5.3	3.3
9:00 p.m.	4.1	4.2	4.0
10:00 p.m.	9.1	11.0	4.3
11:00 p.m.	2.5	2.2	3.3



Counter F

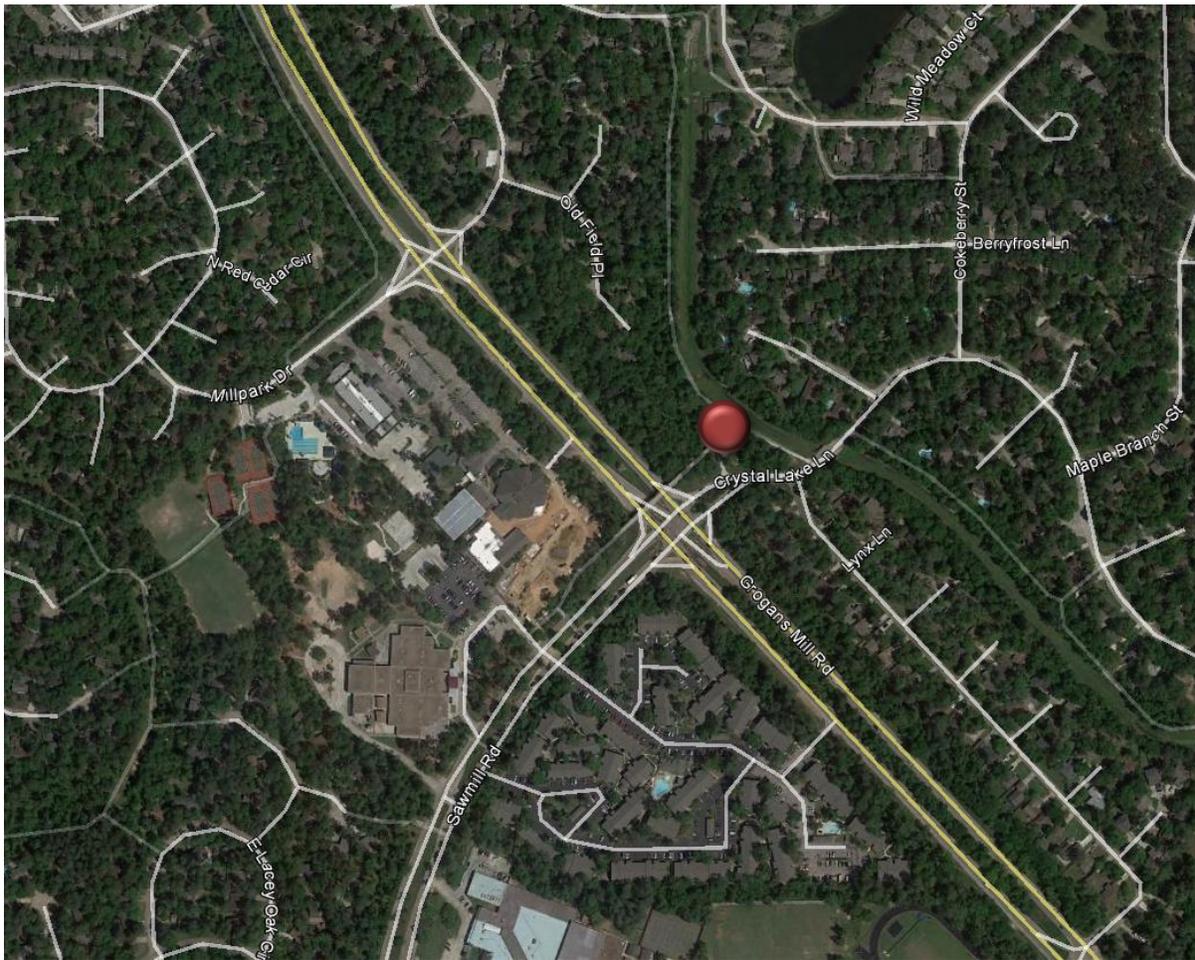
Grogans Mill Road at Sawmill Road (Pedestrian Overpass)

Location Information		
Location Name	Grogans Mill Road at Sawmill Road (Pedestrian Overpass)	
Location Description	Pedestrian Overpass North of Grogans Mill Road/Sawmill Road Intersection	
Jurisdiction	The Woodlands Township	
Agency Deployed	Texas Transportation Institute	
GPS Coordinates	30° 8'7.30"N, 95°27'45.20"W	
Surrounding Land Uses	North	Single-Family Residential
	South	Multi-Family Residential
	East	Single-Family Residential
	West	Institutional (Church), Hailey Elementary School, Park (Sawmill Park and Pool)
What object was device secured to?	Bridge Railing at Northeastern End of Pedestrian Overpass	
Sidewalk Width	8' (Bridge: 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	N/A (Off-Road Shared Use Path)	
Street Traffic Volume*	N/A (Off-Road Shared Use Path)	
Transit	No	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	

Note: The overpass carries pedestrians and cyclists across Grogans Mill Road, a four-lane divided roadway. It has a speed limit of 45 miles per hour and carries 26,514 vehicles per day (just north of Sawdust Road).

Trends
<ul style="list-style-type: none"> • There tends to be much higher usage on weekdays than during weekends. • On weekdays, usage is highest in the morning (7:00 a.m. – 9:00 a.m.) and evening (4:00 p.m. – 7:00 p.m.). • On weekends, usage is highest mid-day (11:00 a.m. – 12:00 p.m.). • Rain seems to have an impact on usage. The two wettest days (Saturday, October 24 and Sunday, October 25) had the least pedestrian and bicycle traffic.

Location Information: Map



Location Information: Photos



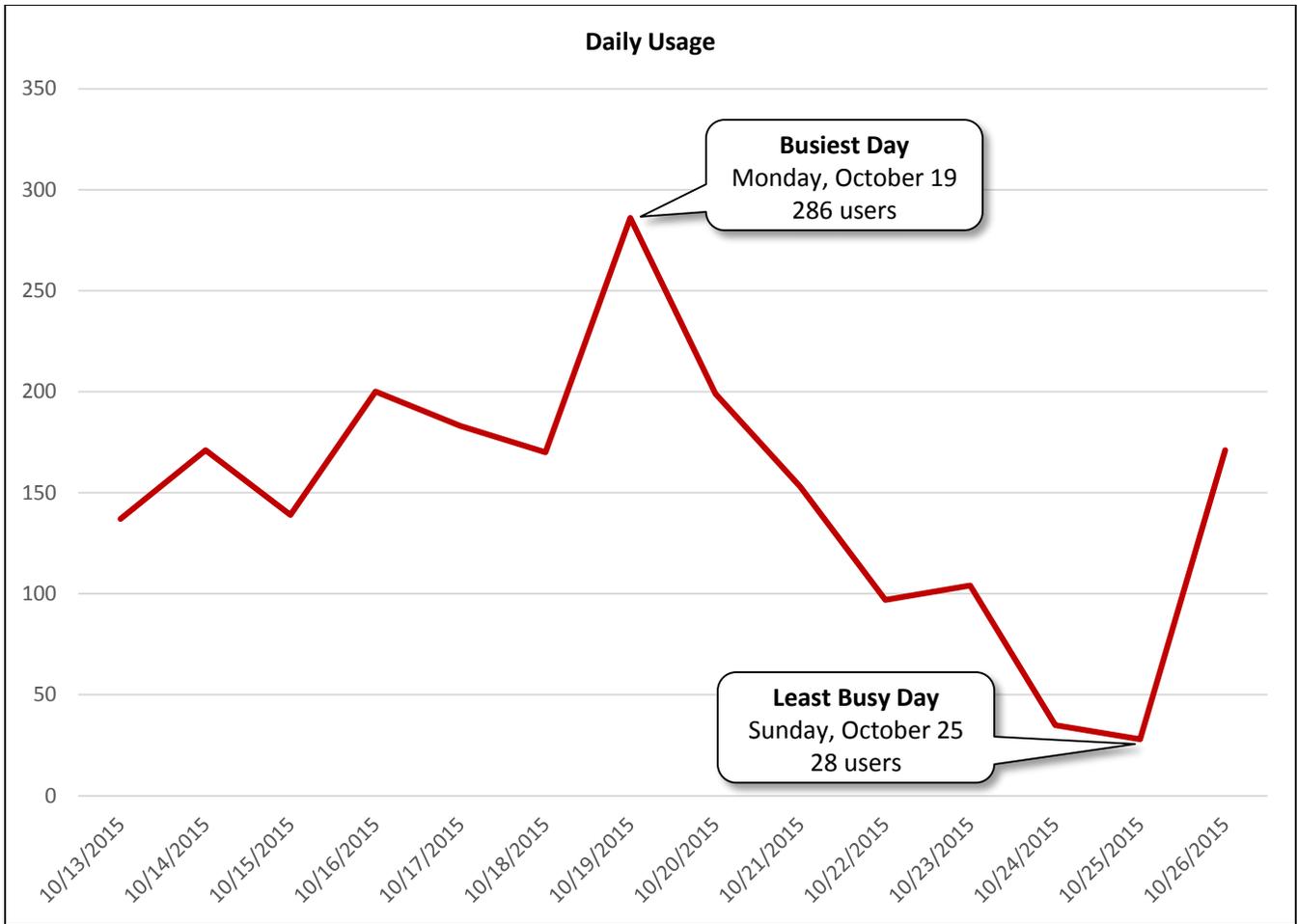
Image 25: Pedestrian Overpass at Grogans Mill Road/Sawmill Road Facing Northeast



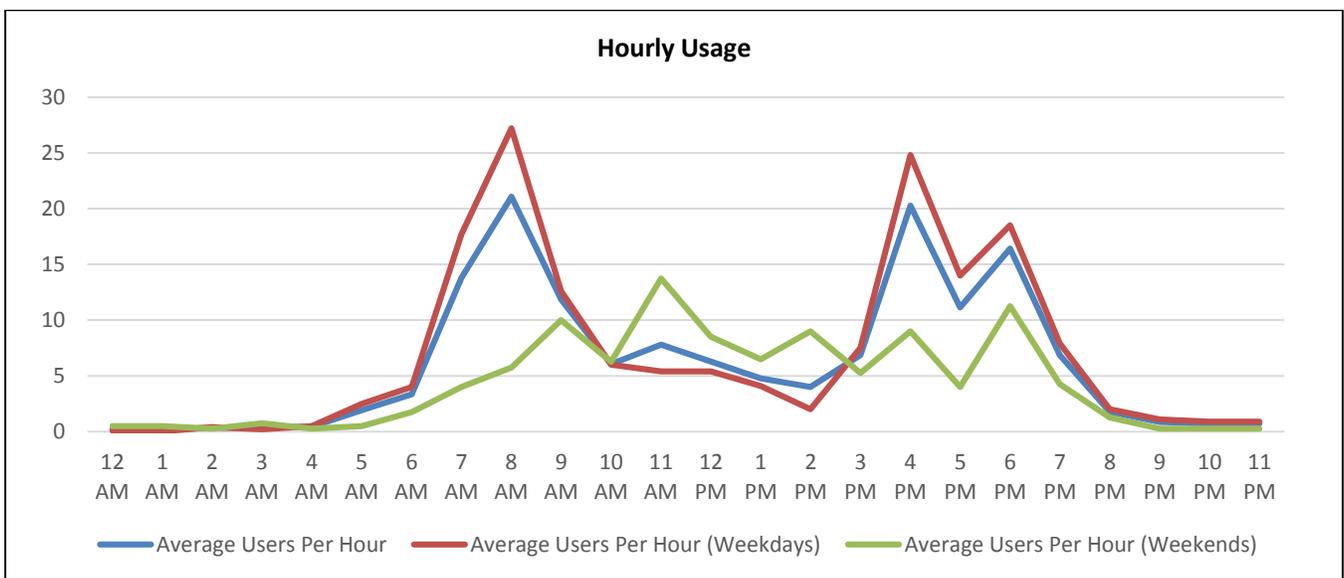
Image 26: Pedestrian Overpass at Grogans Mill Road/Sawmill Road Facing Southwest

Daily Usage				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	137	95	61	0
Wednesday, October 14, 2015	171	93	54	0
Thursday, October 15, 2015	139	93	54	0
Friday, October 16, 2015	200	91	55	0
Saturday, October 17, 2015	183	86	62	0
Sunday, October 18, 2015	170	82	55	0
Monday, October 19, 2015	286	82	53	0
Tuesday, October 20, 2015	199	77	57	0
Wednesday, October 21, 2015	153	86	69	0
Thursday, October 22, 2015	97	84	72	0.11
Friday, October 23, 2015	104	82	75	0.04
Saturday, October 24, 2015	35	77	69	3.78
Sunday, October 25, 2015	28	68	60	1.89
Monday, October 26, 2015	171	73	60	0.01
Total	2,073			
Average Daily Usage	148			
Average Daily Usage (Weekday)	166			
Average Daily Usage (Weekend)	104			

*Weather conditions recorded at KDWH (Spring, TX).



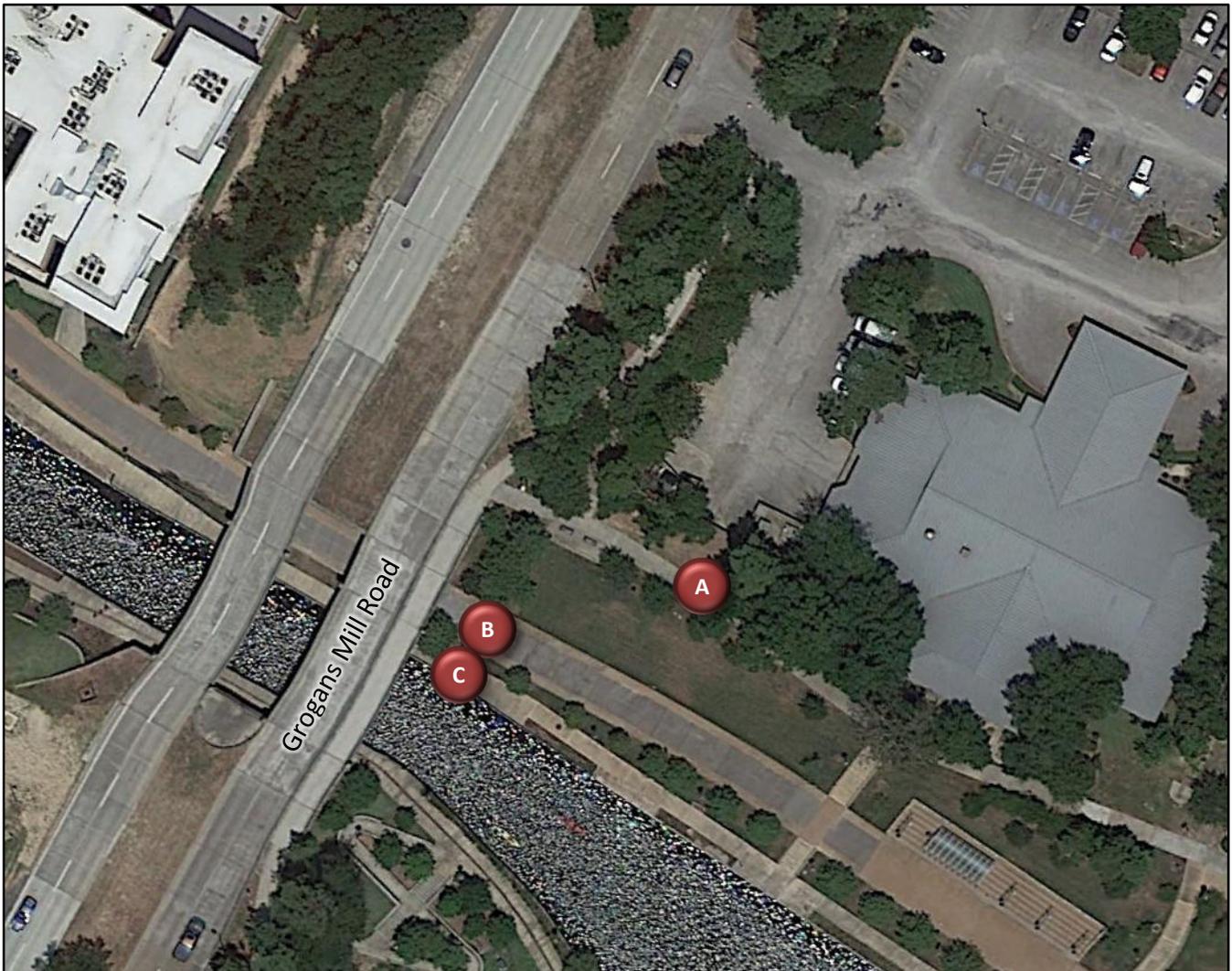
Hourly Usage			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.2	0.1	0.5
1:00 a.m.	0.1	0.0	0.5
2:00 a.m.	0.4	0.4	0.3
3:00 a.m.	0.4	0.2	0.8
4:00 a.m.	0.4	0.5	0.3
5:00 a.m.	1.9	2.5	0.5
6:00 a.m.	3.4	4.0	1.8
7:00 a.m.	13.8	17.7	4.0
8:00 a.m.	21.1	27.2	5.8
9:00 a.m.	11.9	12.6	10.0
10:00 a.m.	6.1	6.0	6.3
11:00 a.m.	7.8	5.4	13.8
12:00 p.m.	6.3	5.4	8.5
1:00 p.m.	4.8	4.1	6.5
2:00 p.m.	4.0	2.0	9.0
3:00 p.m.	6.9	7.5	5.3
4:00 p.m.	20.3	24.8	9.0
5:00 p.m.	11.1	14.0	4.0
6:00 p.m.	16.4	18.5	11.3
7:00 p.m.	6.9	7.9	4.3
8:00 p.m.	1.8	2.0	1.3
9:00 p.m.	0.9	1.1	0.3
10:00 p.m.	0.7	0.9	0.3
11:00 p.m.	0.7	0.9	0.3



Combined Usage: The Woodlands Waterway at Grogans Mill Road (North Bank)

Several shared-use facilities run parallel to one another along the north bank of The Woodlands Waterway near Grogans Mill Road. Counters were placed along each facility (Counters A – C) to determine how many pedestrians and cyclists are traveling along that corridor.

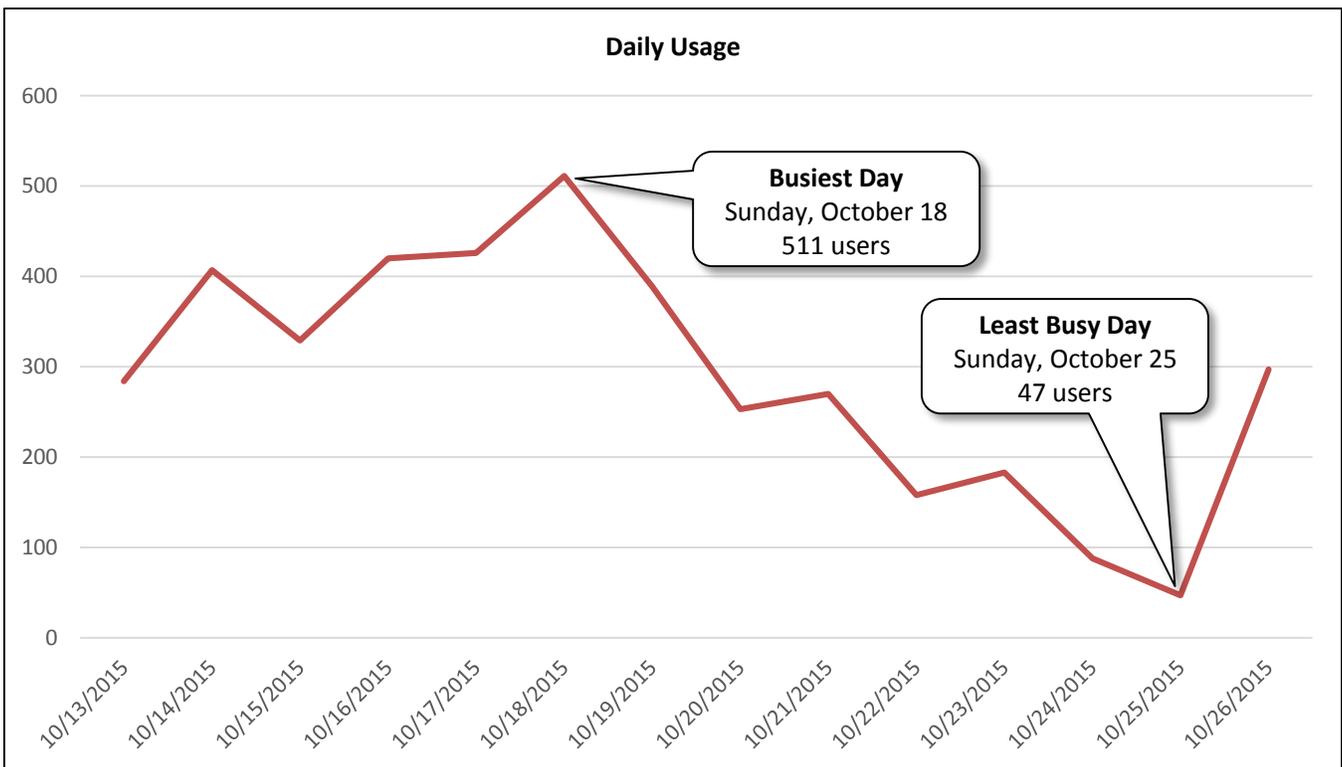
Combining the number of users that passed by Counter A, Counter B, and Counter C during the deployment period indicates how many people are walking and biking along the north bank of The Woodlands Waterway between Grogans Mill Road and Town Green Park. In all, 4,062 people used the three facilities between October 13, 2015 and October 26, 2015, averaging 290 users per day.



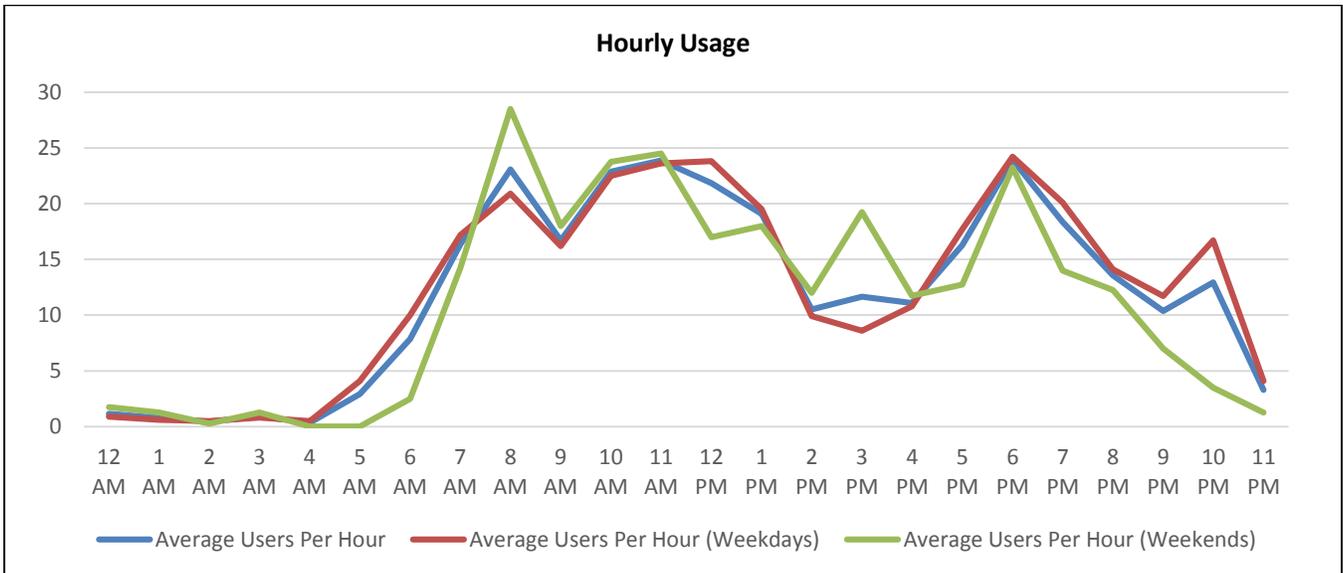
Daily Usage (Counters A – C Combined)				
Date	Users (Combined)	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Tuesday, October 13, 2015	284	95	61	0
Wednesday, October 14, 2015	407	93	54	0
Thursday, October 15, 2015	329	93	54	0
Friday, October 16, 2015	420	91	55	0
Saturday, October 17, 2015	426	86	62	0
Sunday, October 18, 2015	511	82	55	0
Monday, October 19, 2015	389	82	53	0
Tuesday, October 20, 2015	253	77	57	0
Wednesday, October 21, 2015	270	86	69	0
Thursday, October 22, 2015	158	84	72	0.11
Friday, October 23, 2015	183	82	75	0.04
Saturday, October 24, 2015	88	77	69	3.78
Sunday, October 25, 2015	47	68	60	1.89
Monday, October 26, 2015	297	73	60	0.01

Total	4,062
Average Daily Usage	290
Average Daily Usage (Weekday)	299
Average Daily Usage (Weekend)	268

*Weather conditions recorded at KDWH (Spring, TX).



Hourly Usage (Counters A – C Combined)			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.1	0.9	1.8
1:00 a.m.	0.8	0.6	1.3
2:00 a.m.	0.4	0.5	0.3
3:00 a.m.	0.9	0.8	1.3
4:00 a.m.	0.4	0.5	0.0
5:00 a.m.	2.9	4.1	0.0
6:00 a.m.	7.9	10.0	2.5
7:00 a.m.	16.4	17.2	14.3
8:00 a.m.	23.1	20.9	28.5
9:00 a.m.	16.7	16.2	18.0
10:00 a.m.	22.9	22.5	23.8
11:00 a.m.	23.9	23.6	24.5
12:00 p.m.	21.9	23.8	17.0
1:00 p.m.	19.1	19.5	18.0
2:00 p.m.	10.5	9.9	12.0
3:00 p.m.	11.6	8.6	19.3
4:00 p.m.	11.1	10.8	11.8
5:00 p.m.	16.3	17.7	12.8
6:00 p.m.	23.9	24.2	23.3
7:00 p.m.	18.4	20.1	14.0
8:00 p.m.	13.6	14.1	12.3
9:00 p.m.	10.4	11.7	7.0
10:00 p.m.	12.9	16.7	3.5
11:00 p.m.	3.3	4.1	1.3



Participants

Houston-Galveston Area Council: Pedestrian-Bicyclist Planning
www.h-gac.com/go/pedbike

City of Houston: Parks and Recreation Department
<http://www.houstontx.gov/parks/HPARD-Home-Page>

City of Houston: Public Works and Engineering Department
<http://www.publicworks.houstontx.gov/home>

Texas Transportation Institute
<http://tti.tamu.edu/>