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MEMORANDUM

To: Jennifer Bland
General Manager
Elm Ridge WCID

Date: February 26, 2026

Proj No.: R0051364.12

From: Charles Logan Fox, PE, PTOE

Subject: Artesia Boulevard Speed Study
Elm Ridge WCID, Texas

The services of Westwood Professional Services were retained by the City of Celina on behalf of Elm Ridge WCID to conduct a Speed Study along Artesia Boulevard. The study was based upon 24-hour vehicle speed and count data at two locations along the corridor: north of Candler Drive and north of White Rock Boulevard. The data was collected on Thursday, December 4, 2025, Saturday, December 13, 2025, and Saturday, January 10, 2026. Additionally, Westwood staff conducted a site visit on Wednesday, December 10, 2025 during the AM and PM peak. The existing roadway network is shown in **Exhibit 1**.

Roadway Network

Artesia Boulevard is a thoroughfare north of West First Street for the surrounding residential areas located north and south of the bridge. The road also provides access to multiple residential streets, the Artesia Boulevard playground, the Artesia Community Center, and the Canyon Ridge Soccer Field. Artesia Boulevard has an undivided two-lane cross-section between Madison Square Way and Benbrook Boulevard and a median divided two-lane cross-section between Benbrook Boulevard and Canyon Ridge; both cross-sections located north of the bridge. The bridge on Artesia Boulevard connecting the residential area north of Canyon Ridge and the residential area surrounding the Artesia Community Center has an undivided two-lane cross-section. At the Artesia Community Center, the road transitions between a two-lane and four-lane cross-section. Artesia Boulevard has a median divided four-lane cross-section between the Artesia Community Center's driveway and West First Street.

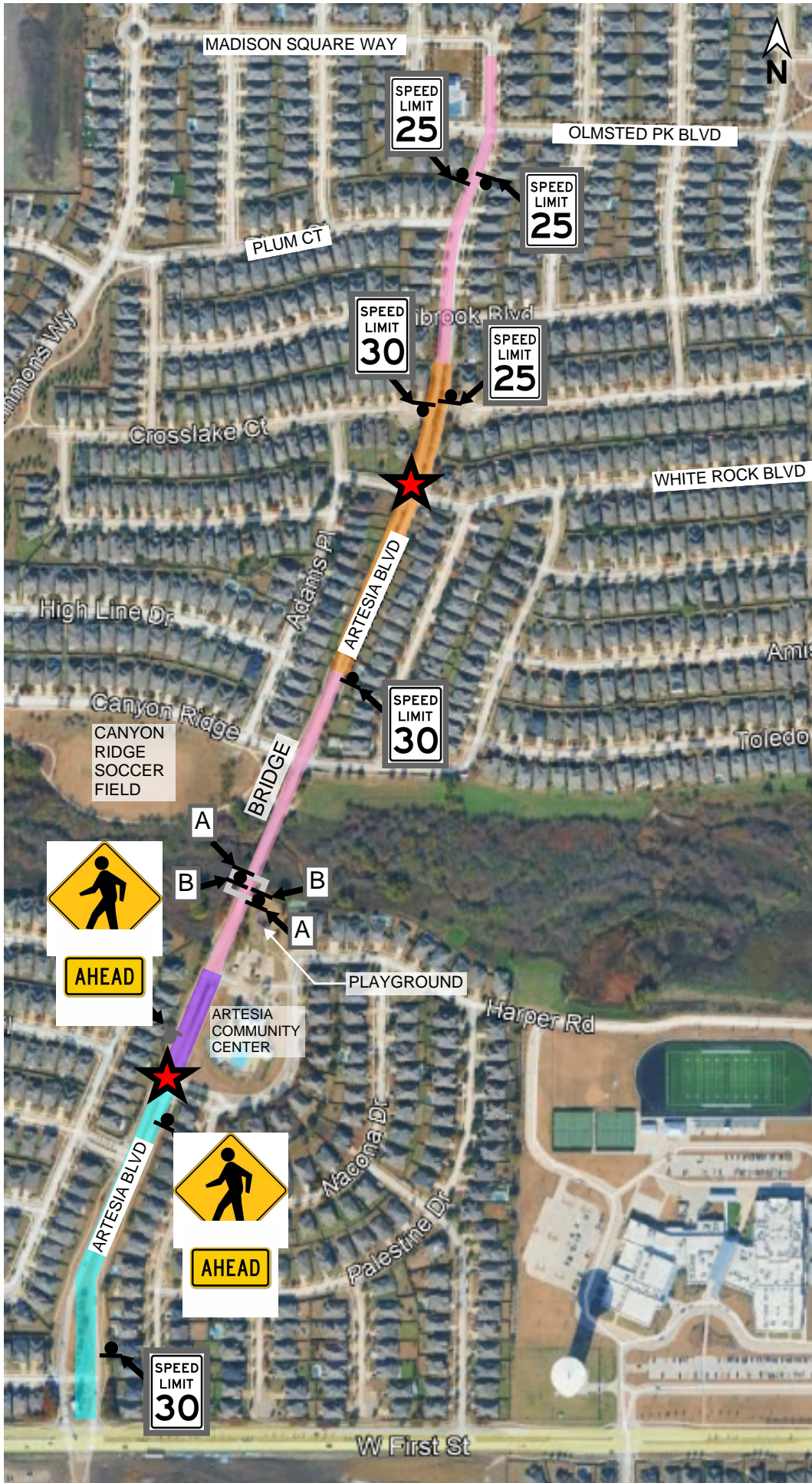
A continental crosswalk with pedestrian crossing signs and curb ramps is located near the southern end of the bridge. A second continental crosswalk with pedestrian crossing signs and curb ramps is located at the south leg of the Artesia Boulevard and Candler Drive intersection.

The roadway has a posted speed limit of 25 mph between Madison Square Way and Crosslake Court and a posted speed limit of 30 mph between Crosslake Court and West First Street. There is on-street parking on both sides of the road at multiple locations throughout the corridor. The corridor is approximately 0.8 miles in length from Madison Square Way to West First Street. **Exhibit 1** depicts the roadway as described above.




Data Analysis

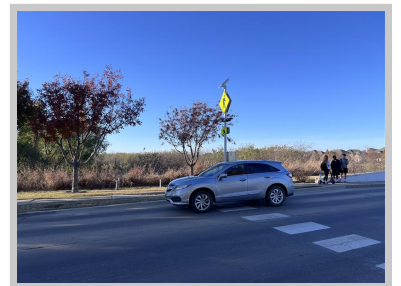
The speed data, the average speed, 85th percentile speed, and Average Daily Traffic (ADT) volume can be found in **Table 1**. More detailed data can be found in **Appendix A**. The 85th percentile speed ranges from 22 to 33 mph. The 85th percentile speed is a traffic engineering metric that indicates the speed at or below which 85% of vehicles travel under free-flowing conditions. It is used primarily to set speed limits that reflect the speed most drivers consider safe and reasonable, aligning regulatory

Exhibit 1 - Roadway Network



- █ 2 LANE UNDIVIDED
- █ 2 LANE DIVIDED
- █ TRANSITION AREA WITH TURN LANES
- █ 4 LANE DIVIDED

-  SPEED COUNT LOCATIONS
-  EXISTING SIGN
-  EXISTING RRFB CROSSWALK



limits with actual driving behavior. Additionally, it plays a crucial role in safety analysis by highlighting areas where vehicle speeds significantly deviate from the norm, which could indicate potential safety concerns.

Table 1. Speed Data

	North of Candler Drive				North of White Rock Boulevard			
Day of the Week	Thursday		Saturday		Thursday		Saturday	
Direction	NB	SB	NB	SB	NB	SB	NB	SB
Posted Speed Limit (mph)	30	30	30	30	25	25	25	25
Average Speed (mph)	26.1	29.8	27.2	25.0	22.6	21.4	25.2	24.3
85 th Percentile Speed (mph)	29	33	30	27	24	22	28	26
ADT	2824	3164	2317	2878	1093	1276	921	1103

Site Observations

Westwood performed site visits during the AM peak from 7:30-8:15 and PM peak from 4:00-5:30 on Wednesday, December 10, 2025, which included driving Artesia Boulevard and observing existing traffic. Along Artesia Boulevard, drivers were observed speeding on the north end where the speed limit changes to 25 miles per hour. Most of the speeding noticed during the site visit occurred when vehicles were going northbound and passed the 25 mile per hour sign. They were observed to typically maintain the 30 mile per hour speeds through this section. Other than speed observations, some road and pedestrian behavior factors were noted that should be considered for the speed limit.

There were several pedestrians using the crosswalk at the bridge but not always using the Rectangular Rapid Flashing Beacon (RRFB) push buttons. It was noted that during the PM peak around school release, pedestrians (mostly students) crossed the street at the crosswalk approximately every 1-3 minutes. Traffic built up at the crosswalk during this time but cleared within 20 minutes. Many students were observed crossing without pressing the RRFB button or looking both ways.

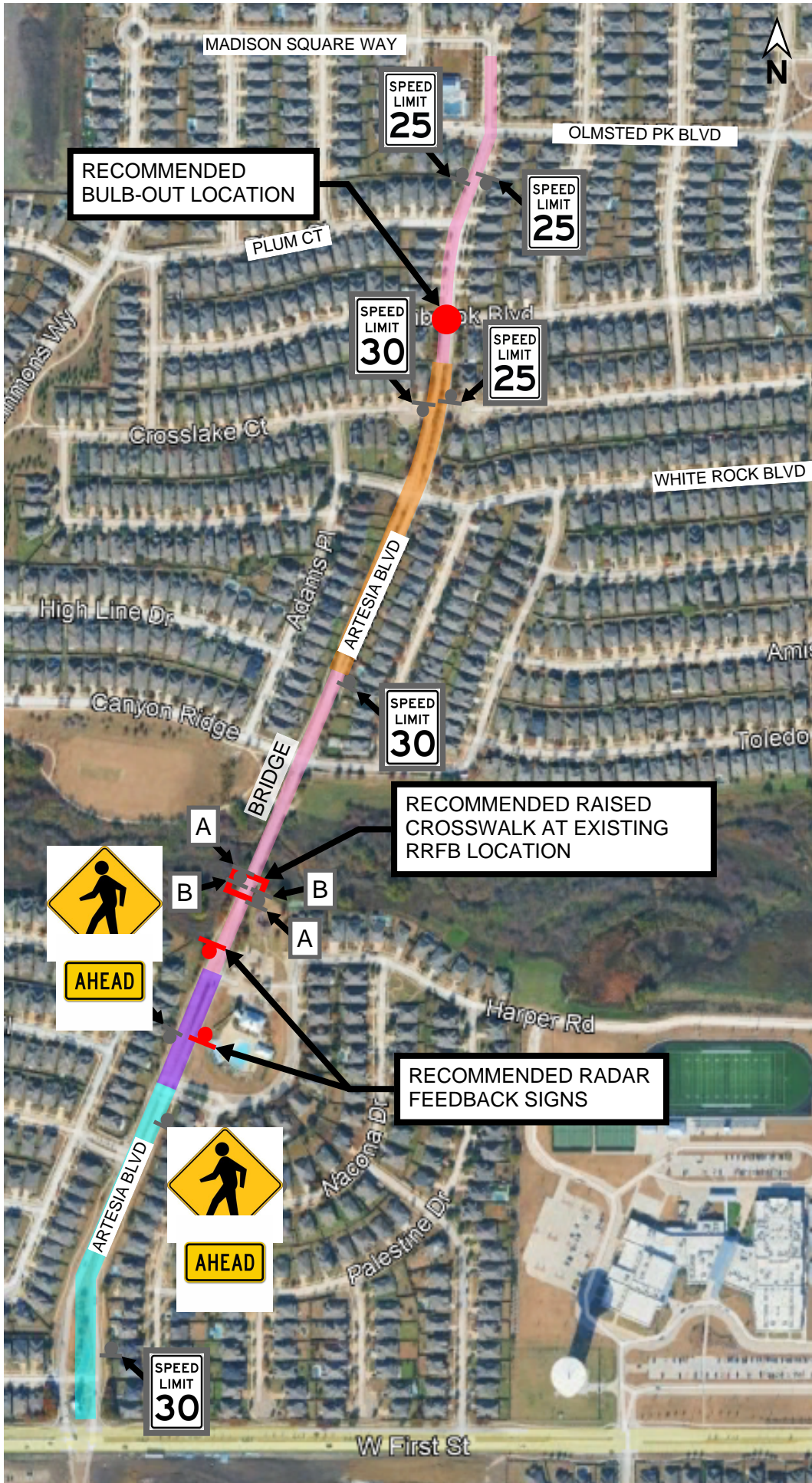
Recommendations

To address speed reduction effectively, we recommend implementing some or all the following measures:

1. **Traffic Calming Measures:**
 - a) Introducing a modular bulb-out at Benbrook Blvd, just north of the speed limit change, could enhance traffic flow and reduce speeds.
 - b) Installing a raised crosswalk at the existing RRFB location could alert vehicles to pedestrian traffic.
2. **Radar:** Installing radar feedback signs as seen in the recommendation exhibit near the Artesia Community center for both north and southbound traffic could result in more regulated speeds and safety towards pedestrians.

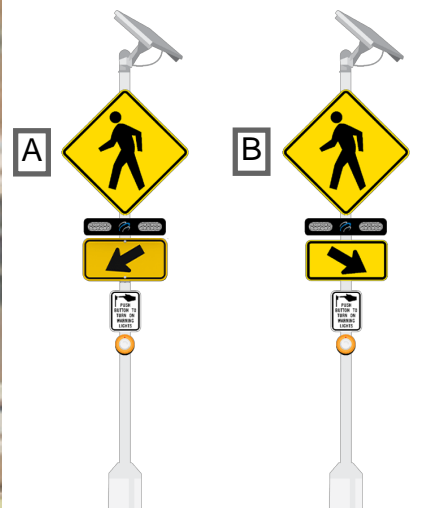
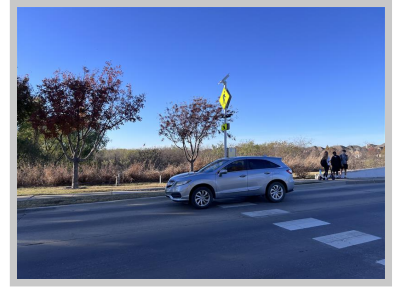
Westwood advises against changing the speed limits as drivers are mostly compliant with the posted speeds. The current speed limits show a speed of 25 MPH when driveways have access to Artesia Boulevard and 30 MPH in the section where driveways do not access the roadway. Lowering the speed on a long roadway without driveway access is not expected to gain driver compliance, which is why other traffic calming measures are recommended. This can be observed in the recommendations exhibit (**Exhibit 2**), as well as the roadway network exhibit (**Exhibit 1**).

Exhibit 2 - Recommendations



- 2 LANE UNDIVIDED
- 2 LANE DIVIDED
- TRANSITION AREA WITH TURN LANES
- 4 LANE DIVIDED

- PROPOSED BULB-OUT LOCATION
- PROPOSED SIGN
- EXISTING SIGN
- EXISTING RRFB CROSSWALK
- RECOMMENDED RAISED CROSSWALK



Appendix A. Speed Data

12:15	0	3	7	4	0	0	0	0	0	0	0	0	0	14
12:30	0	0	7	1	0	0	0	0	0	0	0	0	0	8
12:45	0	0	5	3	0	0	0	0	0	0	0	0	0	8
13:00	0	6	29	12	0	0	0	0	0	0	0	0	0	47
13:15	0	0	10	2	0	0	0	0	0	0	0	0	0	12
13:30	0	2	2	1	0	0	0	0	0	0	0	0	0	5
13:45	0	0	6	2	0	0	0	0	0	0	0	0	0	8
14:00	0	0	1	3	0	0	0	0	0	0	0	0	0	4
14:15	0	2	19	8	0	0	0	0	0	0	0	0	0	29
14:30	0	2	7	5	0	0	0	0	0	0	0	0	0	14
14:45	0	7	12	5	0	0	0	0	0	0	0	0	0	24
15:00	0	1	15	7	0	0	0	0	0	0	0	0	0	23
15:15	0	0	10	5	0	0	0	0	0	0	0	0	0	15
15:30	0	10	44	22	0	0	0	0	0	0	0	0	0	76
15:45	0	4	16	2	0	0	0	0	0	0	0	0	0	22
16:00	0	6	14	3	0	0	0	0	0	0	0	0	0	23
16:15	1	5	6	5	0	0	0	0	0	0	0	0	0	17
16:30	1	11	33	3	0	0	0	0	0	0	0	0	0	48
16:45	2	26	69	13	0	0	0	0	0	0	0	0	0	110
17:00	0	4	12	2	1	0	0	0	0	0	0	0	0	19
17:15	0	8	14	4	0	0	0	0	0	0	0	0	0	26
17:30	0	9	31	5	0	0	0	0	0	0	0	0	0	45
17:45	0	7	27	4	0	0	0	0	0	0	0	0	0	38
18:00	0	28	84	15	1	0	0	0	0	0	0	0	0	128
18:15	0	2	15	1	0	0	0	0	0	0	0	0	0	18
18:30	1	4	21	3	0	0	0	0	0	0	0	0	0	29
18:45	3	5	19	2	0	0	0	0	0	0	0	0	0	29
19:00	0	4	20	3	0	0	0	0	0	0	0	0	0	27
19:15	4	15	75	9	0	0	0	0	0	0	0	0	0	103
19:30	0	6	16	4	0	0	0	0	0	0	0	0	0	26
19:45	0	1	12	5	0	0	0	0	0	0	0	0	0	18
20:00	0	5	20	1	0	0	0	0	0	0	0	0	0	26
20:15	0	9	7	4	0	0	0	0	0	0	0	0	0	20
20:30	0	21	55	14	0	0	0	0	0	0	0	0	0	90
20:45	0	8	13	5	0	0	0	0	0	0	0	0	0	26
21:00	0	5	16	4	0	0	0	0	0	0	0	0	0	25
21:15	0	6	14	1	0	0	0	0	0	0	0	0	0	21
21:30	0	4	9	5	0	0	0	0	0	0	0	0	0	18
21:45	0	23	52	15	0	0	0	0	0	0	0	0	0	90
22:00	0	7	12	3	0	0	0	0	0	0	0	0	0	22
22:15	0	2	8	5	0	0	0	0	0	0	0	0	0	15
22:30	0	3	12	2	0	0	0	0	0	0	0	0	0	17
22:45	0	1	7	0	0	0	0	0	0	0	0	0	0	8
23:00	0	13	39	10	0	0	0	0	0	0	0	0	0	62
23:15	0	0	4	2	0	0	0	0	0	0	0	0	0	6
23:30	0	0	3	0	0	0	0	0	0	0	0	0	0	3
23:45	0	1	4	1	0	0	0	0	0	0	0	0	0	6
24:00	0	1	10	0	0	0	0	0	0	0	0	0	0	11
24:15	0	2	21	3	0	0	0	0	0	0	0	0	0	26
24:30	1	0	6	2	0	0	0	0	0	0	0	0	0	9
24:45	0	0	4	0	0	0	0	0	0	0	0	0	0	4
25:00	0	1	2	1	0	0	0	0	0	0	0	0	0	4
25:15	0	2	0	1	0	0	0	0	0	0	0	0	0	3
25:30	1	3	12	4	0	0	0	0	0	0	0	0	0	20
25:45	0	1	0	1	0	0	0	0	0	0	0	0	0	2
26:00	0	0	2	1	0	0	0	0	0	0	0	0	0	3
26:15	0	0	1	2	0	0	0	0	0	0	0	0	0	3
26:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
26:45	0	2	4	4	0	0	0	0	0	0	0	0	0	10
Total	8	215	685	181	4	0	0	0	0	0	0	0	0	1093

Percentile	15th	50th	85th	95th
Speed	18	21	24	26
Mean Speed (Average)	22.6			
10 MPH Pace Speed	18-27			

Number in Pace	948
Percent in Pace	87.0%
Number > 30 MPH	4
Percent > 30 MPH	0.4%

12:15	0	5	9	0	0	0	0	0	0	0	0	0	0	14
12:30	0	6	10	0	0	0	0	0	0	0	0	0	0	16
12:45	0	3	7	0	0	0	0	0	0	0	0	0	0	10
<hr/>														
13:00	0	16	30	0	0	0	0	0	0	0	0	0	0	46
13:15	0	2	8	0	0	0	0	0	0	0	0	0	0	10
13:30	0	0	8	1	0	0	0	0	0	0	0	0	0	9
13:45	1	7	13	1	0	0	0	0	0	0	0	0	0	22
<hr/>														
14:00	0	6	10	0	0	0	0	0	0	0	0	0	0	16
14:15	1	15	39	2	0	0	0	0	0	0	0	0	0	57
14:30	0	3	5	0	0	0	0	0	0	0	0	0	0	8
14:45	1	5	16	1	0	0	0	0	0	0	0	0	0	23
<hr/>														
15:00	0	4	11	0	0	0	0	0	0	0	0	0	0	15
15:15	0	2	12	1	0	0	0	0	0	0	0	0	0	15
15:30	1	14	44	2	0	0	0	0	0	0	0	0	0	61
15:45	0	4	23	0	0	0	0	0	0	0	0	0	0	27
<hr/>														
16:00	0	10	22	0	0	0	0	0	0	0	0	0	0	32
16:15	0	5	18	1	0	0	0	0	0	0	0	0	0	24
16:30	0	6	12	3	0	0	0	0	0	0	0	0	0	21
16:45	0	25	75	4	0	0	0	0	0	0	0	0	0	104
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17:00	0	4	14	0	0	0	0	0	0	0	0	0	0	18
17:15	0	11	15	2	0	0	0	0	0	0	0	0	0	28
17:30	0	14	21	0	0	0	0	0	0	0	0	0	0	35
17:45	0	8	14	1	0	0	0	0	0	0	0	0	0	23
<hr/>														
18:00	0	37	64	3	0	0	0	0	0	0	0	0	0	104
18:15	1	11	16	0	0	0	0	0	0	0	0	0	0	28
18:30	1	11	12	0	0	0	0	0	0	0	0	0	0	24
18:45	1	14	16	0	0	0	0	0	0	0	0	0	0	31
<hr/>														
19:00	2	12	10	0	0	0	0	0	0	0	0	0	0	24
19:15	5	48	54	0	0	0	0	0	0	0	0	0	0	107
19:30	0	9	10	0	0	0	0	0	0	0	0	0	0	19
19:45	0	10	12	2	0	0	0	0	0	0	0	0	0	24
<hr/>														
20:00	0	3	10	2	0	0	0	0	0	0	0	0	0	15
20:15	0	5	9	0	0	0	0	0	0	0	0	0	0	14
20:30	0	27	41	4	0	0	0	0	0	0	0	0	0	72
20:45	0	4	13	0	0	0	0	0	0	0	0	0	0	17
<hr/>														
21:00	1	2	10	0	0	0	0	0	0	0	0	0	0	13
21:15	0	0	8	1	0	0	0	0	0	0	0	0	0	9
21:30	0	3	10	0	0	0	0	0	0	0	0	0	0	13
21:45	1	9	41	1	0	0	0	0	0	0	0	0	0	52
<hr/>														
22:00	1	2	6	2	0	0	0	0	0	0	0	0	0	11
22:15	0	0	6	0	0	0	0	0	0	0	0	0	0	6
22:30	0	2	5	0	0	0	0	0	0	0	0	0	0	7
22:45	0	1	3	0	0	0	0	0	0	0	0	0	0	4
<hr/>														
23:00	1	5	20	2	0	0	0	0	0	0	0	0	0	28
23:15	0	1	4	0	0	0	0	0	0	0	0	0	0	5
23:30	0	1	3	0	0	0	0	0	0	0	0	0	0	4
23:45	0	0	2	0	0	0	0	0	0	0	0	0	0	2
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24:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
24:15	0	3	10	0	0	0	0	0	0	0	0	0	0	13
24:30	1	0	1	0	0	0	0	0	0	0	0	0	0	2
24:45	1	3	3	0	0	0	0	0	0	0	0	0	0	7
<hr/>														
25:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
25:15	0	1	0	0	0	0	0	0	0	0	0	0	0	2
25:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<hr/>														
26:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Total	15	401	826	34	0	0	0	0	0	0	0	0	0	1276

Percentile	15th	50th	85th	95th
Speed	18	20	22	24
Mean Speed (Average)	21.4			
10 MPH Pace Speed	16-25			

Number in Pace	1227
Percent in Pace	96.0%
Number > 30 MPH	0
Percent > 30 MPH	0.0%

12:15	0	0	12	13	9	0	0	0	0	0	0	0	0	34
12:30	0	0	7	18	3	0	0	0	0	0	0	0	0	28
12:45	0	2	3	16	3	1	0	0	0	0	0	0	0	25
<hr/>														
13:00	0	3	26	61	22	1	0	0	0	0	0	0	0	113
13:15	0	1	8	17	5	0	0	0	0	0	0	0	0	31
13:30	0	1	4	11	1	0	0	0	0	0	0	0	0	17
13:45	0	0	10	20	4	0	0	0	0	0	0	0	0	34
<hr/>														
14:00	0	1	7	20	5	0	0	0	0	0	0	0	0	33
14:15	0	3	29	68	15	0	0	0	0	0	0	0	0	115
14:30	0	1	10	16	10	0	0	0	0	0	0	0	0	37
14:45	0	0	6	25	6	0	0	0	0	0	0	0	0	37
15:00	0	2	5	27	7	2	0	0	0	0	0	0	0	43
15:15	1	1	7	20	11	0	0	0	0	0	0	0	0	40
<hr/>														
15:30	1	4	28	88	34	2	0	0	0	0	0	0	0	157
15:45	0	3	16	21	4	1	0	0	0	0	0	0	0	45
16:00	1	6	48	29	4	0	0	0	0	0	0	0	0	88
16:15	0	8	27	16	2	0	0	0	0	0	0	0	0	53
16:30	34	23	10	2	0	0	0	0	0	0	0	0	0	69
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16:45	35	40	101	68	10	1	0	0	0	0	0	0	0	255
17:00	0	5	21	17	2	0	0	0	0	0	0	0	0	45
17:15	0	21	37	18	5	0	0	0	0	0	0	0	0	81
17:30	18	33	21	14	3	0	0	0	0	0	0	0	0	89
17:45	0	1	20	45	12	1	0	0	0	0	0	0	0	79
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18:00	18	60	99	94	22	1	0	0	0	0	0	0	0	294
18:15	0	2	18	48	14	0	0	0	0	0	0	0	0	82
18:30	0	3	23	44	10	0	0	0	0	0	0	0	0	80
18:45	0	1	13	38	7	0	0	0	0	0	0	0	0	59
<hr/>														
19:00	0	1	16	33	21	3	0	0	0	0	0	0	0	74
19:15	0	7	70	163	52	3	0	0	0	0	0	0	0	295
19:30	0	0	12	31	13	1	0	0	0	0	0	0	0	57
19:45	0	1	12	34	12	3	0	0	0	0	0	0	0	62
20:00	0	1	6	34	11	1	0	0	0	0	0	0	0	53
20:15	0	1	14	28	14	1	0	0	0	0	0	0	0	58
<hr/>														
20:30	0	3	44	127	50	6	0	0	0	0	0	0	0	230
20:45	0	3	9	28	17	0	0	0	0	0	0	0	0	57
21:00	0	1	14	42	5	1	0	0	0	0	0	0	0	63
21:15	0	1	8	29	6	1	0	0	0	0	0	0	0	45
21:30	0	1	7	21	7	1	0	0	0	0	0	0	0	37
21:45	0	6	38	120	35	3	0	0	0	0	0	0	0	202
<hr/>														
22:00	0	0	10	35	13	0	0	0	0	0	0	0	0	58
22:15	0	1	14	31	6	0	0	0	0	0	0	0	0	52
22:30	0	1	7	18	8	1	0	0	0	0	0	0	0	35
22:45	0	0	1	15	12	0	0	0	0	0	0	0	0	28
<hr/>														
23:00	0	2	32	99	39	1	0	0	0	0	0	0	0	173
23:15	0	0	6	12	7	1	0	0	0	0	0	0	0	26
23:30	0	0	7	25	5	0	0	0	0	0	0	0	0	37
23:45	0	0	7	13	7	0	0	0	0	0	0	0	0	27
<hr/>														
24:00	0	1	8	16	6	1	0	0	0	0	0	0	0	32
24:15	0	1	28	66	25	2	0	0	0	0	0	0	0	122
24:30	0	0	5	7	4	0	0	0	0	0	0	0	0	16
24:45	0	0	7	8	2	0	0	0	0	0	0	0	0	17
25:00	0	0	3	8	2	0	0	0	0	0	0	0	0	13
25:15	0	0	3	9	2	0	0	0	0	0	0	0	0	14
<hr/>														
25:30	0	0	18	32	10	0	0	0	0	0	0	0	0	60
25:45	0	0	4	7	0	0	0	0	0	0	0	0	0	11
26:00	0	1	4	8	0	0	0	0	0	0	0	0	0	13
26:15	0	1	1	3	1	0	0	0	0	0	0	0	0	6
26:30	0	0	1	4	2	0	0	0	0	0	0	0	0	7
<hr/>														
26:45	0	2	10	22	3	0	0	0	0	0	0	0	0	37
Total	55	194	848	1311	390	25	1	0	0	0	0	0	0	2824

Percentile	15th	50th	85th	95th
Speed	21	25	29	31
Mean Speed (Average)	26.1			
10 MPH Pace Speed	21-30			

Number in Pace	2150
Percent in Pace	76.0%
Number > 30 MPH	416
Percent > 30 MPH	14.7%

12:15	0	1	2	8	11	1	0	0	0	0	0	0	23
12:30	0	0	5	17	20	2	0	0	0	0	0	0	44
12:45	0	0	3	8	12	3	0	0	0	0	0	0	26
13:00	0	1	13	42	58	10	0	0	0	0	0	0	124
13:15	0	0	3	8	11	4	1	0	0	0	0	0	33
13:30	0	0	3	8	11	4	1	0	0	0	0	0	27
13:45	0	1	6	25	14	2	1	0	0	0	0	0	49
14:00	0	0	2	10	18	3	1	0	0	0	0	0	34
14:15	0	2	14	49	63	12	3	0	0	0	0	0	143
14:30	0	1	3	18	12	3	0	0	0	0	0	0	37
14:45	0	0	6	7	13	1	0	0	0	0	0	0	27
15:00	0	0	5	20	17	2	0	0	0	0	0	0	44
15:15	0	0	6	20	12	2	2	0	0	0	0	0	42
15:30	0	1	20	65	54	8	2	0	0	0	0	0	150
15:45	0	0	7	21	17	3	0	0	0	0	0	0	48
16:00	0	0	7	23	21	6	0	0	0	0	0	0	57
16:15	0	1	13	26	14	3	0	0	0	0	0	0	57
16:30	0	6	18	17	12	0	0	0	0	0	0	0	53
16:45	0	7	45	87	64	12	0	0	0	0	0	0	215
17:00	0	1	10	40	19	2	0	0	0	0	0	0	72
17:15	0	3	7	33	15	3	0	0	0	0	0	0	61
17:30	0	0	8	25	12	2	0	0	0	0	0	0	47
17:45	0	0	4	23	26	5	2	0	0	0	0	0	60
18:00	0	4	29	121	72	12	2	0	0	0	0	0	240
18:15	0	0	11	34	25	8	1	0	0	0	0	0	79
18:30	0	0	1	29	22	6	1	0	0	0	0	0	59
18:45	0	1	5	28	23	3	0	0	0	0	0	0	60
19:00	0	0	4	15	31	5	2	0	0	0	0	0	57
19:15	0	1	21	106	101	22	4	0	0	0	0	0	255
19:30	0	0	4	9	20	8	0	0	0	0	0	0	41
19:45	0	0	2	13	23	2	0	1	0	0	0	0	41
20:00	0	0	0	17	21	5	2	0	0	0	0	0	45
20:15	0	0	4	15	22	6	2	0	0	0	0	0	49
20:30	0	0	10	54	86	21	4	1	0	0	0	0	176
20:45	0	0	2	13	16	5	3	0	0	0	0	0	39
21:00	0	0	1	16	20	3	1	0	0	0	0	0	41
21:15	0	0	4	10	8	3	0	0	0	0	0	0	25
21:30	0	0	3	13	10	3	0	1	0	0	0	0	30
21:45	0	0	10	52	54	14	4	1	0	0	0	0	135
22:00	0	0	2	4	7	6	2	0	0	0	0	0	21
22:15	0	1	1	5	9	6	0	0	0	0	0	0	22
22:30	0	0	0	5	10	4	2	2	0	0	0	0	23
22:45	0	0	1	9	5	5	2	0	0	0	0	0	22
23:00	0	1	4	23	31	21	6	2	0	0	0	0	88
23:15	0	0	0	4	6	0	0	0	0	0	0	0	10
23:30	0	1	0	1	5	1	0	0	0	0	0	0	8
23:45	0	0	1	3	2	3	0	0	0	0	0	0	9
24:00	0	0	0	3	2	2	2	0	0	0	0	0	9
24:15	0	1	1	11	15	6	2	0	0	0	0	0	36
24:30	0	0	2	2	3	0	1	0	0	0	0	0	8
24:45	0	0	0	1	4	0	0	0	0	0	0	0	5
25:00	0	0	1	1	2	0	1	0	0	0	0	0	5
25:15	0	0	0	3	4	1	0	0	0	0	0	0	8
25:30	0	0	3	7	13	1	2	0	0	0	0	0	26
25:45	0	0	0	4	3	2	0	0	0	0	0	0	9
26:00	0	0	1	0	4	3	0	0	0	0	0	0	8
26:15	0	0	0	1	1	3	0	0	0	0	0	0	5
26:30	0	0	0	0	1	0	0	1	0	0	0	0	2
26:45	0	0	1	5	9	8	0	1	0	0	0	0	24
Total	3	48	429	1303	1093	238	42	8	0	0	0	0	3164

Percentile	15th	50th	85th	95th
Speed	24	28	33	36
Mean Speed (Average)	29.8			
10 MPH Pace Speed	26-35			

Number in Pace	2393
Percent in Pace	76.0%
Number > 30 MPH	1381
Percent > 30 MPH	43.6%

12:15	0	0	3	9	1	0	0	0	0	0	0	0	0	13
12:30	0	3	7	6	1	0	0	0	0	0	0	0	0	17
12:45	0	1	8	7	2	0	0	0	0	0	0	0	0	18
<hr/>														
13:00	0	5	25	25	4	0	0	0	0	0	0	0	0	59
13:15	0	2	6	3	1	0	0	0	0	0	0	0	0	12
13:30	0	0	5	7	1	0	0	0	0	0	0	0	0	13
13:45	0	0	11	7	1	0	0	0	0	0	0	0	0	19
<hr/>														
14:00	0	2	5	9	2	0	0	0	0	0	0	0	0	18
14:15	0	4	27	26	5	0	0	0	0	0	0	0	0	62
14:30	0	2	3	8	1	0	1	0	0	0	0	0	0	15
14:45	0	2	9	5	3	1	0	0	0	0	0	0	0	20
<hr/>														
15:00	0	0	4	6	1	0	0	0	0	0	0	0	0	11
15:15	0	0	4	5	2	0	0	0	0	0	0	0	0	11
15:30	0	4	20	24	7	1	1	0	0	0	0	0	0	57
15:45	0	1	8	10	1	0	0	0	0	0	0	0	0	20
<hr/>														
16:00	0	0	8	11	3	0	0	0	0	0	0	0	0	22
16:15	0	0	7	3	3	0	0	0	0	0	0	0	0	18
16:30	1	4	7	3	3	0	0	0	0	0	0	0	0	18
16:45	0	0	11	8	2	0	0	0	0	0	0	0	0	21
<hr/>														
17:00	1	5	34	32	9	0	0	0	0	0	0	0	0	81
17:15	0	0	6	8	1	0	1	0	0	0	0	0	0	16
17:30	0	2	8	8	1	0	0	0	0	0	0	0	0	19
17:45	0	2	10	7	2	1	0	0	0	0	0	0	0	22
<hr/>														
18:00	2	4	5	9	0	0	0	0	0	0	0	0	0	20
18:15	2	8	29	32	4	1	1	0	0	0	0	0	0	77
18:30	0	1	7	7	1	0	0	0	0	0	0	0	0	16
18:45	0	3	5	5	1	1	0	0	0	0	0	0	0	15
<hr/>														
19:00	0	3	6	6	2	0	0	0	0	0	0	0	0	17
19:15	0	3	6	7	1	0	0	0	0	0	0	0	0	17
19:30	0	10	24	25	5	1	0	0	0	0	0	0	0	65
19:45	0	2	7	6	0	0	0	0	0	0	0	0	0	15
<hr/>														
20:00	0	1	9	9	2	0	0	0	0	0	0	0	0	21
20:15	0	0	11	9	0	0	0	0	0	0	0	0	0	20
20:30	0	0	11	9	0	0	0	0	0	0	0	0	0	20
20:45	0	2	6	6	1	1	0	0	0	0	0	0	0	16
<hr/>														
21:00	0	5	33	30	3	1	0	0	0	0	0	0	0	72
21:15	0	2	5	4	2	0	0	0	0	0	0	0	0	13
21:30	0	1	8	3	2	0	0	0	0	0	0	0	0	14
21:45	0	0	8	6	0	0	0	0	0	0	0	0	0	14
<hr/>														
22:00	0	0	16	3	0	1	0	0	0	0	0	0	0	20
22:15	0	3	37	16	4	1	0	0	0	0	0	0	0	61
22:30	0	4	5	5	0	0	0	0	0	0	0	0	0	14
22:45	0	0	11	5	1	0	0	0	0	0	0	0	0	17
<hr/>														
23:00	0	0	7	5	0	0	0	0	0	0	0	0	0	12
23:15	0	0	8	6	0	0	0	0	0	0	0	0	0	14
23:30	0	4	31	21	1	0	0	0	0	0	0	0	0	57
23:45	0	0	7	5	1	0	0	0	0	0	0	0	0	13
<hr/>														
24:00	0	1	5	3	0	0	0	0	0	0	0	0	0	9
24:15	0	1	4	3	2	0	0	0	0	0	0	0	0	10
24:30	0	1	4	3	2	0	0	0	0	0	0	0	0	10
24:45	1	0	5	3	1	0	0	0	0	0	0	0	0	10
<hr/>														
25:00	1	2	21	14	4	0	0	0	0	0	0	0	0	42
25:15	0	1	6	8	0	0	0	0	0	0	0	0	0	15
25:30	0	0	6	3	2	0	0	0	0	0	0	0	0	11
25:45	0	2	5	3	0	1	0	0	0	0	0	0	0	11
<hr/>														
26:00	0	0	3	2	0	0	0	0	0	0	0	0	0	5
26:15	0	3	20	16	2	1	0	0	0	0	0	0	0	42
26:30	0	1	4	3	0	0	0	0	0	0	0	0	0	8
26:45	0	1	3	0	0	0	0	0	0	0	0	0	0	4
<hr/>														
27:00	0	1	3	2	0	0	0	0	0	0	0	0	0	6
27:15	0	1	3	2	0	0	0	0	0	0	0	0	0	6
27:30	0	1	3	2	0	0	0	0	0	0	0	0	0	6
27:45	0	1	2	2	0	0	1	0	0	0	0	0	0	6
<hr/>														
28:00	0	4	12	7	0	0	1	0	0	0	0	0	0	24
Total	8	71	389	372	68	10	3	0	0	0	0	0	0	921

Percentile	15th	50th	85th	95th
Speed	20	24	28	30
Mean Speed (Average)	25.2			
10 MPH Pace Speed	21-30			

Number in Pace	752
Percent in Pace	83.0%
Number > 30 MPH	81
Percent > 30 MPH	8.8%

12:15	1	1	8	6	0	0	0	0	0	0	0	0	0	16
12:30	0	0	11	8	1	0	0	0	0	0	0	0	0	20
12:45	0	6	15	9	0	0	0	0	0	0	0	0	0	30
13:00	1	10	48	32	2	0	0	0	0	0	0	0	0	93
13:15	0	0	13	2	3	0	0	0	0	0	0	0	0	18
13:30	0	4	11	6	2	0	0	0	0	0	0	0	0	23
13:45	0	1	10	4	1	0	0	0	0	0	0	0	0	16
14:00	0	2	5	5	1	0	0	0	0	0	0	0	0	13
14:15	0	7	39	17	7	0	0	0	0	0	0	0	0	70
14:30	0	1	7	3	2	0	0	0	0	0	0	0	0	13
14:45	0	1	8	4	1	0	0	0	0	0	0	0	0	14
15:00	0	1	10	5	0	0	0	0	0	0	0	0	0	16
15:15	0	3	11	3	0	0	0	0	0	0	0	0	0	17
15:30	0	6	36	15	3	0	0	0	0	0	0	0	0	60
15:45	0	1	10	7	1	0	0	0	0	0	0	0	0	19
16:00	0	1	12	12	0	0	0	0	0	0	0	0	0	25
16:15	0	1	11	12	0	0	0	0	0	0	0	0	0	24
16:30	0	1	8	5	0	0	0	0	0	0	0	0	0	14
16:45	0	4	41	36	1	0	0	0	0	0	0	0	0	82
17:00	0	2	4	6	0	0	0	0	0	0	0	0	0	12
17:15	0	5	19	7	1	0	0	0	0	0	0	0	0	32
17:30	1	2	10	5	0	0	0	0	0	0	0	0	0	18
17:45	0	2	13	7	0	0	0	0	0	0	0	0	0	22
18:00	1	11	46	25	1	0	0	0	0	0	0	0	0	84
18:15	0	3	10	10	0	0	0	0	0	0	0	0	0	23
18:30	0	2	7	1	0	0	0	0	0	0	0	0	0	10
18:45	1	4	17	10	0	0	0	0	0	0	0	0	0	32
19:00	1	4	10	6	1	0	0	0	0	0	0	0	0	22
19:15	2	13	44	27	1	0	0	0	0	0	0	0	0	87
19:30	0	1	10	9	1	1	0	0	0	0	0	0	0	22
19:45	0	3	14	6	2	0	0	0	0	0	0	0	0	25
20:00	0	1	15	5	0	0	0	0	0	0	0	0	0	21
20:15	0	1	2	3	1	0	0	0	0	0	0	0	0	7
20:30	0	6	41	23	4	1	0	0	0	0	0	0	0	75
20:45	1	0	8	3	0	1	0	0	0	0	0	0	0	13
21:00	0	2	9	4	0	0	0	0	0	0	0	0	0	15
21:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
21:30	0	0	3	2	0	0	0	0	0	0	0	0	0	5
21:45	1	5	20	9	0	1	0	0	0	0	0	0	0	36
22:00	0	2	8	1	0	0	0	0	0	0	0	0	0	11
22:15	0	0	4	5	0	0	0	0	0	0	0	0	0	9
22:30	0	2	8	2	0	0	0	0	0	0	0	0	0	12
22:45	1	1	5	1	0	0	0	0	0	0	0	0	0	8
23:00	1	5	25	9	0	0	0	0	0	0	0	0	0	40
23:15	1	3	3	3	0	0	0	0	0	0	0	0	0	10
23:30	0	0	3	6	0	0	0	0	0	0	0	0	0	9
23:45	0	0	6	7	0	0	0	0	0	0	0	0	0	13
24:00	1	1	3	3	0	0	0	0	0	0	0	0	0	8
24:15	2	4	15	19	0	0	0	0	0	0	0	0	0	40
24:30	1	0	4	3	0	0	0	0	0	0	0	0	0	8
24:45	0	1	3	1	0	0	0	0	0	0	0	0	0	5
25:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4
25:15	0	0	3	1	0	0	0	0	0	0	0	0	0	4
25:30	1	1	12	6	1	0	0	0	0	0	0	0	0	21
25:45	1	1	1	1	0	0	0	0	0	0	0	0	0	4
26:00	1	0	3	0	1	0	0	0	0	0	0	0	0	5
26:15	0	0	4	0	0	0	0	0	0	0	0	0	0	4
26:30	0	0	0	1	0	1	0	0	0	0	0	0	0	2
26:45	2	1	8	2	1	1	0	0	0	0	0	0	0	15
Total	14	93	593	360	40	3	0	0	0	0	0	0	0	1103

Percentile	15th	50th	85th	95th
Speed	20	23	26	28
Mean Speed (Average)	24.3			
10 MPH Pace Speed	21-30			

Number in Pace	948
Percent in Pace	86.0%
Number > 30 MPH	43
Percent > 30 MPH	3.9%

12:15	0	4	5	16	8	5	0	0	0	0	0	0	0	38
12:30	1	1	8	16	10	0	0	0	0	0	0	0	0	36
12:45	2	2	10	25	13	1	0	0	0	0	0	0	0	53
	3	7	39	78	36	6	0	0	0	0	0	0	0	169
13:00	0	3	8	16	9	1	0	0	0	0	0	0	0	37
13:15	0	2	7	18	7	0	0	0	0	0	0	0	0	34
13:30	0	1	13	24	10	1	0	0	0	0	0	0	0	49
13:45	0	0	14	15	12	3	0	0	0	0	0	0	0	44
	0	6	42	73	38	5	0	0	0	0	0	0	0	164
14:00	0	1	9	20	8	2	0	0	0	0	0	0	0	40
14:15	0	2	10	15	8	2	1	0	0	0	0	0	0	38
14:30	0	1	11	20	13	0	0	0	0	0	0	0	0	45
14:45	1	1	10	21	11	3	0	0	0	0	0	0	0	47
	1	5	40	76	40	7	1	0	0	0	0	0	0	170
15:00	0	2	11	16	8	1	0	0	0	0	0	0	0	38
15:15	0	5	18	23	6	0	1	0	0	0	0	0	0	53
15:30	0	1	9	24	14	1	1	0	0	0	0	0	0	50
15:45	0	1	6	24	10	3	0	0	0	0	0	0	0	44
	0	9	44	87	38	5	2	0	0	0	0	0	0	185
16:00	0	2	15	20	9	2	0	0	0	0	0	0	0	48
16:15	0	0	9	22	7	1	0	0	0	0	0	0	0	39
16:30	0	3	9	21	8	1	0	0	0	0	0	0	0	42
16:45	0	4	11	25	11	1	1	0	0	0	0	0	0	53
	0	9	44	88	35	5	1	0	0	0	0	0	0	182
17:00	1	5	13	16	8	2	0	0	0	0	0	0	0	45
17:15	1	2	13	18	11	1	0	0	0	0	0	0	0	46
17:30	1	1	22	20	8	0	0	0	0	0	0	0	0	52
17:45	0	2	10	27	10	3	1	0	0	0	0	0	0	53
	3	10	58	81	37	6	1	0	0	0	0	0	0	196
18:00	0	1	14	17	8	0	0	0	0	0	0	0	0	40
18:15	0	0	18	33	19	0	0	0	0	0	0	0	0	70
18:30	0	0	8	25	7	1	0	0	0	0	0	0	0	41
18:45	0	1	13	28	10	4	0	0	0	0	0	0	0	56
	0	2	53	103	44	5	0	0	0	0	0	0	0	207
19:00	0	0	12	24	8	1	0	0	0	0	0	0	0	45
19:15	0	3	10	24	5	1	0	0	0	0	0	0	0	43
19:30	0	3	16	15	9	1	0	1	0	0	0	0	0	45
19:45	0	2	11	15	4	1	0	0	0	0	0	0	0	33
	0	8	49	78	26	4	0	1	0	0	0	0	0	166
20:00	0	4	11	19	10	0	0	0	0	0	0	0	0	44
20:15	0	0	13	15	3	3	0	0	0	0	0	0	0	34
20:30	0	0	14	14	5	0	0	0	0	0	0	0	0	33
20:45	0	1	7	11	10	2	1	0	0	0	0	0	0	32
	0	5	45	59	28	5	1	0	0	0	0	0	0	143
21:00	0	0	9	9	5	1	0	0	0	0	0	0	0	24
21:15	1	1	8	13	6	2	0	0	0	0	0	0	0	31
21:30	0	1	4	19	6	1	0	0	0	0	0	0	0	31
21:45	0	1	10	12	2	1	0	0	0	0	0	0	0	26
	1	3	31	53	19	5	0	0	0	0	0	0	0	112
22:00	0	1	4	10	1	0	0	0	0	0	0	0	0	16
22:15	0	0	7	8	3	0	0	0	0	0	0	0	0	18
22:30	0	2	1	9	5	2	0	0	0	0	0	0	0	19
22:45	0	1	7	10	1	0	0	0	0	0	0	0	0	19
	0	4	19	37	10	2	0	0	0	0	0	0	0	72
23:00	0	0	4	7	7	2	0	0	0	0	0	0	0	20
23:15	0	2	6	5	2	0	0	0	0	0	0	0	0	15
23:30	0	0	5	8	4	0	0	0	0	0	0	0	0	17
23:45	0	0	0	7	2	0	0	0	0	0	0	0	0	9
	0	2	15	27	15	2	0	0	0	0	0	0	0	61
Total	22	114	630	1027	447	67	9	1	0	0	0	0	0	2317

Percentile 15th 50th 85th 95th
 Speed 21 26 30 33
 Mean Speed (Average) 27.2
 10 MPH Pace Speed 22-31

Number in Pace	1644
Percent in Pace	72.0%
Number > 30 MPH	524
Percent > 30 MPH	22.6%

12:15	0	5	29	20	0	0	0	0	0	0	0	0	0	54
12:30	0	1	28	19	2	1	0	0	0	0	0	0	0	51
12:45	0	9	26	25	0	0	0	0	0	0	0	0	0	60
<hr/>														
13:00	0	16	115	82	4	1	0	0	0	0	0	0	0	218
13:15	0	1	32	20	0	0	0	0	0	0	0	0	0	53
13:30	0	2	39	17	1	0	0	0	0	0	0	0	0	59
13:45	0	2	35	19	0	0	0	0	0	0	0	0	0	56
<hr/>														
14:00	0	2	15	11	1	1	0	0	0	0	0	0	0	30
14:15	0	7	121	67	2	1	0	0	0	0	0	0	0	198
14:30	0	0	20	20	2	1	0	0	0	0	0	0	0	43
14:45	0	0	16	13	3	0	0	0	0	0	0	0	0	32
15:00	0	1	27	21	0	0	0	0	0	0	0	0	0	49
15:15	0	1	22	16	3	0	0	0	0	0	0	0	0	42
<hr/>														
15:30	0	2	85	70	8	1	0	0	0	0	0	0	0	166
15:45	0	3	28	16	1	0	0	0	0	0	0	0	0	48
16:00	0	5	38	19	0	0	0	0	0	0	0	0	0	62
16:15	0	4	27	27	2	0	0	0	0	0	0	0	0	60
16:30	0	1	19	14	2	0	0	0	0	0	0	0	0	36
<hr/>														
16:45	0	13	112	76	5	0	0	0	0	0	0	0	0	206
17:00	0	4	32	14	2	0	0	0	0	0	0	0	0	52
17:15	0	1	40	14	1	0	0	0	0	0	0	0	0	56
17:30	1	5	41	14	0	0	0	0	0	0	0	0	0	61
17:45	0	4	24	24	1	0	0	0	0	0	0	0	0	53
<hr/>														
18:00	1	14	137	66	4	0	0	0	0	0	0	0	0	222
18:15	0	3	33	25	1	0	0	0	0	0	0	0	0	62
18:30	0	3	22	23	3	0	0	0	0	0	0	0	0	51
18:45	1	3	30	21	2	0	0	0	0	0	0	0	0	57
<hr/>														
19:00	0	2	28	17	1	0	0	0	0	0	0	0	0	48
19:15	1	11	113	86	7	0	0	0	0	0	0	0	0	218
19:30	0	1	24	27	1	0	0	0	0	0	0	0	0	53
19:45	0	3	18	23	4	0	0	0	0	0	0	0	0	48
20:00	0	2	22	19	2	0	0	0	0	0	0	0	0	45
20:15	0	1	14	20	3	0	0	0	0	0	0	0	0	38
<hr/>														
20:30	0	7	78	89	10	0	0	0	0	0	0	0	0	184
20:45	0	4	14	18	2	0	0	0	0	0	0	0	0	38
21:00	0	0	21	15	3	1	0	0	0	0	0	0	0	40
21:15	0	2	5	11	1	0	0	0	0	0	0	0	0	19
21:30	0	1	8	8	0	0	0	0	0	0	0	0	0	17
<hr/>														
21:45	0	7	48	52	6	1	0	0	0	0	0	0	0	114
22:00	1	1	13	14	0	0	0	0	0	0	0	0	0	29
22:15	0	3	13	9	1	0	0	0	0	0	0	0	0	26
22:30	1	10	18	8	0	0	0	0	0	0	0	0	0	37
22:45	0	8	12	1	0	0	0	0	0	0	0	0	0	21
<hr/>														
23:00	2	22	56	32	1	0	0	0	0	0	0	0	0	113
23:15	1	3	9	3	0	0	0	0	0	0	0	0	0	16
23:30	0	0	10	4	7	0	0	0	0	0	0	0	0	21
23:45	0	1	12	13	1	0	0	0	0	0	0	0	0	27
<hr/>														
24:00	0	0	5	5	1	0	0	0	0	0	0	0	0	11
24:15	1	4	36	25	9	0	0	0	0	0	0	0	0	75
24:30	0	0	8	8	2	0	0	0	0	0	0	0	0	18
24:45	0	1	2	6	0	0	0	0	0	0	0	0	0	9
25:00	0	1	4	5	0	0	0	0	0	0	0	0	0	10
25:15	0	0	6	5	0	0	0	0	0	0	0	0	0	11
<hr/>														
25:30	0	2	20	24	2	0	0	0	0	0	0	0	0	48
25:45	0	1	4	7	2	0	0	0	0	0	0	0	0	14
26:00	0	0	2	3	2	0	0	0	0	0	0	0	0	7
26:15	0	0	5	3	0	0	0	0	0	0	0	0	0	8
26:30	0	0	1	4	1	1	0	0	0	0	0	0	0	7
26:45	0	1	12	17	5	1	0	0	0	0	0	0	0	36
Total	9	153	1458	1151	100	7	0	0	0	0	0	0	0	2878

Percentile	15th	50th	85th	95th
Speed	21	24	27	29
Mean Speed (Average)	25.0			
10 MPH Pace Speed	21-30			

Number in Pace	2596
Percent in Pace	91.0%
Number > 30 MPH	107
Percent > 30 MPH	3.7%