



Legislation Text

File #: 20-1136B, Version: 1

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Waive the first reading and pass the ordinance to establish a 25 mph speed limit for several subdivisions and streets across Naperville (requires six positive votes)

DEPARTMENT: Transportation, Engineering and Development

SUBMITTED BY: Michael Prousa, TED Project Manager

BOARD/COMMISSION REVIEW:

On October 1, 2020, the Transportation Advisory Board (TAB) recommended approval to establish a 25 mph speed limit at several subdivisions and streets across Naperville. (Approved 9-0)

BACKGROUND:

Several small subdivisions in Naperville have not had the neighborhood 25 mph speed limit established on their streets. Most of these streets, constructed in the mid 2010's or later, have been operating under the default 30 mph limit established by the Illinois Vehicle Code.

Staff from the Transportation, Engineering and Development Business Group (TED) has received several recent requests for speed limit signage and conducted a study to investigate the need for speed limits.

DISCUSSION:

The Study

The warrants used to establish speed limits are located in Section B of the Illinois Department of Transportation (IDOT) "Policy on Establishing and Posting Speed Limits" and the Illinois Vehicle Code. This IDOT policy uses the 85th percentile speed (the speed at which 85 percent of the vehicles are driving at or below) and other adjustment factors for potential conflicts such as the number of driveways, pedestrians, crashes, and on-street parking, to determine the recommended posted speed limit.

In total, 65 streets without established speed limits were included in the study. Most of the streets were cul-de-sacs so traffic data was collected at six different representative locations across the city. The study locations were chosen based on characteristics including length, number of driveways, and intersection streets.

The six studies were done from September 11 - September 18, 2020 at Centennial Court, Paisley Lane, Shandrew Drive, Formby Road, Castle Lawn Court and Heatherfield Circle. Maps of the streets with the proposed speed limits, as well as the representative locations, are attached.

Centennial Court

The 85th percentile, and the upper 10 mph pace, was 17 mph and 18.5 mph. The prevailing speed is the average of the 85th percentile and the upper 10 mph pace, which equates to 18 mph.

Paisley Lane

The 85th percentile, and the upper 10 mph pace, was 18.5 mph and 18.5 mph. The prevailing speed was 18.5 mph.

Shandrew Drive

The 85th percentile, and the upper 10 mph pace, was 29.5 mph and 29.5 mph. The prevailing speed was 29.5 mph.

Formby Road

The 85th percentile, and the upper 10 mph pace, was 22 mph and 22.5 mph. The prevailing speed was 22.5 mph.

Castle Lawn Court

The 85th percentile, and the upper 10 mph pace, was 26.5 mph and 27.5 mph. The prevailing speed was 27 mph.

Heatherfield Circle

The 85th percentile, and the upper 10 mph pace, was 26 mph and 27 mph. The prevailing speed was 26.5 mph.

Section B of the IDOT manual allows for adjustments when altering a speed limit due to road factors identified above. The following are the allowable conflict reductions for each street:

1. 10% for driveways
 - a. All six locations have greater than 61 driveway and street intersection conflicts per mile.
2. 5% for pedestrian
 - a. Centennial Court is the only location that is on a school walk route and therefore an adjustment is needed.
3. 0% for crashes
 - a. The crash rate is determined by comparing the amount of crashes on a given road to the citywide average per year. All six locations have a crash rate lower than 1.5 which equates to no adjustment.
4. 5% for parking

- a. All six locations have sufficient width for on-street parking.

Considering all the allowable reductions, the adjusted prevailing speed is calculated to be 14 mph for Centennial Court, 16 mph for Paisley Lane, 25 mph for Shandrew Drive, 19 mph for Formby Drive, 23 mph for Castle Lawn Court, 23 mph for Heatherfield Circle. The adjusted prevailing speed is set to the nearest 5 mph increment, which establishes a speed limit of 25 mph as the lowest possible speed limit in accordance with the IDOT manual and the Illinois Vehicle Code. The speed study worksheets illustrating the allowable reductions and location maps are attached.

Recommendations

The characteristics of the six streets are representative of conditions throughout the city on similar streets. The study warrants establishing a uniform 25 mph speed limit on the following streets:

No.	Streets	Area of Restriction
1	Amelia Court	Orleans Av to Terminus
2	Arrowwood Road	Nannyberry St to 248th Av
3	Ashwood Park Court	103rd St to Terminus
4	Bethany Court	Terrance Dr to Terminus
5	Birchgrove Drive	111th to Pond Willow Dr/Pond Willow Ct
6	Bourbon Court	Bourbon Ln/Elyse Ln to Terminus
7	Brabazon Court	Formby Ct/Formby Rd to Terminus
8	Brushwood Court	Heatherfield Cr to Terminus
9	Caliente Circle	248th Av (North) to 248th Av (South)
10	Castle Lawn Court	75th St to Terminus
11	Catherine Avenue	Charles Av to Cotswold Dr
12	Catherine Court	Cotswold Dr/Catherine Av to Terminus
13	Centennial Court	Jackson Av to Terminus
14	Colletta Circle	Plank Rd (West) to Plank Rd (East)
15	Compass Court	Hobson Rd to Terminus
16	Cotswold Drive	Chicago Av to Catherine Av/Catherine Ct
17	Declan Court	Naperville Wheaton Rd to Terminus
18	Elijah Drive	Shiva Ln/Shiva Ct to Mya Ct
19	Elyse Lane	Ursuline Av to Bourbon Ln/Bourbon Ct
20	Empress Drive	Trumpet Av to Lobo Ln (North)
21	Enclave Court	Book Rd to Terminus
22	Enterprise Court	North Aurora Rd to Terminus
23	Everwood Road	Wehrli Rd to Stonebriar Ct
24	Fisher Drive	Diehl Rd to Country Club Bl
25	Formby Court	Brabazon Ct/Formby Rd to Terminus
26	Formby Road	Formby Ct/Brabazon Ct to Perth Dr
27	Frontenac Court	North Aurora Rd to Terminus

28	Golf Ridge Circle	Shore Rd (North) to Shore Rd (South)
29	Heatherfield Circle	Naper Bl (North) to Naper Bl (South)
30	Kingsbridge Circle	Catherine Av (West) to Catherine Av (East)
31	Kingsley Court	Ring Rd to Terminus
32	Leona Mae Court	Plank Rd to Terminus
33	Lobo Court	Olcan Rd/Lobo Ln to Terminus
34	Lobo Lane	Olcan Rd/Lobo Ct to Empress Dr (South)
35	Madison Drive	Wolfs Crossing Rd to Monroe Ct/Monroe Av
36	Monroe Avenue	Wolfs Crossing Rd to Monroe Ct/Madison Dr
37	Monroe Court	Monroe Av/Madison Dr to Terminus
38	Murdcock Court	Hobson Rd to Terminus
39	Mya Court	Elijah Dr to Terminus
40	Nanak Court	Barkdoll Rd to Terminus
41	Nannyberry Street	103rd St to Terminus
42	Olcan Road	Wolfs Crossing Rd to Lobo Ct/Lobo Ln
43	Paisley Court	Paisley Ln/Rosedale Av to Terminus
44	Paisley Lane	Shandrew Dr to Rosedale Av
45	Pine Cone Court	Royce Rd to Terminus
46	Pinnacle Court	Ford Ln/Baker Ln to Terminus
47	Pond Willow Court	Birchgrove Dr to Terminus
48	Pond Willow Road	Cedar Dr to Birchgrove Dr
49	Rosedale Avenue	Shandrew Dr to Paisley Ct/Paisley Ln
50	Ryder Court	Perth Dr to Terminus
51	Saddlers Court	Hobson Rd to Terminus
52	Schillinger Court	Book Rd to Terminus
53	Shadow Creek Court	Torrey Pines Ct/Shadow Creek Ln to Terminus
54	Shadow Creek Lane	Hobson Rd to Torrey Pines Ct/Shadow Creek Ct
55	Shamrock Court	Hobson Rd to Terminus
56	Shandrew Drive	Ogden Av to Blakely Ln
57	Sharon Court	Leverenz Rd to Terminus
58	Shiva Lane	Wehrli Rd to Shiva Ct/Elijah Dr
59	Stonebriar Court	Everwood Rd to Terminus
60	Sutton Circle	Book Rd (North) to Book Rd (South)
61	Timber Trail Court	Naper Bl to Terminus
62	Torrey Pines Court	Shadow Creek Ct/Shadow Creek Ln to Terminus
63	Tramore Court	Plainfield/Naperville Rd to Terminus
64	Tranquility Court	Hobson Rd to Terminus
65	Winner's Cup Court	Plainfield/Naperville Rd to Terminus

FISCAL IMPACT:

Speed limit signs are placed at the entrances of a subdivision. From the above list, 24 locations will receive speed limit signage with for an estimated total cost of \$1,400.00.