Speed Limit Policy

City of Columbus, Minnesota
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DRAFT

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Real People. Real Solutions.

Certification

Speed Limit Policy

For

City of Columbus

0T4125270

XXXXX XX, 2022

PROFESSIONAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: ______________________________

Typed or Printed Name: ____________________

Date: ____________ License Number: ______

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Executive Summary

Recent Minnesota Statue changes in 2019 allow cities to set speed limits on streets under their jurisdiction. For cities to set their own speed limits they need a speed limit policy in place. Prior to this change, local authorities requested the Minnesota Department of Transportation (MnDOT) Commissioner to authorize a speed limit change based on an engineering and traffic investigation.

On July 14, 2021 the Columbus City Council approved a speed limit study to be completed as a precursor to establishing a speed limit policy. Bolton & Menk, Inc. was selected to perform this work. The study consists of data collection, standards and process development, a draft and final speed limit policy document, meetings, and implementation of the policy. The goal of the speed limit policy is to create a rational means for setting speed limits on local roads that effectively balances the need for public safety and transportation mobility. The City of Columbus intends to use this policy to establish speed limits and have a consistent procedure for changing speed limits under their jurisdiction.

Based on the local traffic conditions and speed limit setting research documented in this study, the key findings are:

- Crashes at higher speeds are more forceful and are therefore more likely to result in serious injury or fatality
- According to the Dangerous by Design report, the number of people struck and killed annually has grown by 45 percent between 2010 and 2019 and finds that policies are continued to be made that prioritize speedy movement of vehicles at the expense of the safety of all people who use the streets.
- The traditional approach of using the 85th percentile speed to set speed limits is no longer considered best practice.
- NCHRP 966 report presents speed limit setting procedure for any roadway type with an increased emphasis on designing for the context of the road. Multiple variables such as, roadway classification, adjacent land uses, and surface type are considered. The report states approximately one-quarter of all traffic fatalities are related to speeding.
- City owned streets generally service shorter local trips and have low traffic volumes. The streets also include on-street parking and are narrow, requiring oncoming vehicles to slow as they pass each other.
- Citizen feedback indicated that there is a general feeling that existing speed limits are too high or that they do not know the speed limits due to the absence of signage.
- Gravel roadways can be greatly impacted by speed as it relates to passing, parking, and for annual maintenance. It is also recognized that gravel roadways may have very few driveways and carry very low traffic volumes. Lower speeds are recommended under this policy but should be implemented judiciously as the Statutory Speed Limit may be acceptable at many locations for some time.
- All but two roads under the city of Columbus jurisdiction and therefore governed by this policy are local rural roadways.

The above key findings led to the following conclusions:

- Speed limits lower than 55 mph are justified because they:
    - Improve the livability and safety of the neighborhoods and residential areas
    - Improve the safety and mobility of pedestrians and bicyclists within the community
    - Facilitate the goal of eliminating traffic fatalities and severe injuries on city streets
- Current speeds on roadways in the community are lower than the statutorily allowed speed limits indicating that a lower speed limit would not be a significant change in driver behavior on most roadways.
- The roadways owned by the city of Columbus can be broken into five different types based on surface material and adjacent land use.
    1. Collector
        - Defined by MnDOT
    2. Local Undeveloped
        - Examples of adjacent land uses may be farms or businesses. Fewer driveway accesses that are spaced farther apart compared to the local residential roads.
    3. Local Residential
        - Adjacent land uses will be residential. The speed limit recommendation will consider additional characteristics such as driveway spacing, density of residential development and width of roadway.
    4. Local Undeveloped/Gravel
        - The speed limit on Local Undeveloped roadways with a gravel surface will be determined by also considering the roadway width, shoulder width, curvature/sight distance.
    5. Local Residential/Gravel
- Speed limits in Table ES 1 are recommended for each of the City of Columbus roadway types

Table ES 1: Recommended Speed Limits by Roadway Type

Roadway Type	Statute Speed Limit	Recommended Policy Speed Limit
Collector	55	45
Local Undeveloped	55	45
Local Residential	55	30-45
Local Undeveloped - Gravel	55	30-45
Local Residential - Gravel	55	30

- Speed limits in Table ES 2 are recommended speed limits on City of Columbus roadways

Table ES 2: Recommended Speed Limits

Location	Existing Speed Limt	Policy Recommendations	Roadway Type	NCRP Recommendation
Howard Lake Dr	35 mph	35 mph	paved	30-45
Camp 3 Rd	50 mph	45 mph	paved	30-45
		30 mph	gravel	30-45
Crossways Lake Dr	30 mph	30 mph	paved	30-45
Furman St - Crossways Lake Dr to 552' east	30 mph	30 mph	paved	30-46
Furman St - City limits to 552' east of Crossways Lake Dr	55 mph	45 mph	paved	30-45
Notre Dame St	50 mph	45 mph	paved	30-45
Lyons St	55 mph	40 mph	gravel	30-45
181st Ave	50 mph (40 truck)	45 mph	paved	30-45
153rd Ave	30 mph	30 mph	gravel	30-45

- City of Columbus roads recommended for immediate speed limit change:
  - Camp 3 Road
    - Collector – 45 mph
    - Local Residential Bituminous – 45 mph
    - Local Undeveloped Gravel – 30 mph
  - Notre Dame Street – Local Residential
    - 45 mph (section adjacent to school to remain posted 35 mph)
  - Lyons Street
    - Kettle River Blvd south to county line – Local Undeveloped – 45 mph
    - Broadway Ave north to county line -Local Undeveloped/Gravel – 35 mph
  - Furman Street
    - 165th Avenue to Broadway Avenue – Local Undeveloped/Gravel – 30 mph
    - Crossways Lake Drive to Rondeau Lake Dr– Local Residential – 45 mph
    - Adjacent to roadway curve between 14719 Furman and 8023 Crossways Lake Dr maintain the posted 30 mph speed limit (Figure ES-1)
  - DePaul St
    - 172nd Court to end of street - Local Residential - 30 mph
  - 170th Avenue
    - Potomac St to DePaul St - Local Residential/Gravel - 30 mph
    - Kettle River Blvd to Dimaggio St – Local Residential – 30 mph
  - 172nd Avenue
    - Kettle River Blvd to Dimaggio St – Local Residential – 30 mph
    - Notre Dame St to end of street – Local Residential – 30 mph
  - 181st Avenue
    - Kettle River Blvd to Loyola St – Local Residential - 45 mph
    - Loyola St to end of street – Local Residential – 35 mph

- A portion of Crossways Lake Drive and Furman Street is posted 30 mph. Per the city of Columbus Speed Limit Policy, this section of road would be classified as a local residential with an associated 30-45 mph speed limit. Recommend change speed limit on Crossways Lake Drive to 30 mph. The section of Furman Street outside the curve recommend speed limit 45 mph.

Figure ES 1: Crossways Lake Dr and Furman St Map

- Speed limit changes on remaining city owned streets may be implemented by the Superintendent of Public Works, City Engineer, or request from City Council.
- Speed limit changes on remaining city owned streets to be implemented upon citizen request in accordance with this policy.
- Speed limit changes to be implemented due to adjacent development changes. This is typically applicable when the adjacent roadway area transitions from undeveloped to residential.
- Speed limit changes to be implemented when a roadway is constructed or reconstructed that changes the roadway context or functional classification. This is typically applicable when a roadway changes from a local to collector functional classification or in conjunction with adjacent development.

- Speed limit changes not in accordance with this policy will not be considered unless a separate traffic speed study is conducted and approved by the City.
- Speed limits to non-city owned streets (county and state-owned roadways or privately owned streets) are not covered under this policy.
- As conditions change, this policy may be updated to reflect the latest national guidance on speed limits as it related to street function, adjacent land use, context, and design.

I. Background and Legislative Authority

Motor vehicle speed is a major threat to public health and safety in the U.S. In 2019, the National Highway Transportation Safety Administration (NHTSA) reported that speeding killed 9,478 people, and speeding has been involved in approximately one-third of motor vehicle fatalities for more than two decades. As these deaths typically take place in isolated small numbers over the course of the year, they tend to not attract the attention they are due as a major factor in public injuries and fatalities. Yet speeding endangers the life of the speeder and all people on the road around them. Efforts to reduce speed have broad social health and safety benefits.

NHTSA recommends a variety of speed management guidance, such as appropriate road design, marketing campaigns, and using law enforcement and technology judiciously. One prominent tool is to set speed limits that are safe and reasonable.

In May 2019, the Minnesota legislature passed two provisions that allow cities increased authority to set their own speed limits on local roads. These went into effect August 1, 2019.

> Minnesota State Statute, Section 169.14, Subd. 5h. **Speed limits on city streets**. A city may establish speed limits for city streets under the city's jurisdiction other than the limits provided in subdivision 2 without conducting an engineering and traffic investigation. This subdivision does not apply to town roads, county highways, or trunk highways in the city. A city that establishes speed limits pursuant to this section must implement speed limit changes in a consistent and understandable manner. The city must erect appropriate signs to display the speed limit. A city that uses the authority under this subdivision must develop procedures to set speed limits based on the city's safety, engineering, and traffic analysis. At a minimum, the safety, engineering, and traffic analysis must consider national urban speed limit guidance and studies, local traffic crashes, and methods to effectively communicate the change to the public.

The legislature also passed section 169.011, Subd 64, which expands the definition of a residential roadway as:

> "…a city street or town road that is either (1) less than one-half mile in total length, or (2) in an area zoned exclusively for housing that is not a collector or arterial street."

Together, these changes provide local cities with the ability to set speed limits on streets within their jurisdiction, provided that a safety, engineering, and traffic analysis has been completed and a policy has been established that establishes speed limits in a consistent and understandable manner. This Speed Limit Policy document is the analysis that allows the City of Columbus to set speed limits on local roads.

II. Local Policy

Existing city plans, policies and directions relevant to speed limits are detailed in the following sections.

Current Policy on Speed Limits

The City of Columbus' current speed limit policy follows regulations for setting speed limits per Minnesota State Statute 169.14, Subd. 2. Table 1 shows the maximum speed limits allowable per this statute.

Table 1: MN Statutory Speed Limits

MN Statutory Maximum Speed Limits	
Speed (MPH)	**Roadway/District Type**
30	Urban District[1]
65	Non-Interstate Expressways and Freeways
55	Other Locations Not Specified
70	Interstate Highways Outside the Limits of an Urbanized Area
65	Interstate Highways Inside the Limits of an Urbanized Area
10	Alleys
25	Residential Roadways[2]
35	Rural Residential District[2]

1 – Definitions for each district type is provided in MSS 169.011.

2 – The local road authority is required to erect signs designated the speed limit and indicating the beginning and end of the residential roadway or rural residential district for which the speed limit applies.

Columbus Comprehensive Plan

Columbus adopted an updated Comprehensive Plan in October 2019. This document includes a chapter on transportation, characterizing existing conditions, the roadway system plan, and considerations for various modes.

The transportation chapter outlines roadway functional classification and jurisdiction in the city. The main arterial roads within the Columbus city boundaries are under the jurisdiction of the Minnesota Department of Transportation (MnDOT, TH 97, I-35E and I-35W) and Anoka County (West Broadway Avenue/County State Aid Highway [CSAH] 18, Kettle River Boulevard/CSAH 62, Potomac Street NE/CSAH 19, Lake Drive NE/CSAH, Lexington Avenue NE/CSAH 17, W. Freeway Drive/CSAH 54). These roads are not under the city's jurisdiction, the city does not control these roads, and they will not be governed by this Speed Limit Policy.

All other roads in Columbus are either local, municipal streets, or DNR roads within the Carlos Avery Wildlife Management Area. Only two roads are designated as major collector roads – Camp 3 Road NE between Potomac Street NE (CSAH 19) and Lake Drive NE (CSAH 23) and Pine Street between Jodrell Street and Lake Drive NE. The City of Columbus does have the jurisdiction to set speed limits on all these roads.

Figure 1: City Owned Street Map

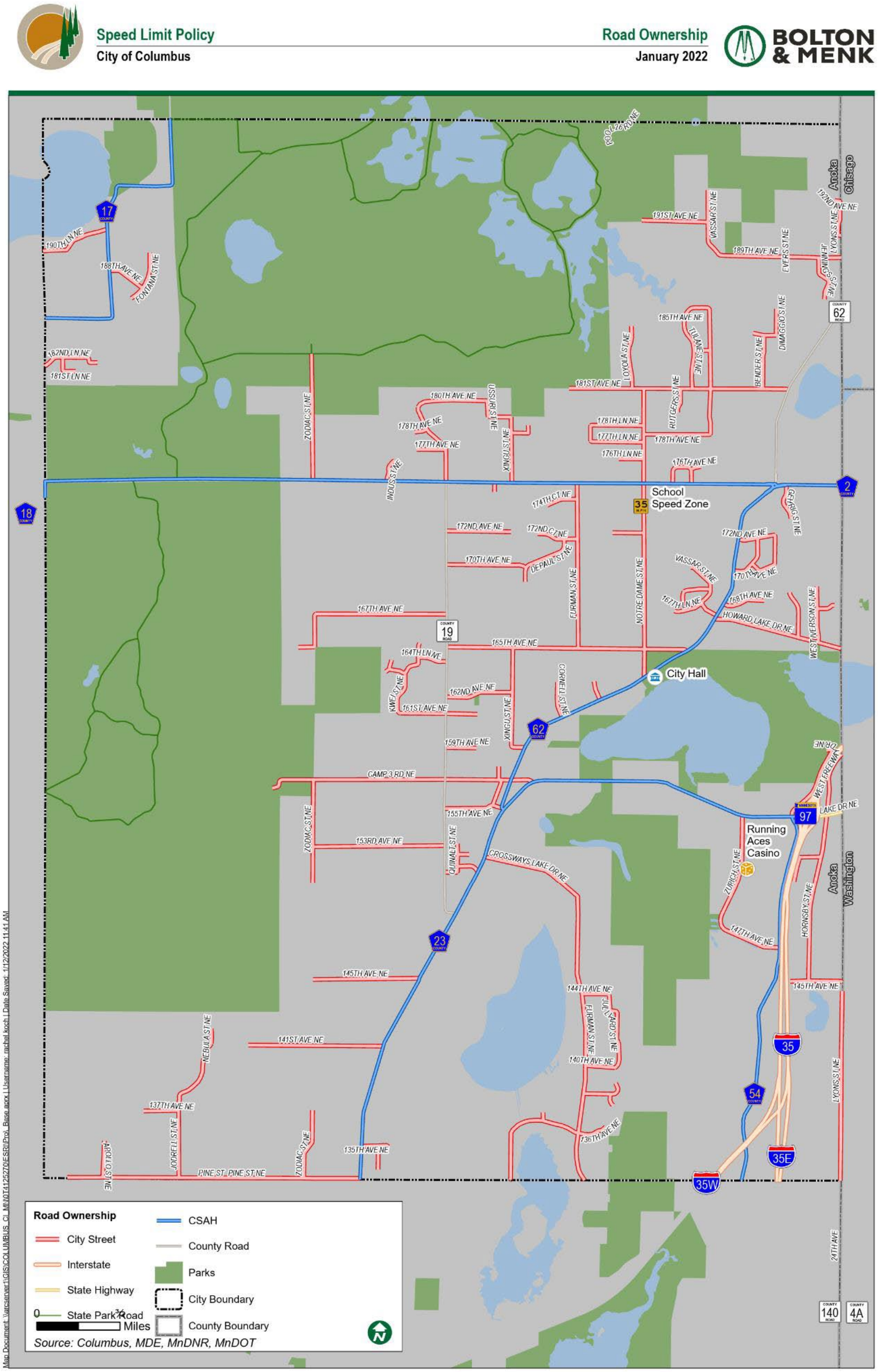
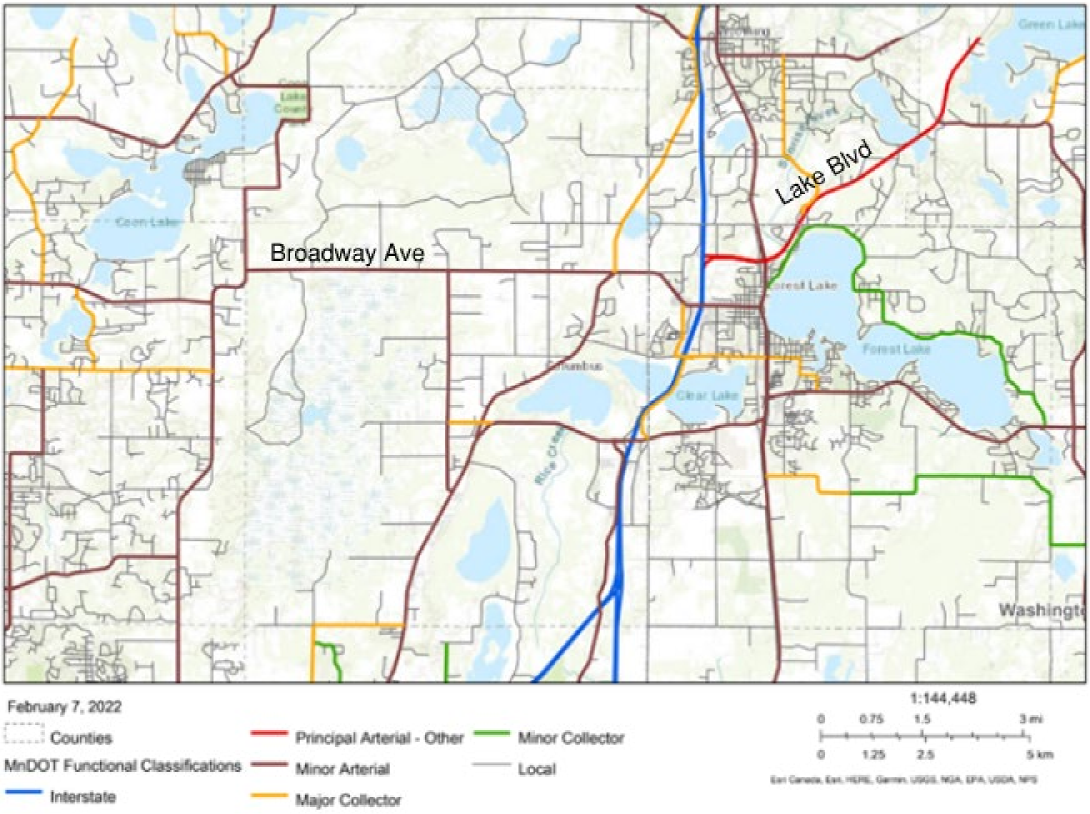


Figure 2: Roadway Functional Classification Map



The transportation chapter did not indicate major traffic safety or operational concerns within the city as of 2019. Traffic is characterized as mainly low volume, and there are few serious traffic crashes, with the exception of the I-35 corridors, which are not under the city's jurisdiction. Due to significant crash history at the CSAH 62 and Camp 3 Road intersection, the city recently completed a traffic study with Anoka County. A 2026-2027 Highway Safety Improvement Program (HSIP) application was then submitted to request funds to install a roundabout and reduce access points to the county highway system at the CSAH 23 and CSAH 62 intersection. Traffic crashes are also prevalent near the interstate interchange area (CSAH 23/I-35). Construction was completed on a full interchange construction at this location in 2020, with implementation of a diverging diamond interchange (which has significant crash reduction benefits). A roundabout was simultaneously constructed for a realigned segment of W. Freeway Drive (CSAH 54) and CSAH 23 (the realignment was necessary to meet access management requirements with regard to the I-35 interchange ramps). The roundabout design also has crash safety benefits.

The southeast sector of Columbus along CSAH 23 and CSAH 54 are likely to be main areas for development and densification in coming years because of proximity to the CSAH 23 / I-35 interchange and proximity to fast growing Forest Lake. This will result in increased traffic and traffic-related safety hazards.

The comprehensive plan does not include mention of speed limits or policy directives.

III. Speed Limit Goals

The goal of the City of Columbus speed limit policy is to create a rational means for setting speed limits on local roads that effectively balances the need for public safety and transportation mobility.

IV. National Guidance & Safety Research

Speeding is now widely recognized as a significant danger to public health and traffic safety. In addition to the aforementioned NHTSA statistics on the gravity of the speeding problem, a variety of national research and guidance exists about the benefits of lowering speed limits and policies and procedures to enact these changes. Minnesota in the past has typically used the 85th percentile speed method as the standard for setting speed limits throughout the state.

National Cooperative Highway Research Program (NCHRP) Report 966 (2021)

This NCHRP report, entitled "Posted Speed Limit Setting Procedure and Tool: User Guide (2021)," provides guidance for transportation professionals to make informed decisions on setting speed limits.[1] It introduces a Speed Limit Setting Procedure and associated Speed Limit Setting Tool. The methodology is intended for use with any roadway type.

The NCHRP Report 966 discusses the shortcoming in the use of the 85th percentile speed method for setting speed limits. The 85th percent method records how fast vehicles travel on a road and then determines the speed that 85 percent of drivers are traveling at or below. The new speed limit is set to the nearest 5 mph increment. This method rests upon an assumption that drivers act in a reasonable and prudent manner. One problem is that drivers may not be aware of all the conditions present within a corridor, and the 85th percentile doesn't adequately consider the needs of vulnerable road users.

The NCHRP 966 report presents a procedure to calculate a suggested speed limit, a four-step decision-making process for calculating a suggested speed limit, variables used within the decision-making procedure, and an overview of the Speed Limit Setting Tool provided. It includes a literature review and discussion of the relationship between speed limits and crashes, and the debate about setting speed limits.

The speed limit setting procedure recommended includes identifying roadway context (a spectrum ranging from rural to urban core) and roadway type (functional classification ranging from freeways to local streets). The report suggests a matrix of target speeds based on these two factors (Table 2).

[1] National Academies of Sciences, Engineering, and Medicine 2021. Posted Speed Limit Setting Procedure and Tool: User Guide. Washington, DC: The National Academies Press. https://doi.org/10.17226/26216.

Table 2: NCHRP 966 Speed Limit Recommendations

Suggested Target Speed by Roadway Context and Type					
Context and Type	**Rural**	**Rural Town**	**Suburban**	**Urban**	**Urban Core**
Limited Access Freeway	High 50 mph +	High 50 mph +	High 50 mph +	High 50 mph +	High 50 mph +
Principal Arterial	High 50 mph +	Low to Medium 45 mph -	Medium to High 30 mph +	Low to Medium 45 mph -	Low 25 mph -
Minor Arterial	High 50 mph +	Low to Medium 45 mph	Medium 30-45 mph	Low to Medium 45 mph	Low 25 mph -
Collector	Medium 30-45 mph	Low 25 mph -	Medium 30-45 mph	Low 25 mph -	Low 25 mph -
Local	Medium 30-45 mph	Low 25 mph -	Low 25 mph -	Low 25 mph -	Low 25 mph -

Source: NCHRP Research Report 966

https://www.nap.edu/catalog/26216/posted-speed-limit-setting-procedure-and-tool-user-guide

https://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=4052

City Limits, 2020 (NACTO)

The National Association of City Transportation Officials, or NACTO, is an association of 92 major North American cities and transit agencies formed to exchange transportation ideas and work cooperatively to approach transportation issues relevant to urban areas. One of NACTO's features over the past decade has been the production of a wide range of guidance documents on urban transportation issues ranging from transit to bicycling to connected and autonomous vehicles. NACTO tends to be out in front of the traditional engineering and policy guidance available.

NACTO published *City Limits* in 2020 to develop guidance for cities setting speed limits on urban streets that serve as an alternative to traditional, highway-focused recommendations.[2] As with other resources, *City Limits* conveys that motor vehicle speed plays a key role in fatal and serious crashes, and that changes that effectively reduce speeds help to save lives. Resources and guidance available to most transportation planning and engineering practitioners, however, are lacking.

The *City Limits* document explains why speed is a particular problem and central factor in traffic deaths. Crashes at higher speeds are more forceful and are therefore more likely to result in serious injury or fatality. Drivers traveling a high rate of speed have a narrower field of vision to the front and are therefore less aware of people, vehicles, and objects in the wider periphery of their area. Drivers traveling at high speeds travel a longer distance before they are able to react and make a countermeasure to prevent a crash. And relatedly, vehicles traveling at high speeds have a longer braking distance to come to a stop or lessen the force of impact before a crash.

City Limits explains that fatal crashes in the U.S. are disproportionately clustered on a small group of high speed, auto-oriented urban arterial streets, where different types of road users share

[2] NACTO. 2020. *City Limits: Setting Safe Speed Limits on Urban Streets*. URL: https://nacto.org/wp-content/uploads/2020/07/NACTO_CityLimits_Spreads.pdf

space and must interact frequently. These roads tend to have speed limits between 35 and 45 miles per hour, and include features such as wide lanes, sweeping turn radii, and few places for people to cross on foot.

Traditional setting of speed limits uses the 85th percentile method. The problem with this method, per *City Limits*, is that speed limits are set based on driver behavior, rather than to meet safety goals. This method is a moving target – it rewards extremes by pushing up the legal speed limit based on social behavior that is dangerous. The 85th percentile originally assumed that people will travel at what might be considered reasonable speeds, but research now shows that people tend to react to their environment reading the cues of street design, posted speed limit, and the actions of their fellow drivers more than any overarching sense of reasonableness.

City Limits cites case studies to support the need for a different and more proactive approach to lowering speed limits:

- In Toronto, researchers found that lowering speed limits from 40 kph to 30 kph (25 to 19 mph) there was a 28% decrease in the number of collisions between pedestrians and motor vehicles and a 67% decline in the number of fatal and serious injuries on streets with speed limit reductions.
- In Seattle, the city replaced existing 30 mph signs placed one mile apart with 25 mph signs placed ¼ mile apart on a 1.3 mile stretch of urban road, resulting in reductions in 85th and 50th percentile speeds and reductions in all crashes and injury crashes. This took place with no increased marketing, enforcement, or engineering changes.

City Limits provides three tools for setting speed limits on urban streets:

- Setting default speed limits on many streets at once.
- Designating slow zones in sensitive areas.
- Setting corridor speed limits on high priority major streets using a safe speed study.

The general recommendations for urban streets are 10 mph on shared streets and alleys, 20 mph for minor streets, and 25 mph on major streets. If slow zones are desired, these need to be defined – such as for a school area, park, neighborhood, or commercial district.

The report recommends that cities use a process such as the Safe Speed Study as outlined in *City Limits*. This involves four steps – 1) Collect before data (corridor conditions, speed, crash history), 2) Analyze existing conditions (activity level, conflict density), 3) Determine the best option for speed management, and 4) Conduct an evaluation (pre- and post-implementation data comparison). The report gives specific guidance for each step, including a robust toolbox of potential interventions.

Dangerous by Design, 2021 (Smart Growth America)

Smart Growth America has been producing its *Dangerous by Design* report annually for more than a decade, and they note in their most recent edition that the annual total of pedestrian deaths continues to climb with each new edition.[3] The number of people struck and killed annually has grown by 45 percent between 2010 and 2019, and almost every state in the U.S. has grown more dangerous for people walking. *Dangerous by Design* finds that we continue to make policy choices that prioritize speedy movement of vehicles at the expense of the safety of all people who use our streets. The report also finds fault with many areas of emphasis aimed at addressing these deaths, including a focus on enforcement, educational campaigns, and victim blaming, while not changing the design or engineering choices that underly the transportation system. Designing roads for high speeds increases the chances that a person struck while walking will be killed, and conversely designing intentionally for lower speeds has a converse effect: better driving behavior, fewer mistakes, and less deadly consequences. The study notes that older adults, black or African American and American Indian or Alaska Native people, and all people walking in low-income communities are disproportionately represented among crashes involving people walking.

Dangerous by Design calls for these approaches to counter the upward trend in pedestrian fatalities:

- Federal policy changes to how we fund, design, and measure the success of streets to make safety the highest priority, especially for the most vulnerable people
- More and better data on streets and conditions related to crashes and fatalities
- Prioritization of traffic enforcement and revised vehicle safety standards to better protect pedestrians
- State performance measures to reduce the number of walking deaths, including decreased emphasis of minimizing roadway delay for vehicles, and providing engineers with up-to-date training on implementing complete streets and other policy updates supporting complete streets

V. Examples from Other Cities

Several Twin Cities municipalities have completed speed & safety studies and some have also adopted and implemented policies since 2019. This includes the cities of Minneapolis, Saint Paul, Saint Louis Park, and Edina.

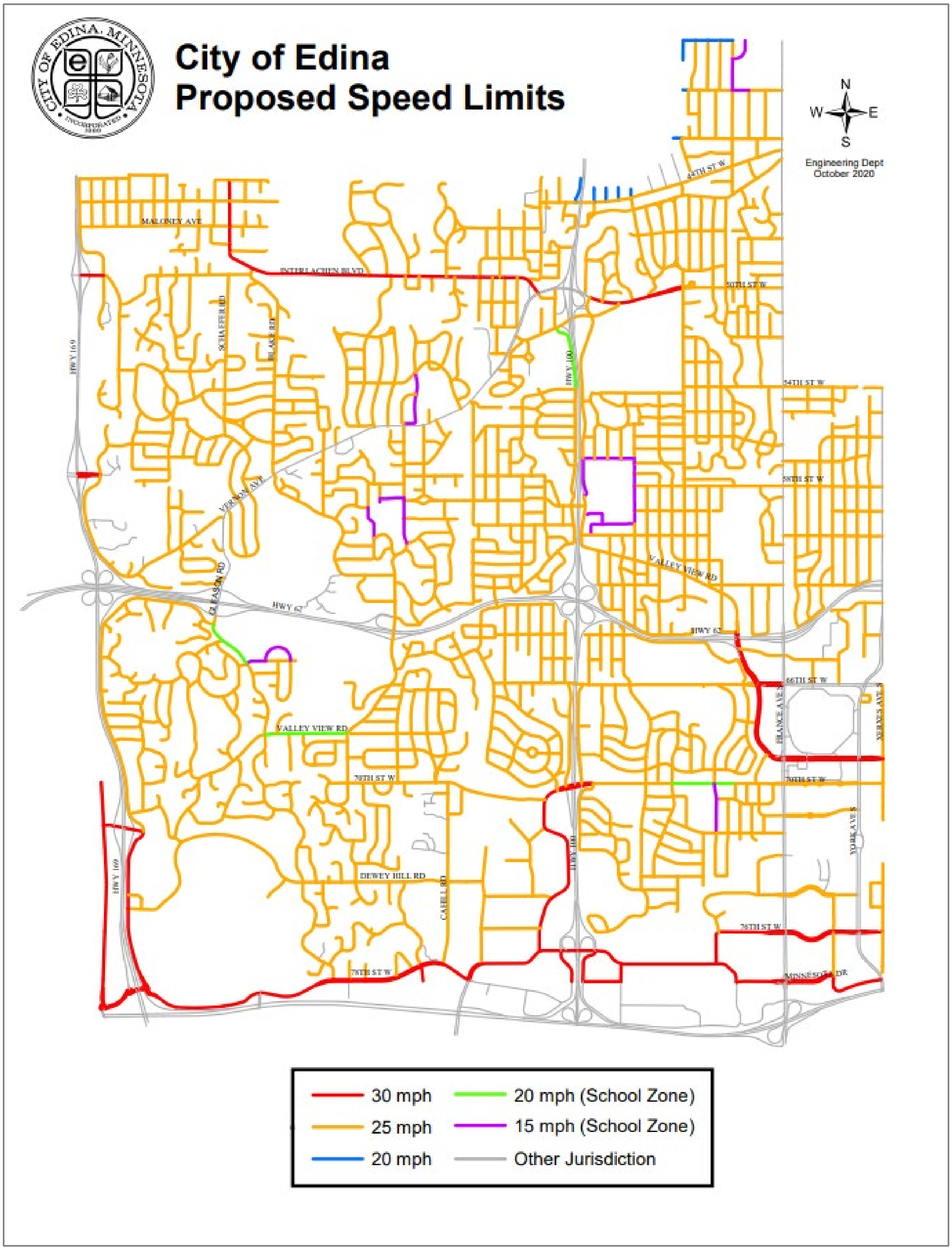
Edina

The City of Edina undertook and prepared a report and policy in 2020, followed by an implementation plan, council action, and implementation of the lower speed limits in 2021.[4] Speeds on most city streets were reduced from 30 to 25 mph, and Edina launched the “Drive 25” campaign through a variety of media to educate the public about the changes. Staff plan to evaluate data for a period of two years before and after implementation and recommend additional needs for enforcement, education, and infrastructure as a result. The total cost of implementing this change was estimated to be $10,000, consisting of signage and communications efforts.

[3] Smart Growth America. 2021. *Dangerous by Design 2021*. https://smartgrowthamerica.org/wp-content/uploads/2021/03/Dangerous-By-Design-2021-update.pdf

[4] City of Edina. 2021. Local Speed Limit Evaluation. URL accessed 2/14/22 at https://www.bettertogetheredina.org/speed-limit-plan.

Figure 3: Edina Speed Limit Map



Edina's Proposed Speed Limit Map, October 2020

Minneapolis and Saint Paul

The City of Minneapolis completed a speed limit evaluation study in 2020 as a component of its work on a larger Vision Zero plan.[5] The recommendations included setting speed limits to 10 mph for alleys and Nicollet Mall, 20 mph on minor streets, 25 mph on most major city streets, and 35 mph on several short segments of major city streets based on conditions. This policy did not affect speed limits for other jurisdictions owning and operating streets in Minneapolis – MnDOT, Hennepin County, the Minneapolis Parks Board, and the University of Minnesota. Minneapolis found that these changes were needed to manage its public right-of-way to protect the public health, safety, and welfare; to support city policies; to align with emerging national best practices for urban street operations; and to support the comprehensive approach to Vision Zero.

The City of Saint Paul completed a speed limit evaluation in March of 2020.[6] The purpose of the evaluation was to support the city's goal of zero traffic deaths and severe injuries; improve the safety and comfort of people of all abilities walking, bicycling, and using public transportation; support the movement of people and goods; and to be consistent, understandable, reasonable, and appropriate for an urban context. Saint Paul recommended speed limits of 20 mph on minor streets and 25 mph on major streets.

Minneapolis partnered with Saint Paul to implement changes on the same timeline in November 2020. This also included a similar approach and communication strategy, with key decisions for process, analysis, recommendations, and implementation made jointly between both cities. Both cities rolled out a coordinated communications plan that included neighborhood signage, and social media messaging and other online content.

Figure 4: Minneapolis and Saint Paul Speed Limit Implementation

Minneapolis and Saint Paul "20 Is Plenty" yard signs are free to residents and businesses. Photo by City of St. Paul.

[5] City of Minneapolis. 2020. City of Minneapolis Speed Limit Evaluation. URL accessed 2/14/22 at https://www.minneapolismn.gov/media/-www-content-assets/documents/Speed-Limits-Evaluation.pdf.
[6] City of Saint Paul. 2020. Saint Paul Speed Limit Evaluation. March 12, 2020. Accessed 2/14/22 at https://www.stpaul.gov/sites/default/files/Media%20Root/Public%20Works/20200312-Final%20-%20Saint%20Paul%20Speed%20Limit%20Evaluation.pdf.

St. Louis Park

St. Louis Park changed its speed limits in 2021, making 20 mph the default speed on local streets unless otherwise noted. The city completed its speed limit evaluation in July 2021, with the goals to eliminate traffic fatalities and serious injuries, prioritize pedestrians over vehicular traffic, and to ensure equitable outcomes for all people using the city's transportation system.[7]

St. Louis Park adopted a category approach for speed limits, with 20 mph for lower traffic roads, 25 mph on medium traffic roads, and 30 mph on high traffic roads. It implemented this policy with a signage plan, retiming of traffic signals, and communications/outreach. No resources were anticipated for enforcement activities.

VI. Crash Analysis

Crash analysis was reviewed for the previous five (5) years on Columbus city owned streets. There was a total of 18 collisions, no pedestrian collisions, and only one collision that speeding was identified as the contributing factor (Furman St NE between 140th Avenue and 144th Avenue). Table 3 breaks down these collisions by severity and type. The MN Office of Traffic Safety publishes annual Crash Facts Reports, see figure below of the 2020 crashes listed by county. The city of Columbus is located within Anoka County. Of the 3,071 crashes in Anoka County two of them occurred on streets owned by the city of Columbus. The full 2020 Crash Fact Report can be found in the Appendix.

Table 3: Crash Severity and Type

Year	Crash Severity				
	Fatal	Serious Injury	Minor Injury	Possible Injury	PDO
2017	0	1	3	0	2
2018	0	0	2	0	1
2019	0	0	1	0	5
2020	0	0	1	0	1
2021	0	0	0	0	1
Total	**0**	**1**	**7**	**0**	**10**

Columbus Owned Streets	
Crash Type	Frequency
Single Vehicle Run Off Road	3
Sideswipe (Passing)	1
Rear End	4
Head On	2
Left Turn	2
Angle	4
Other	2

[7] City of St. Louis Park. 2021. Speed Limit Evaluation.

Figure 5: 2020 County Crash Report

Table 1.15: County Crash Report

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Aitkin	3	49	94	146	3	66
Anoka	17	811	2,243	3,071	17	1,104
Becker	7	90	154	251	8	132
Beltrami	5	64	143	212	5	93
Benton	3	119	413	535	3	169
Big Stone	2	12	23	37	2	17
Blue Earth	4	205	646	855	4	280
Brown	0	45	134	179	0	61
Carlton	3	70	222	295	3	98
Carver	5	252	566	823	5	340
Cass	7	76	157	240	7	116
Chippewa	0	23	73	96	0	31
Chisago	5	124	365	494	6	183
Clay	6	104	357	467	7	142
Clearwater	1	15	33	49	1	23
Cook	2	14	49	65	2	20
Cottonwood	2	22	70	94	3	32
Crow Wing	6	194	492	692	6	267
Dakota	14	1,104	3,387	4,505	15	1,500
Dodge	3	40	89	132	3	54
Douglas	5	101	239	345	5	156
Faribault	4	42	68	114	4	58
Fillmore	1	59	86	146	2	76
Freeborn	4	100	312	416	4	133
Goodhue	4	151	521	676	4	231
Grant	1	23	50	74	1	37
Hennepin	41	4,231	11,296	15,568	46	5,760
Houston	1	33	83	117	1	42
Hubbard	2	76	94	172	2	97
Isanti	7	125	234	366	8	192
Itasca	6	113	247	366	8	157
Jackson	0	29	81	110	0	39
Kanabec	4	37	51	92	4	51
Kandiyohi	3	150	375	528	3	210
Kittson	0	7	6	13	0	7

Source: *2020 Annual Minnesota Motor Vehicle Crash Facts Report*

VII. Local Traffic Conditions

According to the 2040 Comprehensive Plan, the city of Columbus, MN is mostly comprised of Diversified Rural land areas. This is a lower intensity community with a variety of farm and nonfarm land uses including very large-lot residential, hobby farms, and agricultural uses. These types of land uses create a roadway with fewer driveway entrances located farther apart. To further understand local traffic conditions roadway characteristics such as surface type, width, and existing speed limits were gathered to create the following maps.

Figure 6: Existing Speed Limit Map (2021)

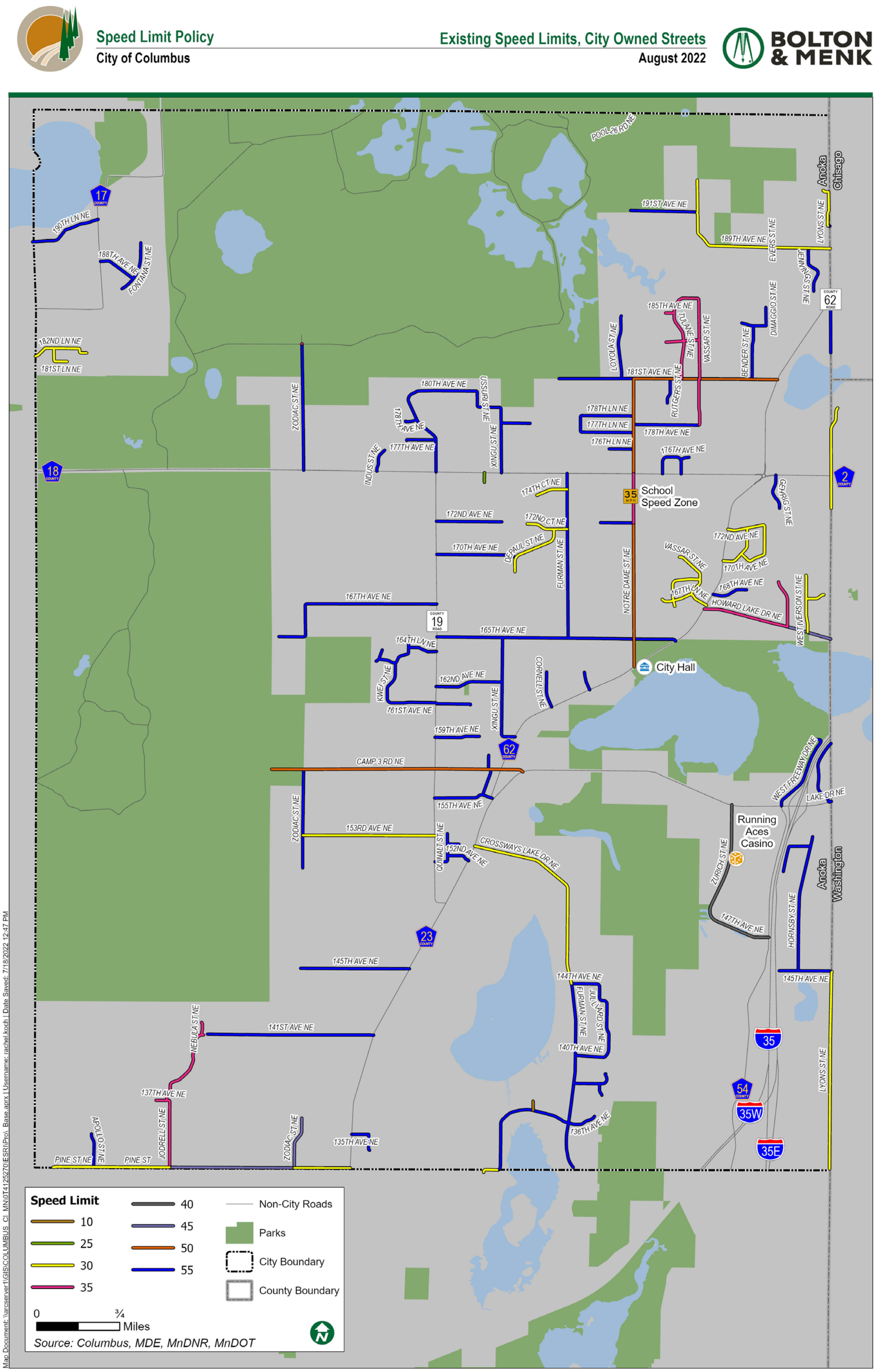
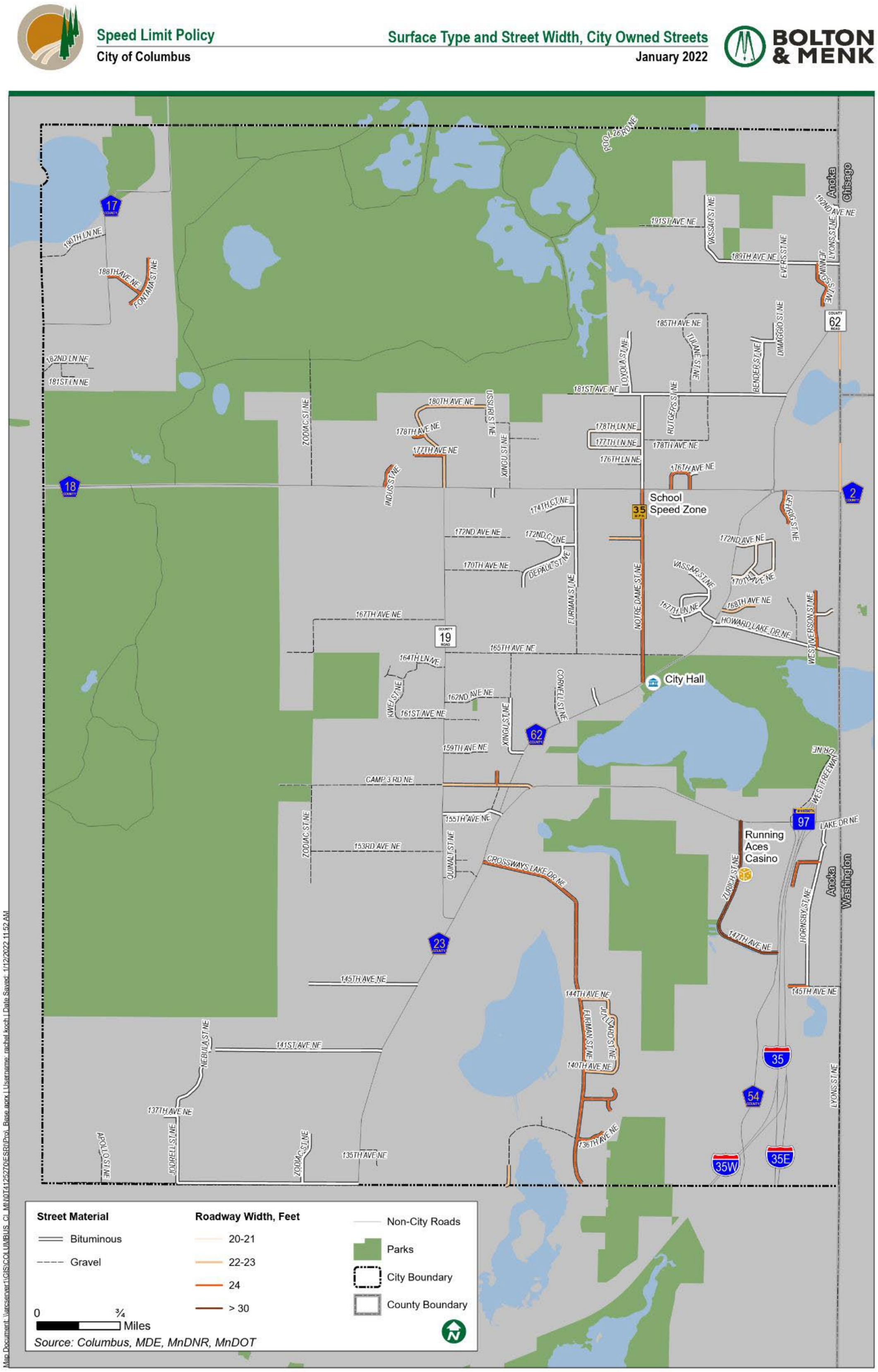


Figure 7: Roadway Surface Type and Width Map



Community input was collected to provide a local perspective toward speed limits, driver speeds, and safety. SurveyMonkey was available from the end of October 2021 through December 2021. The city posted the survey on their website. 39 citizens submitted responses. Recommendations were received to post speed limit signs on all streets and to increase enforcement. There was also a general consensus that the current speed limit may be too high. Below is a summary of the streets identified and associated feedback. Full responses can be found in the Appendix.

Table 4: Citizen Feedback

Citizen Feeback	
Location	**Comment**
Camp 3 Rd	Lower speed limit needed
	There are many walkers and more families now, and drivers often go way too fast, well over the posted 50 mph (which is too high). I think it has become a broadway shortcut for some
	Primarily the dirt section. Residents or non residents use it as a race track many times. Residents from 153rd or Zodiac will use Camp 3 Rd. 153rd is posted 30 mph and Camp 3 is unposted.
	Dirt Section Much Lower. Not posted presently, which would be 55 if unposted. Anything above 30 mph is hazardous to wildlife, pets or residents whether walking or driving on the road
	Camp 3 Rd between Potomac and Kettle River. There are no shoulders, no room to move over and cars will shove you literally into the ditch when walking, running or riding bike.
	Camp 3 Rd NE Speed limit here is 55. This road is far too short to get speed up to 55 mph and then stop, all while being safe
Crossways Lake Dr/ Furman St	Speeding concern - specifically where changes from Crossways to Furman
	Speeding is a concern near 138th
	Speed limit is 35 mph but too many people driving way faster despite kids in area
	Furman St NE from Crossways Lake Dr and south
	Speed Limit should be higher (3 responses)
	Speed Limit should be lower (4 responses)
Howard Lake Dr	There are many vehicles that get into accidents and run off the road that are never reported to the police/sheriff department. There are several households with children who have to cross the street to get on/off the school bus. There are been at lease one child nearly hit by speeding cars who ran the school bus stop arem since the steet was blacktopped.
	Howard Lake Rd should be 40 mph with the park gone 40 mph makes more sense
	The speed limit had been 50 mph (which was too high) but was dropped by the city council several years ago. Speed limit should go to 40 mph from the current 35 mph as it is 40 mph thru the city of Forest Lake
	Speed Limit should be higher (3 responses)
Lyons St	Speed limit needs to be lower Lyons St NE and 145th Ave NE to 180th St "Dirt Road"
	Lyons Street/Elmcrest Ave N between 180th and 190th streets. Gravel road that doesn't have posted speed limit. Recommend 30 mph speed limit
	Lyons St/Elmcrest Ave between 180th and 190th streets. Gravel road that doesn't have posted speed limit. A neighborhood of homes in this area with children present. Speeds are greater than 60 mph create hazzard
181st Ave	Lower speed limit needed Notre Dame St to Kettle River Blvd
	181st St - have 4-wheelers and dune buggies speeding on this road delivery trucks and some school buses
	Speed Limit should be lower (2 responses)
Notre Dame St	Speed Limit should be lower (5 responses)

Speed data was collected at eight locations, listed below. These locations were chosen based on citizen feedback, city input, and to include data from a variety of roadway types. Speed data was collected on 3/22/2022 and 3/24/2022 when the road was dry, the sky was clear, and there was minimal to no snow cover. Full speed data reports can be found in the Appendix. The 10 mph pace is the range of speed at which the majority of cars are traveling on a given road. The 85th percentile is the maximum speed that 85 percent of drivers will not exceed on a given road.

- Crossways Lake Drive NE
- Furman Street NE
- Notre Dame Street NE
- Camp 3 Road NE (east of Potomac Street NE)
- 153rd Avenue NE
- Lyons Street NE (south of city)
- Howard Lake Drive NE
- 181st Avenue NE (east of Notre Dame Street)

Figure 8: Speed Data Collection Map

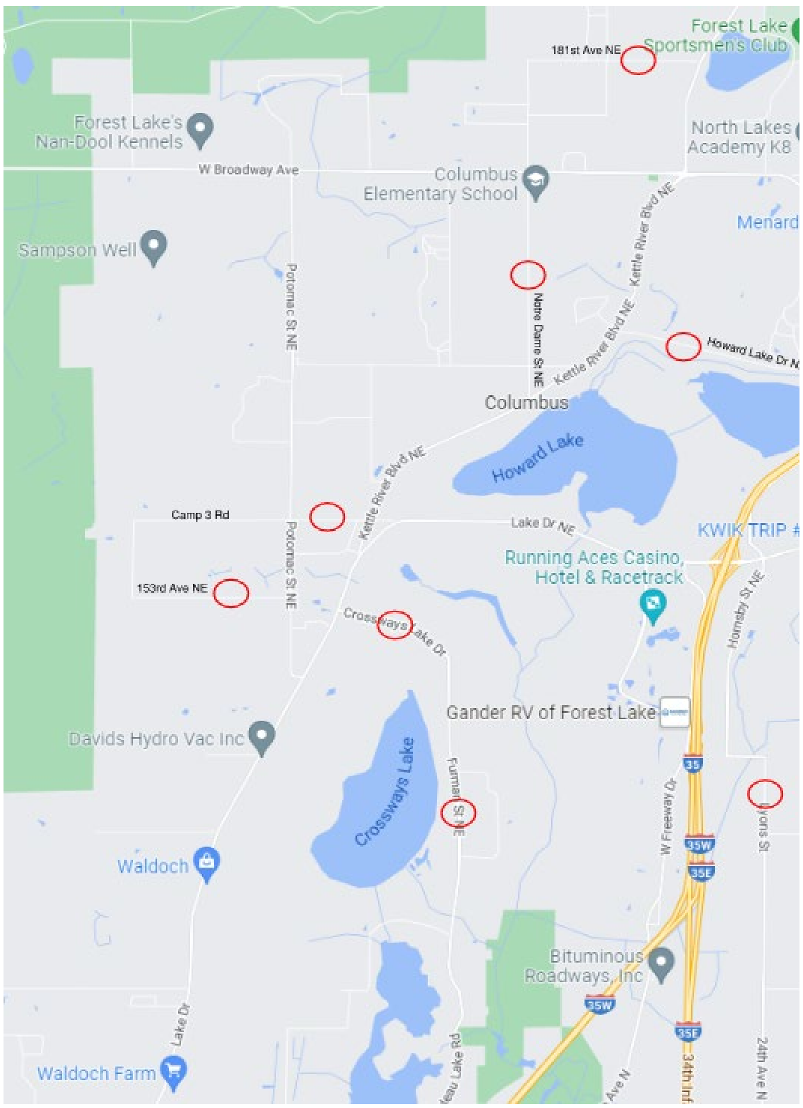


Table 5: Speed Data

Speed Data Collection					
Location	Existing Speed Limit	Direction of Travel	10 mph Pace	Average Speed	85th %
Howard Lake Dr	35 mph	EB	35-45 mph	41 mph	47 mph
		WB	35-45mph	40 mph	45 mph
Camp 3 Rd	50 mph	EB	40-50 mph	44 mph	49 mph
		WB	38-48mph	44 mph	49 mph
Crossways Lake Dr	30 mph	EB	40-50 mph	44 mph	50 mph
		WB	38-48mph	42 mph	50 mph
Furman St	55 mph	NB	35-45 mph	39 mph	48 mph
		SB	38-48mph	39 mph	47 mph
Notre Dame St	50 mph	NB	43-53 mph	47 mph	53 mph
		SB	44-54mph	47 mph	53 mph
Lyons St	55 mph	NB	34-44 mph	40 mph	49 mph
		SB	39-49mph	39 mph	48 mph
181st Ave	50 mph (40 truck)	EB	39-49 mph	39 mph	49 mph
		WB	27-37mph	40 mph	50 mph
153rd Ave	30 mph	EB	20-30 mph	31 mph	40 mph
		WB	25-35mph	30 mph	36 mph

- Existing average and 85th percentile speeds collected in the community are lower than the statutory speed limits.
- The city has some speed zones lower than the statutory speed limits that may be impacting speeds in the community as these are the few speed limits actually signed in the community.

VIII. Findings, Conclusions and Recommendations

Based on the local traffic conditions and speed limit setting research documented in this study, the key findings are:

- Crashes at higher speeds are more forceful and are therefore more likely to result in serious injury or fatality
- According to the Dangerous by Design report, the number of people struck and killed annually has grown by 45 percent between 2010 and 2019 and finds that policies are continued to be made that prioritize speedy movement of vehicles at the expense of the safety of all people who use the streets.
- The traditional approach of using the 85th percentile speed to set speed limits is no longer considered best practice.
- NCHRP 966 report presents speed limit setting procedure for any roadway type with an increased emphasis on designing for the context of the road. Multiple variables such as, roadway classification, adjacent land uses, and surface type are considered. The report states approximately one-quarter of all traffic fatalities are related to speeding.
- City owned streets generally service shorter local trips and have low traffic volumes. The streets also include on-street parking and are narrow, requiring oncoming vehicles to slow as they pass each other.
- Citizen feedback indicated that there is a general feeling that existing speed limits are too high or that they do not know the speed limits due to the absence of signage.
- Gravel roadways can be greatly impacted by speed as it relates to passing, parking, and for annual maintenance. It is also recognized that gravel roadways may have very few

driveways and carry very low traffic volumes. Lower speeds are recommended under this policy but should be implemented judiciously as the Statutory Speed Limit may be acceptable at many locations for some time.

- All but two roads under the city of Columbus jurisdiction and therefore governed by this policy are local rural roadways.

The above key findings led to the following conclusions:

- Speed limits lower than 55 mph are justified because they:
  - Improve the livability and safety of the neighborhoods and residential areas
  - Improve the safety and mobility of pedestrians and bicyclists within the community
  - Facilitate the goal of eliminating traffic fatalities and severe injuries on city streets
- Current speeds on roadways in the community are lower than the statutorily allowed speed limits indicating that a lower speed limit would not be a significant change in driver behavior on most roadways.
- The roadways owned by the city of Columbus can be broken into five different types based on functional classification, surface material, adjacent land use and access spacing. The MnDOT classifies the collector and local roadways. The Collector roadways connect local roads and carry larger volumes of traffic. Collector roadways typically have a wider pavement width compared to local roadways. These characteristics accommodate the higher speed limits typically associated with them. This policy further divides local roads into two groups, Local Undeveloped and Local Residential. The local undeveloped roadways will have fewer vehicular access locations that are spaced farther apart. Adjacent land uses along these roads will primarily be farms or businesses. The local residential group will primarily provide driveway access to residential houses. The recommended policy speed limit for this group is a range between 30-45 mph. This enables the city engineer to consider additional roadway characteristics (roadway width, sight distance, crash history, density of development, etc) when determining the speed limit. The undeveloped and residential groups are further divided based on roadway surface.
  1. Collector – Policy Speed Limit 45 mph
  2. Local Undeveloped – Policy Speed Limit 45 mph
     - Examples of adjacent land uses may be farms or businesses. Fewer driveway accesses that are spaced farther apart compared to the local residential roads.
  3. Local Residential – Policy Speed Limit 30-45 mph
     - Adjacent land uses will be residential. The speed limit recommendation will consider additional characteristics such as driveway spacing, density of residential development and width of roadway.
  4. Local Undeveloped/Gravel – Policy Speed limit 30-45 mph
     - The speed limit on Local Undeveloped roadways with a gravel surface will be determined by also considering the roadway width, shoulder width, curvature/sight distance.
  5. Local Residential/Gravel – Policy Speed Limit 30 mph

- Speed limits in Table 6 below are recommended for each of the City of Columbus roadway types

Table 6: Recommended Speed Limits by Roadway Type

Roadway Type	Statute Speed Limit	Recommended Policy Speed Limit
Collector	55	45
Local Undeveloped	55	45
Local Residential	55	30-45
Local Undeveloped - Gravel	55	30-45
Local Residential - Gravel	55	30

IX. Implementation

Speed limit policy changes are to be implemented in a consistent and reasonable manner. Speed Limit changes shall be in combination with the installation of signage to notify drivers of the change. Speed limit signs are to be erected on each end of each street on which it applies.

Table 7: Recommended Speed Limits

Location	Existing Speed Limt	Policy Recommendations	Roadway Type	NCRP Recommendation
Howard Lake Dr	35 mph	35 mph	paved	30-45
Camp 3 Rd	50 mph	45 mph	paved	30-45
		30 mph	gravel	30-45
Crossways Lake Dr	30 mph	30 mph	paved	30-45
Furman St - Crossways Lake Dr to 552' east	30 mph	30 mph	paved	30-46
Furman St - City limits to 552' east of Crossways Lake Dr	55 mph	45 mph	paved	30-45
Notre Dame St	50 mph	45 mph	paved	30-45
Lyons St	55 mph	40 mph	gravel	30-45
181st Ave	50 mph (40 truck)	45 mph	paved	30-45
153rd Ave	30 mph	30 mph	gravel	30-45

- City of Columbus roads recommended for immediate speed limit change:
  - Camp 3 Road
    - Collector – 45 mph
    - Local Residential Bituminous – 45 mph
    - Local Undeveloped Gravel – 30 mph
  - Notre Dame Street – Local Residential
    - 45 mph (section adjacent to school to remain posted 35 mph)
  - Lyons Street
    - Kettle River Blvd south to county line – Local Undeveloped – 45 mph
    - Broadway Ave north to county line -Local Undeveloped/Gravel – 35 mph

- Furman Street
  - 165th Avenue to Broadway Avenue – Local Undeveloped/Gravel – 30 mph
  - Crossways Lake Drive to Rondeau Lake Dr– Local Residential – 45 mph
  - Adjacent to roadway curve between 14719 Furman and 8023 Crossways Lake Dr maintain the posted 30 mph speed limit (Figure ES-1)
- DePaul St
  - 172nd Court to end of street - Local Residential - 30 mph
- 170th Avenue
  - Potomac St to DePaul St - Local Residential/Gravel - 30 mph
  - Kettle River Blvd to Dimaggio St – Local Residential – 30 mph
- 172nd Avenue
  - Kettle River Blvd to Dimaggio St – Local Residential – 30 mph
  - Notre Dame St to end of street – Local Residential – 30 mph
- 181st Avenue
  - Kettle River Blvd to Loyola St – Local Residential - 45 mph
  - Loyola St to end of street – Local Residential – 35 mph

- A portion of Crossways Lake Drive and Furman Street is posted 30 mph. Per the city of Columbus Speed Limit Policy, this section of road would be classified as a local residential with an associated 30-45 mph speed limit. Recommend change speed limit on Crossways Lake Drive to 30 mph. The section of Furman Street outside the curve recommend speed limit 45 mph.

Figure 9: Crossways Lake Dr and Furman St Map

- Speed limit changes on remaining city owned streets may be implemented by the Superintendent of Public Works, City Engineer, or request from City Council.
- Speed limit changes on remaining city owned streets to be implemented upon citizen request in accordance with this policy.

- Speed limit changes to be implemented due to adjacent development changes. This is typically applicable when the adjacent roadway area transitions from undeveloped to residential.

- Speed limit changes to be implemented when a roadway is constructed or reconstructed that changes the roadway context or functional classification. This is typically applicable when a roadway changes from a local to collector functional classification or in conjunction with adjacent development.

- Speed limit changes not in accordance with this policy will not be considered unless a separate traffic speed study is conducted and approved by the City.

- Speed limits to non-city owned streets (county and state-owned roadways or privately owned streets) are not covered under this policy.

- As conditions change, this policy may be updated to reflect the latest national guidance on speed limits as it related to street function, adjacent land use, context, and design.

X. Field Implementation

The City of Columbus will implement new speed limits set by this policy and if different than the Statutory Speed Limits by manufacturing and placing speed limit signs in accordance with the Minnesota Manual on Uniform Traffic Control Devices and the MnDOT Standard Signs and Marking Manual on the extents of the roadway impacted by the speed limit change. This includes one sign in each direction at each end of the speed zone if not at the end of a roadway (i.e. ends at another street).

XI. Communication & Education

Recommend community outreach to introduce the Speed Limit Policy, educate citizens on the new speed limits and identify what streets are affected. An educational piece such as a map or database that is accessible to the public should be included. Based on citizen feedback there was evidence of not knowing the correct speed limit.

Speed limit enforcement in the City of Columbus is provided by Anoka County. A change in daily enforcement is anticipated to be needed. The City may request spot speed enforcement if newly implemented speed limits are not being followed.

XII. Evaluation of the Speed Limit Policy

The City of Columbus commits to reviewing data for traffic and crashes for two years following adoption and implementation of a speed limit policy. The evaluation may include additional engineering, communication, or enforcement measures that may be considered to more effectively implement the speed limit policy. Speed limits that have been implemented by this policy but are not being followed by the public may impact changes to this policy.

Appendix A: TBD (as needed)

Appendix B: TBD

Appendix C: TBD

Appendix D: TBD

Appendix E: TBD

Appendix F: TBD