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MEMORANDUM

Date: 8/05/2026

To: Site Plan and Traffic Advisory Committee

From: Joe Smith, PE – Assistant City Engineer
Maury Hooper, PE – Traffic Engineer

Subject: Resolution for Directing Traffic Control Signage
Technology Drive and Excel Drive Intersection
Power Drive and Technology Drive Intersection

Construction Services staff recommend installing YIELD (R1-2) signs on the westbound approach of Technology Drive and Excel Drive intersection and the southbound approach of Power Drive and Technology Drive intersection. Each sign would be mounted on a new support to ensure proper placement and visibility.

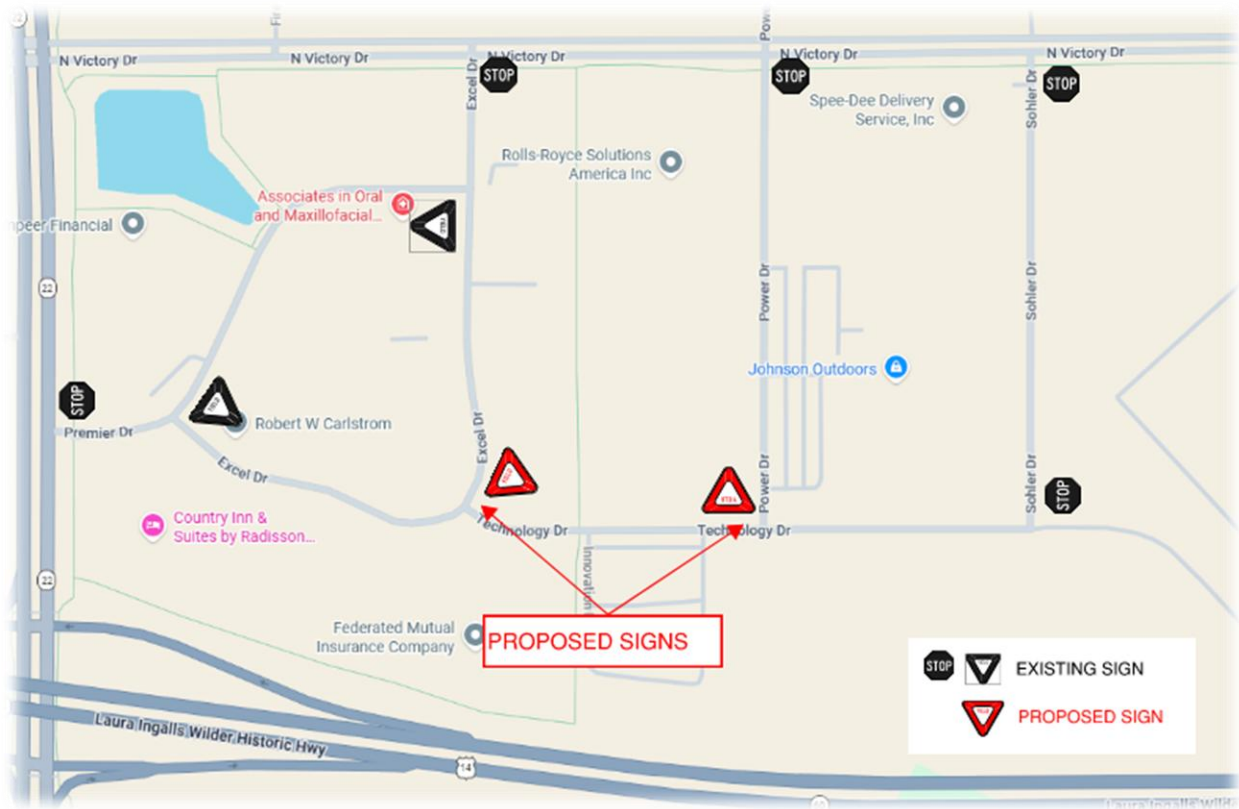


R1-2

Construction Services staff reviewed the existing intersection configuration, surrounding traffic control, observed roadway function, and the operating context created by adjacent industrial land uses. The review focused on whether supplemental traffic control would improve driver expectancy and clarify the intended major/minor street relationship at the Technology Drive/Excel Drive and Power Drive/Technology Drive intersections.

This recommendation is in response to concerns raised by the recently expanded Rolls-Royce Power Systems Logistics Center regarding the lack of traffic control signage at these two intersections. Section 2B.10 of the Minnesota MUTCD does not clearly establish a need for YIELD control at the Technology Drive/Excel Drive and Technology Drive/Power Drive intersections based on the standard criteria alone. However, staff found that the local operating context supports the use of YIELD control. The intersections are located in a light industrial area where surrounding intersections are signed, and truck traffic represents a higher share of total traffic than is typically encountered on local streets. In addition, the geometric configuration and natural traffic patterns create a clear major/minor roadway relationship that may not be readily apparent to unfamiliar drivers. Installing the two YIELD signs would reinforce the expected right-of-way assignment, improve operational consistency, and reduce the potential for driver uncertainty. Existing and proposed sign locations are depicted in Figure 1. Based on this review, staff recommend approval of the proposed YIELD sign installations at both intersections.

FIGURE 1



Technology Drive Intersection Control Review

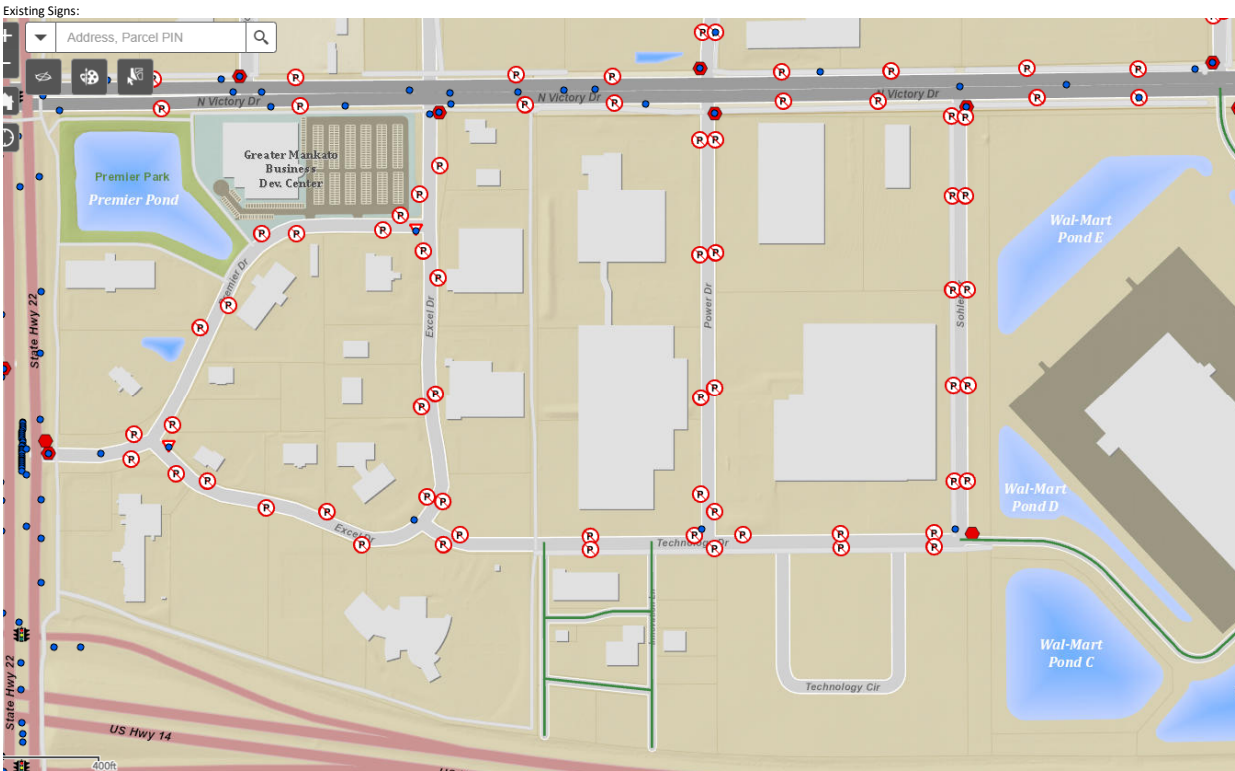
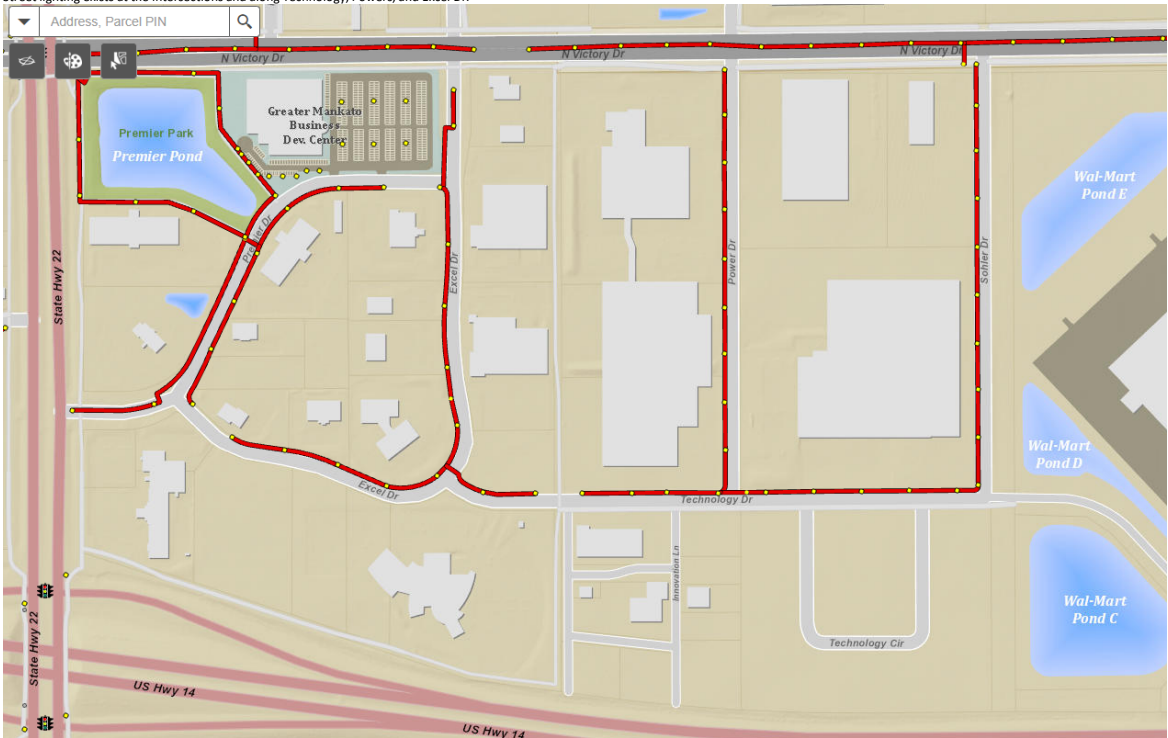
Friday, June 19, 2026 6:51 AM

Recommendations:

While the criteria outlined in Section 2B.10 of the Minnesota MUTCD do not clearly establish a need for YIELD control at both Excel Drive/Technology Drive and Technology Drive/Power Drive intersections, the unique operating characteristics of the intersection suggest that a YIELD sign may provide benefit. The intersection is located within a commercial/industrial business park where truck traffic comprises a higher percentage of total traffic than is typically encountered on local streets. In addition, the geometric configuration and natural traffic patterns create a clear major/minor roadway relationship that may not be readily apparent to unfamiliar drivers. Installation of a YIELD sign could reinforce the expected right-of-way assignment, improve operational consistency, and reduce the potential for driver uncertainty without imposing the greater delay associated with STOP control. Therefore, consideration of a YIELD sign based on engineering judgment may be appropriate despite the lack of a specific MUTCD warrant.

Existing Conditions:

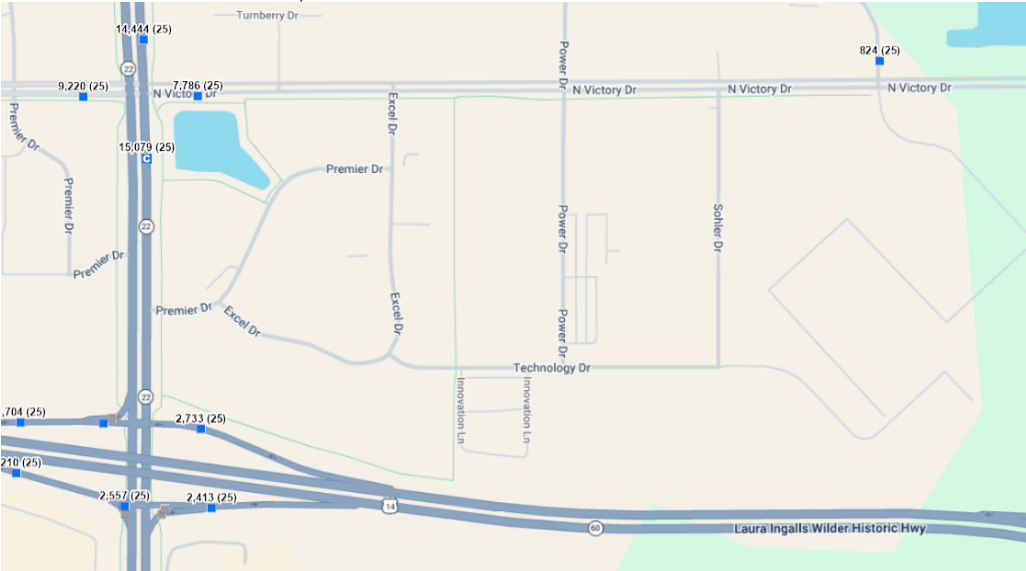
- Street lighting exists at the intersections and along Technology, Powers, and Excel Dr.





ADT Information:

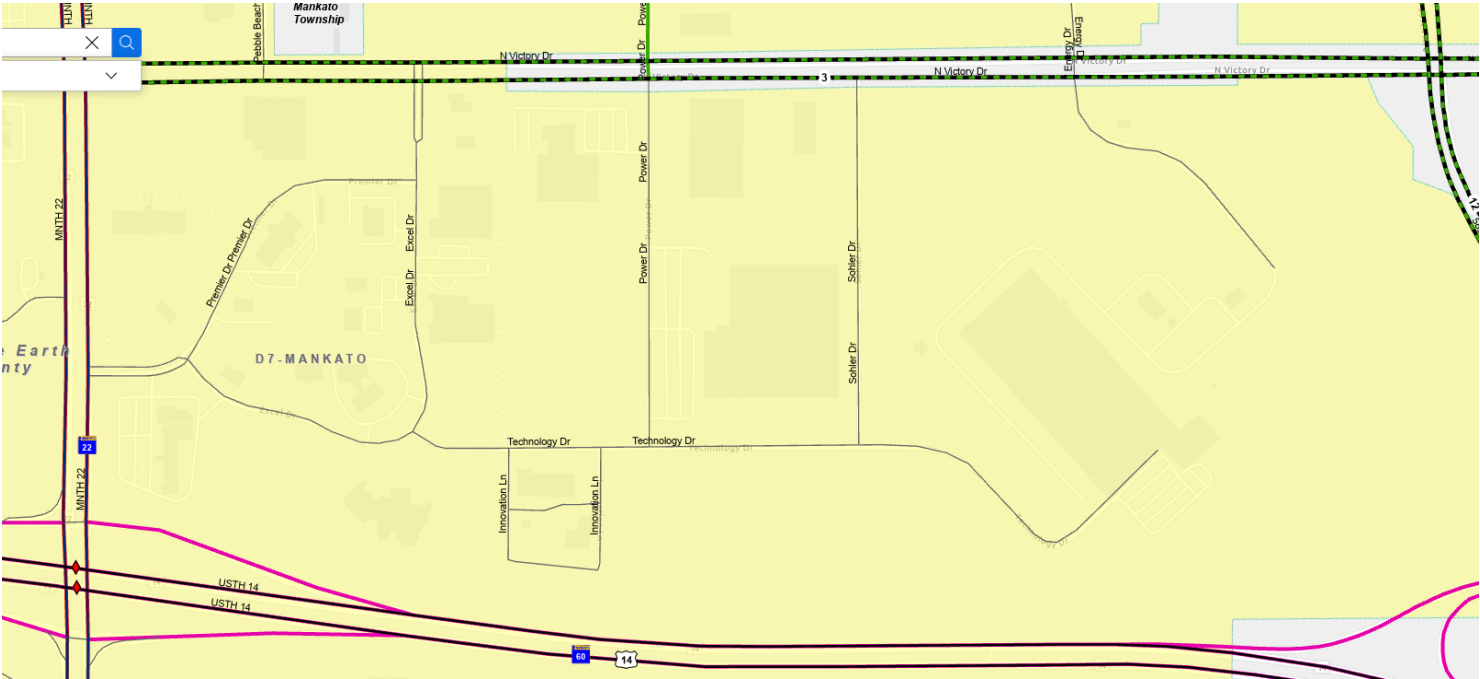
- No ADT information is available for these local roadways



FUNCTIONAL CLASS

- Technology - Local
- Powers - Local
- Excell Dr - Local

No MSAS status.



Crash History:

Nothing significant, 1-DWI, 1-slippery roadway related



Crash Summary
Technology Dr Crashes

Crash Severity/Crash Year													
Crash Severity	Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	2	0	0	0	0	1	0	0	0	0	0	0	0
Total	2	0	0	0	0	1	0	1	0	0	0	0	0



Crash Summary Technology Dr Crashes

Crash Severity/Crash Year													
Crash Severity	Total	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	2	0	0	0	0	1	0	1	0	0	0	0	0
Total	2	0	0	0	0	1	0	1	0	0	0	0	0

Crash Severity/Number of Vehicles					Relationship to Intersection Summary		Total	%
Crash Severity	Total	0	1	2	3+			
K - Fatal	0	0	0	0	0	Not at Intersection/Interchange	0	0.0
A - Serious Injury	0	0	0	0	0	Four-Way Intersection	0	0.0
B - Minor Injury	0	0	0	0	0	T or Y Intersection	2	100.0
C - Possible Injury	0	0	0	0	0	Five-Way Intersection or More	0	0.0
N - Prop Dmg Only	2	0	0	2	0	Roundabout	0	0.0
Total	2	0	0	2	0	Intersection Related	0	0.0
						Driveway Access Related	0	0.0
						At School Crossing	0	0.0
						Railway Grade Crossing	0	0.0
						Shared Use Path or Trail	0	0.0
						Interchange on Ramp	0	0.0
						Interchange off Ramp	0	0.0
						Interchange Other Areas	0	0.0
						Crossover Related	0	0.0
						Acceleration/Deceleration Lane	0	0.0
						Other/Unknown	0	0.0
						Total	2	100.0

Basic Type Summary			Total	%
Pedestrian			0	0.0
Bike			0	0.0
Single Vehicle Run Off Road			0	0.0
Single Vehicle Other			0	0.0
Sideswipe Same Direction			0	0.0
Sideswipe Opposing			0	0.0
Rear End			0	0.0
Head On			0	0.0
Left Turn			2	100.0
Angle			0	0.0
Other			0	0.0
Total			2	100.0

First Harmful Event Summary			Total	%
Pedestrian			0	0.0
Bicyclist			0	0.0
Motor Vehicle In Transport			2	100.0
Parked Motor Vehicle			0	0.0
Train			0	0.0
Deer/Animal			0	0.0
Other - Non Fixed Object			0	0.0
Collision Fixed Object			0	0.0
Non-Collision Harmful Events			0	0.0
Other/Unknown			0	0.0
Total			2	100.0

Weather 1 Summary			Total	%
Clear			2	100.0
Cloudy			0	0.0
Rain			0	0.0
Snow			0	0.0
Sleet, Hail (Freezing Rain/Drizzle)			0	0.0
Fog/Smog/Smoke			0	0.0
Blowing Sand/Soil/Dirt/Snow			0	0.0
Severe Crosswinds			0	0.0
Other/Unknown			0	0.0
Total			2	100.0

Light Condition Summary			Total	%
Daylight			2	100.0
Sunrise			0	0.0
Sunset			0	0.0
Dark (Str Lights On)			0	0.0
Dark (Str Lights Off)			0	0.0
Dark (No Str Lights)			0	0.0
Dark (Unknown Light)			0	0.0
Other/Unknown			0	0.0
Total			2	100.0

Note:

Review indicated that striping was continued through two intersections:

- Excel striping continues through Technology Dr intersection
- Technology Dr continues through Powers Drive intersection

Pavement markings should be omitted and not striped through intersections (consider removal to better communicate to the driver the presence of the intersection. These are the two locations where intersection control is being considered.

SIDEWALKS AND PEDESTRIAN CROSSINGS:

There are no sidewalks or crosswalks at either intersection.

Section 2B.10 Yield Control

Guidance:

- 01 At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs.
- 02 Yield control should be considered when engineering judgment indicates that all of the following conditions exist:
 - A. Intersection sight distance is adequate on the approaches to be controlled by YIELD signs.
 - B. All approaches to the intersection are a single lane and there are no separate turn lanes.
 - C. One of the following crash-related criteria applies:
 1. For changing from no intersection control to yield control, there have been two or more reported crashes in the previous 12 months that are susceptible to correction by the installation of a YIELD sign.
 2. For changing from minor road stop control to yield control, there have been two or fewer reported crashes in the previous 12 months.
 - D. The combined motor vehicle, bicycle, and pedestrian volume entering the intersection averages less than 1,800 units per day or 140 units in the peak hour.
 - E. The angle of intersection is between 90 and 75 degrees.
 - F. The functional classification of the intersecting streets is either the intersection of two local streets or the intersection of a local street with a collector street.

Option:

- 03 YIELD signs may be installed at an intersection when any of the following conditions apply:
 - A. At the second intersection of a divided highway crossing or median break functioning as two separate intersections (see Figure 2B-19). In this case, a YIELD sign may be installed at the entrance to the second intersection.
 - B. For a channelized turn lane that is separated from the adjacent travel lanes by an island, even if the adjacent lanes at the intersection are controlled by a adjacent traffic control signal or by a STOP sign.
 - C. At an intersection where a special problem exists and where engineering judgment indicates the problem to be susceptible to correction by the use of the YIELD sign.
 - D. Facing the entering roadway for a merge-type movement if engineering judgment indicates that control is needed because acceleration geometry and/or sight distance is not adequate for merging traffic operation.

- E. On low-volume rural roads if engineering judgment indicates that a YIELD sign would provide adequate control.
- F. On an approach to an intersection where the only permissible movement is a right-turn movement with an intersection geometry similar to a channelized right-turn lane or an approach to a roundabout.

Guidance:

- ⁰⁴ *The YIELD signs should be installed on opposing minor-street approaches (for a four-leg intersection) or on the minor-street approach (for a three-leg intersection). When two intersecting roadways have relatively equal volumes, speeds, and other characteristics, yield control should be installed on the approach that conflicts the most with established pedestrian crossing activity, school walking routes, or bicycle crossing activity.*

Standard:

- ⁰⁵ A YIELD sign shall be used to require road users to yield the right-of-way to other traffic at the entrance to a roundabout. YIELD signs at roundabouts shall be used to control the approach roadways and shall not be used to control the circulatory roadway.
- ⁰⁶ YIELD signs shall not be placed on all of the approaches to an intersection, except at roundabouts.
- ^{06.1} If a YIELD sign is used at an intersection other than a roundabout, at least one other approach to an intersection shall remain uncontrolled.