



## Legislation Text

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File #: 19-706, Version: 1

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### TRANSPORTATION ADVISORY BOARD AGENDA ITEM

#### **ACTION REQUESTED:**

Recommend approval to remove two-way yield control and establish two-way stop control at the intersections of Birchwood Drive and Sunnybrook Drive, Birchwood Drive and Stonegate Road, and Birchwood Drive and Briarwood Drive; to establish two-way stop control at the intersection of Birchwood Drive and Brush Hill Circle; and to remove one-way yield control at the intersection of Birchwood Drive and Cottonwood Lane.

**DEPARTMENT:** Transportation, Engineering and Development

**SUBMITTED BY:** Kelly Dunne, Project Manager

#### **BACKGROUND:**

The City received a request to replace the existing yield control with stop control at the intersection of Birchwood Drive and Sunnybrook Drive in order to improve safety.

When evaluating the request, staff identified four other yield control or four-leg uncontrolled intersections within the Will-o-way neighborhood. To promote consistency and reduce driver confusion, staff evaluated the existing traffic control at all subject intersections.

Birchwood Drive, Sunnybrook Drive, and Stonegate Road are all classified as Neighborhood Connectors with a posted speed limit of 25 mph. Briarwood Drive, Cottonwood Lane, and Brush Hill Circle are classified as Local Roads, also with a posted speed limit of 25 mph.

Birchwood Drive/Sunnybrook Drive, Birchwood Drive/Stonegate Road, and Birchwood Drive/Briarwood Drive are four-leg intersections with two-way yield control. Birchwood Drive is the uncontrolled movement at all intersections.

Birchwood Drive/Brush Hill Circle is a four-leg intersection with no traffic control.

Birchwood Drive/Cottonwood Lane is a T-intersection with yield control on the terminating leg. Birchwood Drive is through street and the uncontrolled movement.

#### **DISCUSSION:**

It is the City's policy to evaluate yield signs for removal or for conversion to stop control because yield signs are considered to be ineffective, confusing for drivers, and difficult to enforce.

City of Naperville stop controls are installed in accordance with the guidelines and standards established in the Federal Highway Administration's Manual on Uniform Traffic Control Devices and the Illinois Vehicle Code. The Illinois Vehicle Code allows local authorities to give preference to

through streets by establishing stop controls on intersecting streets. When implementing traffic control within a neighborhood, the City will typically assign the right-of-way to the street with a higher classification, as defined in the Master Thoroughfare Plan.

#### Birchwood Drive/Sunnybrook Drive and Birchwood Drive/Stonegate Road

At the intersections of Birchwood Drive/Sunnybrook Drive and Birchwood Drive/Stonegate Road, all streets are classified equivalently as Neighborhood Connectors. To determine the major movement, staff collected traffic volumes at the intersection of Birchwood Drive and Sunnybrook Drive. Since a greater number of vehicles travels on Birchwood Drive (581 vehicles per day) than on Sunnybrook Drive (490 vehicles per day), staff is proposing to maintain Birchwood Drive as an uncontrolled movement and to replace the yield control on Sunnybrook Drive with stop control. Traffic volumes were not collected at the intersection of Birchwood Drive and Stonegate Road, but given the configuration of the roadway network and the current traffic control orientation, staff is proposing to maintain Birchwood Drive as an uncontrolled movement and to replace the yield control on Stonegate Road with stop control.

In the past 5 years, there have been three crashes at Birchwood Drive/Sunnybrook Drive due to drivers improperly yielding the right-of-way. There have been no such crashes at Birchwood Drive/Stonegate Road.

#### Birchwood Drive/Briarwood Drive

Since Birchwood Drive is a Neighborhood Connector and Briarwood Drive is a Local Street, staff is proposing to maintain Birchwood Drive as an uncontrolled movement and to replace the yield control on Briarwood Drive with stop control.

In the past 5 years, there is no history of crashes at this intersection due to drivers improperly yielding the right-of-way.

#### Birchwood Drive/Brush Hill Circle

Since Birchwood Drive is a Neighborhood Connector and Brush Hill Circle is a Local Street, staff is proposing to maintain Birchwood Drive as an uncontrolled movement and to establish stop control on Brush Hill Circle.

In the past 5 years, there is no history of crashes at this intersection.

#### Birchwood Drive/Cottonwood Lane

Per the City's policy, stop control is only implemented at T-intersections if any of the following conditions exists:

- The major street is classified as a Collector.
- There is a permanent sight obstruction which requires the driver to stop in order to adequately observe conflicting traffic.
- There have been three or more crashes over a 12-month period that are susceptible to correction to the installation of a stop sign.

Since none of these conditions exists at the intersection of Birchwood Drive and Cottonwood Lane, staff is proposing to remove the yield sign on Cottonwood Lane. The intersection will operate under the Illinois Vehicle Code. Section 11-901.01 of 625 ILCS 5 states that the driver of a vehicle

approaching the uncontrolled T-intersection from the terminating leg “shall stop, yield, and grant the privilege of immediate use of the intersection to another vehicle which has entered the intersection” from the non-terminating leg.

In the past 5 years, there is no history of crashes at this intersection due to drivers improperly yielding the right-of-way.

None of these intersections was evaluated for all-way stop control due to the relatively low traffic volumes and overall performance of the existing traffic control configuration.

City staff finds that the removal of yield control and installation of stop control within the Will-o-way neighborhood will increase safety and reduce driver confusion.