2025 Street Rehabilitation Project No. ST2025-01

North Danube Road & Arthur Street Traffic Discussion

PREPARED BY:

ENGINEERING DIVISION

PUBLIC WORKS DEPARTMENT

FEBRUARY 20, 2025

Welcome to the North Danube Road & Arthur Street Traffic Discussion!

- Restrooms / Drinking Fountain
- Sign-In Sheet / Comment Cards
- Meeting Purpose
  - Review staff findings on existing traffic and available traffic management strategies → **No option selection/approval**
  - Hear feedback from property owners & residents
- Agenda
  - Presentation – Existing Traffic Conditions, Traffic Management, & Project Schedule
  - Question & Answer (General)
- Presented material is available on City's Project Webpage
  - City of Fridley Home → Utilities & Services → Public Works Projects → 2025 Street Rehabilitation Project

Visit the Project Webpage!

Project Personnel

City Engineering Staff

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Background

- On June 25, 2024, the City of Fridley Engineering Division began public engagement for project, hosting a preliminary open house.
  - Received comments regarding **excessive traffic volume & unlawful driver behavior** along North Danube Road & Arthur Street among other traffic concerns in project area.
- Staff evaluated existing traffic conditions during development of the project feasibility study.
- Received additional feedback regarding existing traffic conditions during preliminary Hearing on Improvements and through design process.

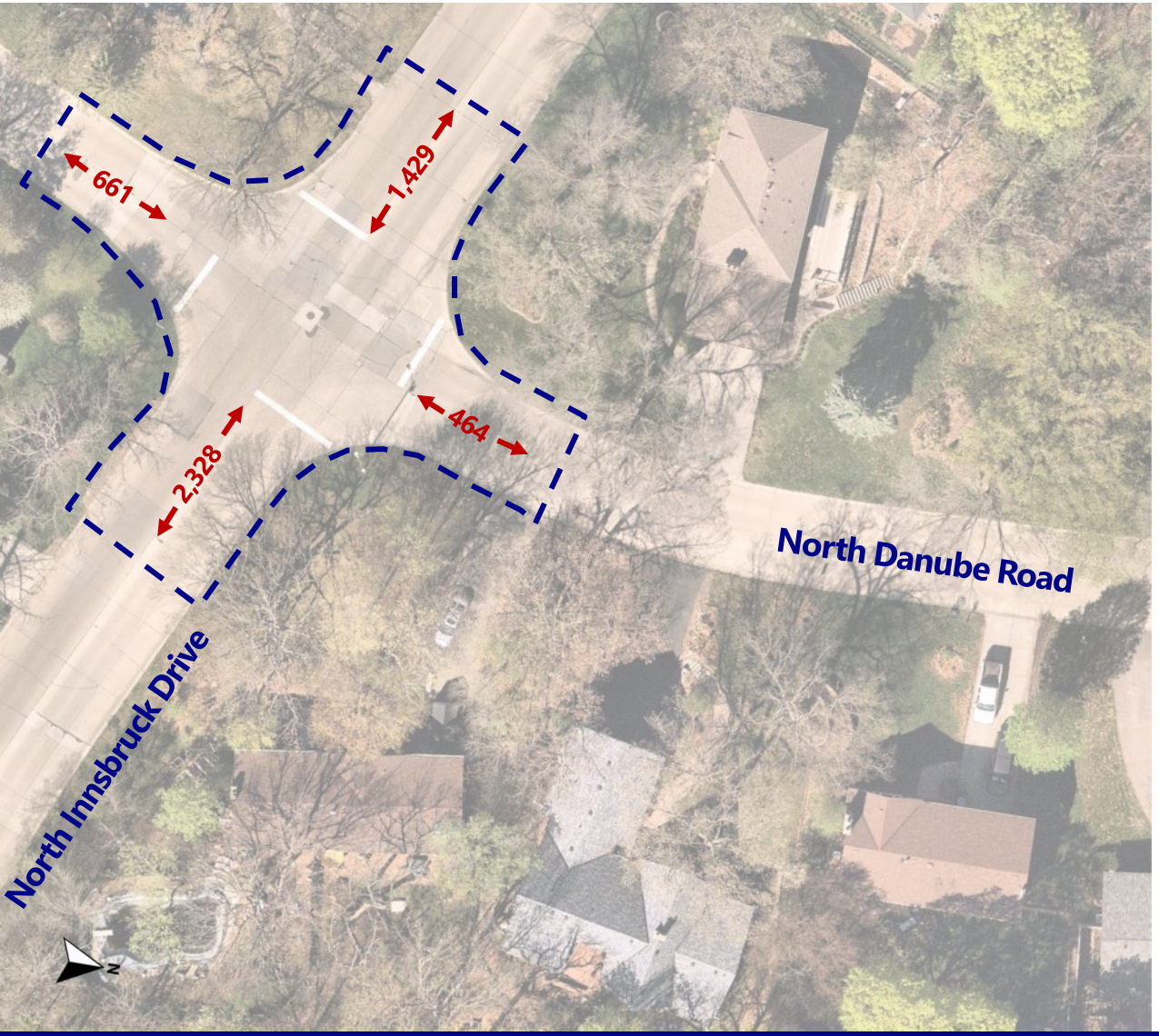
Existing Traffic Evaluation

Staff evaluated the following elements of existing traffic along North Danube Road & Arthur Street:

- Traffic Data
  - Turning Movement Counts
  - Average Daily Traffic (ADT)
  - AM/PM Peak Hourly Volume
- Existing Roadway Design
- Driver Behavior (Stop Compliance)
- Accident Report History (5 Year)

Intersection Traffic Footage (North Danube Road & Arthur Street)

North Danube Road & North Innsbruck Drive



North Danube Road & North Innsbruck Drive

Count Date: 1/08/2025

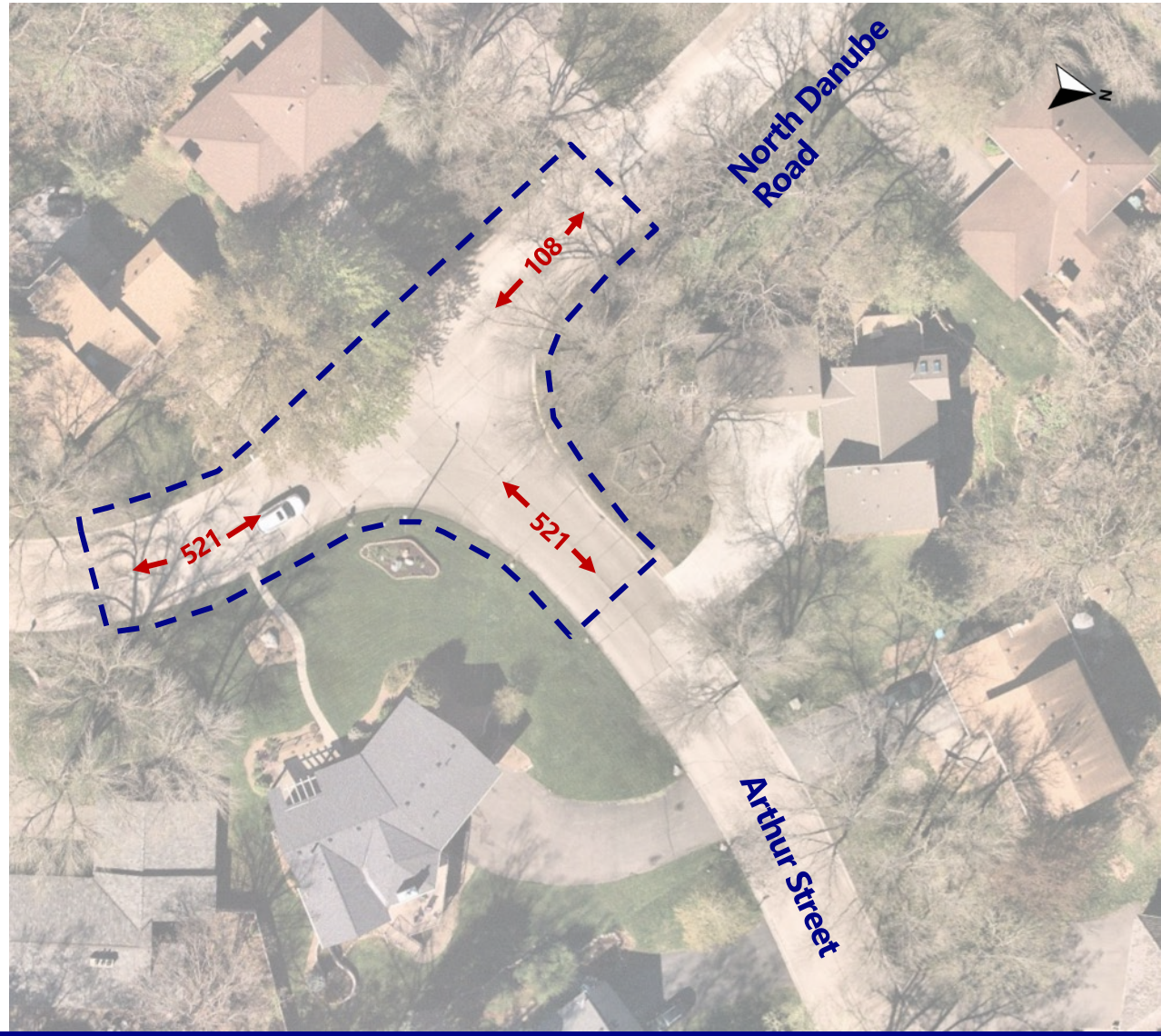
1. Average Daily Traffic (ADT):
    1. North Innsbruck Drive (West Leg): 1,429 veh/day
    2. North Innsbruck Drive (East Leg): 2,328 veh/day
    3. North Danube Road (North Leg): 464 veh/day
    4. East Danube Road (South Leg): 661 veh/day
2. Peak Hour Volumes - ~21% of ADT
    1. AM – 7:30 a.m. – 8:30 a.m. – 254 vehicles
    2. PM – 2:45 p.m. – 3:45 p.m. – 267 vehicles

North Danube Road & Arthur Street

North Danube Road & Arthur Street

Count Date: 9/18/2024

1. Average Daily Traffic (ADT):
    1. North Danube Road (West Leg): 108 veh/day
    2. North Danube Road (East Leg): 521 veh/day
    3. Arthur Street (North Leg): 521 veh/day
2. Peak Hour Volumes - ~28% of ADT
    1. AM - 8:15 a.m. – 9:15 a.m. – 98 vehicles
    2. PM – 2:30 p.m. – 3:30 p.m. – 64 vehicles



Summary of Existing Traffic Conditions

- Arthur Street and eastern leg of North Danube Road exhibit elevated average daily traffic (ADT) compared to typical values for low volume residential roadways (ADT ≤ 400 vehicles per day).
  - Traffic volume not uncommon among similar through streets or undue given route serves as important connection between North Innsbruck Drive and Gardena Avenue.
- Study of driver behavior at North Danube Road & Arthur Street indicates elevated stop non-compliance, particularly on movements from northern and eastern legs.
- There were no reported accidents along North Danube Road and Arthur Street within the project area in the last 5 years.

Traffic Management

Engineering Toolbox

Traffic Calming Infrastructure

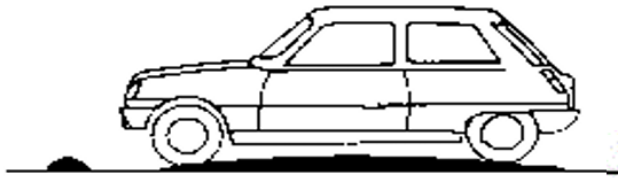
Traffic calming infrastructure is designed to improve motorist and pedestrian safety through the installation of physical infrastructure designed to reduce traffic speed and/or volume.

The following traffic calming options have been successfully implemented in the City:

Speed Humps

- Raised pavement sections installed perpendicular to vehicle traffic designed to create vertical deflection and reduce traffic speeds.
- Can reduce vehicle speeds to 15-20 mph in proximity of speed humps.
- Installation requires consideration of proximity to intersections, blind curves, driveways, etc.
- **Proposed to be implemented along East Danube Road in conjunction with the project.**
- **Estimated Cost: $5,000 - $15,000 each (Concrete)**

Speed Hump (Channel Road, Fridley)



Bump Hump

Traffic Calming Infrastructure

The following traffic calming options have been successfully implemented in the City:

Curb Bump-Outs (Chokers)

- Curb extensions into the roadway at intersections and midblock locations which narrow the roadway and encourage lower traffic speeds.
- Typically applicable to roadways with excessive pavement width and/or high density of on-street parking.
- Reductions in vehicle speed dependent on traffic volume and distribution.
- **Estimated Cost: $10,000 - $25,000 (site-dependent)**

Curb Bump-Outs (3rd Street NE, Fridley)

Road Diet/Concrete Medians

- Existing roadway width narrowed through reconstruction in installation of concrete medians at select locations to encourage lower traffic speeds.
- Typically reserved for roadways with excessive pavement width.
- Reductions in vehicle speed dependent on traffic volume and distribution.
- **Estimated Cost: $15,000 - $50,000+ (site-dependent)**

Low-Cost Countermeasures for Stop-Controlled Intersections

Federal Highway Administration (FHWA) identifies a variety of low-cost proven safety countermeasures that when used in combination can **increase driver awareness** and recognition of intersections and potential conflicts.

- Stop Bar Pavement Markings
- Doubled Up/Oversized Stop Signs
- "Stop Sign Ahead" Advanced Warning Signs
  - Already installed on two of three legs of North Danube/Arthur intersection.
- Retroreflective sheeting on sign-post
- Removal of physical obstructions limiting intersection visibility.
- LED Blinking Stop Signs
  - Significant cost increase compared to other countermeasures.

Stop Bar Pavement Marking

Doubled Up Stop Signs (Main Street NE, Fridley)

Other Traffic Management Strategies

The following options are generally **not** utilized for localized traffic management:

Increased Enforcement

- Currently more demand for Public Safety services than available resources.
- Ticketing not a form of revenue for the City and can't be used to offset the cost of additional traffic enforcement.

Major Traffic Modifications

- Road closures, one-way conversions, turning movement restrictions, etc.
- Create significant change in existing traffic patterns with impacts that extend beyond the adjacent properties.
  - Typically require formal traffic study and additional public engagement.
- Generally not considered for the intent of traffic calming as it is the City's goal to maintain a well-connected and traversable network.
- Outside the scope of traffic management improvements that can be readily included with street rehabilitation work.

Traffic Management Summary

- Based upon existing traffic conditions and available traffic management strategies, there are no proposed traffic calming improvements along North Danube Road or Arthur Street with the project.
  - **Cost-effective, necessary and feasible**
- Low-cost safety countermeasures could be implemented at the intersection of North Danube Road & Arthur Street with the project to improve intersection visibility and stop compliance.
  - Stop bar pavement markings, retroreflective sheeting, etc.
- Consideration of larger traffic calming infrastructure or traffic modifications can continue following the project, but will likely require a formal traffic study of the regional traffic network.
  - With concrete pavement, traffic calming improvements can be incorporated in the future without impacting the performance or service life of the rehabilitated pavement.
- Proposed traffic calming improvements along East Danube Road are anticipated to have an impact on through-traffic on North Danube Road and Arthur Street.
  - Staff to evaluate effect on through-traffic following construction (if approved).

Project Schedule

2025 Street Rehabilitation Project

Item	Date
Open House	June 25, 2024
Preliminary Assessment Hearing	December 09, 2024
North Danube/Arthur Traffic Discussion	February 20, 2025
Award Project to Contractor	March 2025
Begin Construction	May/June 2025
Project Completion	September 2025
Final Assessment Hearing	October 2025
Post-Construction Traffic Evaluation	Fall 2025 - 2026

Thank You!

- Please contact the Engineering Division if you have questions or concerns
  - Assistant City Engineer – Brandon Brodhag (763-238-8086)
  - Graduate Engineer – Carl Lind (612-295-3990)
  - City of Fridley Engineering Division (763) 572-3554
- Visit the Project Webpage – Review tonight's presentation, see latest project updates
  - City of Fridley Home → Utilities & Services → Public Works Projects → 2025 Street Rehabilitation Project
- Sign up for Project Updates & Notifications
  - Email us at Web-StreetProjects@fridleymn.gov

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