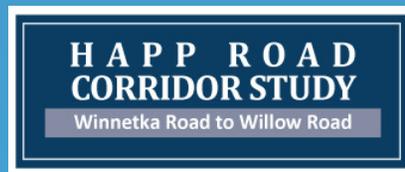


Happ Road Corridor Study

Village of Northfield

Winnetka Road to Willow Road

Steering Committee Meeting #4
September 26, 2017



Meeting Agenda

1. Study Coordination Activities Since the Last Steering Committee Meeting
 - a. Northfield Emergency Services
 - b. Illinois Department of Transportation
 - c. Cook County Department of Transportation and Highways
2. Improvement Alternatives to be Presented to the Public
 - a. Orchard Lane Intersection
 - i. Standard Intersection
 - 1) Option Dismissed (Traffic Signal)
 - 2) Option Accepted (Two-Way Stop)
 - a. Pros and Cons
 - ii. Roundabout
 - 1) Option Dismissed (Four-Leg)
 - 2) Option Accepted (Five-Leg)
 - a. Pros and Cons
 - b. Winnetka Road Intersection
 - i. Temporary Traffic Signal
 - ii. Option Dismissed (Four-Way Stop Control)
 - iii. Option Accepted (Permanent Traffic Signal)
3. Public Meeting
 - a. Logistics
 - b. Presentation Preview
 - c. Ways to Provide Input

Study Coordination Activities Since the Last Steering Committee Meeting

Northfield Emergency Services (March)

- Acknowledged Improved Safety and Operations with Roundabout
- Preference for the 5-legged Oval Roundabout
- Preference for a Traffic Signal at Winnetka Road

Illinois Department of Transportation (April - May)

- Submitted a Model Demonstrating the Traffic Interaction Between the Roundabout Alternative at Happ/Orchard and the Happ/Willow Intersection

Cook County Department of Transportation and Highways (April - August)

- Prepared Technical Memos Summarizing the Analysis of the Happ/Orchard and Happ/Winnetka Intersections
- County Reviewed and Provided Input Regarding the Analysis
- Refined the Engineering Models in Coordination with CCDTH to ensure Design Optimization
- Identified Concepts that they can Support



Happ Road Phase I Study

Village of Northfield

Improvement Alternatives to be Presented to the Public



Happ Road Corridor Study



Orchard Lane Intersection

Standard Intersection – Traffic Signal **NOT CARRIED FORWARD**

Manual of Uniform Traffic Control Devices 2009
Summary of Warrants 1 - 4

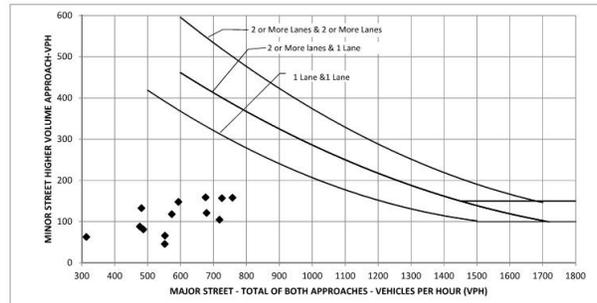
Major Street: Happ Rd.
 Minor Street: Orchard Ln.
 Intersection: Happ Rd. @ Orchard Ln.
 Date Performed: 2/6/2017
 Performed By: BJK
 Date Volumes Collected: 9/7/2016

Warrant	Condition	Is Warrant Met
WARRANT 1: Eight-Hour Vehicular Volume	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	NO
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	NO
	Condition A	N/A
	Condition B	NO
WARRANT 4: Pedestrian Volume	(100%)	NO
	Four Hour	NO

Manual of Uniform Traffic Control Devices 2009
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B (100%): Peak-Hour Vehicular Volume

Intersection: Happ Rd. @ Orchard Ln.
 Date: 2/6/2017
 By: BJK

2 : No. of Lanes on Major St.
1 : No. of Lanes on Minor St.
30 : Speed limit or 85th Percentile? (MPH)
NO : Is the intersection within an Isolated community?
 : What is the of the population isolated community?

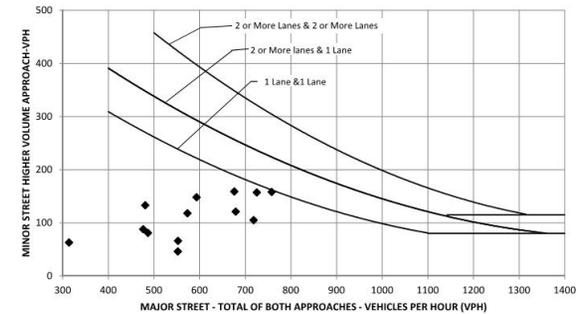


How Many Hours Are Met: 0
 Is Warrant 3 B (100%) Met?: NO

Manual of Uniform Traffic Control Devices 2009
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Intersection: Happ Rd. @ Orchard Ln.
 Date: 2/6/2017
 By: BJK

2 : No. of Lanes on Major St.
1 : No. of Lanes on Minor St.
30 : Speed limit or 85th Percentile? (MPH)
NO : Is the intersection within an Isolated community?
 : What is the of the population isolated community?



How Many Hours Are Met: 0
 Is Warrant 2 (100%) Met?: NO

Orchard Lane Intersection

Standard Intersection – Two-Way Stop

CARRIED FORWARD



Orchard Lane Intersection

Standard Intersection Two-Way Stop Summary

Alternative	Pros	Cons
<p style="text-align: center;">Standard Intersection</p> <p style="text-align: center;"><u>Two-Way Stop</u></p>	Maintains all current traffic Operations	High delays for vehicles turning onto Happ from Orchard
	Increases pedestrian safety by adding a refuge island on the south leg	Does not reduce the large number of potential vehicle conflict points
	Provides improved vehicle channelization	Two-Way stop is confusing for motorists and results in vehicles on Happ Stopping
	Lower construction cost	Overlapping route onto Walnut remains
	No additional ROW required	Restricts driveway on the SW corner to right in/right out

Orchard Lane Intersection

Roundabout – Four-Leg

NOT CARRIED FORWARD



Orchard Lane Intersection

Roundabout – Five-Leg

CARRIED FORWARD



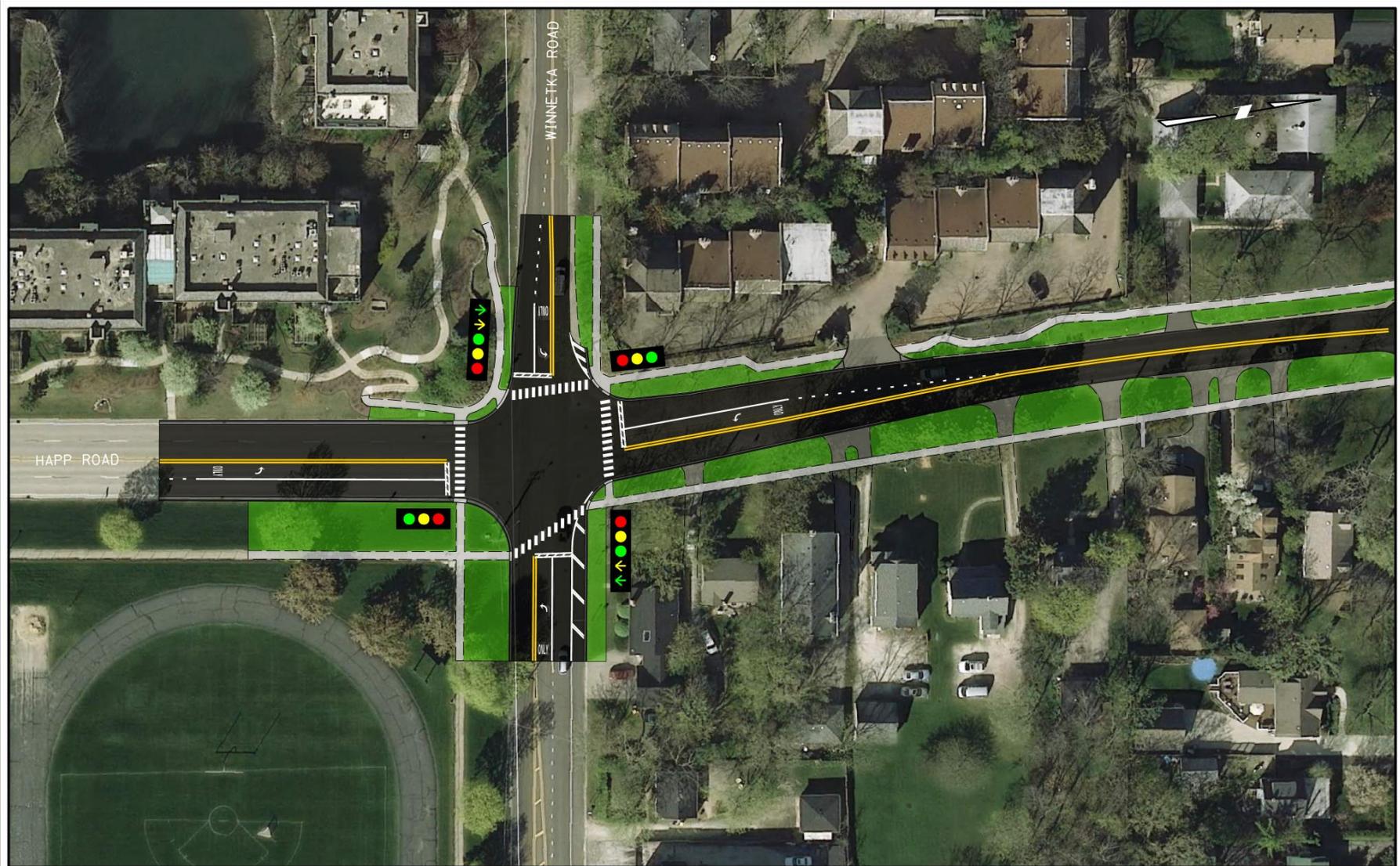
Orchard Lane Intersection

Roundabout – Five-Leg Summary

Alternative	Pros	Cons
<p style="text-align: center;">Roundabout</p> <p style="text-align: center;"><u>Five-Leg</u></p>	Improves vehicle safety by reducing potential conflict points	Drivers not accustomed to roundabout operations
	Reduces crash severity (40% decrease in all accidents and 90% decrease in fatal accidents - per Insurance Institute for Highway Safety)	Higher construction cost
	Significantly reduces the delay for vehicles turning onto Happ from Orchard	Requires additional ROW
	Endorsed by Village Police and Fire Departments	Impacts private parking in the private lot in the SW corner
	Increased pedestrian safety at all crossing movements	Reduces on-street parking along Orchard and Walnut
	Simplifies the potential conflicts for vehicles accessing Walnut	Restricts driveway on the SW corner to right in/right out
	Allows for aesthetic enhancements	

Winnetka Road Intersection

Temporary Traffic Signal - **Work Performed by CCDTH Independent of this Study**



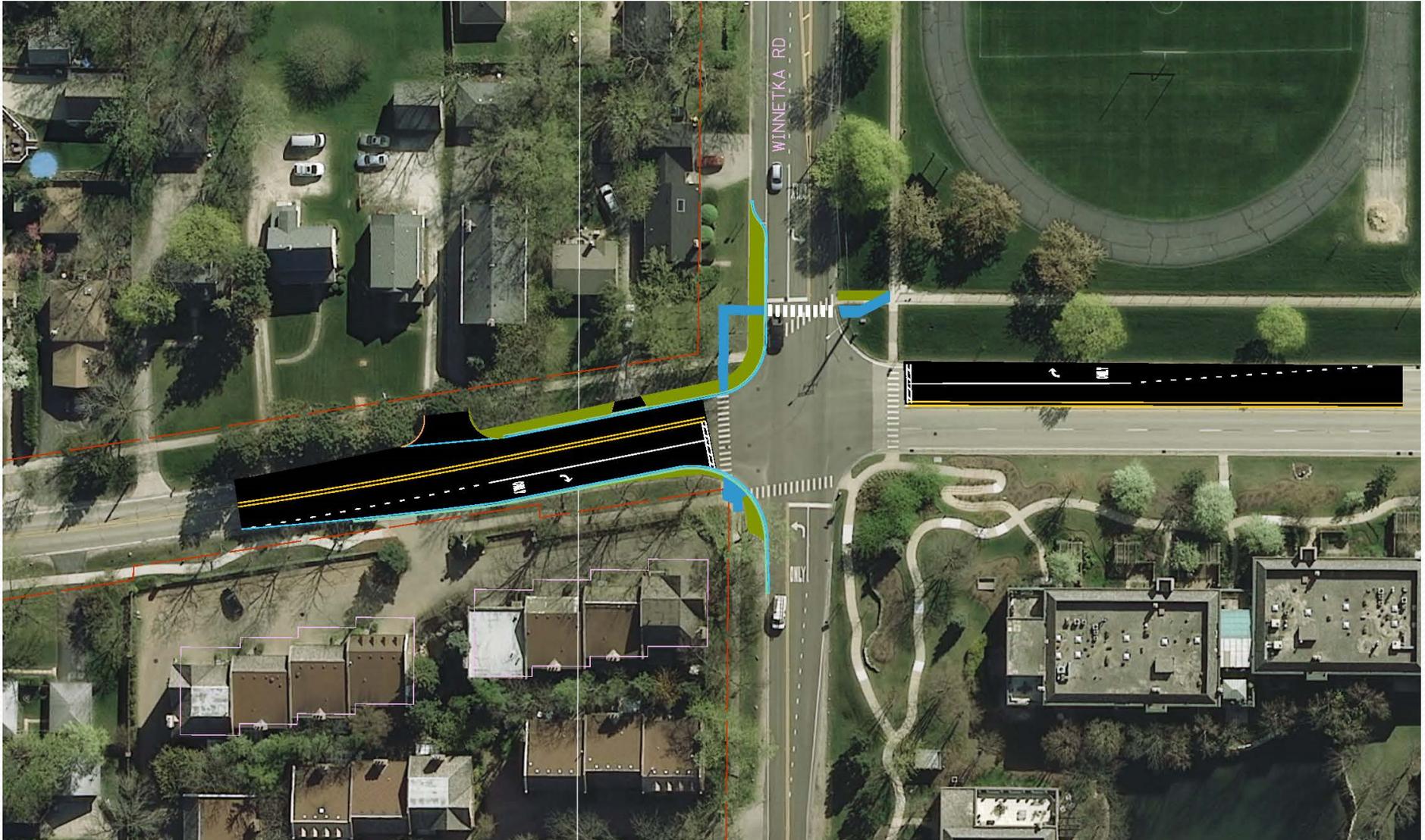
Happ Road Corridor Study from Winnetka Road to Willow Road



Winnetka Road Intersection

Four-Way Stop Control

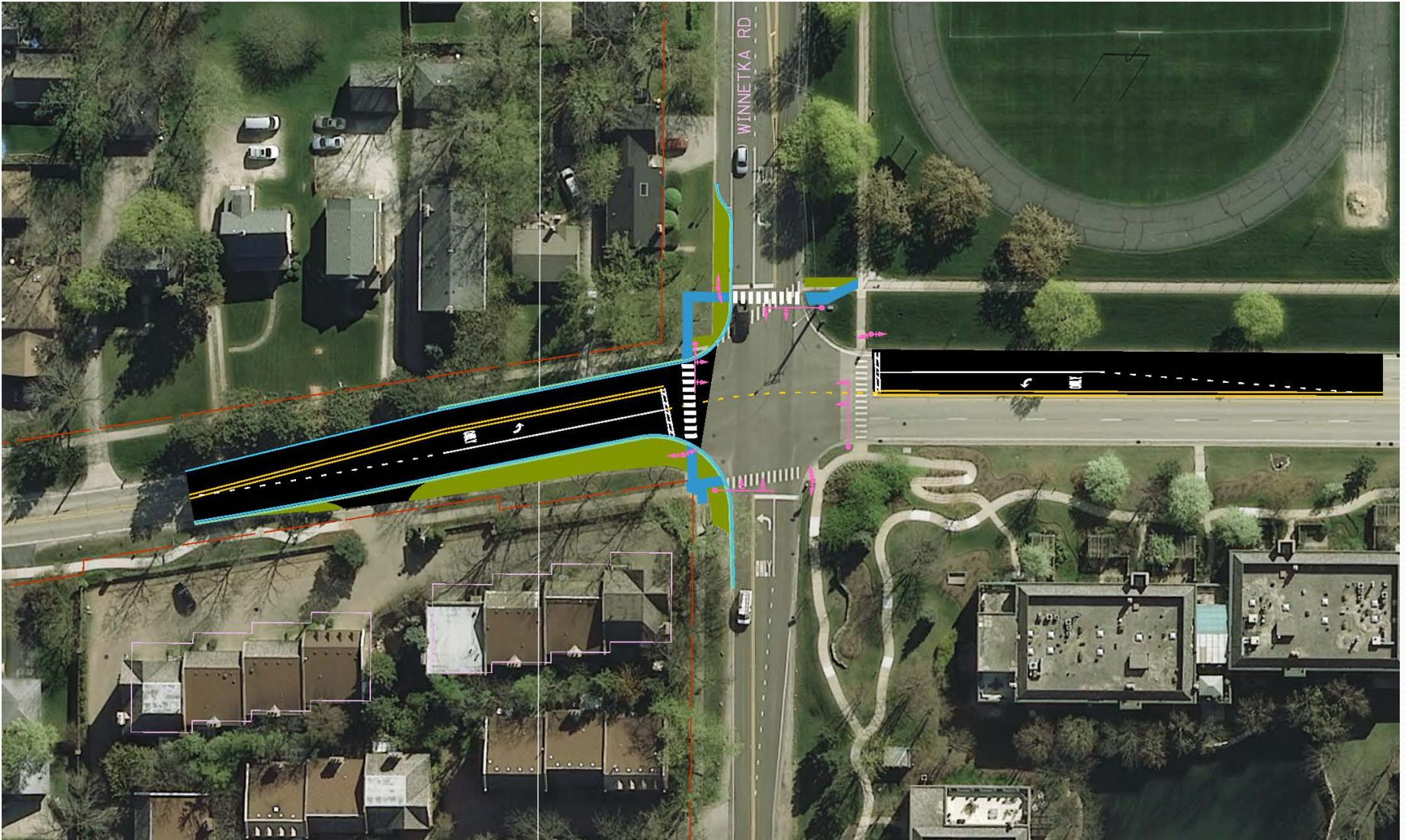
NOT CARRIED FORWARD



Winnetka Road Intersection

Permanent Traffic Signal

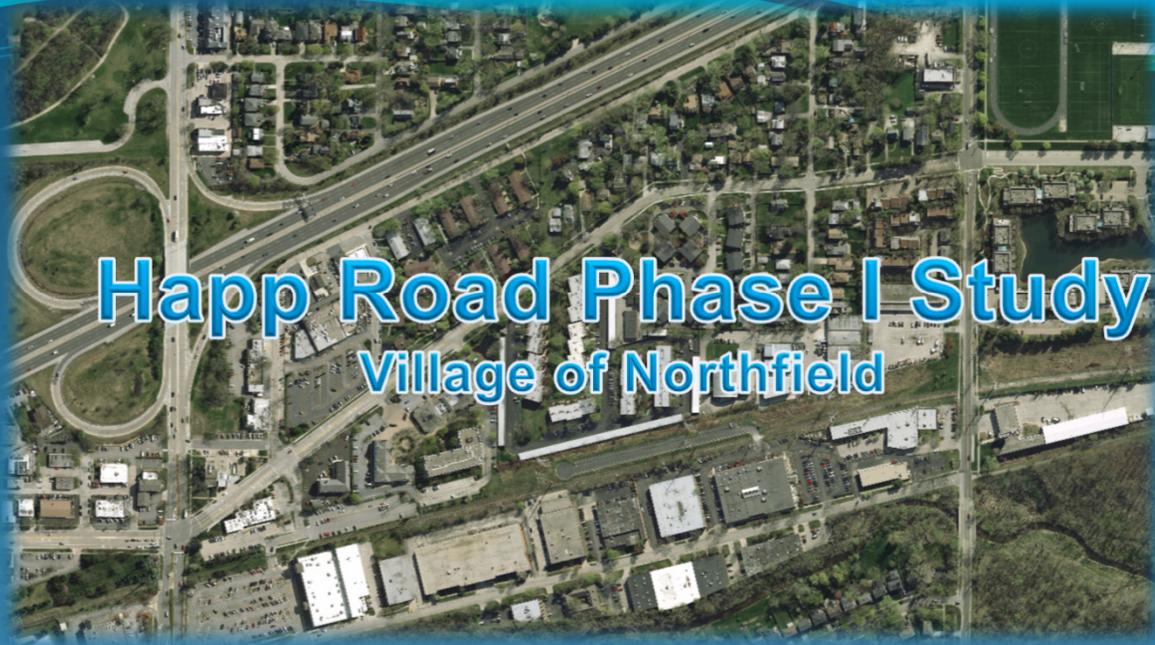
CARRIED FORWARD



Winnetka Road Intersection

Summary

Alternative	Pros	Cons
Traffic Signal	Improves LOS for all legs of the intersection	Increases average delays during off-peak times
	Facilitates protected pedestrian crossing movements in all directions	Shifts the north leg of the roadway to the east
	Improves vehicle safety by eliminating confusion on which movement can proceed	Signal equipment located outside of the roadway footprint



Happ Road Phase I Study

Village of Northfield

Public Meeting



Happ Road Corridor Study

The Village of
Northfield

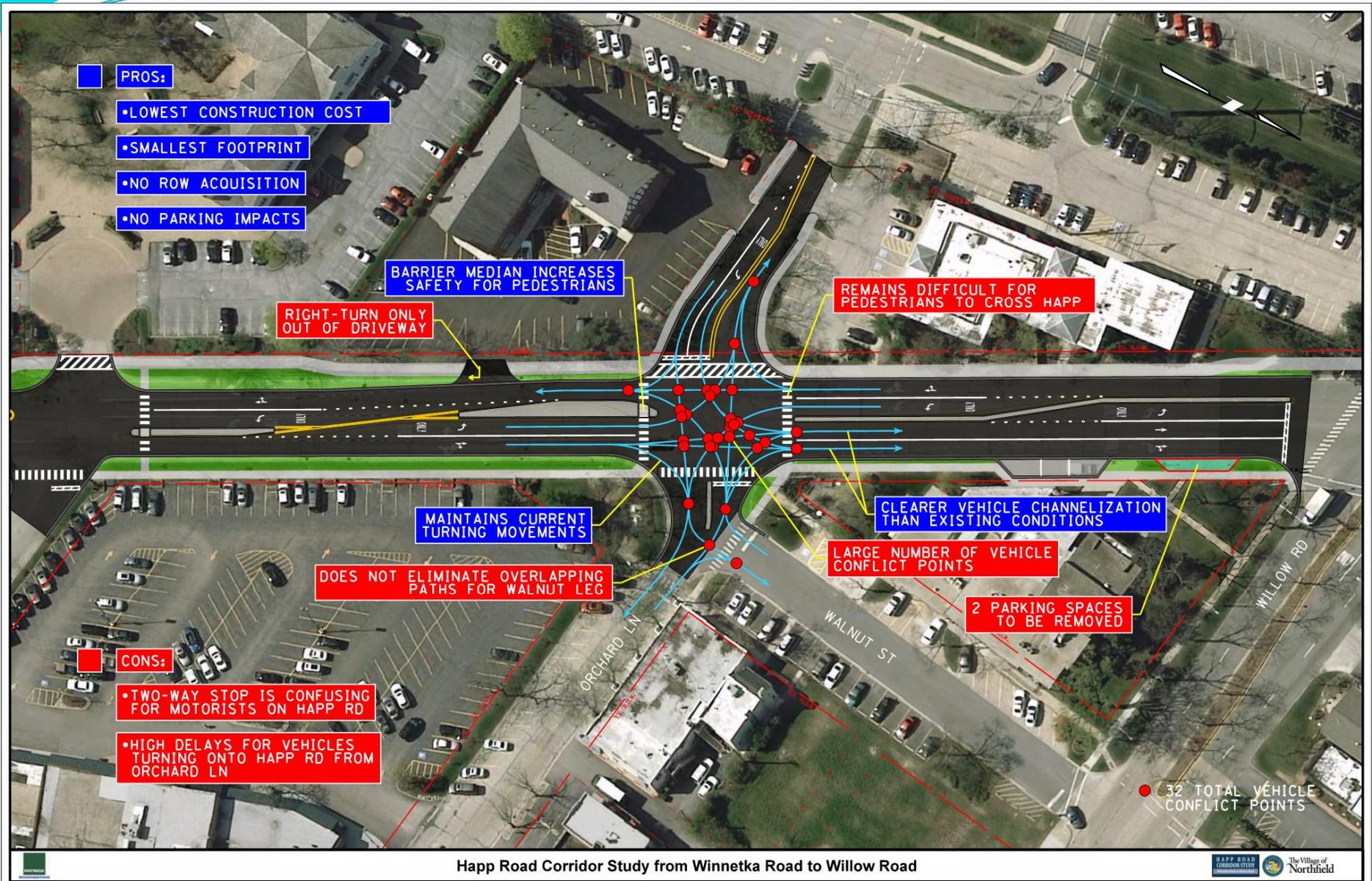


Public Meeting Logistics

- November 9th
- 4:00 – 7:00 PM
- Clarkson Park
- Village and Consultant Staff Available

- Presentation
 - Goal Statement
 - Corridor Deficiencies
 - Improvement Alternatives
 - Pros (Benefits) and Cons (Impacts)

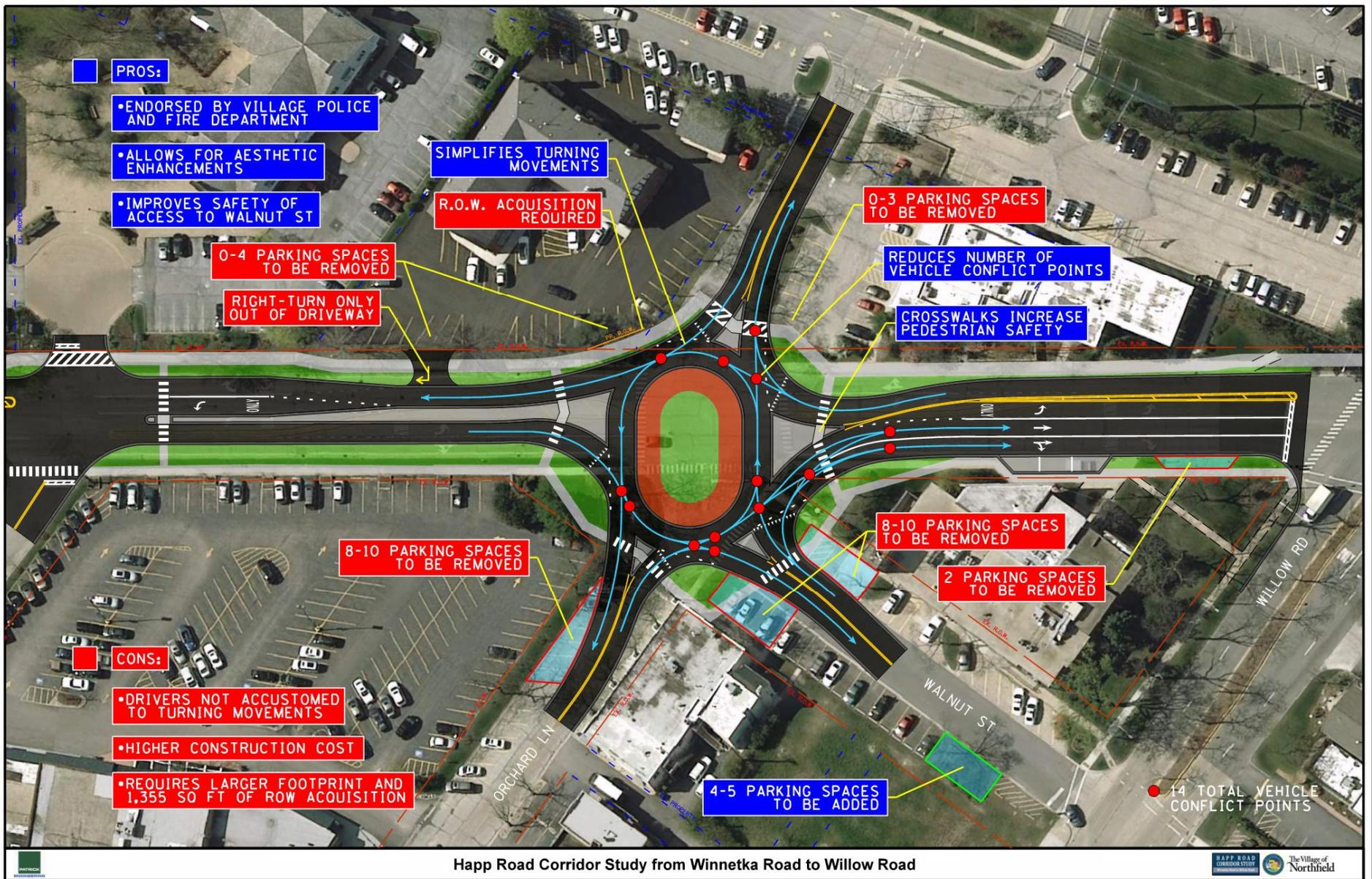
Public Meeting Presentation Preview



Happ Road Corridor Study from Winnetka Road to Willow Road



Public Meeting Presentation Preview



Happ Road Corridor Study from Winnetka Road to Willow Road

Ways to Provide Input

- Comment Forms
- Placed in Comment Box at the Meeting
- Mailed to the Study Team
- Emailed to the Study Team
- Can Call the Study Team
- Online Via Project Website
- Postmarked or Received within 2 Weeks of the Public Meeting (by November 23rd)

Thank you for participating!

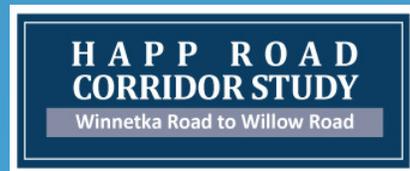
See you next time.

If you have any questions in the interim, please contact

Stacy Sigman (ssigman@northfieldil.org)
at the Village of Northfield

Steve Lynch (slynch@patrickco.com)
at Patrick Engineering

www.HappRoadStudy.com



Happ Road Corridor Study

