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# Hennepin County Freight Study Committee

*Final Recommendations*

*presented to*

*Hennepin County Public Works*

*presented by*

*Cambridge Systematics, Inc.*

*Elaine McKenzie*

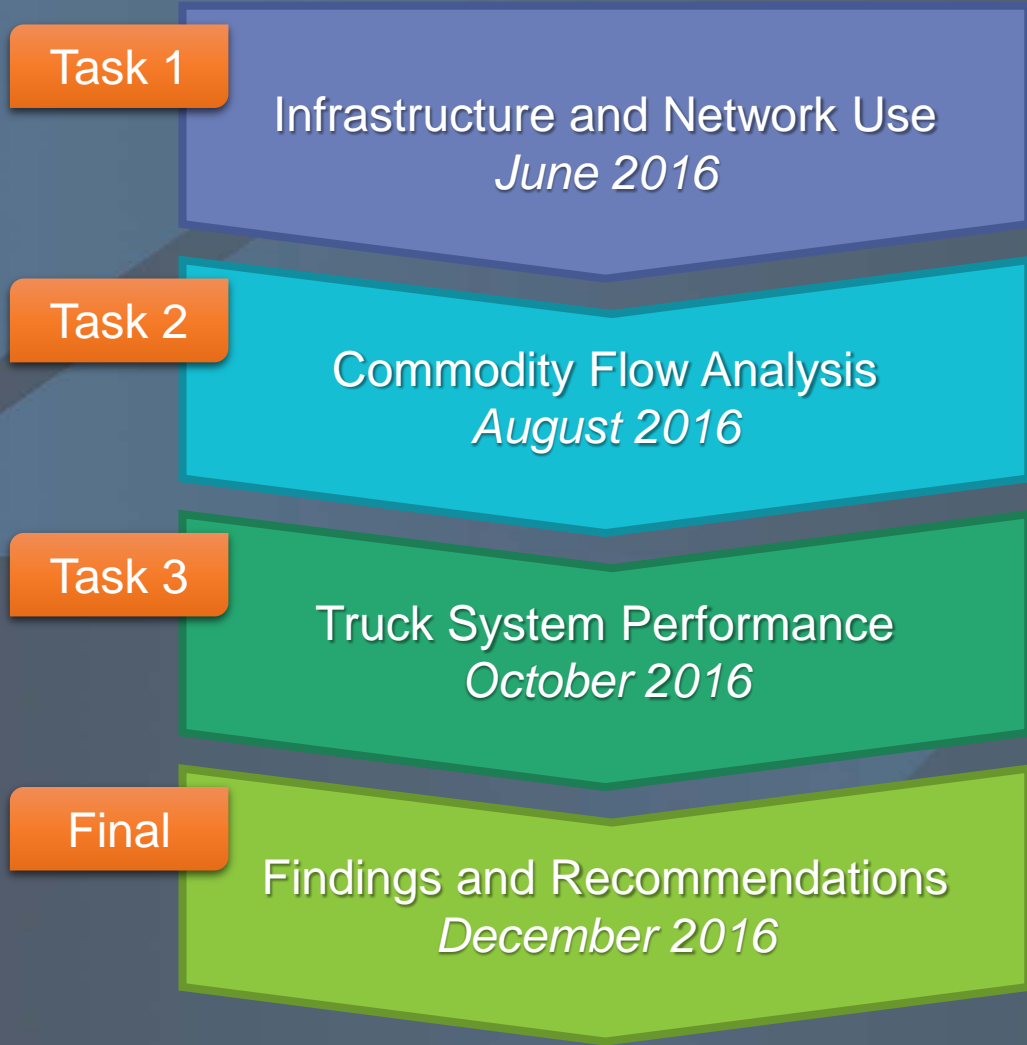
*Andreas Aeppli*

December 1, 2016

# Freight Study Goals

- How does freight move in Hennepin County?
  - » What are the primary origins, destinations, routes, and clusters of freight and freight-generating activity?
- What are the key freight trends?
  - » Who is using the system now, and what changes can be expected in the future?
- How does the County's freight system perform?
  - » What actions can the County take to support efficient freight movement?

# Freight Study Scope and Schedule



# Stakeholder Outreach

## ➤ Public Sector

- » Metropolitan Airports Commission
- » Minneapolis Regional Chamber of Commerce
- » Greater MSP

## ➤ Motor /Integrated Carriers

- » Minnesota Trucking Association
- » Dart Transit Company
- » FedEx Ground
- » FedEx Express

## ➤ 3PLs

- » CH Robinson
- » Priority Courier Experts (Survey)
- » Midwest Motor Express, Inc. (Survey)

## ➤ Industry / Shippers

- » Target
- » Quality Bicycle Products
- » Cargill (Comments only)

## ➤ Rail

- » Minnesota Regional Rail Association
- » Twin Cities and Western Railroad

# Use of the County Freight System Stakeholder Policy Concerns

## ➤ Primarily national or state issues

- » Labor shortages
- » Safety regulations
- » Truck size and weight limitations
- » Truck tolling

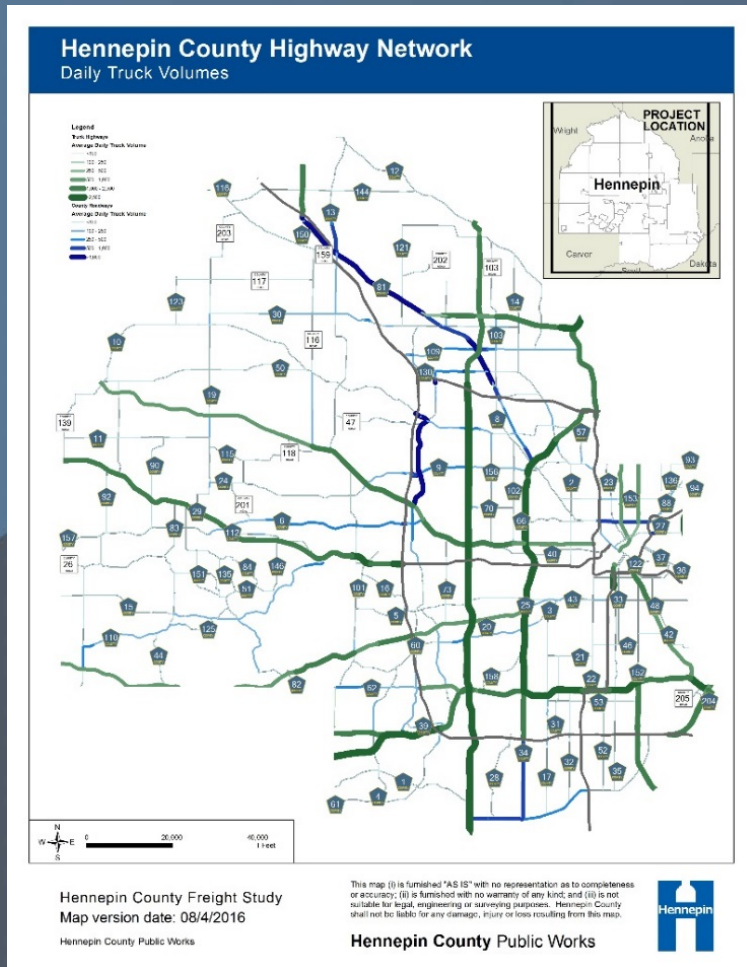
## ➤ Key local concern is deindustrialization of the urban core

- » Increasing development pressure
- » “Highest and best” land use
- » Mismatch between residents and jobs

# Collect Freight Data

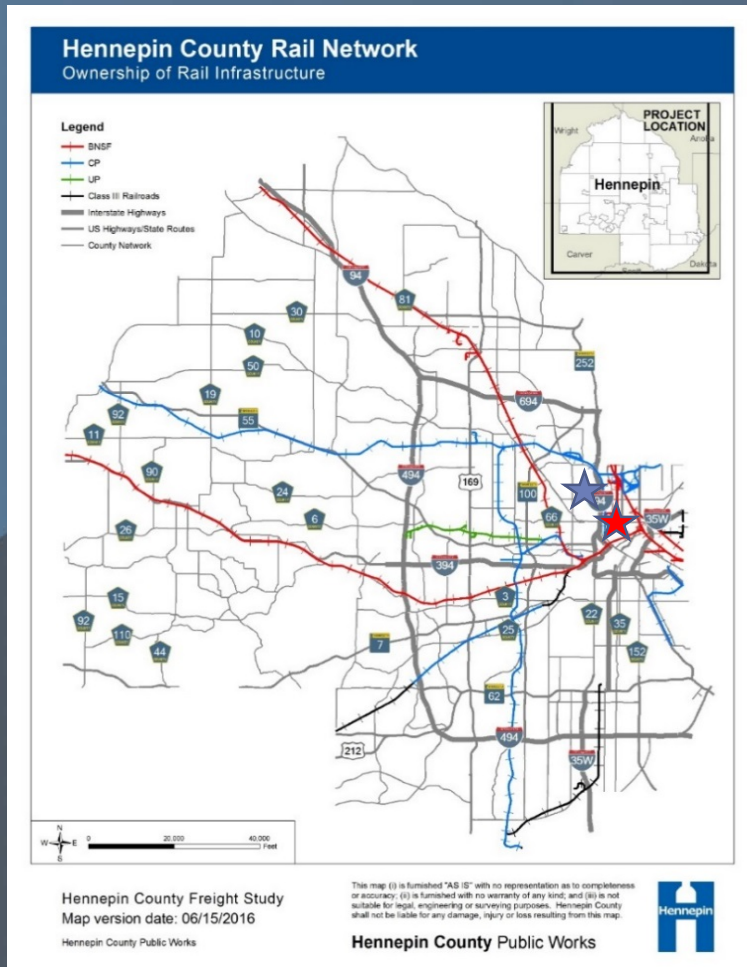
- Collect and maintain freight data on the County system
  - » Future traffic counters should distinguish heavy trucks
  - » Prioritize data collection on bridge and infrastructure condition
- Coordinate with MnDOT and MetCouncil efforts
  - » Track freight performance in and around Hennepin County
  - » Supplement with County level data, as able
- Restudy the freight system on a periodic basis

# Use of the County Freight System Highways



- County highways provide through routes and first- and last-mile connections
- Heavy county road volumes
  - » Routes that parallel key state/interstate routes (CSAH 61 and 81)
  - » Routes near major lakes (CSAH 15, 19, and 110 – Lake Minnetonka)
  - » Routes that connect industrial and commercial centers (CSAH 1 - Old Shakopee Road)
  - » Urban routes - CSAH 153 (Lowry) and 66 (Broadway)

# Use of the County Freight System Rail

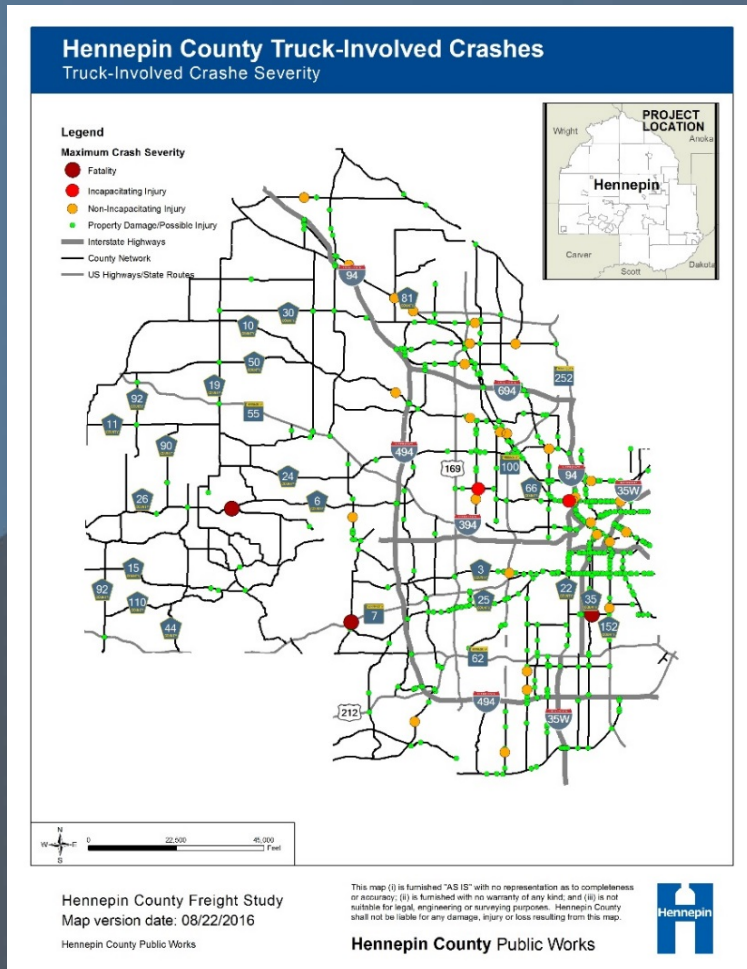


- 172 track miles of freight rail infrastructure in Hennepin County
  - » 90 percent owned by CP, BNSF, and UP
  - » Mainly through traffic
- CP's Humboldt and Shoreham railyards both served partially by County roadways
  - » Humboldt – CSAH 152, 57
  - » Shoreham – CSAH 153, 23



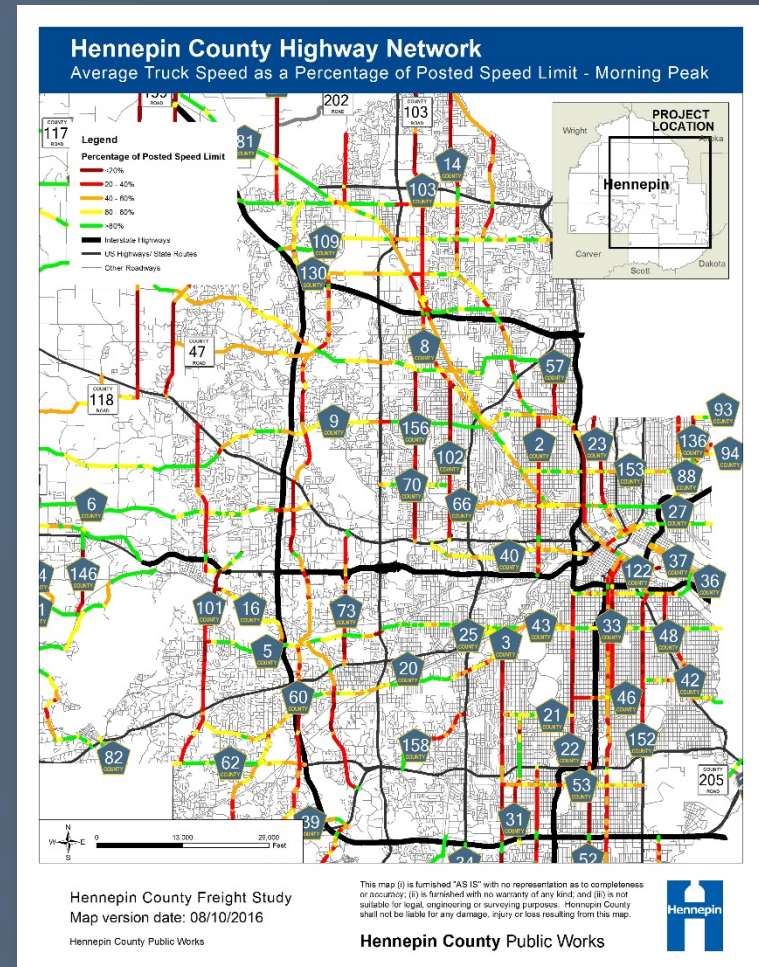
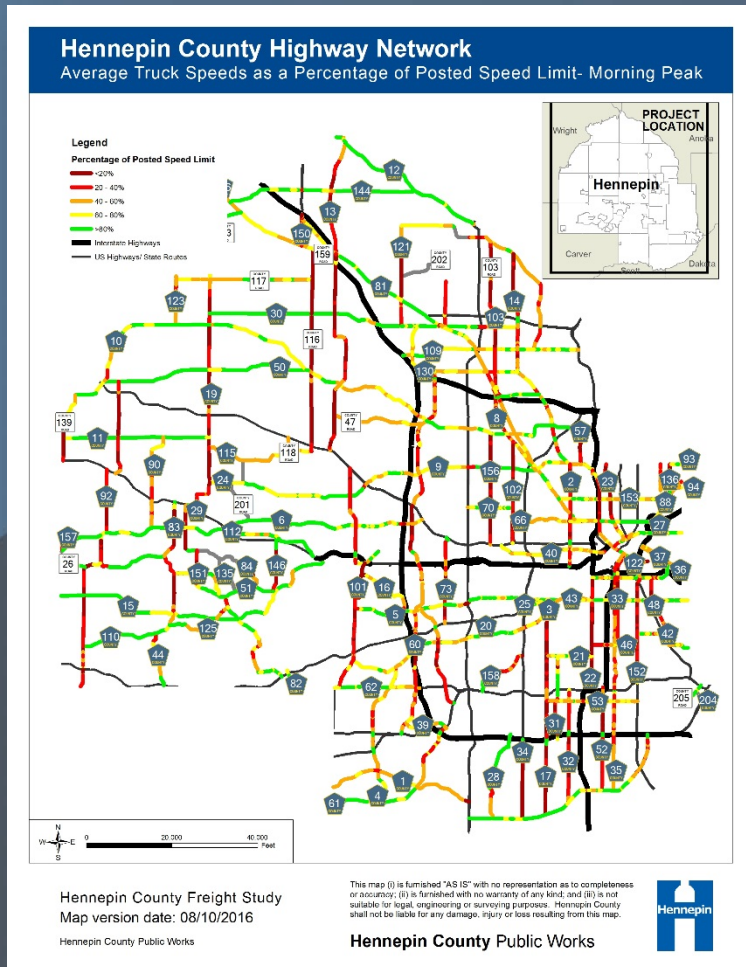
# Safety

## Truck Crashes

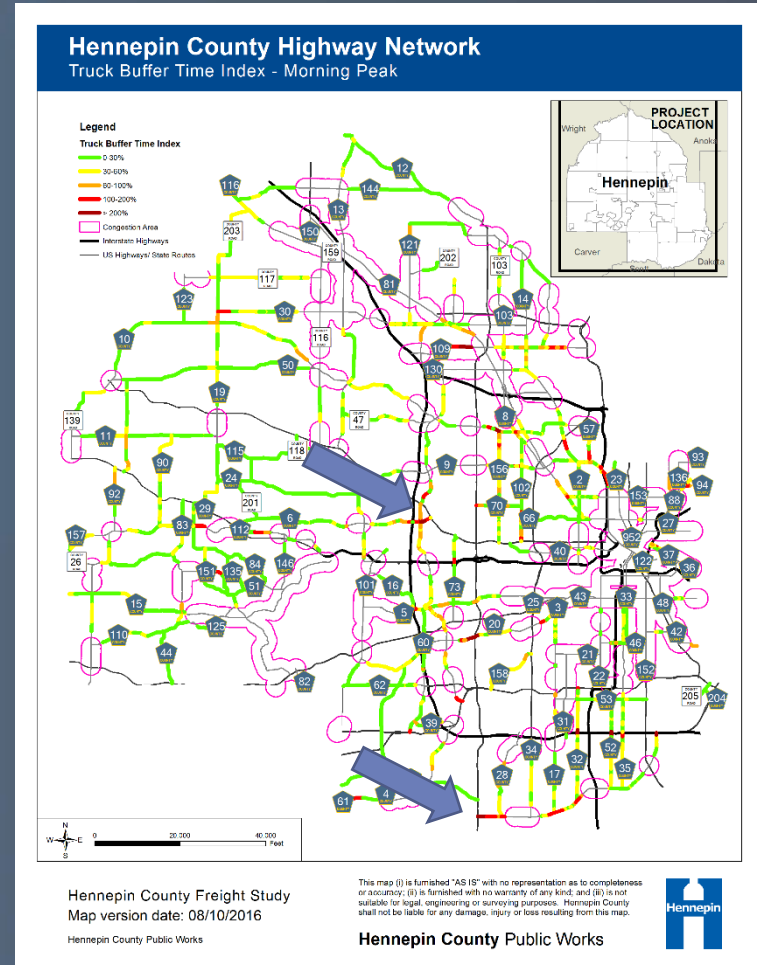
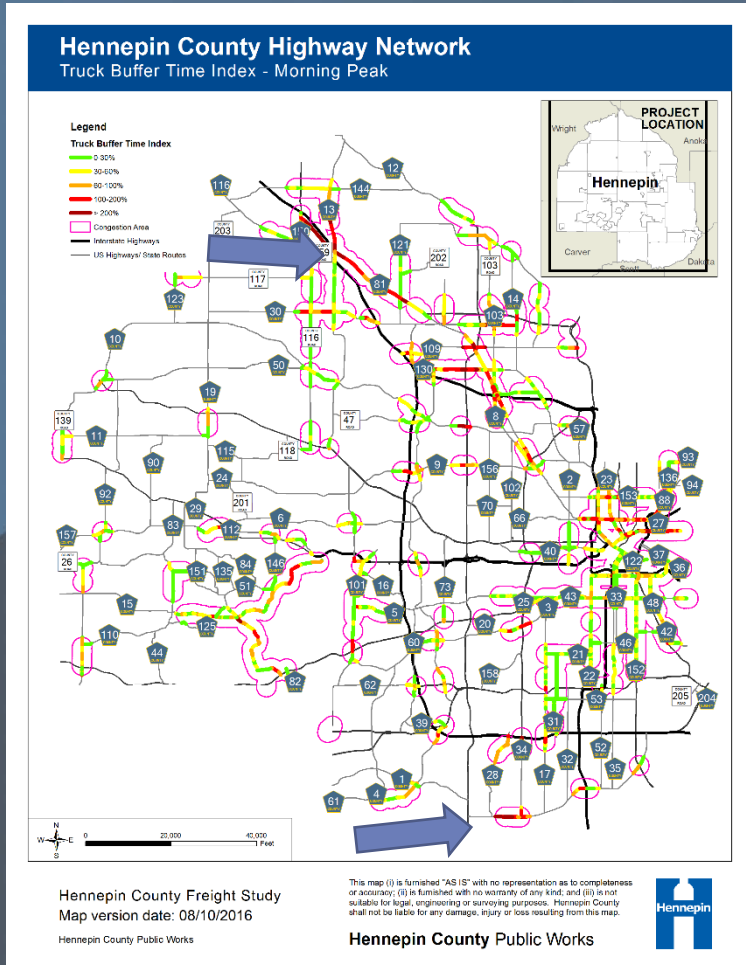


- 893 truck-involved crashes on County Highways (2010-2014)
  - » 4 fatalities and 208 persons injured
- Crash rates similar to the state as a whole
- Fatalities
  - » CSAH 6 (6th Ave) and 112 (Wayzata Blvd)
  - » CSAH 101 and TH 7
  - » CSAH 46 (East 46th Street) and 33 (Park Ave)

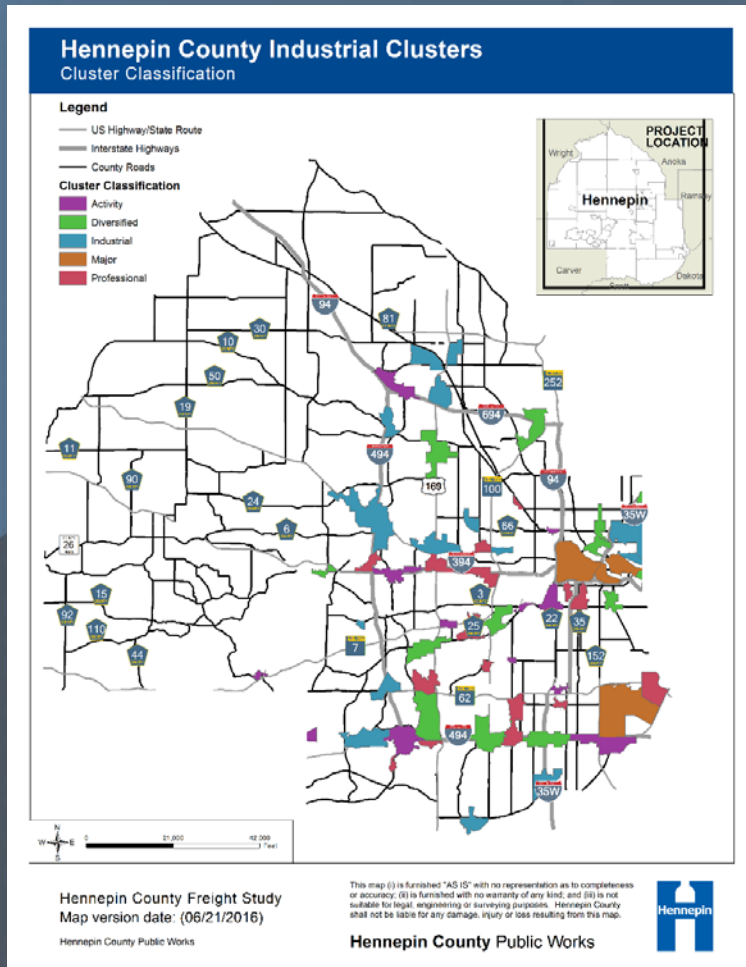
# County Highway Network Areas of Slow Truck Speeds



# Truck Travel Reliability Congested / Non-Congested Routes

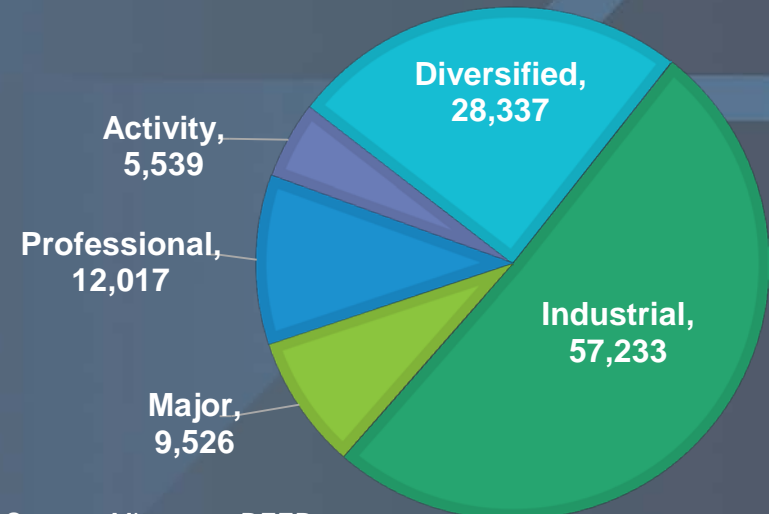


# Freight Generating Clusters



- 59 economic clusters (DEED)
- Industrial employers comprise 1,500 firms and 57,000 employees in the County

## Number of Employees by Cluster Type



Source: Minnesota DEED.

# Freight Performance Measures

- Identify and track freight performance on the County system
  - » Safety (truck crashes and fatalities/injuries)
  - » Mobility (truck volumes/congestion)
  - » System Performance (pavement condition/obstacles)
  - » Economic Indicators (volumes/value of goods shipped)

- Specific County measures should
  - » Align with ongoing work by MnDOT and MetCouncil
  - » Track performance on County-owned roadways
  - » Provide information to support local decision-making

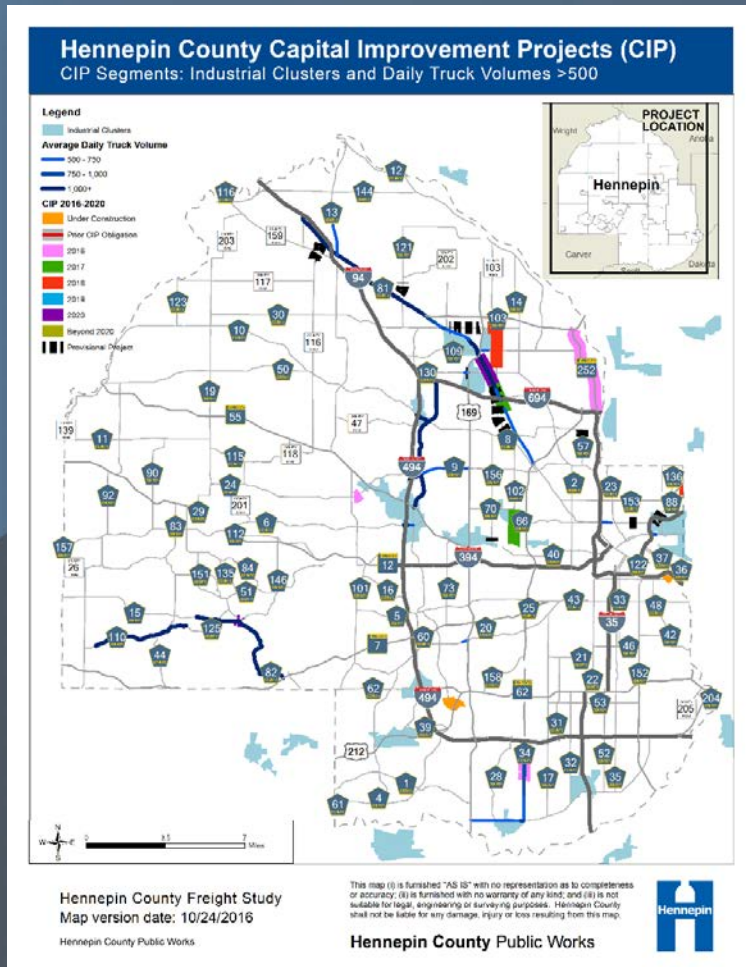
# Freight Performance Measures (continued)

- Draft U.S. DOT Freight Performance Measures
  - » Percent of the Interstate System Mileage providing for Reliable Truck Travel Times
  - » Percent of the Interstate System Mileage Uncongested
- MnDOT Freight Performance and Economic Indicators
  - » Annual Hours of Truck Delay (AHTD)
  - » Truck Reliability Index (RI80)
  - » Heavy Commercial Average Annual Daily Traffic (HCAADT), by corridor
  - » Truck/Rail/Port/Airport volumes and container lifts
- MetCouncil Priority Performance Measures for TPP (April 2016)
  - » Key truck corridors (10 ton corridors)
  - » Truck travel time index
  - » Access of rail-accessible industrial land
  - » Bridge and pavement condition

# Key Freight Study Themes

- **Ensure safety** of both freight and passenger transportation within and through the County through targeted policies and investments
- **Integrate freight** into County planning and project development, creating a culture that promotes efficient, effective, and safe movement of goods
- **Monitor performance** of the freight transportation system in a way that supports performance-based planning and effective investments
- **Cultivate partnerships** with public-sector agencies on freight and transportation related issues, creating a vehicle to advocate for the County's needs and contribute to projects benefiting Minnesotans in and out of the County
- **Support economic vitality** in Hennepin County through continued outreach, partnership, and support to businesses

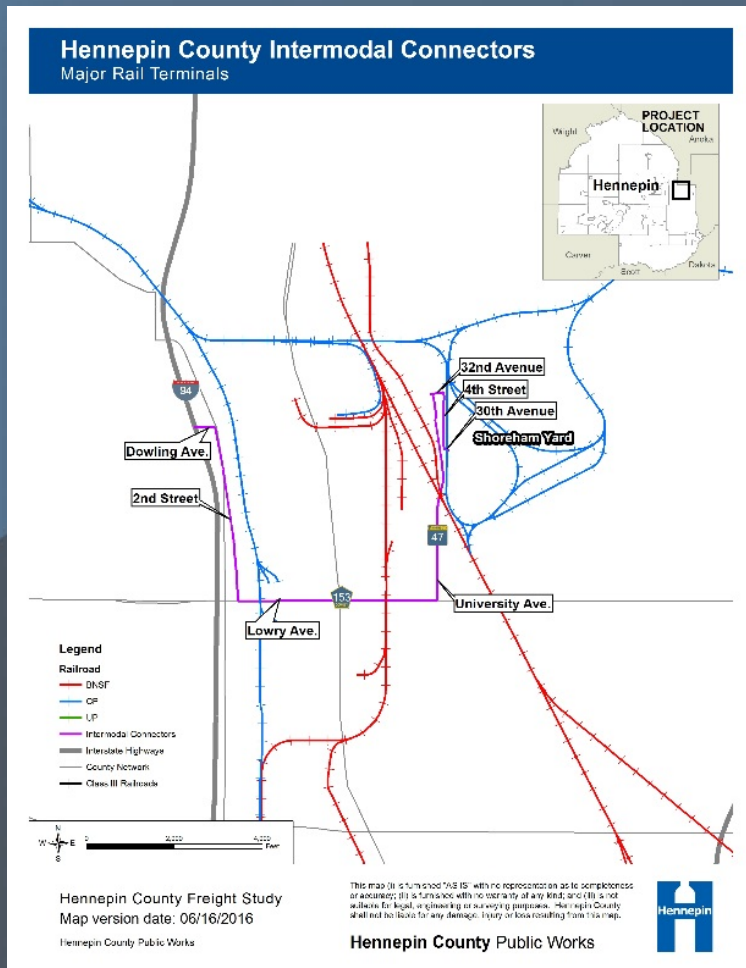
# Identify and Prioritize Freight Projects



- 19 upcoming and 4 completed "freight" projects in 2016-2020 CIP
  - » Within 1 mile of an industrial cluster
  - » Truck AADT > 500



# Advocate for Freight Projects



➤ Articulate and support County priorities in MnDOT, MetCouncil planning and programs

➤ NHS Intermodal Connectors

» Shoreham Yard

- N 2<sup>nd</sup> Street – N Lowry-University Avenue

# Develop County Growth Strategy

- Freight intensive uses are moving out of the urban core into peripheral regions
  - » Can cause difficult policy decisions when development forces unplanned infrastructure improvements
  - » Increases congestion, truck and passenger VMT
  - » Disconnect between workers and jobs
- Top 10 freight bottlenecks are in Hennepin County (MnDOT)
- Hennepin County should work with its partner agencies to develop a comprehensive strategy to address these issues

# Design for Safe Freight Movement



Land Use Conflicts



Design/  
Streetscape Conflicts



Transportation  
Operations Conflicts

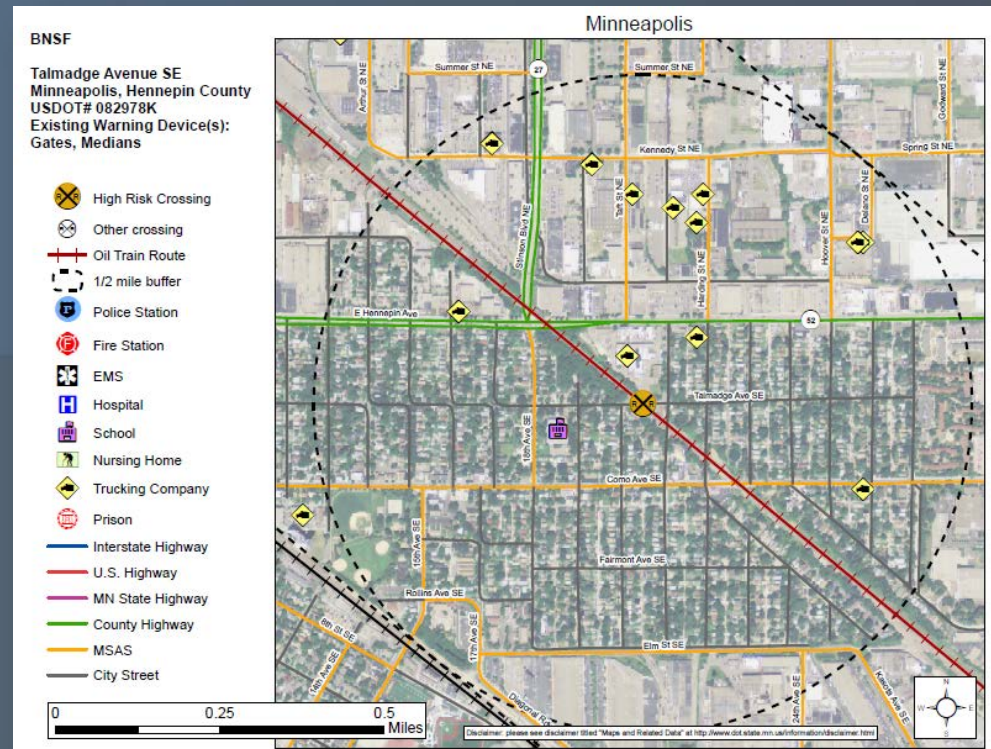
- “Good neighbor” policies
- Plan for increasing truck traffic in growing areas

- Intersections that allow safe truck movements
- Rumble strips, center guardrails, wider shoulders/turn lanes

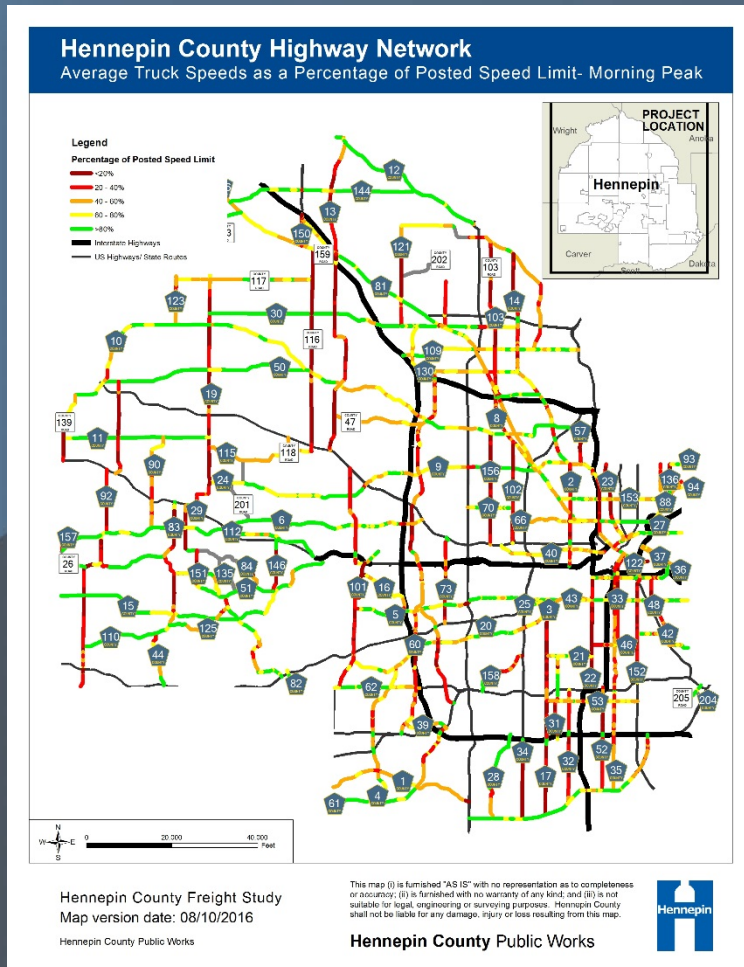
- Designated loading zones and parking
- Signage and signal timing

# Upgrade Road/Rail Crossings

- Inventory road/rail crossings on County roadways with high freight volumes for truck mobility/safety issues, e.g., lane geometry and clearances
- Partner with MnDOT and MetCouncil to advance priority road/rail crossing improvements



# Identify Areas for Future Study



- Corridor-level freight studies
  - » County 61 in Brooklyn Park
  - » County 116 (Rogers to Medina)
  - » State Route 100
    - MnDOT construction nearing completion
  - » US 169
    - Connects to major industrial clusters
  - » Bridge, clearance, and sign inventories
- Align freight with other planning efforts (within/outside County)
- Periodically update freight study

# Concluding Thoughts

- Existing industry and freight-related growth provide both economic opportunity and strain transportation resources
- Dealing with freight will continue to be a challenge for all transportation agencies
- This study provides a foundation for Hennepin County to
  - » Plan for and integrate freight into overall processes
  - » Ensure safe and efficient freight transportation
  - » Prioritize freight-related investments and programs necessary to support future economic growth
  - » Increase data collection and monitoring of County roadways
  - » Coordinate with MnDOT, MetCouncil, and County stakeholders on freight-related issues