



Located in the Fox Valley Area

Randall/Orchard Corridor BRT Feasibility Study

2040 Corridor Visioning Workshop

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Funding

Funded through the Energy Efficiency and Conservation
Block Grant (EECBG) Program

Of the



American Recovery and Reinvestment Act (ARRA)



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Purpose of Study

- Identify conditions required for successful BRT operation in 2040
- Evaluate potential benefits from BRT service in Randall/Orchard Road corridor



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Randall/Orchard Corridor Fiber Optic Investment

Multi-Million Dollar County Investment

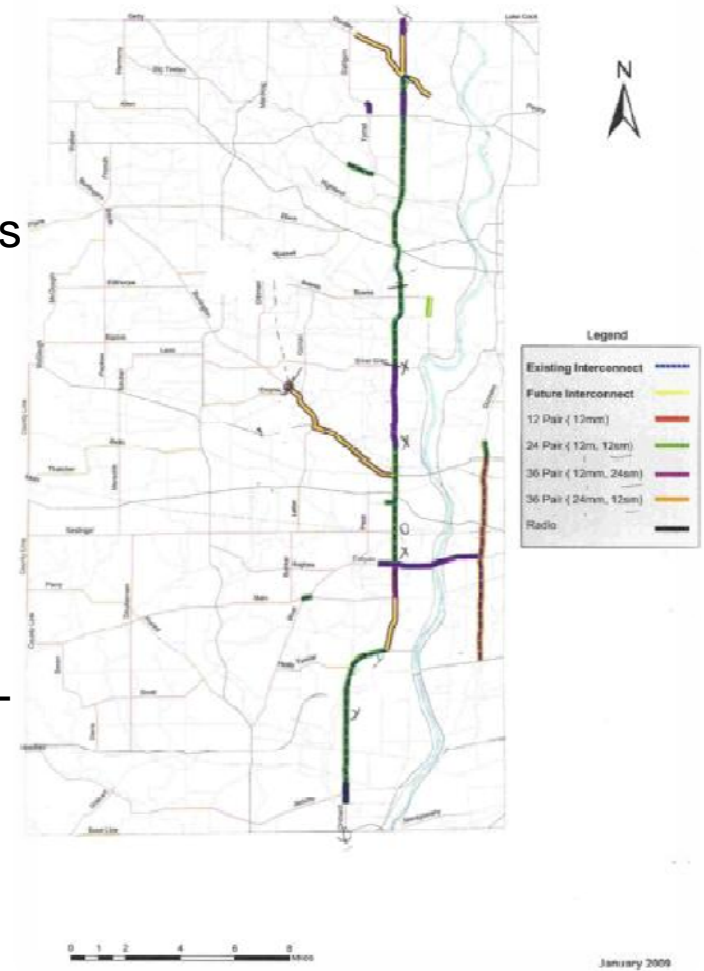
Supports business and development

- Fiber backbone for voice and data communications
- Gives the Randall/Orchard Corridor a technical advantage
- Network services for government, public safety, health, and education

Supports the County's growing ATMS (Advanced Traffic Management System)

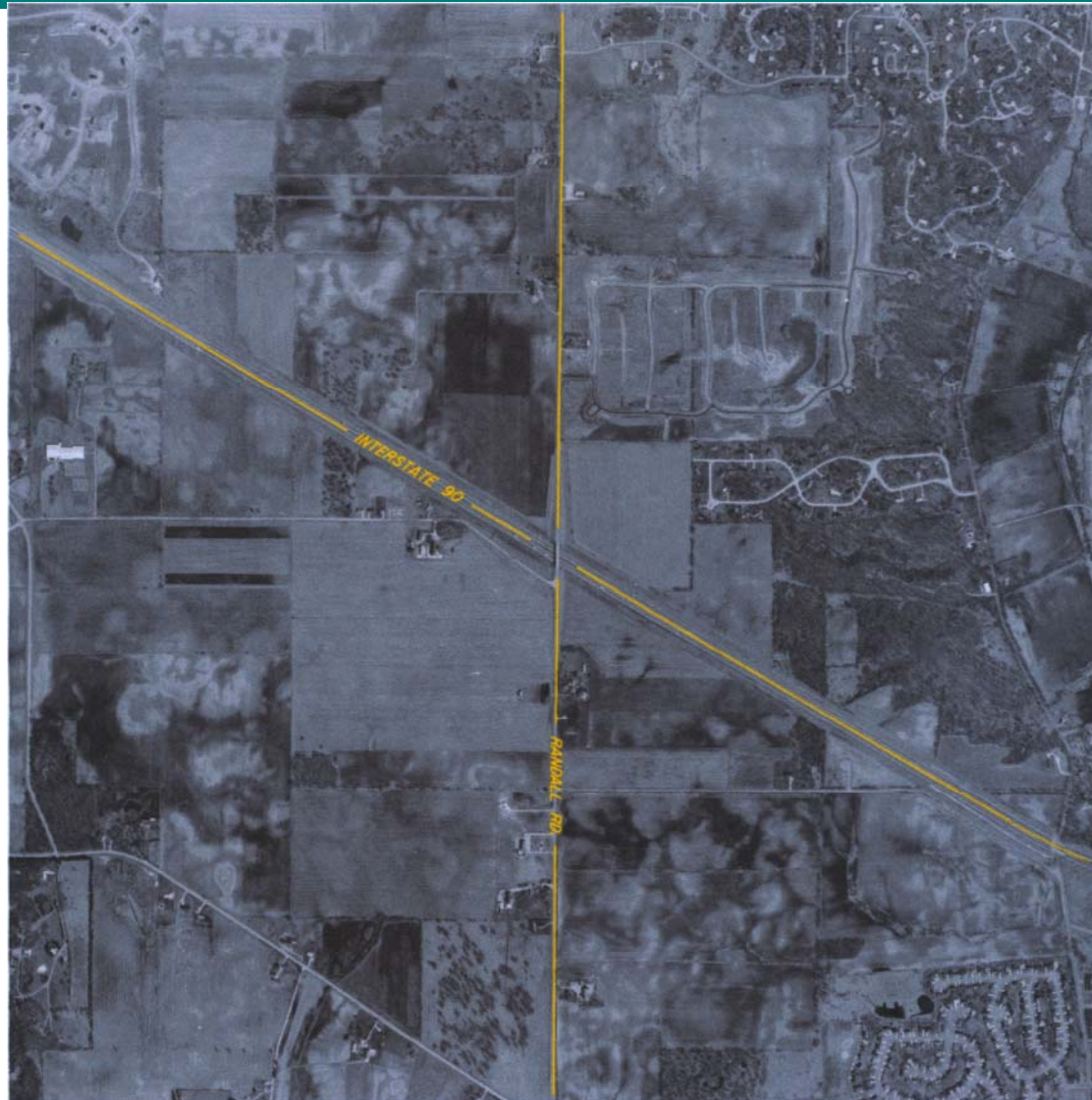
- Could accommodate Traffic Signal Priority for BRT

Kane County Traffic Management System
Fiber Optic Network



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1980 Land Uses



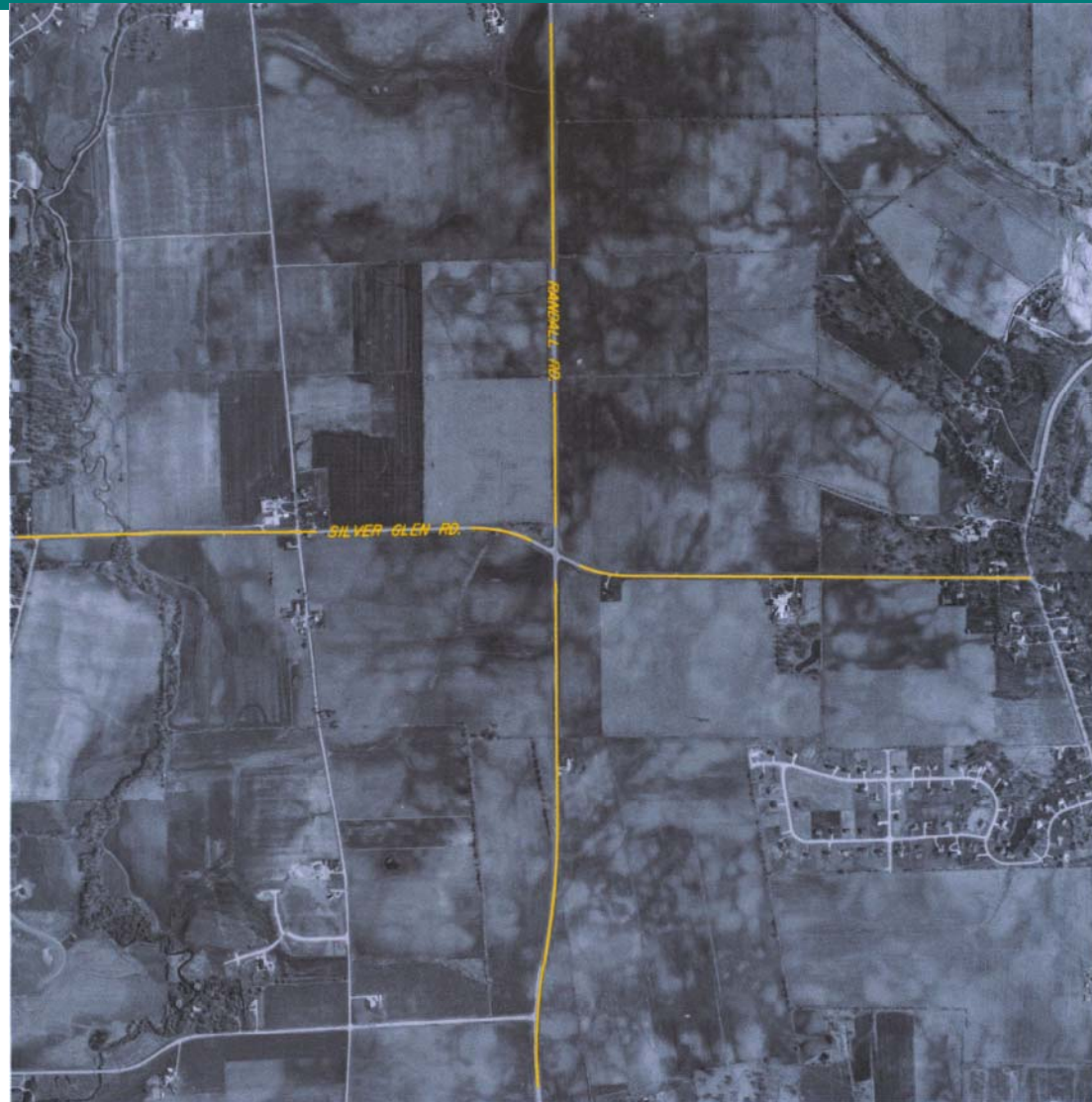
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1980 Land Uses



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1980 Land Uses



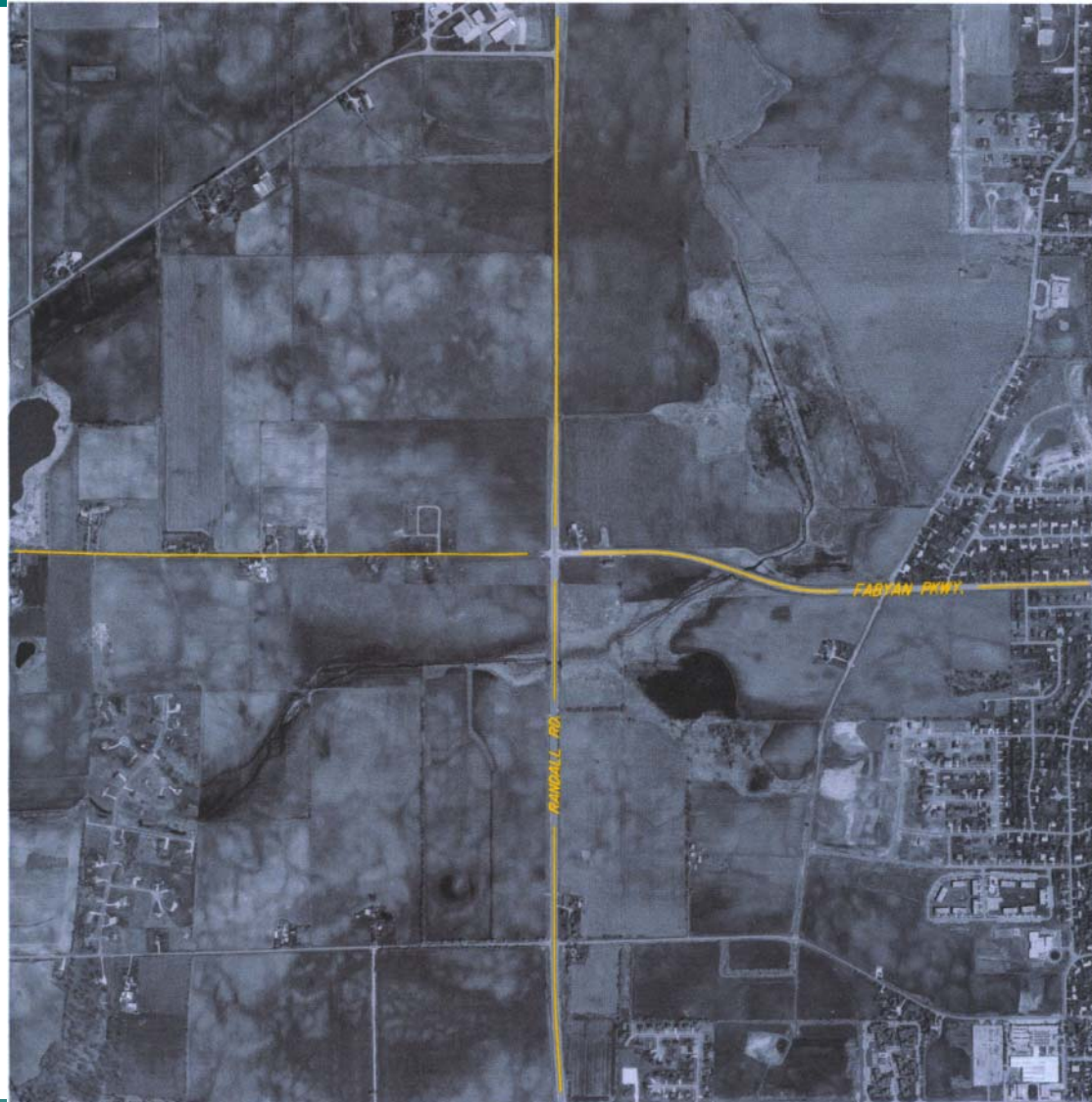
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1980 Land Uses



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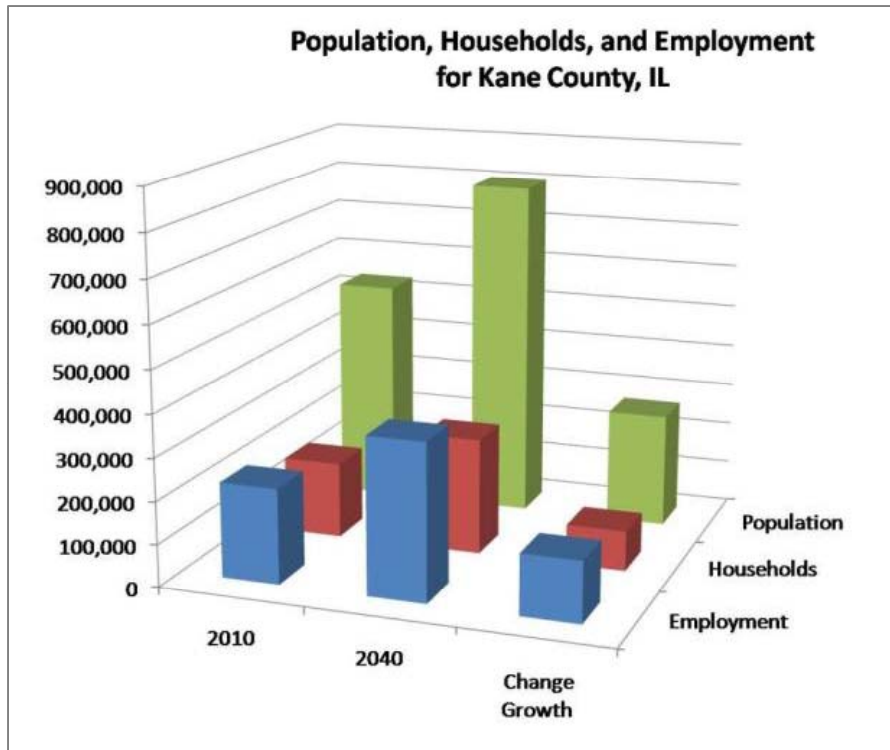
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1980 Land Uses



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2040 Projections



Population, Households, and Employment, Kane County, IL

	2010	2040	Change in Growth	
Population	532,852	802,231	269,379	51%
Households	179,702	274,085	94,383	53%
Employment	224,546	368,494	143,947	64%

Source: Chicago Metropolitan Agency for Planning, 2010.



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Changing Demographics

In 1970...

- 81% of households were families
- Most family households included kids (55%)
- Average household size: 3.6 persons
- Only 10 percent of the population was 65 or over



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Changing Demographics

Today...

- 66% of households are married couples and families (Roughly half of these households include children)
- 27% of households are single people living alone
- Average household size is 2.6 persons

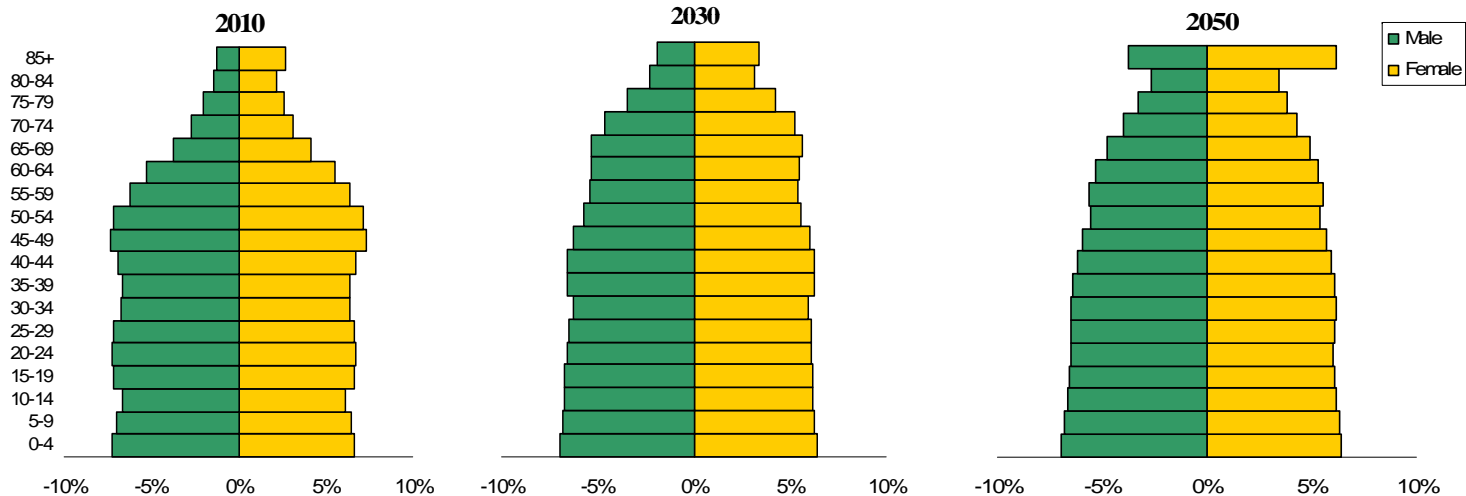


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Changing Demographics

The Baby Boomers are Beginning to Retire

Expected Age Pyramids, 2010 - 2050



Source: US Census Bureau, Strategic Economics



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Changes Shaping A New Housing Market

- *Singles* will soon be the *new majority* – 55% of households by 2030
- *Seniors* will outnumber young people by mid-century
- *Echo Boomers* are a growing proportion of the population

These fastest growing groups are more likely to want to live in mixed-use neighborhoods with good access to retail, services, and other amenities



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Consumer Preferences are Changing

Multiple surveys show that between 30 and 55 percent of Americans want to live in mixed use, mixed density places.

- *Option of Urbanism* by C. Leinberger

Demand for transit-oriented development can be conservatively estimated at 25% of all households by 2030.

- *Hidden in Plain Sight*, Center for Transit-Oriented Development



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Why Bus Rapid Transit?

- Incremental implementation
- Improve quality of transit service
- Improve customer experience
- Shorten trip lengths
- Shift trips to transit
- Create vibrant, livable communities
- Foster economic development



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Elements of Rapid Transit

Rapid Bus



Full BRT

- Unique branding
- Widely-spaced “station stops” with superior amenities
- Speed and reliability improvements
- Quality access – all modes
- Frequent service – no schedule needed
- Low-floor vehicles, multi-door boarding
- Dedicated lanes

Rapid Bus



Full BRT

Conditions for Successful BRT Projects

- Perceived as a quality option
 - Transit travel time improvements
 - Branding to differentiate service



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Conditions for Successful BRT Projects

- Transit supportive land uses
 - Mixed use
 - Multistory development
 - Multimodal connectivity



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Economic Benefits

- Reduced travel times
- Reduced congestion
- Opportunity to catalyze (re)development
- Potential for increased economic activity and/or agglomeration of businesses
- Increased market values, tax base
- Construction jobs
- Improved access to jobs



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Social and Environmental Benefits

- Healthier lifestyles
- More equitable access to jobs and activity centers
- Reduced tailpipe emissions and greenhouse gases
- Reduced noise levels



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Benefits to the Urban Form

- Enable more sustainable development
 - Reduced infrastructure requirements
 - Use of fewer utilities and resources
- Create vibrant, livable communities



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Station Area Development

- Development within walking distance of a station
- Scale of development
- Station area typologies
 1. Mixed Use Employment
 2. Mixed Use Residential
 3. Mixed Use Retail
 4. Destination
 5. Commuter



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1. Mixed Use Employment Typology

Characteristics	<ul style="list-style-type: none">•Able to sustain job growth•Provides a regional employment base or draw•High transit connectivity
Commercial Uses	Small and large scale office, light manufacturing
Residential Uses	Compact development (condos and apartments) and townhomes
Retail Uses	Neighborhood markets, convenience
Employment Centers	Job clusters and individual businesses
Institutional Uses	Neighborhood libraries, post offices and clinics
Entertainment Uses	Small venues



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2. Mixed Use Residential Typology

Characteristics	<ul style="list-style-type: none">•Able to sustain housing growth•Smaller centers without regional destinations•Moderate transit connectivity
Commercial Uses	Some small scale office
Residential Uses	Compact development (condos and apartments, townhomes and single family)
Retail Uses	Neighborhood markets, convenience
Employment Centers	Individual businesses
Institutional Uses	Elementary through high schools, neighborhood libraries, post offices and clinics
Entertainment Uses	Small venues



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3. Mixed Use Retail Typology

Characteristics	<ul style="list-style-type: none">•Able to sustain housing growth•Smaller centers without regional destinations•Moderate transit connectivity
Commercial Uses	Some small scale office
Residential Uses	Compact development (condos and apartments, townhomes)
Retail Uses	Regional retailers, neighborhood markets, convenience
Employment Centers	Individual businesses
Institutional Uses	Neighborhood libraries, post offices and clinics
Entertainment Uses	Small venues



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4. Destination Typology

Characteristics	<ul style="list-style-type: none">•Anchored by major destination•Provides a regional employment base or draw•High transit connectivity
Commercial Uses	Small and large scale office
Residential Uses	Compact development (condos and apartments)
Retail Uses	Regional retailers, neighborhood markets, convenience
Employment Centers	Job clusters and individual businesses
Institutional Uses	Government, hospitals, universities/colleges, libraries, post offices
Entertainment Uses	Large and small venues



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5. Commuter Typology

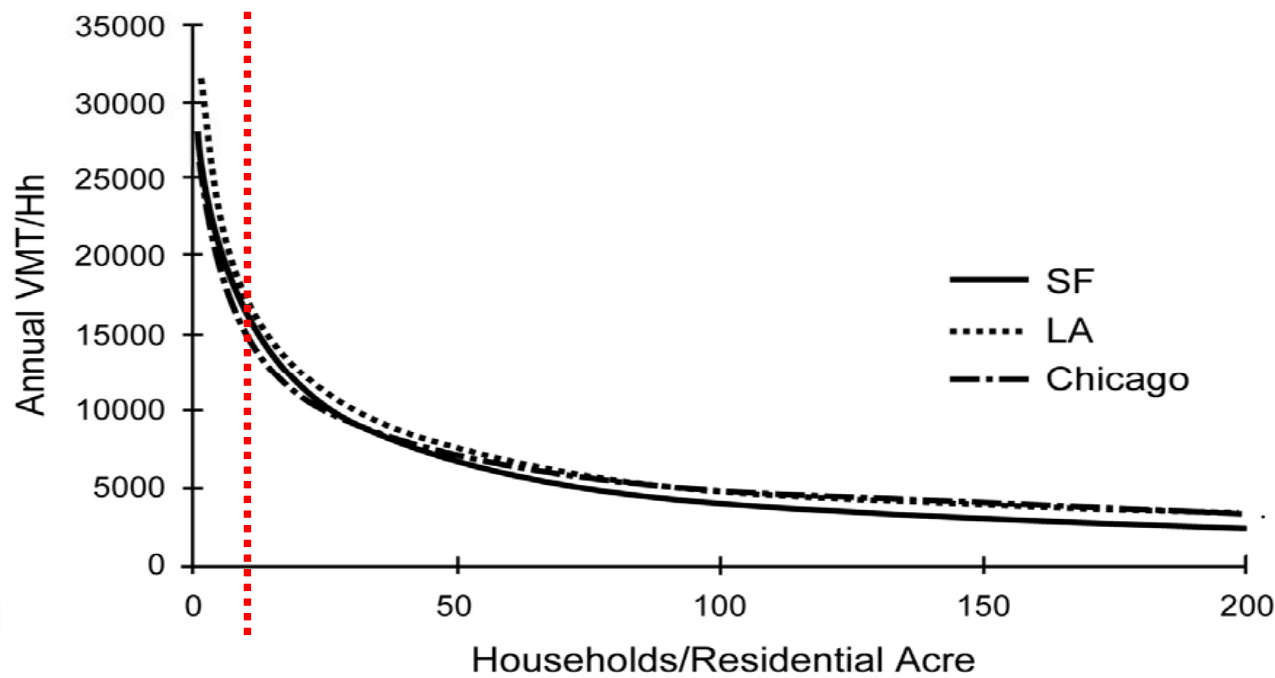
Characteristics	<ul style="list-style-type: none">•Provides multimodal transportation connections•High transit connectivity
Commercial Uses	Some small scale office
Residential Uses	Minimal
Retail Uses	Regional retailers
Employment Centers	Individual businesses
Institutional Uses	Minimal
Entertainment Uses	Small and major venues (e.g. sports arenas)



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Market Density Drives Transit

- Research confirms that between 7 – 30 housing units per acre:
 - Transit ridership grows
 - VMT/capita drops exponentially



Batavia - 14 Hh/Ac



South Elgin - 8 Hh/Ac



Geneva - 6.5 Hh/Ac



Medium Residential Density

- Longmont, CO
Density: 7.7 units / acre



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Medium Residential Density

- **Longmont, CO**
Density: 12.3 units / acre



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Medium Residential Density

- **Shaker Heights, OH**
Density: 15.2 units / acre



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High Density Residential

- **San Jose, CA**
Density: 21 units / acre



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High Density Residential

Dorchester, MA
Density: 29 units / acre



Addison, TX
Density: 55.2 units / acre



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High Density Residential

- **Emeryville, CA**
Density: 55 units / acre



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High Density Residential

- **Hayward, CA**
Density: 27.7 units / acre



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High Density Mixed-Use Residential

Portland, OR

Density: 60 units / acre

Housing, Retail, Structured Parking



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Medium Density Office

Portland, OR
Three-Story Office



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High Density Office

- Portland, OR
- Restaurant, Commercial office, Retail
- 241,000 square feet



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Station Area Developments

- Pleasant Hill Transit Village
 - 515 residential units (415 rental, 100 for-sale)
 - 40,000 square feet retail
 - Child care facility, conference facility
 - 290,000 square feet of office



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Station Area Developments

- Fruitvale Village
 - \$100 million of investment
 - 37,000 square feet of retail
 - 27,000 square feet of office
 - 47 residential units (rental)
 - Medical clinic, childcare, library, senior center
 - Bicycle Station



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Station Area Developments

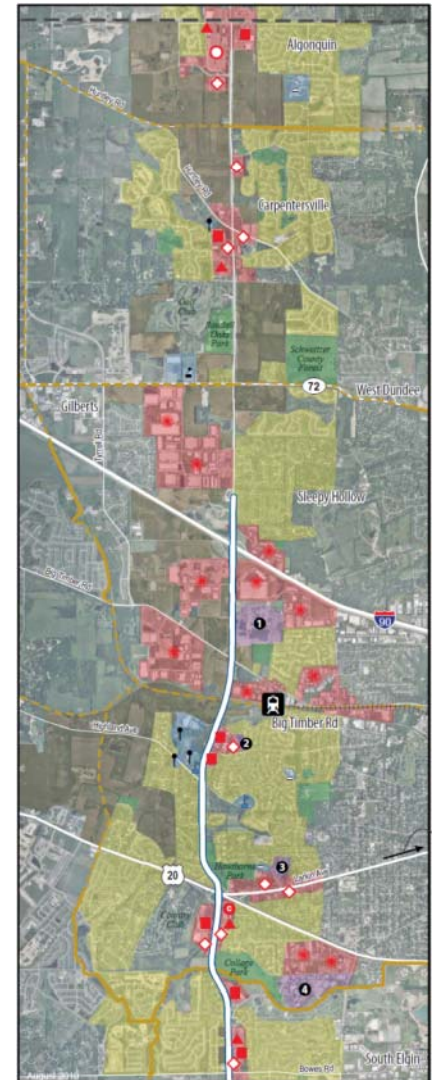
- Thornton Place at Northgate Mall Seattle
 - 50,000 sq.ft. of retail & commercial
 - 278 apartments
 - 109 condominiums
 - 143 units of retirement living
 - Regal IMAX 14-screen Theatre



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Corridor Conditions - Opportunities

- Undeveloped parcels
- Large-lot, big box retail
- Deep setbacks
- Major attractions
- Fiber optics backbone



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Current Conditions - Constraint

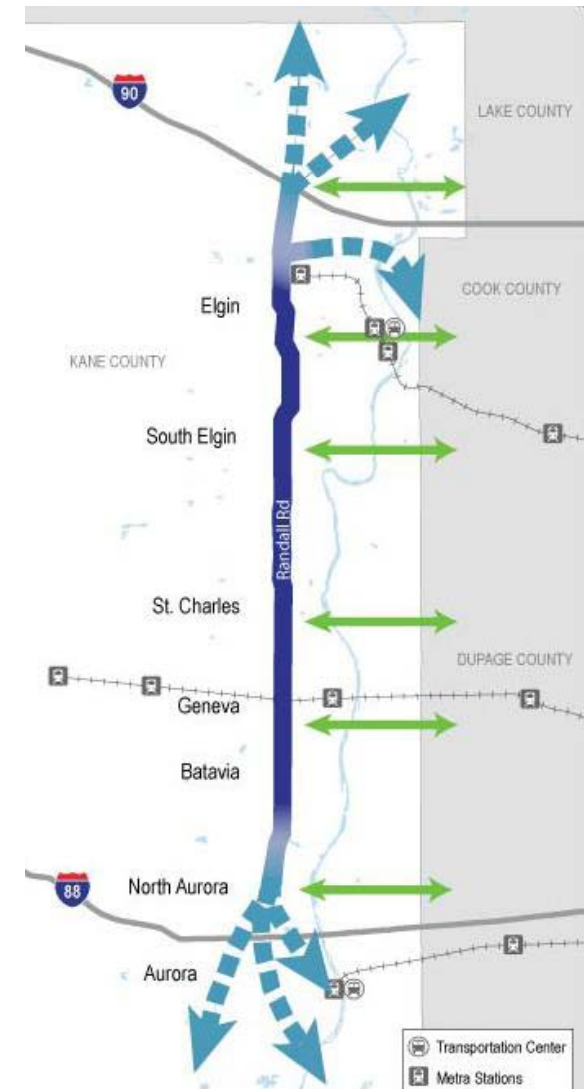
- Existing subdivisions
 - Little to no redevelopment
 - Limited connectivity
- High traffic corridor
 - No parallel N-S roads
 - Limited pedestrian crossing opportunities



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Exercise I – Overall Strategy

- Identify types and number of station area developments
- Identify potential BRT route terminations
- Identify major links within Sustainable Urban Area to the BRT Corridor



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Exercise II – Individual Station Area Characteristics

- Identify station area
- Identify station location
- Identify station area typology
- Identify intensity of development



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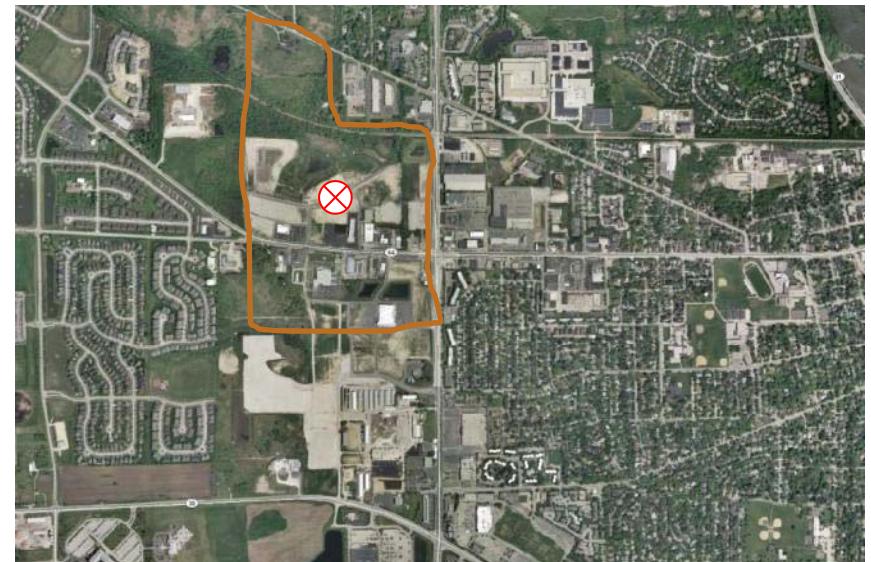


Define Station Area and Station Location

Example Station Area Centered on Randall



Example Station Area Off of Randall



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It's Time to Roll Up our Sleeves

- Lunch Break
- Workshop Exercise I
- Report Back to Group
- Workshop Exercise II
- Report Back to Group
- Final Thoughts



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Next Steps

- Define Stations and Station Area Developments - Fall
- Define BRT Design and Operation – Fall/Winter
- Benefits Evaluation – Winter
- Incremental Implementation Action Plan - Spring



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Thank You!

Thank you for participating in the workshop

We look forward to your future participation on the project
Working Group

Follow the project at
www.co.kane.il.us/dot/planning/BRT.aspx



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