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Land use and transportation are intertwined; yet, land use and transportation planning are often undertaken as separate disciplines. Growth and proximity to IL 47 will cause development to occur in the Corridor; and if not properly planned for, the future land uses could cause congestion along IL 47. This section discusses land use controls and presents the challenges with planning for land use in regard to the objectives of this Study. Finally, tools are suggested to address the challenges.

A review of current and proposed land uses for each municipality was conducted. This information came from the municipalities’ respective comprehensive plans and from interviews with municipal officials. The summaries from those plans and interviews have been incorporated within Corridor Character Analysis (see Appendix A). This information also was used to create development context zones for the land adjoining IL 47. Although the Corridor includes a larger area than simply the properties adjacent to IL 47, the development context zones provide a means of standardized depiction of current and future land use for properties fronting IL 47. These development context zones also suggest the type of roadway cross-section that will be needed in the future for IL 47.

Future Municipal Boundaries

Figure 3.1: Potential Future Municipal Boundaries illustrates the future vision for the IL 47 Corridor by the municipalities. Almost all of the land along the Corridor is expected to be incorporated into the adjacent municipalities and be developed. Almost all of the farmland and open space that currently dominates the Corridor will disappear, based on the comprehensive plans, zoning regulations and boundary agreements that have been adopted by the municipalities.

The boundaries illustrated are based on intergovernmental agreements or extraterritorial jurisdiction when there is not another municipality within close proximity. Most municipalities within the Corridor have entered into intergovernmental agreements with their neighboring communities. As shown in Figure 3.1, there are only a few areas within the Corridor that have not entered into intergovernmental agreements to fully establish shared future municipal boundaries (Elburn and Lily Lake). These lines solidify the planning jurisdictions of neighboring communities, which allows them to plan for and budget for any future annexations or service improvements in these areas.

County Land Use Plans

Both Kane and McHenry Counties have long-range plans that affect the Corridor; however these plans are currently being updated. McHenry County’s new plan and its recommendations have not yet been adopted as of this writing, and therefore, due to the potential of the plan and its recommendations changing, a draft has not been included or summarized in this study. Kane County continues to implement its 2030 plan while work on the 2040 plan is underway; the following provides a summary of the Kane County land use plan, as it relates to the Corridor.

Kane County’s 2030 Land Resource Management Plan

The Kane County 2030 Land Resource Management Plan (2030 Plan) is based on a conceptual strategy that divides the County into three distinct north to south land use areas arranged in an east to west direction as follows: Urban Corridor, Critical Growth and Agricultural/Rural Village. As shown in Figure 3.2: Kane County 50-50-50 Plan the Urban Corridor includes the municipalities that have historically developed along the Fox River, where 80% of the County’s population resides. The Critical Growth Area, in the middle of the county, is an area of transition between urban and rural where growth management is the guiding principle. The Agricultural/Rural Village area, in the western part of the county, seeks to
Figure 3.2: Kane County 50-50-50 Plan

The Kane County 2030 Plan also identifies potential locations for “priority places”, which are defined as centers where safe, healthy and livable communities can be developed through the implementation of smart growth principles. Priority places are intended to offer a mix of land uses, be constructed with compact development and provide efficient connections to the county’s transportation system.

Over 50% of the Kane County portion of the Corridor is identified as Agricultural/Rural Village on the Conceptual Land Use Strategy Map. The County Board initially adopted the conceptual land use strategy in 1994 with the 2020 Plan; this strategy called for a proper balance between natural resource protection and economic and community development. Kane County’s strategy was to protect the valuable farmland of the western townships of the county, to ensure the preservation of open space features such as stream-beds, wetlands and floodplains, and to provide definition between communities through the preservation of open space and farmland. Kane County and the Forest Preserve District have been implementing this strategy by purchasing property for public open space and buying development rights throughout the county.

IL 47 is currently considered to be the western boundary for future growth of the Chicago metropolitan area. However, the 2030 Plan acknowledges that some of the municipalities in the Corridor, such as Sugar Grove, Elburn, Lily Lake and Pingree Grove can and should accommodate expansion that will straddle IL 47. These have been included as part of the Critical Growth Area in the 2030 Plan.

The 2030 Plan further identifies two small crossroad commercial intersections along IL 47, located at Jericho Road at the south end of Kane County and at Plank Road at the north. The 2030 Plan acknowledges existing minor commercial development at these intersections, and promotes careful consideration of design for their redevelopment.

Simply stated, the 2030 Plan is that 50% of Kane County’s area can remain in open space and agriculture, if 50% of the forecasted population increase occurs in the urban corridor and if the other 50% of the population increase occurs in the critical growth area. This strategy is graphically depicted in Figure 3.2.

Development Context Zones

Regulation of most of the land use in the Corridor currently is under the jurisdiction of the Counties. This will change, as shown in Figure 3.1 as growth occurs and the fifteen municipalities expand their borders. Each of these municipalities has a comprehensive plan that guides land use decisions, but each uses different categories, definitions and intensities to describe its policies. For this Study, development zones were created in a collaborative effort with the municipalities to provide a common means of illustrating current and future land use patterns along IL 47.

The term “development context” refers to the natural or built environment created by features and activities adjacent to IL 47. The development zones help to illustrate how future development will affect the roadway and vice versa.

The development context zones are not intended to redefine the land use designations as planned for in each municipality’s comprehensive plan, but rather to provide a regional vision for how the Corridor is and will be developing. The development context zones do not replace municipal comprehensive land use plans.

The existing development context zones are based upon field visits, a review of municipal comprehensive plans, the Corridor Character Analysis (see Appendix A), meetings with the municipalities, and input from the agency workshop. The development context zones are as follows:

- Open Space/Agriculture
- Residential
- Crossroads
- Suburban Commercial
- Employment Center
- Arterial Mixed-Use
- Main Street
- Compact Mixed-Use/Village Center

As illustrated in Figure 3.3: Existing & Future Development Context Zones, the existing and future development context zones have been identified for the entire Corridor. It is important to note, that although the Corridor goes beyond the properties fronting IL 47, the information provided for the context zones represents the IL 47 roadway and land use immediately adjacent to it. Figure 3.3 (on page 21) illustrates a proposed...
Figure 3.3: Existing and Future Development Context Zones
future land use that is very different from the current land use. The following describes the development context zones that were used for this Study.

**Open Space/Agricultural**
This development context zone currently predominates much of the Corridor. When comparing existing and future development zones, it is evident that this is proposed to be reduced significantly in the future.

Open space/agriculture in the Corridor is comprised of a variety of uses including public and private open space, wetlands, floodplains, farmland, and forest preserves. The built environment within the open space and agricultural context zone is minimal. The majority of structures consist of single family homes and farms.

**Residential**
A combination of single-family and multi-family developments exists within portions of the Corridor. The majority of existing residential neighborhoods in the Corridor are subdivisions with limited direct access to IL 47. These subdivisions have large separations and/or buffering and screening from IL 47. Typically the "backs" of these developments are to IL 47 with access provided internally. Plans for future residential development in many of the municipalities do not occur adjacent to IL 47. Very little, if any, frontage along IL 47 has been identified for future residential development. Two notable exceptions are the portion of the Corridor directly north of Woodstock and the portion directly north of I-88.

**Crossroads**
Crossroad development is located where major roads intersect with IL 47. Crossroads consist of commercial land uses generated by the high volume of intersecting traffic and are typically auto-oriented. Developments within this context zone are generally single, stand-alone uses that do not connect to surrounding uses or to each other. These places are designed to serve through traffic.

Although the crossroads development context zone currently exists at a number of locations along the Corridor, no municipality has indicated that this type of development is desired in the future development context. Thus, it is not reflected as a future development context zone.

**Suburban Commercial**
This development context zone consists primarily of retail and commercial uses. Typically, suburban commercial developments are set back from IL 47 with surface parking located along the road frontage. As illustrated on Figure 3.3, this development context zone is planned to increase somewhat along IL 47. It is interesting to note that some municipalities that have suburban commercial fronting IL 47 desire to redevelop these areas into the arterial multi-use context zone.

**Employment Centers**
Employment centers are areas with large concentrations of office, light industrial, warehouse, or distribution uses. The only employment center that currently exists within the Corridor is the McHenry County complex. However, a warehouse center is under development on the west side of IL 47 near its intersection with I-90 in Huntley and a similar development is being constructed in Sugar Grove near the intersection of Bliss Road and IL 47. The City of Elgin has three large employment center areas planned by other Corridor municipalities along IL 47.

**Arterial Multi-Use**
The arterial multi-use development context zone is a horizontal mix of uses on one parcel (not within one building). One should note that mixed-use involves various uses within one building. Although this context zone does not currently exist within the Corridor, many municipalities are planning for this type of development in the future. As shown on Figure 3.3, arterial multi-use is planned along IL 47 within most Corridor municipalities. Currently most of these future context zones consist of agricultural uses and suburban commercial context zones.

Arterial multi-use developments typically consist of large parcels subdivided into tracts of different but segregated uses. Typically, these developments are low-density as they need to provide for surface parking. The uses are segregated, but the development is called "multi-use" when a single developer or parcel is involved. For example, Pingree Grove has approved a multi-use development at the northwest corner of IL 47 and IL 72 that consists of big-box and strip retail and a large townhome development.

**Main Street**
This development context zone currently exists in three locations along the Corridor: Huntley, Hebron, and Elburn. These are the historic downtowns of these communities and IL 47 is characterized as the "main street" through the center of town. This zone has a unique character unlike other areas of the Corridor; creating a strong sense of place for these three communities. To a lesser degree, IL 47 serves as a main route for Lily Lake, Sugar Grove and Woodstock, although the built environment in these communities does not define the road as a main street. As illustrated on Figure 3.3, the three existing main street development context zones are planned to remain, however, no new main street zones are planned by other Corridor municipalities along IL 47.

The main streets have a mix of uses including residential, retail/commercial, office, open space, and institutional. Within these main street zones, the buildings may be multi-story and are located at, or near, the front property line. These areas have excellent pedestrian amenities including sidewalks and pedestrian crossings at signalized intersections. Parking is located behind buildings and on-street along IL 47.

**Compact Mixed-Use/Village Center**
Compact mixed-use development context zones can be defined as multi-story buildings. Although this development context zone does not currently exist within the Corridor municipalities along IL 47, several desire this type of context zone in the future.

This type of development encourages a mix of all land use types including a range of housing opportunities and choices. These zones can become growth nodes that are walkable and support transit service. Growth nodes should be focused on east-west major roadways within areas that are expected to sustain focused development and should consist of compact mixed-use development. These centers can promote jobs near housing.

**Municipal Zoning and Development Controls**
The following presents an analysis of the municipal zoning and development controls in regard to the objectives of this Study. Each control has been organized by land use classification to allow for the comparison of land use and development requirements specific to the Corridor municipalities. The most significant facet of this analysis is the identification of controls that may deter or prevent future development that promotes objectives of this Study.

Just as each municipality is unique, so are their development controls. To more easily comprehend the differences between the various ordinances and controls, certain details were generalized to allow for an "apples to apples" comparison of the municipal regulations. Although a summary is presented below, the actual municipal documents should be referenced for more detailed zoning information and exact specifications, calculations, and language.
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Single-Family Residential
All fifteen municipalities within the Corridor permit single-family residential uses ranging in density and intensity. The municipal zoning ordinances and development regulations varied in definitions and requirements for single-family residential uses. Each municipality had their own terminology, definition, and categories for single-family residential uses. For example, some municipalities regulate density as a net density per acre, while other municipalities use gross density per acre.

Municipalities with maximum densities over five units per acre can allow more compact single-family residential neighborhoods on smaller lot sizes (6,000/7,000 square foot lots). The Village of Montgomery and the City of Woodstock allow the highest maximum density allowed at 6 dwelling units per acre. The Village of Elburn has the lowest maximum density allowed ranging from 0.25 to 4 dwelling units per acre; however, the Village, like other municipalities, can use the planned unit development (PUD) process to permit higher densities. For example, recent residential PUD proposals such as Lilac Ridge Subdivision and Elburn Station consisted primarily of single-family residential attached units with densities higher than the 4 dwelling units per acre allowed under the current zoning ordinances.

Multi-Family Residential
All communities within the Corridor allow for multi-unit residential developments. The range of land uses include single-family attached townhomes, apartments, and condominiums. Overall, most communities have zoning and development controls in place that allow for multi-unit developments. These developments may be part of multi-use developments or consist of stand-alone buildings. Most communities allow for multi-unit residential uses with densities between 6 and 10 dwelling units per acre. These permitted densities generally will result in townhome developments or large complexes of apartments or condominiums. The existing multi-unit residential densities range from a low of 3 dwelling units per acre in Huntley to a high of 12 dwelling units per acre in Montgomery and Elburn.

A review of the parking requirements for multi-family developments shows that most communities require two parking spaces per unit regardless of size. The City of Elgin is the exception within the Corridor, requiring one space per 500 square feet of a residential unit up to a maximum of 4 parking spaces. This equates to a requirement of three parking spaces for a 1,500 square foot unit. Minimum parking requirements which are based on generic formulas often exceed actual demand, resulting in excess parking spaces that increase the consumption of land, the cost of development and do not promote smart growth.

Commercial Mixed-Use
All the Corridor municipalities permit commercial and retail development. Each municipality has varying types and classifications of permitted commercial uses ranging from neighborhood commercial to mixed-use development and larger regional shopping centers.

Examples of varying types and classifications of permitted commercial uses ranging from 1) neighborhood commercial, 2) mixed-use, and 3) larger regional shopping centers.

One obstacle to mixed-use development is typically the maximum stories allowed by zoning. All communities permit mixed-use developments that allow for residential units above ground floor retail and commercial businesses. Each municipality identifies a maximum height for buildings within this classification. Traditionally, compact mixed-use developments need to be a minimum of three stories to create the economies of scale required by most developers to make them economically feasible. Three-story buildings that allow residential units above ground floor retail are needed to support the mix of uses and its required parking. Larger buildings can provide underground parking or at-grade parking behind the building.

Based upon densities allowed under the multi-family classification and the height requirements given in the commercial classification, it is implied that multi-family units are allowed in most communities as part of mixed-use developments. For example, Crystal Lake permits a two-story building, which would allow one story of residential above, while Woodstock and Montgomery permit a four-story building, which would allow three stories of residential above. As discussed earlier, those communities that allow buildings with at least two stories of residential above retail will typically have a greater chance of attracting mixed-use development.

Industrial
All of the Corridor municipalities permit industrial use. The floor area ratio (FAR) and the large front yard setback requirements identified for industrial uses promote low density, suburban business park developments. Although these requirements are intended to create pastoral or campus-like settings for industrial development, they result in low-density development that requires excessive land consumption for single-story buildings, surface parking and unusable open space. Corridor municipalities should consider changes to their zoning codes, regulations and ordinances to promote smart growth principles of greater FAR, and less minimum front yard setback requirements. It is important to note that the majority of new industrial uses are light industrial, business park, or research facilities that can more appropriately fit into mixed-use areas.

By integrating these “employment generators” into mixed-use areas, and not just within segregated industrial parks, employees are typically more inclined to walk or ride public transit from or to their place of work.

Office
All of the Corridor municipalities permit office uses, although there has been relatively little demand for such space. The municipalities have made provisions for office land use in their zoning ordinances. There may not be immediate demand, but office employment space should be encouraged and planned for. Segregated zoning should be reconsidered; office space is easily mixed with other uses, which would encourage walkability, shared parking, and reduction of driving.

Many municipalities provide for office space zoning that allows setback depths suitable for parking within the front yard. For areas where a more urban setting is the goal, large front yard setbacks discourage walkability. The amount of land needed for office buildings is greater in these situations and may inhibit the creation of a continuous streetwall, which is defined as building walls lining the sidewalk to provide a comfortable scale for pedestrians.

Some communities also use FAR to regulate office uses. Where FAR is used, the maximum allowances range from 0.3 to 2.0. Hampshire’s office FAR of 0.3/0.5 is the lowest of the Corridor municipalities. While the Hampshire zoning ordinance may permit a four-story building within an office development, the FAR requirement is such that a building could only be constructed on a large parcel with a potentially excessive amount of open space and large parking lots.
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Planned Unit Development

Most Corridor municipalities use a planned unit development (PUD) process to allow projects that are compatible with the land use. This is due to the fact that most “by-right” zoning regulations often do not adequately allow for compact mixed-use development. The flexibility of the PUD process also can result in design features that promote roadway connectivity, walkability and transit use.

Summary

Three of the objectives of this Study would directly affect land use: encourage growth nodes, strengthen existing developed areas, and promote placemaking. Current zoning and development regulations may need to be updated to promote the objectives.

Encourage growth nodes – As discussed within the Economic Development Section, growth nodes should be encouraged at east-west major roadways, Metra stations and employment centers. Current zoning ordinances and development regulations may not promote growth nodes of compact mixed-use development, but should be encouraged through updated comprehensive plans and ordinance revisions. Growth nodes can promote walkability, support transit, discourage driving and promote active living. Public transit is more economically feasible with growth nodes with densities of 4 - 7 units per acre.

Strengthen existing developed areas - The Regional Centers and Historic Municipalities have infrastructure in place and provide services such as police and fire protection. These municipalities provide opportunities to establish more compact development patterns. More concentrated development promotes walkability, supports public transit and encourages more active living. Furthermore, it reduces development costs and municipal maintenance costs for the infrastructure of streets, sewers, water lines, gas, electricity, and communication. Soft service costs will also be reduced as police and fire, for example, have less distance to travel.

Promote placemaking – It has been said that identity only has value when there are differences. Municipal zoning and development controls typically do not provide for creating unique places. The Historic Municipalities in the Corridor already include unique places that should be preserved. Much of the open space/agricultural context of the Corridor provide pastoral vistas and an agricultural economy that should be preserved. Placemaking can be created in a number of ways. The Historic Municipalities and agricultural land use provide an important starting point for creating a strong identity to the Corridor.

Some municipalities have design guidelines in place that are used to guide the look and character of developments, but these need to be reviewed to consider the true impact of the land use – transportation relationship on the definition of place.

Planning Challenges and Tools

The future definition and function of IL 47 will be dependent primarily upon the land use decisions made by Corridor municipalities. Following are planning challenges associated with encouraging growth nodes, strengthening existing developed and promoting placemaking. Tools to address the planning challenges are suggested. More detail on these tools is found in the Section 8: Toolbox for IL 47.

Planning Challenge #3:
Compact mixed land use will promote active living, economic development, transit, and walkability and reduce auto-dependence. Growth nodes should be identified and “by-right” zoning regulations should be updated to allow compact mixed-use development.

Tools:
- Comprehensive Plan Update
- Identify Locations for Growth Nodes
- Infill Development
- Transit Oriented Development
- Transit Plan
- Zoning Ordinance, Building Code and Regulations Update

Planning Challenge #4:
Most municipalities use a planned unit development (PUD) process to allow flexibility to strict zoning regulations. The repeated use of the PUD process may indicate that zoning ordinances need to be updated or reexamined. Also, the flexibility in the PUD process may result in development with lack of attention to traditional design features that promote active living, roadway connectivity and walkability.

Tools:
- Planned Unit Development
- Roadway Connectivity
- Site Design Guidelines
- Traditional Neighborhood Development
- Transit Oriented Development (TOD)

Planning Challenge #5:
Existing developed areas could be strengthened through efforts to encourage compact mixed land use. Municipalities should identify growth nodes within developed areas and promote changes in development and zoning controls that would increase residential densities, building floor area ratios and building heights; reduce parking requirements and front yard setbacks; and promote mixed-use development.

Tools:
- Comprehensive Plan Update
- Density Incentives and Bonuses
- Form-based Codes
- Growth Node Location Identification
- Hybrid Zoning
- Overlay District
- Parking Requirements that Discourage Excessive Spaces
- Planned Unit Development (PUD)
- Smart Growth Codes
- Zoning Ordinance, Building Code and Regulations Update
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Planning Challenge #6:
The IL 47 Corridor has a unique character based on agricultural land use and the historic municipalities. As growth occurs, IL 47 could become a typical suburban roadway. Placemaking should be promoted to bring identity to the Corridor.

Tools:
- Adaptive Reuse
- Agricultural Preservation
- Anti-Monotony Ordinance
- Corridor Plan
- Façade Improvement Program
- Infill Development
- Preserve Historically Significant Structures
- Public Gathering Spaces and Plazas
- Roadway Character and Identity

Planning Challenge #7:
County and municipal plans for the Corridor are not congruous. A continuous comprehensive and coordinated planning process is needed to promote economic development and minimize land use impacts that will cause congestion on IL 47.

Tools:
- Corridor Planning Council
- Support Regional Planning Efforts