

# CHAPTER 3 – DATA COLLECTION AND ANALYSIS

## (EXISTING CONDITIONS AND INVENTORY)

### 3.1 DOCUMENT REVIEW AND COLLECTED DATA

In preparing the Integrated Transportation Plan the project team collected data and created an inventory of the existing study area, ultimately providing an overall site analysis. A sampling of the information and data collected is as follows;

- Current Yorkville Demographic Information
- Corridor Statistics and Traffic Maps
- 2003 Transportation Plan
- Kendall County Trail and Greenways Plan 2004
- 2006 Aerial Photography
- 2007 Kane and Kendall County Bike Map
- 2008 Comprehensive Plan Update
- 2008 Parks and Recreation Master Plan
- IL Route 47 Engineering Plans (for future widening)
- CMAP 2040 Draft Plan (Trails and Greenways)
- Existing Standards from other Agencies (i.e. Manual on Uniform Traffic Control Devices (MUTCD), American Association of State Highway and Transportation Officials (AASHTO))



Existing conditions of Cannonball Trail - looking north.

During the assessment and analysis stage, an initial kickoff meeting occurred, with the project team touring the study area and specifically focusing on the downtown area. The study areas, as described previously for both the Shared Use Trail Plan and the Downtown Streetscape Plan, were studied and inventoried. The project team completed tasks such as:

- Inventory of existing conditions
- Analysis of population projections and trip generations
- Cross-section analysis and recommendations
- Opinion of probable costs

At the completion of the data collection and site analysis stage, the information and graphics were compiled for use throughout the process and, specifically, through the public involvement stage. Many municipalities are adjacent to the ITP study area boundary (see *Exhibit 'A' - Study Area*). Natural features such as the Fox River,

Blackberry Creek, Middle Aux Sable Creek and Rob Roy Creek also exist within the study area (see *Exhibit 'B' – Study Area Inventory*). Other significant features inventoried and shown on Exhibit 'B' are:

- Municipal Boundaries
- School Districts
- Schools
- Floodplains (100 year and 500 year)
- Environmental Corridors (minor and major drainages)
- City Parks (Existing and Proposed), State Parks and Forest Preserves



The Fox River and Fox River Watershed are sensitive natural resources in the Yorkville region.

#### Context Sensitive Solutions

One of the unique methods utilized during the ITP project is called Context Sensitive Solutions (CSS). This method identifies existing conditions and character of an area and then establishes recommendations, based upon the context of the region. The CSS process works as a partnership between Yorkville and local stakeholders to develop working solutions that incorporate the context of the area to ensure that final recommendations preserve and respect local character and natural resources.



Kendall County Courthouse  
The CSS process respects architecture of a region.

*“Context sensitive solutions is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.”*

Source: Federal Highway Administration

All information and knowledge is shared within a collaborative process. This process leads to flexible application of design standards, focusing more attention on pedestrians and bicyclists. The ITP utilizes Context Sensitive Solutions by analyzing the “context” of Yorkville and the Kendall County region, and incorporating the findings into design solutions that are in harmony with the area’s natural features and resources that could be otherwise harmed. Scenic, aesthetic, historic, and environmental resources were examined and inventoried, such as the Historic Kendall County Courthouse, Fox River, Blackberry Creek, Aux Sable Creek, Forest Preserves, and existing rural character of the area. Yorkville, like many communities, values these types of features because they are an important aspect of the cultural history and character of the Kendall County region.

Harris Forest Preserve



Richard Young Forest Preserve

## 3.2 OVERALL BICYCLE AND PEDESTRIAN CONDITIONS

Bicycle and pedestrian conditions vary greatly throughout the study area. In the past, as with most growing communities, Yorkville focused on immediate needs such as infrastructure improvements including roads, water and sewer system, and trail plans were not developed, or required in developments, to connect to facilities in town. In 2006 with the creation of the Community Development Department, the trail system began to develop further, with careful watch on completing missing connections as developments came in. In some cases, trails have been constructed along the roadway in lieu of sidewalks, with the hope that, someday, it would provide connectivity to a greater system. Today many gaps in the system remain and the Yorkville region, specifically, does not have

a cohesive or connected trail system, even though the demand exists. **In a 2007 survey by the Parks and Recreation Department, trails were identified as the number one facility request by residents.** However, in the results of a recent survey (2009), over 86% of respondents reported that the “level of accessibility of the trails they travel” are average to very poor. Then when asked “which of the following would do the MOST to encourage you to utilize trails and sidewalks in Yorkville?” a significant number (61.8 %) responded “more connected sidewalks and trails”. However when asked about the “quality of the trail” almost 75% responded favorably saying they are average to excellent, which may be due to the fact that constructed trails in Yorkville are fairly new (see Appendix B for all survey questions and responses).

It can be assumed that if the facility improvements contained in this ITP report were implemented, non-vehicular travel could substantially increase in Yorkville.

### Connections to Local Trail Systems

The ITP provides an inventory of the local trail systems that are constructed or planned. Yorkville is developing a large cohesive trail system, with implemented trails typically located in new developments. Successful grant applications and the use of developer land/cash funds have directly funded some trail construction. In other areas, the trails were designed as part of the development in-lieu of sidewalk on no-load roads, or in greenways behind homes. To date, over 20 developments in Yorkville currently have trail easements secured and agreements with the developers for construction as part of their development projects. Continuing this practice will greatly benefit the City through reducing cost to connect the various residential developments and maintenance fees if the developments homeowner’s association can maintain internal trails that are primarily utilized by the developments’ residents. For future trail development, negotiations in annexation agreements can create regional trails, and this is especially beneficial in an area where all development plans are under review at the same time. Another example of how connections to local trails may occur, IDOT is now required to plan for non-vehicular facilities on all major roads. This is especially beneficial to Yorkville with the multiple regional roads such as U.S. Route 34, IL Routes 47, 126, and 71 within the ITP study area.



Connecting to existing trails (Windett Ridge picture above) is a primary goal of the ITP study.

Successful local trail systems include the Grande Reserve Trail, Autumn Creek, Fox Hill, Heartland, Windett Ridge, Raintree, Heartland Circle and Bristol Bay, all developer installed trails. A future trail corridor (see exhibits for location) is an example of a key local trail location that the City is currently pursuing grant funding.



Some constructed trails exist in Yorkville (as shown in Grande Reserve, above) however connectivity of these existing trails to downtown and other built trail systems is lacking.

### Connections to Existing and Potential Regional Trail Systems

One of the primary goals of the ITP project was to analyze regional trail systems and pursue connectivity with these regional trail networks. Maps were collected and the project team met with or discussed the ITP with other municipalities and organizations in order to identify potential regional connections (see Exhibit 'D' – Regional Trails).



The Fox River Trail is a key regional link for Yorkville.

As the Yorkville trails system expands, it will be very important to coordinate and understand the conceptual trail plans of other municipalities and organizations and their overall programming and implementation schedules for those plans. Therefore, the ITP includes an emphasis on inventorying and pursuing connections to existing and proposed regional trails. This coordination is essential, as

Yorkville looks for opportunities - on a regional level - to partner with other organizations with similar goals of creating a regional shared use trail network, while meeting the needs of Yorkville. An example would be the linking and coordination with the Village of Oswego, Oswegoland Park District and their trail system, which is immediately east of the ITP study area. Also, it will be important to coordinate with Kendall County and the Kendall County Forest Preserve District regarding their trail plans, and examine potential partnership opportunities.



The ITP focuses on connecting to existing and proposed regional trails (pictured above is the Kendall County Subdivision – Fields of Farm Colony trail system).

Yorkville has coordinated trail planning and construction when appropriate and will continue to pursue opportunities in the future to connect any geographically connected projects. For example, successful coordination and implementation with Kendall County and the Kendall County Forest Preserve District will produce a unified regional trail system for all residents of this area to enjoy. The ITP has identified potential regional connections and it will be important for the City to be knowledgeable about the programming and current status of the groups listed below.

### Adjacent Municipalities

- Oswego
- Montgomery
- Sugar Grove
- Plano
- Millbrook
- Millington
- Lisbon
- Newark
- Plattville
- Joliet



### *Other Agencies and Potential Regional Trail Corridors*

- Kendall County and Kendall County Forest Preserve District
- Kane, Grundy, and Will Counties
- Oswegoland Park District
- Plainfield Park District
- Fox Valley Park District (Fox River Trail)
- CMAP (Chicago Metropolitan Agency for Planning)
- Conservation Foundation
- Commonwealth Edison (ComEd)
- Adjacent Townships and Road Commissioners
- IL Route 47 Corridor (potential link to the I & M Canal Trail)
- Middle Aux Sable Creek Corridor
- Virgil Gilman Trail
- Illinois Railway
- Burlington Northern Santa Fe (BNSF)

### Connectivity to Key Nodes and Destinations

One of the primary goals of the Shared-Use Trail System is to provide connectivity by linking existing neighborhoods and trails to “activity nodes” and destinations around Yorkville. The project team examined how potential connections to existing trail networks might be achieved in developments such as Heartland Circle and Raintree Village. Ultimately, trails will connect to adjacent municipalities, Kendall County, and to state-wide trail networks, as mentioned previously.



Trail connections to shopping areas, schools and work places is a primary goal of the ITP proposed trail system.

Connectivity of key nodes, places, features, and destination points is very important when implementing a successful Shared Use Trail system. In Yorkville, there are many key nodes that should be linked together, such as forest preserves, library, schools, employment and work places,

parks, restaurants, shopping areas, public buildings, churches, banks and medical facilities (see Exhibit ‘E’ – Key Nodes and Connections). The ITP has considered important features and has identified many destinations including but not limited to:

- Downtown Yorkville
- Yorkville High School/YHS Academy
- Kendall Marketplace Shopping Center
- Yorkville Public Library and City Hall
- Yorkville REC Center and Parks and Recreation Administration Office

### 3.3 DOWNTOWN EXISTING CONDITIONS AND ANALYSIS

In order to provide ideas and recommendations for improvements, it is important to gain an understanding and thorough inventory of the existing conditions in downtown Yorkville (see Exhibit ‘F’ – Downtown Study Area Analysis). This ITP study expands beyond the strengths, weaknesses, opportunities and threats, as identified in the current Vision Plan. These items will be taken into consideration throughout the ITP.

#### Analysis

##### *Strengths*

- Intact vintage blocks and character
- Quick growth and high traffic counts
- Nearby tourism attractions and Fox River access and recreation (whitewater recreation facility, fishing, etc.)
- Adjacent traditional neighborhoods, available sites, strong businesses downtown and owner occupied properties
- Leadership and government interest



##### *Weaknesses*

- Hard edge of the river dividing the downtown area
- Illinois Route 47 as a barrier between the east and west downtown regions



*Existing conditions in Downtown Yorkville – A historic residential building is shown on the left and IL Route 47 shown on the right.*

### ***Opportunities***

- Façade and building rehabilitations
- Historic resources and design guidelines
- National retailer and restaurant recruitment
- Advertisement to potential new residents
- Build out of density

### ***Threats***

- Future widening of IL Route 47
- Lack of modern commercial space and aging housing stock
- Distance to new residents
- Lack of connection between new and old streets
- Competitive atmosphere of nearby communities

In addition to the strengths, weaknesses, opportunities and threats listed above, the ITP identifies the existing conditions in the categories: land use, streetscape conditions, vehicular and non-vehicular transportation conditions, existing sidewalk conditions, lighting and site furnishings.

### ***Land Use***

A range of land uses exist within the downtown study area, such as retail, restaurants, parking lots, service, office, institutional, public and residential, all of which are fairly “typical” in small town commercial districts such as Yorkville. Auto-oriented uses dominate the core area of the downtown, as well as the immediate surrounding area. Residential uses are located to the east, west, north (across the Fox River), and south of the downtown core area. (The downtown has some green space and important amenities such as the whitewater recreation facility. In the future connecting such features with trails and walks will be key.)

### ***Vehicular Transportation***

IL Route 47 is the main north-south arterial route through the downtown carrying significant traffic volume and dividing the area into an east and west side, which inhibits safe non-vehicular travel. Future plans for Route 47 are to widen the road and increase the number of lanes, thus eliminating the parking that currently exists. The removal of the parallel parking requires its replacement elsewhere in the downtown. IDOT is currently working with the City to relocate these parking spaces. Lastly, since a high-volume, four lane arterial road such as this can disrupt a pedestrian-friendly environment due to the loud noises, faster travel speeds and space constraints, Yorkville and the Illinois Department of Transportation are working together in order to optimize a safe non-vehicular transportation system.



*Bicyclists desire to ride in the Yorkville region however more trail facilities need to be constructed.*

*Riders at IL Route 47 and Hydraulic Ave pictured above.*

Additionally, collector streets pass through the downtown study area and include Van Emmon, Fox Street, and River Road. These important road corridors have bicycle and pedestrian safety concerns and some mitigation will be needed in the future. For example, pedestrian bump-outs can be added at some intersections and clearly marked pedestrian crossings will be needed at key intersections.

### ***Parking***

The downtown area currently has City parking lots scattered in various locations (see *Exhibit ‘F’ – Downtown Study Area Analysis*). Most residents, business owners and users of the downtown area perceive a parking shortage, and this would worsen as IL Route 47 is widened and the on-street parallel parking is eliminated. Therefore, parking is a critical issue that needs to be addressed.

## Pedestrian and Bicycle Existing Conditions and Analysis (Core Downtown Area)

The ITP strives to improve walkability and all types of non-vehicular circulation in and around the core downtown area and, therefore, an inventory of existing conditions was necessary. The ITP team examined the existing sidewalks within an approximate 10 minute walking radius of the downtown, to identify the conditions and walkability. The results or findings of the inventory (see *Exhibit 'G' – Downtown Area Sidewalk Inventory*) are listed below.

- Over half of the roadway corridors within the 10 minute radius do not have pedestrian facilities (sidewalks or trail).
- Many existing sidewalks are fairly narrow, undefined and/or in poor condition.
- Existing sidewalks often terminate in the middle of the block.
- Recent improvements to streets and sidewalks (In Town Road Improvement Program) with the goal of providing continuous sidewalks on at least one side of the street initially and both side ultimately.

### North of the Fox River

- Liberty Street
- Colton Street
- Center Street
- E. Main Street

### South of the Fox River

- Hydraulic Avenue
- W. Van Emmon
- W. Madison Street
- E. Fox Street
- E. Washington Street
- Orange Street
- Morgan Street
- Adams Street
- Huestis Street
- Mill Street

- Sidewalks in the residential area surrounding the Yorkville Intermediate School need to be improved due to poor conditions

Existing condition on South Main Street near the Kendall County Courthouse.



Some existing sidewalks within a ten minute walk of the downtown are non-existent or in poor condition.

In the core downtown area (IL Route 47, Hydraulic Street and Van Emmon) sidewalk encroachments, including building facades, street and traffic lights, signage poles, etc., limit the effective width of sidewalks in many areas to as little as three (3) feet, which is not recommended. This width is acceptable only in low traffic areas, and the width can cause conflicts when there are a greater number of pedestrians and streetscape elements. In addition, the narrow sidewalk clearance can cause difficulties for people with strollers and wheelchairs.

In order to achieve the goal of improved walkability in the core downtown area, many improvements are needed. To provide safe and convenient pedestrian circulation, sidewalks will need to be completed, pedestrian crossings added and some sidewalks will need to be widened, repaired, or in many cases constructed where no walk currently exists.

## Existing Streetscape Conditions



The west side of IL Route 47 in the core downtown area – parking to be removed as part of future widening project.

While some attractive streetscape improvements or façade improvements have been undertaken within the downtown in recent years, these have been implemented incrementally, and are not consistent throughout the core downtown. It was identified, through the inventory and analysis stage, that Yorkville needs clear and consistent Streetscape Design Standards and



Guidelines, to improve the walkability and aesthetics in the downtown. These potential improvements should build upon the existing qualities and historic character of the region. Consistent streetscape elements, such as street trees, street lighting, paving materials, banners, bollards, benches, trash receptacles, and planters should be provided.



*Railroad parallels Hydraulic Street.*

### **Existing Site Furnishings**

Downtown Yorkville currently has few existing site furnishings with various types and colors of lighting, benches, planter boxes, etc. Many of the furnishings are fairly old and in need of repair or replacement.



### **Existing Lighting**



Pedestrian scale street lighting already exists within the Downtown Study Area. This style of lighting has been around for many years which emulates the City's historic lighting of the 1930's, and is currently being installed in most new parks within Yorkville. In order to create a bicycle and pedestrian-friendly environment, lighting will be

critical and key to the success and safety of a vibrant downtown at night. The ITP proposes street lighting solutions that are designed to pedestrian scales, with shorter light poles and attractive fixtures. This lighting method should be effective in illuminating the pedestrian travel way, but not obtrusive or harsh aesthetically. The street and pedestrian lights should minimize light projecting into the sky. The current street lights project light upward, creating light pollution, which is not in compliance with the City's current dark sky standards. This can be amended by adding a special cap to the fixtures.



*Above lights currently exist in the downtown and they are located in Town Square Park.*

*This lighting style is also being installed in new parks throughout Yorkville.*



*Picture taken in the 1930's shows the "Victorian Style" street lights.*

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