# **CORRIDOR PRESERVATION:**

# A PROACTIVE GROWTH MANAGEMENT TOOL

by William E. Bensing and Eric J. Ploch

# The Problem - Rapid Growth

"A major doggone problem." That was the term used during a 1999 presentation by a market analyst to describe the dramatic growth about to be experienced in St. Charles County over the next five years. The analyst had

just completed an investigation of the local housing market which indicated that relatively undeveloped areas of western St. Charles County would experience tremendous growth with the City of Wentzville serving as the hub of the development. Following a description of the impact this growth would have on the St. Charles County region, the analyst closed his presentation by stating, "I have fear for you."

This prediction of widespread growth did not come as a surprise to Public Works Director Bill Bensing of the City of Wentzville. Having grown up in the St. Louis metropolitan area, Bensing was

familiar with similar growth that had occurred in the neighboring cities of St. Charles, St. Peters and O'Fallon as development traversed westward along the I-70 corridor toward Wentzville. Additionally, city planning staff had spent a great deal of time studying the growth potential of Wentzville during the development of a comprehensive

plan for the City in 1998. These studies revealed that moderate residential and commercial growth had occurred within the City since 1970 indicating an average annual population increase of 2.6 percent through 1994. Population projections for 1994 through 2015,

Wentzville

St. Charles

St. Charles

St. Charles

County

St. Louis
County

St. Louis
County

This graphic shows the geographic area involved in the corridor preservation project.

however, indicated a dramatic increase to an average annual rate of 15.4 percent. To date this projection has proven realistic given that the City has averaged approximately 850 single family housing starts per year since 2001 as compared to approximately 100 in 1997.

Based on this rapid growth poten-

tial the City officials realized the challenge they were about to face: to implement infrastructure improvements, namely the transportation facilities indicated in the thoroughfare plan section of the City's comprehensive plan; and, to do so proactively to ensure that

the City could manage the growth without adversely affecting its citizens. The City also recognized that there were two significant barriers that typically impede the implementation of transportation infrastructure projects - money (i.e., inadequate funding) and public reaction (i.e., "Not in my back yard"). Based on limited annual capital improvement budgets, there would be instances where the construction of certain transportation improvements would lag behind the associated need and occur after development in the area had commenced.

Additionally, the City had previously experienced the difficulties associated with the implementation of

new transportation facilities in areas where residential and commercial development already had occurred. Noted Bensing, "It was never a question of if we were going to grow, it was a question of when. We knew that we had to be proactive in our preparation for this growth or we would have major problems." Based on these realiza-

tions, Bensing decided to research a process he recently had heard about which he felt could minimize these difficulties – that process was corridor preservation.

# The Solution – Corridor Preservation

Corridor preservation is a method used to proactively plan for the future construction of transportation facilities. The goal is to coordinate transportation infrastructure implementation with land use planning by prohibiting and/or minimizing development in areas that are likely to be required to meet future transportation needs prior to their implementation. The benefits of corridor preservation are numerous:

- Ø Reduces land acquisition costs associated with the protected roadway. Early identification of the necessary rights-of-way allows for its dedication or purchase prior to development, thereby reducing the land acquisition expenditures and allowing the City to realize a substantial cost savings.
- Ø Minimizes potential impacts to properties adjacent to or in the vicinity of the roadway. Incorporation of the corridor into the conceptual and detailed development plans prior to the implementation of these developments allows for the coordination of the roadway facility with the adjacent residential and commercial growth, thereby eliminating possible conflicts and associated negative impacts to the developments.
- Ø Ensures that the safety and capacity of the future facility are not compromised. By allowing the facility to be designed prior to the construction of adjacent developments, the need to incorporate non-standard design elements required to avoid or minimize impacts to these new developments is eliminated.

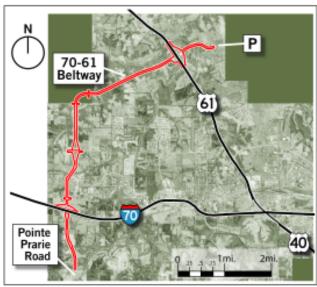
Further research convinced City staff that corridor preservation was an effective tool used successfully by several agencies to ensure that transportation improvements could be planned and eventually implemented in areas experiencing rapid development. Based on these findings Bensing contemplated the feasibility of a corridor preservation process for the 70-61 Beltway,

a proposed outer-loop around the future City limits of Wentzville. The City considered the Beltway to be the most vital element of the City's ultimate roadway network. Given its importance to the City's future infrastructure and the expected rapid development in the vicinity of the facility, Bensing made a formal recommendation to the City's board of aldermen to protect the 70-61 Beltway corridor through the use of corridor preservation. Having gained the support and approval of

the board the City set out to implement their plan.

## The Process

As an initial step the City began a search for a consultant with expertise in the field of corridor preservation. It was the City's goal to work with a consultant to establish a corridor preservation process specific to their needs. The City selected HNTB Corporation of St. Louis for this effort in part due to their successful completion of the Route 21 Corridor Preservation project for the Missouri Department of Transportation (MoDOT), entailing a 14-mile corridor in Jefferson County, MO. The City and the consultant realized that Missouri state statutes on corridor preservation used on the Route 21 project could be used as a framework for the City process; however, they also realized that there were several aspects of these statutes that were not applicable to municipal level projects. More specifically, the state statutes legally define the process detailing the responsibilities and rights of both the implementing agency and affected property owners. The goal of both the City and the consultant was to alter the state statute process to allow for more flexibility during the City's planning process and to focus more on the creation of documents that could be used proactively by City staff to plan for the Beltway construction



Aerial map showing the 70-61 Beltway corridor route. The City considered the Beltway to be the most vital element of the City's ultimate roadway network.

and guide the growth being experienced in the corridor. Eric Ploch. HNTB's project manager on both the Route 21 and 70-61 Beltway corridor preservation projects, noted, "Our goal was to provide Wentzville with a detailed, reliable and user friendly set of documents which City staff could reference in their day-to-day operations or when discussing the project with developers and property owners adjacent to the Beltway corridor." In order to accomplish their goal, HNTB and the City focused on three main elements while developing the work plan for the project:

Ø The completion of a location study for the corridor. The 70-61 Beltway location in the comprehensive plan was developed using USGS level mapping and, in that regard, was considered approximate at best. Given this low level of detail, the City and the consultant realized that a certain level of due diligence was warranted to ensure that the area being preserved was correct. To that end, HNTB's first order of work on the project was to complete a location study. This would entail the development of multiple alternatives, along with a comparative analysis of each to determine which alternative most closely met the needs of the City while minimizing associated negative impacts to the surrounding areas. The analysis would ensure that the best possible alignment would be

implemented. Once a preferred alternative had been identified and approved by the City, the corridor preservation process could officially commence without any fear of wasted efforts or resources.

Ø The development of efficient project documents. The City and HNTB discussed at length how the documents should be developed to ensure that they provided City staff with efficient and accurate information regarding the protected corridor. It was agreed that the consultant would develop three main documents including: 1) corridor preservation plans depicting the properties affected by the protected corridor; 2) a legal description defining the corridor limits for use by surveyors and engineers who might be designing developments adjacent to the corridor and 3) a landowner database that defined the acquisition needs for the affected parcels.

Ø The City and HNTB agreed that a comprehensive public engagement process would be critical in the implementation of the corridor preservation process. Given that this was the first effort of the sort in the region, the City wanted to make certain that all stakeholders (property owners, business owners, city officials, etc.)

were educated on the process from the onset to ensure a strong understanding of the City's objectives as well as how the corridor preservation process would affect them.

### The Economics

One of the main forces behind the City's initiation of the corridor preservation process was the potential of large financial savings in land acquisition costs. The City understood that acquiring land prior to development occurring in the corridor would substantially decrease the ultimate cost of the project. Moreover, another scenario the City felt could become reality was the potential for developers to dedicate the land required for the Beltway at no cost to the City. As part of the economic feasibility of the process it was estimated that the City would realize a savings of about \$7 million in land acquisition costs by use of corridor preservation on the project. Since the completion of the corridor preservation documents the City has begun to capture these savings with nearly 18-acres of right-of-way being dedicated at no cost to the City through March 2003. This figure represents over 12.5 percent of the total rightsof-way required for the project and equates to approximately \$645,000 in land acquisition savings to the City.

## **Conclusions**

Having been through the process the City has found corridor preservation to be very beneficial in that it has resulted in substantial cost savings to the City and has allowed the City to fully implement portions of their comprehensive plan without having to sacrifice any of its goals. The City also believes that the resulting benefits are substantial to residents and business owners alike in that it has provided a cooperative planning effort between their properties and the City's infrastructure thereby minimizing, and in several cases eliminating, the potential for future conflicts between the two. Notes Bensing, "When we first contemplated this project, we all agreed that the process looked good on paper but we weren't sure just how successful it would be. However, based on the land acquisition savings we are starting to realize we estimate that for every dollar we spend during the development of the corridor preservation process and associated documents, we are receiving \$56 dollars in land acquisition savings which we see as a substantial return on our initial investment. From the City's perspective this project has been successful beyond our greatest expectations."

As further testimony to the success of the process, the City has already begun preserving another critical corridor in their thoroughfare plan – Interstate Drive. There also has been interest expressed by other rapidly growing municipalities in St. Charles and Jefferson Counties regarding the use of the corridor preservation process. In closing, using this project as a case study, it is evident that corridor preservation works and that it is an excellent tool which allows municipalities the ability to proactively plan for their futures."

William E. Bensing Jr. is the public works director for the City of Wentzville. He has over 18 years of experience in municipal engineering and seeks innovative approaches to better manage infrastructure development. Eric J. Ploch, P.E., is manager of transportation planning and design for HNTB Corporation's St. Louis office. He has over 15 years of experience as a consulting engineer and has been involved in several significant projects throughout Missouri.

