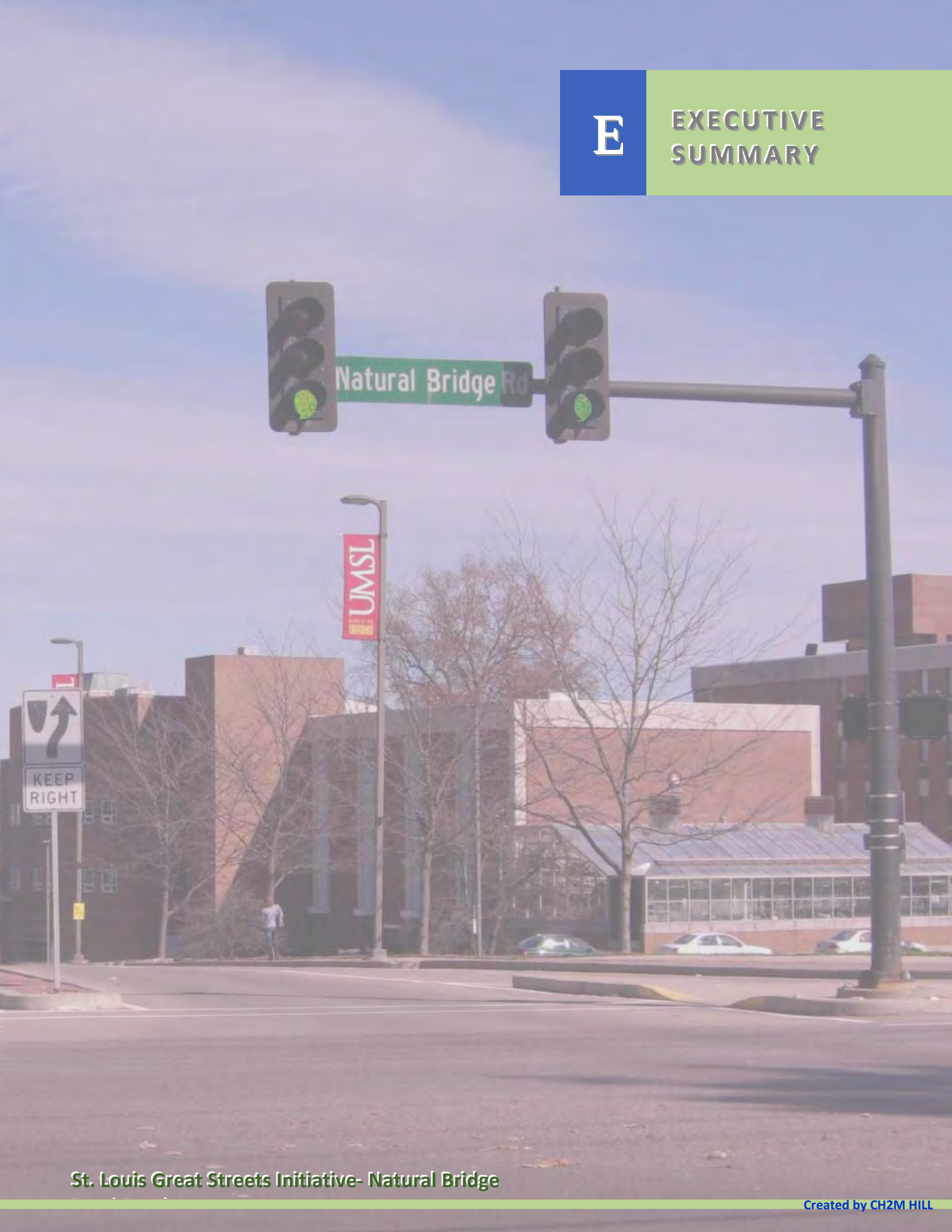
E EXECUTIVE SUMMARY



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EXECUTIVE SUMMARY

Background

The East West Gateway Council of Governments (EWGCOG) initiated a program of making our streets and communities better called the Great Streets Initiative. There are several elements key to the Great Streets Initiative:

- **Great Streets are representative of their places.** A Great Street reflects the neighborhood through which it passes and reflects the character of the abutting properties and land uses.
- **Great Streets allow people to walk comfortably and safely.** The street and its sidewalks are well-designed and furnished encouraging people of all age groups and physical abilities to walk safely and comfortably.
- **Great Streets contribute to the economic vitality of the area.** Great Streets support the desired land use envisioned by the community.
- **Great Streets are functionally complete.** Great Streets support convenient travel by all ground transportation modes: transit, walking, bicycling, personal motor vehicles and freight movement.
- **Great Streets provide mobility.** The movement of people and goods is enhanced through Great Streets by maintaining the flow of traffic, promoting local circulation, and providing access to local residences, businesses, and institutions.
- **Great Streets facilitate placemaking.** Great Streets create places that are memorable and interesting. This may include plazas, pocket parks, walkways, or simply wide sidewalks fostering an active street life.
- **Great Streets are green.** Great Streets incorporate environmental design standards and green development techniques, including generous provision of street trees and other plantings and application of modern storm water management practices.

The goal of the Great Streets Initiative program is to change the way the St. Louis Region plans and designs community streets. The past practice of merely dressing up a roadway is replaced by the linking of land-use with transportation. By defining land use relationship to the street, the street will meet the needs of the adjacent land use and support economic revitalization, growth and sustainability.

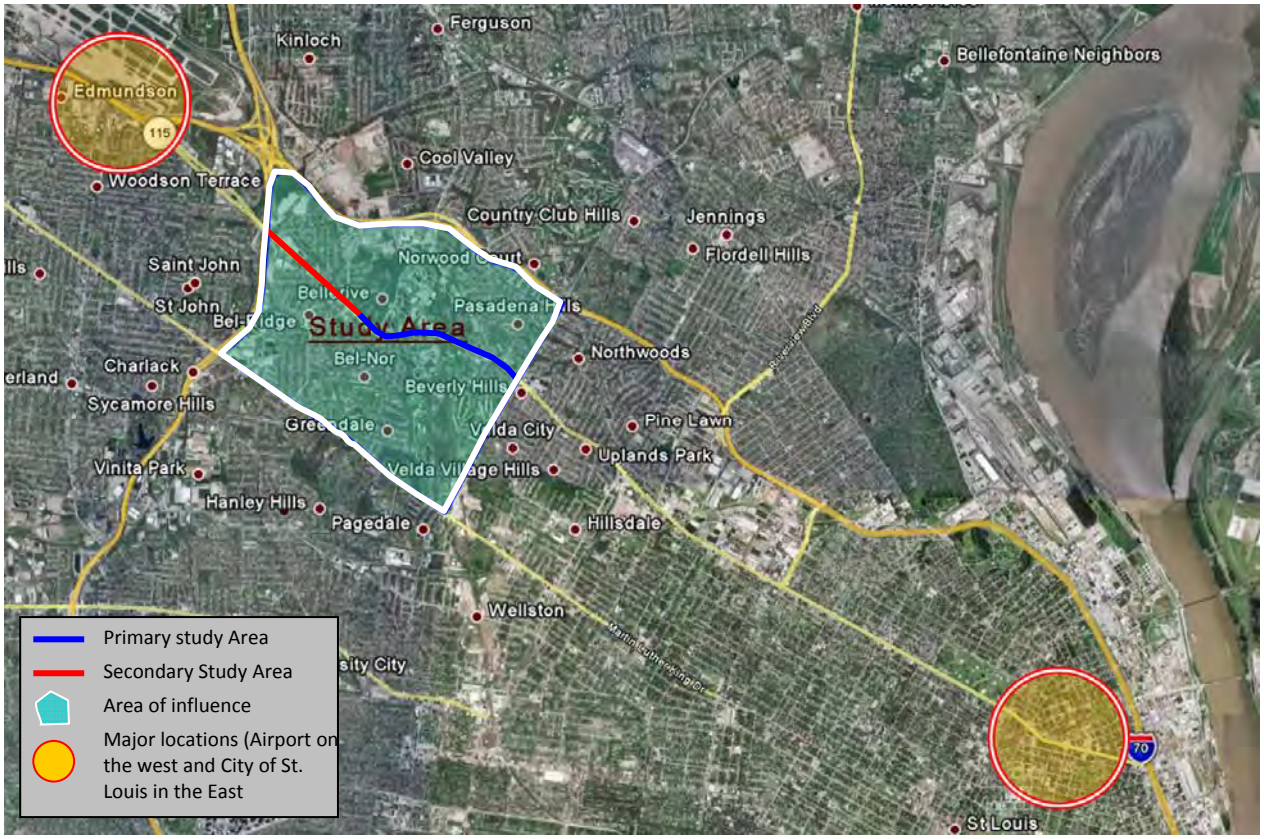
One of the initial demonstration projects for the Great Streets Initiative program is a portion of Natural Bridge Road. It was chosen from several inner ring suburb corridors to demonstrate concepts included in the Great Streets Initiative web guide (http://www.greatstreetsstlouis.net/), hosted by EWGCOG. The core partnership of EWGCOG, North County Incorporated, the City of Normandy, the University of St. Louis, and MoDOT provides the partners necessary to make Natural Bridge Road a great street using the concepts in the web guide. This pilot project provides the initial corridor concepts that generated the support of the North County area for the project, leading to the further planning and design that will transform Natural Bridge Road in St. Louis County from

Lucas and Hunt Road to I-170 into a vibrant community that embraces the past and sustains social and economic health into the future.

The segment of Natural Bridge Road that is the subject of the Great Street Initiative project was defined as being between Lucas and Hunt Road and Hanley, which was eventually refined to just west of the Clearview Drive/West Drive intersection. This segment is identified as the "primary study area". In order to effectively initiate change in the corridor, a "secondary study area" was also identified by the core partners and is included in the initial land-use planning process; however, it is not included in the street design of the primary study area (See Exhibit E.1). This decision was made in order to concentrate design efforts and offer a manageable project that can be implemented in a reasonable timeframe. This secondary study area extends from west of the Clearview/West Drive intersection to I-170. While not the primary focus of the Natural Bridge Great Street Initiative, this secondary sturdy area is very important to the entire corridor in providing the gateway into the primary study area from the west.

It is the intent of this planning document for the Natural Bridge Great Street Initiative, that EWGCOG and its community partners provide the land-use plan for the primary and secondary study area, plus alternative analysis and design guidelines for infrastructure improvements in the primary study area that facilitate economic development strategies along Natural Bridge Road.

EXHIBIT E.1: LOCATION OF STUDY AREA IN REGIONAL CONTEXT



Source: Google Earth

Introduction to the Project

The following actions were taken to complete this project:

- Review of existing data and past reports including title information for key sites in the corridor fronting Natural Bridge Road, material provided by the City of Normandy, University of Missouri - St. Louis (UMSL) and other public entities.
- A walking assessment of pedestrian, bicycle, transit conditions, and available parking areas in the corridor was conducted.
- A formal engagement plan that includes methodology and meetings for community involvement was prepared.
- Essential stakeholders were identified. These stakeholders were contacted to solicit information relevant to the project.
- Stakeholders meetings were held to receive input on the project.
- Public forums were held to receive public input.
- Travel-way design and land-use planning was coordinated with Missouri Department of Transportation (MoDOT) including, design, access and roadway operations, and maintenance. Conceptual plans were submitted to MoDOT for comments.
- Travel way designs and land use planning was coordinated with St. Louis County, including the Department of Highways and Traffic, the Planning Department and the Economic Council.
- Meetings were held with municipal departments and UMSL facility operation departments of institutions regarding maintenance, economic development opportunities, and operational issues including potential challenges along the corridor.
- Issues, challenges and opportunities related to land use in the corridor were determined.
- Existing commercial, institutional and residential uses was compared with potential reinvestment for the area.
- Existing demographic information was collected.
- Market opportunities were assessed.
- Performance measures to assess alternatives for land use and transportation elements were developed. These included:
    - Economic indicators.
    - Functional relationship between travel way design and proposed land uses
    - Functional relationship between travel way design and existing land uses
    - Pedestrian accessibility and safety
    - Bicycle accessibility and safety
    - MetroLink and transit functional relationship with other multi modal elements in the corridor
    - Multi modal safety issues including pedestrian interaction with existing and planned infrastructure
    - Access

  - Parking
  - Operational and maintenance costs
  - Corridor capital costs
  - Storm water quality
  - Aesthetics
- Maps and text illustrating the various multi-modal development options along the corridor including recommendations for land use options adjacent to focal points were developed.
- Land-use and economic options were developed.
- An evaluation of existing commercial development along the corridor was prepared and existing economic conditions were evaluated. The evaluation included an assessment of buildings, uses, and tenant and ownership status.
- Commercial land owners along the corridor were met with to create a plan of action for redevelopment along the corridor.
- A catalyst site plan for the Normandy City Hall site as a TOD area was prepared, as well as the area from west of Florissant Road to Lucas and Hunt Road . These plans includea site plan and a three dimensional visualization.
- Incentive finance options appropriate to recommended land use plan were prepared that provides a strategy for financing supportive of economic development options.
- Possible development district boundaries for market driven development concepts and incentive financing options was proposed.
- Development district types and their relevancy related to potential redevelopment within the corridor were identified.
- Detailed design guide line that details specific details and products of the preferred conceptual alternatives were prepared and included:
  - Storm water management recommendations and solutions
  - Landscaping, including planting options appropriate to various land use options
  - Bicycle and Pedestrian movement and safety
  - Curb and sidewalk treatment
  - Lighting
  - Crosswalk design and safety concepts
  - ADA ramp design details
  - Recommended retaining wall, fencing, and berm designs
  - Median design and safety zones for pedestrians
  - Intersection design
  - Signage
  - Public art
  - Public furniture (benches, trash receptacles)
  - Recommendations for set back and side lot requirements
  - Building scale
  - Storefront design recommendations and visual continuity of use

Public Involvement

The public engagement process for the Natural Bridge Great Streets Project included local businesses, developers, special interest groups, government representatives, city officials, neighborhood groups and citizens at large. This was done in four ways:

- Open House Presentations and Public Comment Forums
- Travel Way Preference Survey
- Planning Workshops
- Stakeholder Interviews (includes elected officials and city staff)

Kick-off Open House

On March 4, 2010, EWGCOG hosted the first public meeting to commence the Natural Bridge Great Streets Project Design Phase. Held from 4:00 to 8:00 pm at the University of Missouri – St. Louis J.C. Penney Conference Center, the meeting's primary objectives were to introduce residents to the project, confirm the advisory committee's vision and solicit feedback regarding issues and concerns impacting travel and economic development along the corridor. One hundred and nineteen participants registered at the event and of those attending, 76% completed the printed survey form. Another 19 individuals shared their thoughts on a similar online survey form.

Travel Way Preference Survey

Based on the initial survey results from the open house, several options for each of the four travel way segments and the "Wedge" were prepared. The travel way preference survey was geared toward understanding participant's preference of the options stated. The limits of each segment and the "Wedge" are:

- Segment 1: Nordic to MetroLink Bridge
- Segment-2: MetroLink Bridge to Oakmont
- Segment 3: Oakmont to St. Mary's
- Segment 4: Arcola to Lucas and Hunt
- The Wedge: St. Mary's to Arcola

Participants were given a survey form showing all options per segment on a single sheet for ease of comparison and were asked to register their preference on the form. An online survey was also opened to the public for 2 weeks starting April 14, 2010 to April 28, 2010. There were a total of 45 participants responding to the survey.

Economic Development Land Use Planning Workshop

A planning workshop provides a forum for collecting, organizing and recording public input. The "Natural Bridge Great Streets Economic Development & Land Use Planning Workshop" was tailored for "citizen planners" within the community, with the purpose of utilizing their first-hand knowledge and experiences to identify problems and recommend solutions in teamwork based format. The workshop was held on the UMSL Campus at the JC Penny Center on April 13, 2010 and was attended by approximately 50 people. The workshop focused on the following issues:

- Economic development and business stability
- Future development
- Housing and neighborhood stability
- Quality of life

Stakeholder interviews

Stakeholder interviews were conducted with representatives of the following organizations:

Afro World
City of Pasadena Hills
Village of Bellerive Acres
Village of Bel Nor
Village of Bel-Ridge
Citizens for the Betterment of Normandy
City of Normandy
Express Scripts*
Gateway Trailnet
Glen Echo Country Club
Great Rivers Greenway District
Metro Transit
Missouri Department of Transportation
Murchison Tabernacle*
Normandy School District
North County Incorporated
Office of U.S. Senator Claire McCaskill
Office of U.S. Senator Kit Bond
Office of U.S. Representative Wm. Lacy Clay
Oscar's Café
PARAQUAD*
City of Pasadena Hills
Schulte Hardware
St. Ann Catholic Church
St. Ann Catholic School
St. Louis Beacon
St. Louis County Council
St. Louis County Highways
St. Louis County Library
United Methodist Church of Bel Nor*
Unity Evangelical Lutheran Church*
United States Post Office

*Contacted but no meeting took place

The purpose of the stakeholder interviews was to:

- Discover stakeholder knowledge about the project
- Seek stakeholder input about the existing corridor
- Understand preferences and vision for corridor improvements
- Identify specific issues or concerns
- Identify areas of misinformation, if any
- Determine how stakeholders and their constituents want to receive information and be involved in the planning process

Results

The vision statement for Natural Bridge is expressed as:

> **"Natural Bridge Road is transformed into a vibrant destination that provides an inviting location for pedestrians, bicyclists, and motorists alike. The new facility will enhance existing and promote new commercial, residential, and entertainment uses and create an improved tax base. The corridor has a distinct look and feel that is consistent with the rich history of the communities that surround it."**

A "vibrant destination" is one that supports business growth and economic development with a variety of neighborhood oriented, retail and commercial establishments, especially restaurants.

Although, parking availability and accessibility was viewed important aspects of economic development, centralized, off-street facility was preferred as compared to on-street parking.

Pedestrian safety and aesthetic enhancements are viewed as two major components that would transform Natural Bridge Road into an inviting place for pedestrians and cyclists. Pedestrian safety includes adequate lighting and safer crosswalks. Aesthetically, more landscaping, specifically shade trees, along the corridor coupled with "green" practices for managing stormwater run-off were identified as a priority.

Overall the residents in the area wanted to see changes in the corridor. Economic development, pedestrian safety and better quality of life along with an aesthetically pleasing corridor that can comfortably move traffic were the main reasons given.

EXHIBIT E.2: PICTURES FROM PUBLIC ENGAGEMENT EFFORTS

Source: CH2M HILL

Current Conditions

The Natural Bridge Road (State Route 115) corridor is a principle arterial roadway running in a general east/west direction through St. Louis County and the City of St. Louis, just south of I-70. The overall characteristics of the corridor range from dense, pre-World War II housing and subdivisions, to commercial, industrial, and institutional land-uses. The area has historically included an economically diverse population. The primary study area from West Drive to Lucas & Hunt Road was initially populated by an upper-middle class community including major metropolitan business owners and professionals. The presence of several, once exclusive, golf clubs, major private institutions, and upscale housing are legacies of the area. The population in the secondary study area was primarily working class families and housing. This diverse economic mix of families attended the same schools, either parochial or public, and creating a sense of the overall "Normandy" community, a socially healthy and prosperous community.

The overall area that is influenced by the Natural Bridge Great Street Initiative Project has ranged from a state of maintaining residential appeal in some areas, to decline in others for many years. Due to its "built-out" condition coupled with suburban sprawl and movement of residential and commercial populations to the west, some of these areas have not seen revitalization. The area is in need of new investment and thoughtful implementation.

Primary Study Area

The primary study area, Natural Bridge Road between Lucas and Hunt Road and West Drive, has seen considerable investment over the past decade through both infrastructure improvements north of and within the UMSL campus as well as small commercial investments that have bolstered and improved the general market area. The recent relocation of Express Scripts International Corporate Headquarters onto the UMSL campus provides a strong addition of an anticipated 3500 new employees to the daytime population's economic base. The continued development of North Park just north of I-70 could also contribute to increased commercial viability of the corridor.

The condition of institutional property is excellent and well maintained. Commercial property, substantially brick, one to three story buildings facing Natural Bridge Road are, for the most part are in fair to good condition.

Parking is not adequate around the multi-story brick structures while newer retail development of box stores clustered around the Lucas and Hunt Road and Natural Bridge Road intersection has ample parking space to serve under-utilized commercial developments. Unmanaged parking co-mingled with poor access management along the corridor creates conflict points and minor operation issues

At a time when institutional and commercial development has continued to positively alter the economics of the primary study area, residential values have continued a steady decline and in some cases, homes are showing the strain of these economic conditions physically as well. Also, residential structures facing the Natural Bridge Road corridor have experienced a conversion from residential to commercial land uses with modifications to the property in many instances that include the addition of small paved parking areas and other commercial amenities such as lighting and signage as part of the conversion process. The process of converting residential to commercial property is an indicator of changing economic patterns along Natural Bridge Road and the slow and

steady decline of traditionally residential property. It is possible that this conversion is also a sign of demand for small commercial office space that is not being satisfied.

This study relied on prior studies for background and information pertaining to the history and development thought process over time. New material was developed for infrastructure conditions, market driven economic development options, and the possibilities for financing of future infrastructure development.

Secondary Study Area

The secondary study area includes Natural Bridge Road between West Drive on the east and I-170 on the west. This section of the Natural Bridge Road corridor is fronted by older residential homes and some retail and commercial areas at Hanley Road and at I-170 on the north east quadrant. For the most part, this stretch of Natural Bridge Road is in decline and although some commercial investment, such as the Housing and Urban Development (HUD) offices for St. Louis County has located here, for the most part, little investment has taken place for several years.

The composition of the adjacent community consists of multiple land uses including residential homes and multi-family units immediately adjacent to commercial and retail development, that are conflicting in the their existing orientation. The land uses, access issues, and topographic conditions of this area include:

- Small commercial property with parking facing Natural Bridge Road and access to these properties creates convoluted access to both Natural Bridge Road and Hanley Road at these locations
- A vacant box store at or near 8638 Natural Bridge Road on the south side of the street
- Auto repair and small chain restaurants each with separate access points onto Natural Bridge Road aligning with internal circulation on each site
- Residences immediately adjacent to commercial uses
- Housing stock that is a combination of brick homes, primarily on the south side of the street and frame construction primarily on the north side of the street
- Homes that have driveway access to Natural Bridge Road and utilize the shoulder for on-street parking
- Multi-family residential units
- An auto repair and tire store interrupts residential patterns on the south side of the street
- The south side of Natural Bridge Road which is terraced, with some homes constructed with long, exterior stairs leading from the street and sidewalk to the residences
- A depressed grass median begins around 8904 Natural Bridge Road in the area of the HUD office building and extends to the I-170 interchange at Springdale Avenue

- An aging and under-utilized retail strip center located on the northeast quadrant of Natural Bridge Road and I-170 including small shops, a Hood's store and a QT fuel and convenience store
- A new long term parking structure constructed on the southeast quadrant of Natural Bridge Road and I-170 serving airport parking needs
- High voltage lines running parallel to I-170

The secondary study area terminates at the east side of I-170 and Natural Bridge Road. This report does not describe or take into consideration market conditions west of this location including quadrant development at this intersection.

Area of Influence

In addition to the physical and market conditions impacting the study areas along the Natural Bridge Road corridor, there are municipal boundaries that play a role in the short and long term planning and implementation of economic changes possible in the area. Each municipality has the power to participate or decline to participate in the planning process and may either adopt or reject planning recommendations to proposed infrastructure and economic enhancements discussed in this document. The number of municipalities influencing this area and their interest in the long term planning is a critical factor in facilitating change in the corridor.

Within the primary and secondary study area the following communities are influenced:

- Village of Bellerive Acres
- Village of Bel-Nor
- City of Normandy
- City of Pasadena Hills
- City of Bel-Ridge

In addition to the immediate impact communities, there are nearby areas that, although not physically touching the corridor, are impacted by the roadway and are served directly by Natural Bridge Road. These areas include:

- Several areas within Unincorporated St. Louis County
- Village of Pasadena Park
- City of Greendale
- Village of Glen Echo Park

Existing Land Use

Exhibit E.3 shows the existing land uses in the study area. A significant amount of housing and infrastructure within the primary study area were developed post WWII. Although these investments are aging, neighborhood interest and cohesive community participation have maintained the quality and values of individual properties. The cities and villages of Bel-Nor, Bellerive Acres and portions of Normandy are examples of this type of residential development. Some areas are pre-WWII development such as Pasadena Hills, a planned residential community dating back to the 1920s. The neighborhood is included on the national historic register as a historic district and has remained aesthetically and economically strong.

Commercial areas play an important role in the economic health and vitality of any community. Commercial areas along Natural Bridge Road are aging and, for the most part, do not accommodate the goods and services demanded by the local market place. Commercial property is in decline, unable to compete while relying exclusively on local market demand. The decline is compounded by alternative shopping locations easily accessible in an automobile dependent community.

Institutional development remains the strength within the corridor. Through expansion and constant investment in school and church properties, institutional investment has stabilized and sustained. Although the institutions do not contribute to the area's tax base, they have provided stability, as mentioned, and the University of Missouri – St. Louis (UMSL) has planned and implemented development areas adjacent to their campus. Examples of this development such as Express Scripts and infrastructure upgrades will go a long way in attracting additional investment. Institutional land is made up of larger parcel sizes and in the event any of these entities become interested in disposition of all or a portion of their land, the size and location of these sites will be attractive to the private sector.

EXHIBIT E.3: EXISTING LAND USE

Source: St. Louis County GIS Department

Existing Infrastructure and Facilities

Alignment Conditions

Natural Bridge Road from Lucas and Hunt Road to west of Hanley Road includes four lanes of traffic and one center turn lane. From east of Hanley Road to I-170 the roadway is comprised of four travel lanes, two in each direction of travel. This roadway is owned and maintained by the Missouri Department of Transportation (MoDOT) and is generally in good condition and well maintained.

Natural Bridge Road does serve as an informal alternative route to I-70 when traffic incidents close lanes on I-70.

The Natural Bridge Road corridor throughout the study area experiences between 14,000 and 16,000 average daily traffic, for a majority of the corridor and approximately 22,000 average daily traffic at Natural Bridge Road at Florissant Road. The existing roadway is more than adequate to serve the amount of traffic and the vehicular transactions that occur within a twenty four hour time period.

The traffic movement on Natural Bridge Road, for most part is unobstructed except at signalized intersections and median locations at specific locations within the corridor. The intersections at Lucas and Hunt Road and at Clearview Drive/West Drive are regulated with median structures that guide traffic movement into high traffic area turning movements. The median just west of Lucas and Hunt Road, a more dense commercial area, does restrict ingress and egress at certain retail locations to manage access at the signalized intersection.

Utility Corridors

Above ground utility services are generally located on the north side of Natural Bridge Road to Nordic Drive, and the south side from Nordic Drive to Florissant Road. The overhead telephone and electric lines , in the opinion of the community whoattended open house meetings and were engaged as stakeholders, feel they create a negative visual impact to the corridor. Placing these services underground would have a positive visual impact on the corridor and provide a safer environment for pedestrians and drivers. Utility locations in retail/commercial developed parcels around Florissant Road and the Lucas and Hunt Road area have utilities located at the rear of the buildings along Pasadena Boulevard as well.

Other utilities such as gas and water are located in the curb lane or along the curb lines of the existing travel way. The existing facilities are adequate for current development but will need to be assessed for ability to serve changes in land use and the intensity of land use changes that would revitalize the area.

Existing Natural Bridge Road MetroLink Station

The University of Missouri is served by two MetroLink Stations within the campus boundaries, one on the east side of the north campus and the other located at Natural Bridge Road serving the south campus. Campus parking lots are built adjacent to these two stations. Bus service links the community to the station and serves the communities around the station and the campus. The south MetroLink station at Natural Bridge Road is a significant part of the existing transit infrastructure serving the Natural Bridge Road corridor. Normandy City Hall is located on the west side of the MetroLink station serving Natural Bridge Road, and the South Campus. This would be of great benefit to the City Hall site, except that there is no engineered crossing intended to serve the City Hall Site. A fence was constructed in 2010 to eliminate safety concerns of access between City Hall and the MetroLink Station.

The MetroLink station located adjacent to the south campus is not landscaped and although the amenities look new and are in good condition, creating green space at this location will enhance rider experience and blend this station into the adjacent land uses. Presently, MetroLink riders wishing to access the station from the east must use the sidewalk along East Drive demonstrating a need for improved pedestrian access from Natural Bridge.

Existing Park and Conservation Areas

There are no existing public parks or public spaces adjacent to the Natural Bridge Road corridor within the study area. There are however several locations of green space which offer an opportunity to develop "people places" or "gathering places" in association with proposed street improvements and amenity updates.

Summary

Existing conditions provide an excellent foundation for future planning and development opportunities in this community. The strength of commitment and communication among the stakeholders and their ability to cooperative set a path forward to long term sustainability is a critical outcome of the plan that each public entity must focus on fro Natural Bridge to be a truly Great Street. The influence exerted by institutional investment includes the size and condition of property and the existing land uses. Each property provides services to the community that attracts local as well as regional users, contributing to the market potential within the primary study area. Future development options for these parcels, due to their size and density, include more dense mixed use development and the conversion to taxed land investments.

Opportunities

Florissant Road and Natural Bridge Intersection

The enhancement of Florissant Road is critical to future investment and the potential for economic revitalization of Natural Bridge Road corridor. Due to Florissant Road's relationship to I-70 and its central location within the road expanse between Hanley and Lucas and Hunt Roads, this corridor is essential to attracting new business and the long term sustainability of new investment. Revitalization and new investment of Natural Bridge Road will require regional access to assure business success and employment opportunities. The Florissant Road corridor at its intersection with Natural Bridge Road should be improved to achieve regional access.

There are two alternative design concepts that were prepared to improve the viability of, to attract development and activity to this intersection:

- A Roundabout Structure (Exhibit E.4)
- A "T" Intersection (Exhibit E.5)

EXHIBIT E.4: ROUNDABOUT INTERSECTION

EXHIBIT E.5: T-INTERSECTION

Source: CH2M HILL

Future land use planning around either intersection must include the following:

- Creating a balance between public areas and development options on private property, including adequate access.
- Transportation features must recognize the mixed uses in this area and the diverse shoppers and visitors of the area, including elderly, elementary and college students, shoppers, and recreational walkers and bicyclists.
- Underground utilities throughout the primary study area to create a clean, well defined sense of place and unique quality of life environment.
- Landscaping and public amenities that create a sense of "place" for development and public space into the corridor as a place to be, a place to experience.

- Provide signage, traffic control and lighting that complement the ambiance of the corridor and provides for a safe pedestrian and bicyclist environment.
- Include public art and water features that add interest to the corridor.

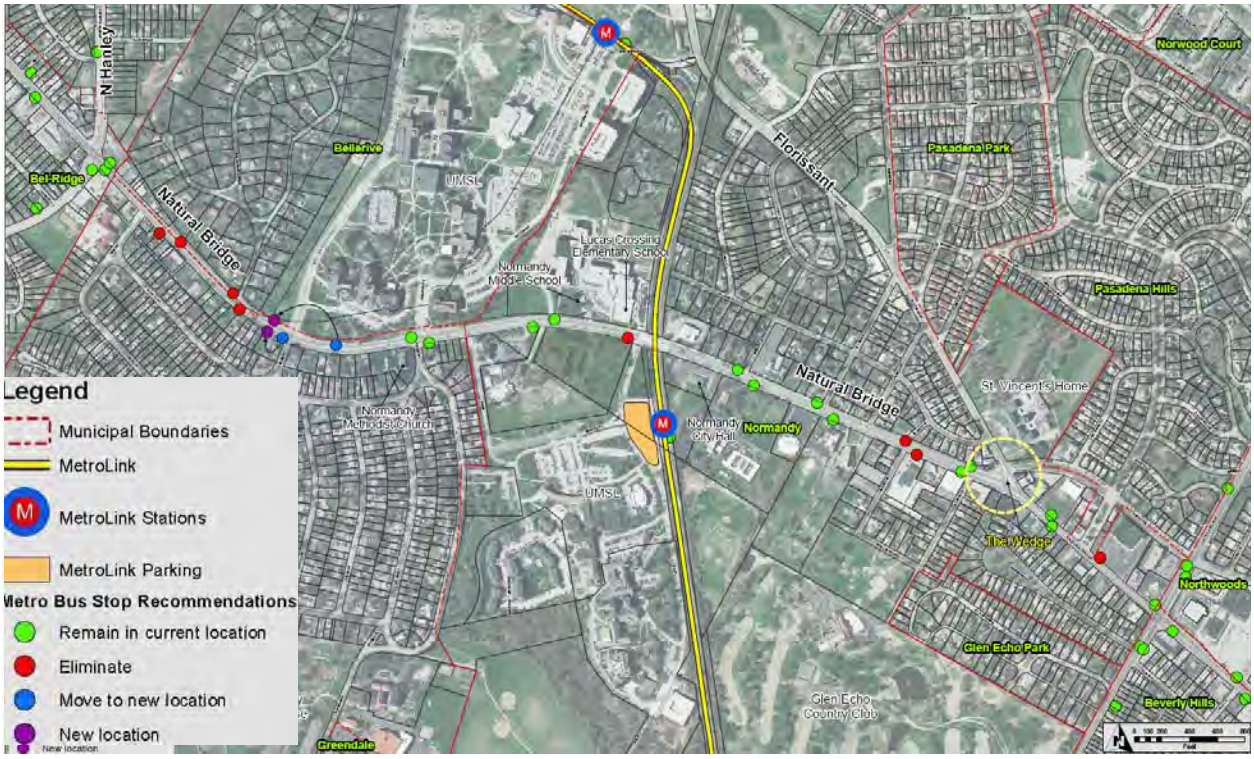
Transit

In order to improve customer and visitor access related to vehicular movement and truck access, the design of Natural Bridge Road will need to take into consideration the following forms of transit:

MetroBus

The MetroBus service available within the corridor adds to the multi-modal elements and provides connectivity at the MetroLink station to the entire region. MetroBus provides safe, easy access for visitors to the area as well as providing mobility to the elderly and students wishing to move within as well as outside the Natural Bridge Road. Metro has implemented new bus schedules to improve service and will be complemented by new bus stop enhancements and improved public environment at stop locations. Exhibit E.6 shows recommended bus stop locations demonstrating the level of service and availability of MetroBus as a transit option.

EXHIBIT E.6: RECOMMENDED BUS STOP LOCATIONS



Source: St. Louis County GIS and Bi-State Agency

Shuttle/Trolley

A shuttle/trolley route could be established to move individuals living, working, and visiting the area with a convenient, alternative system. Students, faculty, professionals, and those living near Natural Bridge Road would have the option to conveniently leave

their place of work or residence and lunch or shop in the commercial district. The shuttle service can be established initially (an extension of the existing UMSL services). As the market evolves and matures, a trolley service will add interest and uniqueness to the area and provide regional interest in the area. Additionally, it is recommended that stops be strategically planned to coincide with strategic business locations and public activity areas to assure maximum customer access.

MetroLink

MetroLink's UMSL South station provides an important transportation access to the primary study area. MetroLink expands the Natural Bridge Road corridor market with stops at the St. Louis Lambert Airport; the Hanley Road station serving the Express Script and future office markets; and UMSL's north campus. In addition, the physical location of the UMSL South station offers an opportunity to update and add features that promote the area as riders pass through or access the station. Creating a sense of place with kiosks, imaginative signage and other promotional options, as well as events, designed to inform riders of activities in the area, make this location exciting and more connected to the region.

Other Modes of Transportation

In addition to private vehicles and transit, there are several other forms of traffic that utilize the Natural Bridge corridor. Road design and land use decisions must consider each of these different forms to create a complete great street.

Truck and Larger Commercial Vehicles:

Providing goods and services to the various commercial and institutional uses in the Natural Bridge corridor is important to the long term success of the existing and future business. Inconvenient movements and time delays to commercial trucks and the normal flow of traffic, will limit the long term success and economic development opportunities in the area. The design of the roads and access as well as decisions regarding land use must consider ways to improve truck and commercial vehicle movements. The roundabout design option for Natural Bridge and Florissant Roads should be designed to accommodate large truck traffic entering, circulating, and exiting the intersection. The integration of normal pedestrian, bicyclist, and automobile traffic movements with large truck movements will be an important design detail. As important, truck access points along the Natural Bridge Road corridor is required so that normal deliveries and special over-the-road truck traffic can be accommodated at drives and alley entrances. Rear access to businesses and institutions through internal driveways or alleys adjacent to building sides should be considered in addressing this challenge.

Pedestrian Traffic

Pedestrian use of the Natural Bridge corridor is essential to the long-term success of this community. Safety, aesthetics, and public amenities of the pedestrian sidewalks and crosswalks will determine the long term viability of the area. It is important to note that it is the public perception of safety that will determine if someone walks, not what a design standard dictates. Choosing the appropriate crossing locations for pedestrians that provides the greatest safety and access to businesses will need to be well planned based on the local context and experience.

The roundabout intersection presents additional challenges for pedestrians. While providing continuous flow for motor vehicles, there are no traffic or pedestrian signals, creating a perception of an unsafe condition. Studies have shown that not to be true, but to overcome the perception careful consideration to crosswalk pattern, color and texture, signing and striping will be important.

Bicyclists

It is anticipated that due to existing and planned trails and bikeways in the region; the growing interest in the general populations associated with the health benefits of biking; the acceptance of bikes as an alternative mode of transportation; and the increase of bikes in this area associated with student populations, infrastructure design at the "wedge" will need to be well planned to accommodate increased bike travel and safety.

Bicycle parking will be a key to increased use of bicycles as an effective form of transportation in the corridor. Both public and private spaces should allow for the effective and safe parking of bicycles.

Emergency Vehicles

Emergency vehicles will experience the same issues and physical conditions as commercial truck and vehicle traffic. But while delays for commercial traffic are an economic consideration, delays for emergency vehicles are often a life or death consideration. The ability for traffic to yield to the emergency vehicles is an important design consideration for the corridor. As a significant point of convergence, the "wedge" road design will need to take into consideration emergency vehicle safe passage among pedestrian, bike, shuttle, bus, and automobile traffic.

Public Art, Signage, Landscaping, and Utility Placement

To create a great street, one considers more than the road and direct users of that road. A sense of place is created by the impression formed by the architectural design, landscape, signage, utility placement, and public art as well as the road and forms of traffic using the corridor.

Underground Utilities

Installation of underground utilities, including electrical and telephone service, assures the safety and aesthetic integrity of the entire area by eliminating unsightly wires crisscrossing vehicular and pedestrian ways. Natural Bridge Road, by necessity, will be reconstructed in order to implement new road configurations (the road diet) and roundabout or "T" intersection structure. Therefore, the installation of all underground utilities may be possible extending from Nordic Drive to Lucas and Hunt Road along the subject corridor due to the surface disruption associated with the recreation of alignment configuration. Although underground utilities may add greater expense to construction costs associated with initial design and installation, the long term benefits are worth considering when planning new streetscape environments. Revitalization of any market includes "reinventing" market conditions and physical space. The elimination of overhead lines and power poles add to the clean, unobstructed ambiance of major commercial corridors.

Landscaping and Public Furniture

Landscaping and public furniture are those design elements that create an environment of safety and well being necessary for attractive and functional public gathering places.

Successful landscaping and public amenity choices consider scale, color, planting patterns, the history of the area, location of amenities, and the way the public will use these amenities over time. There are many potential landscaping opportunities along the new corridor extending from Nordic Drive to Lucas and Hunt Road. As the market investment areas change, so the landscaping and public amenities can reflect the various elements of the corridor by providing excitement and uniqueness to the overall streetscape experience. Any environment is improved with landscaping and the addition of color and patterns. Well placed public gathering places, planted with creative landscaping and other public amenities can provide the ambiance and interest along the corridor that attracts public interaction and keeps people interested in returning to the corridor as a place to shop and to be experienced overall.

Signage, Traffic Control and Lighting

There are many opportunities for the creative use of signage, traffic control, and lighting to enhance public areas and to create a sense of place. Proper utilization of signage, traffic control, and lighting will provide an awareness of a safe environment. These do not need to be utilitarian looking and in some cases can be of a whimsical design that make a statement about a particular locations as well as providing fundamental information and well being.

Public Art, Signing, and Water Features

Creative design can link the various communities along the corridor with a consistent, visual character. Design elements allow the corridor to become a more distinct destination reflecting existing and future economic development activities. Way-finding signing is critical to any destination. Such sign give the customers and visitors of the Natural Bridge corridor clear directions to business and points of interest. A customer or visitor who is not confused or with a feeling of being lost, is one who is confident and one who will spend more time and money in the corridor.

Art work defines public spaces and provides an opportunity to distinguish this corridor from all other roadways in the region. Sculpture and artist outdoor art pieces can reflect the history of the area as well as defining specific market areas along the corridor. Water features provide a focal point for pedestrian traveler. Their placement along the corridor provides opportunities for public gathering, places of reflection, and additional aesthetic value at points of interest.

Catalyst Sites

The Future Land Use Plan provides a recommended pattern of potential future development opportunities consistent with the market; availability of land; and potential finance opportunities. In support of the Future Land Use document, several catalyst sites have been identified and studied in greater detail. These site locations include:

- MetroLink Station linked to City of Normandy, City Hall Site
- The “Wedge” at the intersection of Natural Bridge and Florissant Roads

The MetroLink/City Hall site was selected due to the availability of the land, owned in fee by the City of Normandy. This site is presently the home of the Normandy City Hall municipal facilities. The City of Normandy has interest in the redevelopment of this site due to it’s’ adjacently to the existing

MetroLink station, making this location an ideal candidate for a Transit Oriented Development (TOD) district.

The "Wedge" site was selected due to its critical location within the corridor as an entry to the Natural Bridge Road market place and its potential as a stimulus for revitalization of existing commercial property. In addition, new infrastructure investment at this location (whether "T" or Roundabout configuration) will result in excess right of way. This excess land may be used to development public "places" to enrichment the area and to facilitate pedestrian use of the streetscape.

Future Land Use Plan

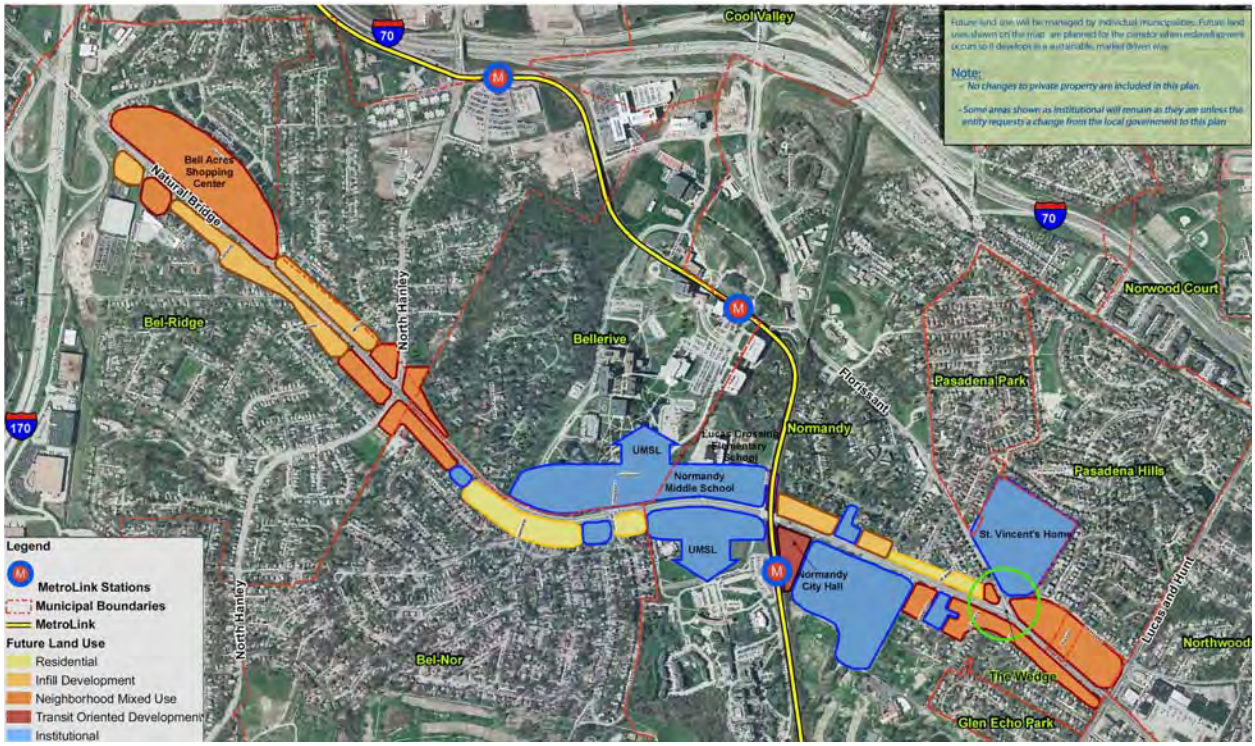
The ultimate goal of the Natural Bridge Great Streets Initiative is the long-term sustainability of both land use and infrastructure that supports land use and economic viability in the region. Several key elements can insure the success of the area based on research and knowledge of the Natural Bridge Road corridor at this area:

- Any future land use plan must acknowledge the importance of providing regional market access and the need for public parking within future land use concepts to assure the long term sustainability of the primary study area
- Florissant Road at I-70 is the focal point of access into the primary study area and is the corridor that will provide essential regional market access to new and existing businesses
- The intersection of Natural Bridge and Florissant Roads is the significant point of entry into the primary study area commercial corridor
- Enhanced MetroLink services and convenient access to the Natural Bridge Road is essential to increasing regional market access to the area
- The plan must include specific strategies and design recommendations that facilitate pedestrian and bike access
- A shuttle/trolley route within the local market corridor would provide improved circulation within the commercial areas, would capture consumers that may otherwise not access commercial areas, and provide a uniqueness to the area that can attract visitors from regional markets
- Increased density is essential to attracting new investment within commercial areas, including reduced parking requirement ratios, efficient on site circulation, and relaxation of setback and other city imposed restrictions that impact land to building ratios
- A strategic and well planned promotional plan is required that is designed to reach and attract regional market
- All transit stops and station locations need to be considered market focus areas with planning and design emphasizing connectivity to commercial areas and by creating enhanced public amenity environments at these locations
- New public enhancement investment needs to consider the land uses in its design to maximize the relationship between infrastructure and economic development

Future Land Use

A hallmark of the Great Streets Initiative includes an acknowledgement of the relationship that exists between roads and land use. The following future land use plan is designed to provide a visual roadmap to market enhancement and new investment potential within the primary study area (Exhibit E.7).

EXHIBIT E.7: FUTURE LAND USE PLAN



Source: CH2M HILL

Residential

- Single family (0-1 units/acre) allows for the preservation of open land within areas of steep incline or changes in elevation around creeks and tributaries
- Single family (1-4 units/ acre) allows for residential redevelopment within established neighborhoods
- Mixed family (4-12 units/acre) allows for duplex and multi-family development within the context of existing residential patterns

EXHIBIT E.8: EXAMPLE OF LOW DENSITY RESIDENTIAL

Source: CH2M HILL

The intent of this designation is to maintain and improve existing residential areas subject to changes in existing conditions brought on by time and market changes. Redevelopment and enhancement to existing structures associated with this designation include:

- Upkeep and maintenance of single and multi-family residential property
- New construction and improvements to existing structures sensitive to density and scale of structures within existing neighborhoods

- Redevelopment of property to remain residential

Infill Development

This land use category allows the preservation of existing land use patterns while incorporating new development within the existing physical and cultural characteristics of the area, including:

- Small pedestrian oriented retail
- Small commercial or medical offices
- Small duplex units
- Small incremental redevelopment reusing existing parcel sizes is the most likely way forward in this area

EXHIBIT E.9: EXAMPLE OF INFILL DEVELOPMENT

Source: CH2M HILL

The intent of this designation goes to the upkeep, maintenance, re-leasing (accommodating the needs of existing and new tenants), modernization of in-fill activities associated with keeping commercial districts current and market driven in their appeal to the public. Parcel sizes and market strength usually dictate the size and location of existing commercial areas; therefore, this designation assumes modifications associated with reuse of existing conditions while addressing the need for revitalization and reinvestment. Redevelopment and enhancement to existing structures associated with this designation include:

- Upkeep and maintenance of existing structures including structural modifications as well as exterior amenities
- New structures and modernization of existing buildings to remain sensitive to the scale of surrounding buildings
- Reuse or modernization of buildings are anticipated to be consistent with surrounding physical and market conditions
- Teardown and rebuilding to remain consistent with Example of Example of adjacent building scale and market purpose
- Building additions and major modifications allowed and are to be consistent with the scale and market purpose of the area

EXHIBIT E.10: EXAMPLE OF NEIGHBORHOOD MIXED USE

Source: CH2M HILL

Neighborhood Mixed Use

This land use category allows the total redevelopment of land while preserving any existing businesses reflecting market demand. This category applies to redevelopment of strip

centers, box stores, and other commercial strips in need of revitalization:

- Mixed use redevelopment
- Urban density site massing reflecting market demand
- Mid-sized office and medical developments
- Entertainment venues
- Recreational areas such as bike trails, small parks, and greenways

This land use category encourages new development while preserving existing development within areas applicable to this category. The purpose of this designation is to preserve viable structures while allowing for demolition and revitalization to occur with existing business areas. Reuse of existing structures and the development of new allow larger commercial areas to adjust to market changes and to renew consumer interest by creating investment opportunities and renewal:

- Creation of dense, mixed use structures including commercial at ground floor locations; office or residential above ground floor; and designated public gathering places in complement to retail and commercial activities
- Teardown and rebuilding of structures consistent with the scale and market purpose of the area
- Change in the overall character of existing structures pursuant to market driven demand and public need

Transit Oriented Development (TOD)

This category is planned for dense, transportation related development that creates a synergistic relationship between the transit facility, its riders, and investment potential at the transit location. Uses may include:

- High rise, mixed use commercial and residential uses
- Entertainment and recreational venues
- Unique, ground level, retail businesses

EXHIBIT E.11: EXAMPLE OF TRANSIT ORIENTED DEVELOPMENT

Source: CH2M HILL

This designation anticipates the use of land around transit locations to be dense, mid to high rise buildings with mixed uses appropriate to the needs of the area. To achieve density it may be necessary to tear down existing structures, although the effective reuse of or modification to existing structures is to be considered. This designation focuses on:

- Dense urban configurations of land use and placement of structures to maximize the benefits of transit access
- Attracting and capturing a large share of the region market through development of buildings, tenancy, entertainment venues, and public amenities
- Removal and reconstruction as appropriate those existing structures to facilitate density and market variety
- Capitalizing on market driven development to transform the area and optimization of transit access
- Mixed-income residential units incorporated into mixed use environment

Institutional Land Use

Assumes existing institutional locations will remain at locations illustrated on the Future Land Use Map:

- Public Middle and High School Facility
- Religious Schools
- Convents and Housing for Orders
- Housing for the public being served by religious orders
- Higher educational facility
- Churches and Synagogues
- Housing for children and young adults
- Post Offices and other government operated facilities

EXHIBIT E.12: EXAMPLE OF INSTITUTIONAL LAND USE

Source: CH2M HILL

The intent of the institutional land use designation is to provide support and opportunity for the implementation of existing and proposed master planning associated with the schools, religious entities, and public owned services within the area. Support includes, but is not limited to:

- Facilitation of existing master plans for UMSL and other public school property
- Anticipating opportunities and potential future needs of religious entities within the area that may require new or renovated buildings structures, expansion of facilities to meet current needs, or the sale of all or a portion of property to satisfy the needs of the religious entity(ies)

Implementation and Financing Strategies

Implementation Strategy

This corridor has distinguished itself over time as successful area institutions, but on commercial uses serving the adjacent communities among competing local municipalities and through continued economic change. It is a complex area made up of multiple municipalities; substantial institutional influence; and well organized neighborhood groups cooperatively working to keep the area safe and residentially viable. In view of all these positive conditions, the commercial interest in the area has not grown and appears to be declining in some specific locations throughout the corridor. The complexity of the corridor and the changing economics generally, prompts the recommendation that a broadly encompassing designed redevelopment district be established that allows for planning, financing, and redevelopment applicable to the primary study area including infrastructure and transit options created to serve the entire area. A planned redevelopment district will forge relationships between private and public investment with oversight of the common good of the district.

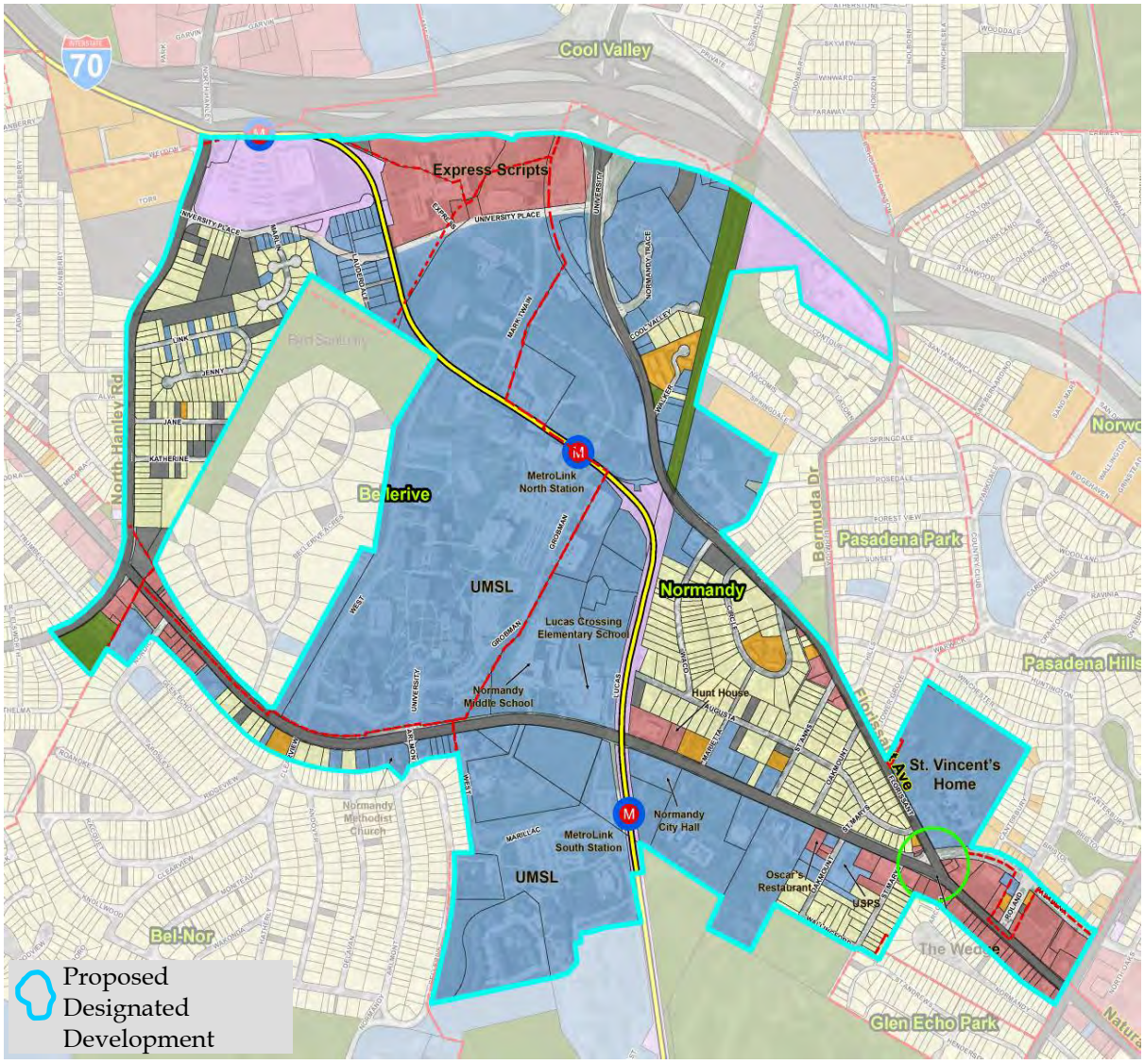
This strategy provides for funding and long-term management of investments requires a board oversight composed of investment interest within its defined district boundaries. Exhibit E.13 suggests proposed district boundaries that may be modified during the implementation of this strategy. Those properties included within this comprehensive plan include residential, commercial and institutional land willing to participate in ongoing investment and enhancement of the market area. Additionally, infrastructure such as roads, sidewalks, and transportation stations and stop locations are included within the designated boundaries to assure that vital public links are maintained and remain an integral part of the overall value created for the area.

The comprehensive approach to redevelopment in the primary study area is reinforced by the integrity and historic involvement of the stakeholders. Within a comprehensive development district the stakeholders will have the ability to plan, finance, and maintain a strategy for phased redevelopment; upkeep and enhancement of infrastructure; strategic planning to forecast the needs of the district, and the development of creative programs and incentives that can set this area apart and serve as a model for the region.

Planning and implementation of this concept will require close communication among the participants and the final designated development area will need to be designed to include or exclude participants based on their commitment and interest in the revitalization of the community. Until the lines are clearly established through this process, the Exhibit E.13 is only an example of inclusion, not a final recommendation.

Financing a larger, more comprehensive district may be best served through implementing a State of Missouri statue known as the “Missouri Community Improvement District Act” (CID) or alternatively as a “Transportation Development District” (TDD). These statues are creative development tools they generally provide for property owners to designate specific boundaries and either establish a not-for-profit corporation or a political subdivision to facilitate planning and implementation.

EXHIBIT E.13: COMPREHENSIVE DEVELOPMENT STRATEGY MAP



Source: St. Louis County GIS

A final benefit that may be considered, related to the creation of a comprehensive redevelopment area, is associated with job creation and the possibilities of employment associated with the long term care and maintenance of landscaped areas; shuttle equipment; street maintenance and upkeep; and promotional activities. A jobs program may be a good way to address student and local population employment needs. Possible implementation of a jobs program may include, but is not limited to:

- Establishment of a not-for-profit organization that identifies student and local talent and assigns jobs required such as landscaping or grounds maintenance
- Establishment of a for-profit organization that hires and assigns work under a master agreement for a specific period of time

CID agreements with contractors hired to provide services includes language which requires that students and local talent be considered as employment candidates based on work scope and project needs

Financing Strategies

Finance strategies typically are "designed" to fit the particular needs and opportunities of development investment opportunities. Therefore, it would be unrealistic to attempt to apply finance strategies to any of the opportunity development sites discussed here until master planning has begun and specific legal boundaries are agreed upon among the parties participating in redevelopment investment.

In order to facilitate statutory funding, an implementation plan and finance strategy must be carefully crafted that links economic development potential and physical land characteristics to specific funding resource appropriate for each site. A strategy includes approaching political advocates and stakeholder groups to negotiate the best funding opportunities available. It is imperative that the vision of the plan is communicated and that it demonstrates that the proposed projects are market driven and financially sound.

Funding is predicated on such circumstances as the following:

- Size of development and land use(s) proposed
- Market demand and future potential
- Time line for development
- Developer capacity to finance
- The location and condition of offsite improvements
- Governmental constraints impacting development potential
- Underlying municipal codes and encumbrances
- Property constraints impacting development potential
- Availability of funding (primary and supplemental)
- Interest and participation by local banks
- Availability of applicable statutory funding devices
- Interest within political strata that stimulates advocacy in the project from local, state, and federal authorities

The following lists of state statutory funding programs are outlined to provide ideas for a creative financing approach for redevelopment and revitalization opportunities within the primary study area. Each of these funding tools requires the need for the establishment of designated development areas specifically described pursuant to survey. Additionally, these funding mechanisms require that all revenues resulting from the district be reinvested within the specific boundaries and are not appropriately used for any activity outside those boundaries.

Funding Programs

- Tax Incremental Financing (TIF)
- Community Development Block Grant Program (CDBG)
- Missouri Downtown Economic Stimulus Act (MODESA)
- Missouri Community Improvement District Act (CID)
- Transportation Development District (TDD)
- Brownfield Redevelopment Program

There are other examples of funding resource that may be obvious as detailed development plans are submitted. These resources may be appropriate for the development of residential, student or elderly housing for instance. However, these funding resources will be specific to detailed plans and are not mentioned here due to the general nature of this document.

Other Resources

Examples of other funding sources that may be applicable include:

- Business Facility Tax Credit Program – to provide tax incentives to facilitate the expansion of new and existing businesses that were established prior to 1/1/2005
- Chapter 353 Tax Abatement – available to for-profit urban redevelopment corporations organized pursuant to the Urban Redevelopment Corporation Law pertinent to blighted areas by the municipality
- Enterprise Zone Tax Benefit Program – providing tax incentives to facilitate the expansion of new or existing businesses in the state that were established prior to 1/1/2005
- Small Business Incubator Tax Credit Program – to issue a 50% state tax credit to a taxpayer who makes a contribution to an approved incubator sponsor
- Local and national banks willing the participate in community development projects that provide façade and property upgrade projects as well as community based redeveloped efforts that may include secondary funding and leveraged assets