

CITY OF BRENTWOOD, MISSOURI

COMMUNITY OVERVIEW

Introduction

This Data Collection Report serves as an inventory of existing natural and built conditions in Brentwood. It provides insight into the critical elements of the City's support system requiring further analysis and recommendations through the planning process. These elements include existing land use, community facilities, infrastructure, transportation, and natural resources. The report concludes with a list of items or actions for community consideration.

Land Use

Land use data for the City of Brentwood was obtained from the St. Louis County Planning Department. A more detailed description of the specific use of land was obtained from the St. Louis County Department of Revenue. The data from each source was combined and applied to the *Land Based Classification Standards* (LBCS). LBCS is a consistent model for classifying land use characteristics promoted by the American Planning Association.

Using LBCS, parcels of land can be categorized by Activity, Function, Ownership, Site, and Structure characteristics of the land's use. Land uses in the City of Brentwood are grouped according to nine LBCS Function categories and two Structure categories (to distinguish between multiple family and single family residential functions) for the purpose of analysis. Each category is described below.

Function 1000/Structure 1100-Single Family Residential—Land occupied by or associated with a residential structure housing a single family or household.

Function 1000/Structure 1200-Multiple Family Residential—Land occupied by a building designed and used exclusively as a dwelling by two or more families occupying separate units.

Function 2000-General Sales or Services—Land occupied by or associated with a building used for the practice of a profession or business primarily conducting administrative, executive, professional, research or similar activities.

Function 2100-Retail Sales—Activities directly associated with the sale or rental of goods and services to the end consumer.

Function 3000-Manufacturing and Wholesale Trade—Land occupied by a use engaged in storage, wholesale, and/or distribution of manufactured products, supplies, and equipment. Includes land occupied by facilities that conduct the mechanical or chemical

transformation of material or substances into new products.

Function 4000-Transportation, Communication, Utility— Land containing modal or multimodal conveyances (excluding the roadway network) and terminals used for the transport of people or goods; establishments engaged in the provision of broadcasting and other information relay services; and facilities related to the provision, distribution, collection, transmission, or disposal of water, sewage, gas, power, and telecommunications.

Function 5000-Arts, Entertainment, Recreation—Land currently being used or reserved for open space, conservation, or public activities related to recreation, athletics, or culture.

Function 6000-Education, Public Administration, Health Care, Other Institution—Land occupied by or associated with a facility operated by a federal, state, or local government agency; a tax exempt organization; a medical office, dental office, or hospital; fraternal organization; or religious organization.

Function 7000-Construction Related Business—Land occupied by establishments or places of business primarily engaged in administration, retail, wholesale, or storage of materials or services used in the construction of buildings or other structures.

Function 9900-Unclassifiable Function—Land that is currently not being used and therefore cannot be classified by a function.

City of Brentwood Existing Land Use		
Land Use Category	Acres	% of City
Function 1000/Structure 1100-Single Family Residential	441.7	35.3%
Function 1000/Structure 1200-Multiple Family Residential	101.7	8.1%
Function 2000-General Sales and Services	62.9	5.0%
Function 2100-Retail Sales	130.0	10.4%
Function 3000-Manufacturing and Wholesale Trade	124.2	9.9%
Function 4000-Transportation, Communication, Utility	54.0	4.3%
Function 5000-Arts, Entertainment, Recreation	55.7	4.5%
Function 6000-Education, Public Administration, Health Care, Other Institution	42.2	3.4%
Function 7000-Construction Related Business	7.3	.6%
Function 9900-Unclassifiable Function (Vacant)	23.2	1.9%
Subtotal	1,042.9	83.5%
Right-of-Way	205.8	16.5%
Total	1,248.7	100%

The majority of land in Brentwood (35.3%) is being used for single family residential. Single family residences lay on a semi-grid street network. The streets generally run north-south and east-west; however, many of the streets dead end or end in a cul-de-sac.

Multiple family residences make up 8.1% of the City's total land use and 19% of the City's residential land. Multiple family residences are concentrated in four developments with 90% of all multiple family units located in Brentwood Forest in northwest Brentwood and The Villas just east of Brentwood Boulevard along Rankin Avenue. Brentwood Forest condominiums contain over 1,400 units and The Villas contain 300 units with another 170 units planned. As of the 2000 Census, multiple family housing accounted for 40% of the total number of housing units while housing 30% of the City's total population. The residential areas in adjoining municipalities are similar in density and character to the neighborhoods in Brentwood.

Commercial uses, both retail and office, line Manchester Road, Brentwood Boulevard, and Eager Road and have various parcel depths ranging from under 90 feet to over 500 feet. Larger centers of commercial activity are located near the interchange of Brentwood Boulevard and I-64 and along Hanley Road. There are a limited number of instances when the commercial uses are mixed and offices are located above street front retail. When this occurs the Existing Land Use Map depicts the use which occupies the majority of the building.

Commercial activity along Manchester Road is generally small scale and is similar in neighboring Brentwood, Rock Hill, and Maplewood. Commercial activity along Hanley Road in Brentwood is denser and larger scale than the sections of Hanley Road north in Richmond Heights and south in Webster Groves. The City of Maplewood has approved large scale commercial development on the east side of Hanley Road making the corridor between I-64 and Manchester Road a regional shopping destination. Brentwood Boulevard is currently a regional shopping destination between Clayton Road in Richmond Heights to the north and Strassner Road in Brentwood to the south. Richmond Heights is approving redevelopment of smaller scale, out-dated commercial buildings along Brentwood Boulevard attracting even more daily visits and vehicular trips to the area.

The main industrial activities are located in Hanley Industrial Court; however, additional industrial uses also are located south of Manchester Road along Deer Creek. There are no large scale competitive industrial areas in the vicinity of Brentwood with the possible exception of the Sunnen Business Park south of Deer Creek in Maplewood.

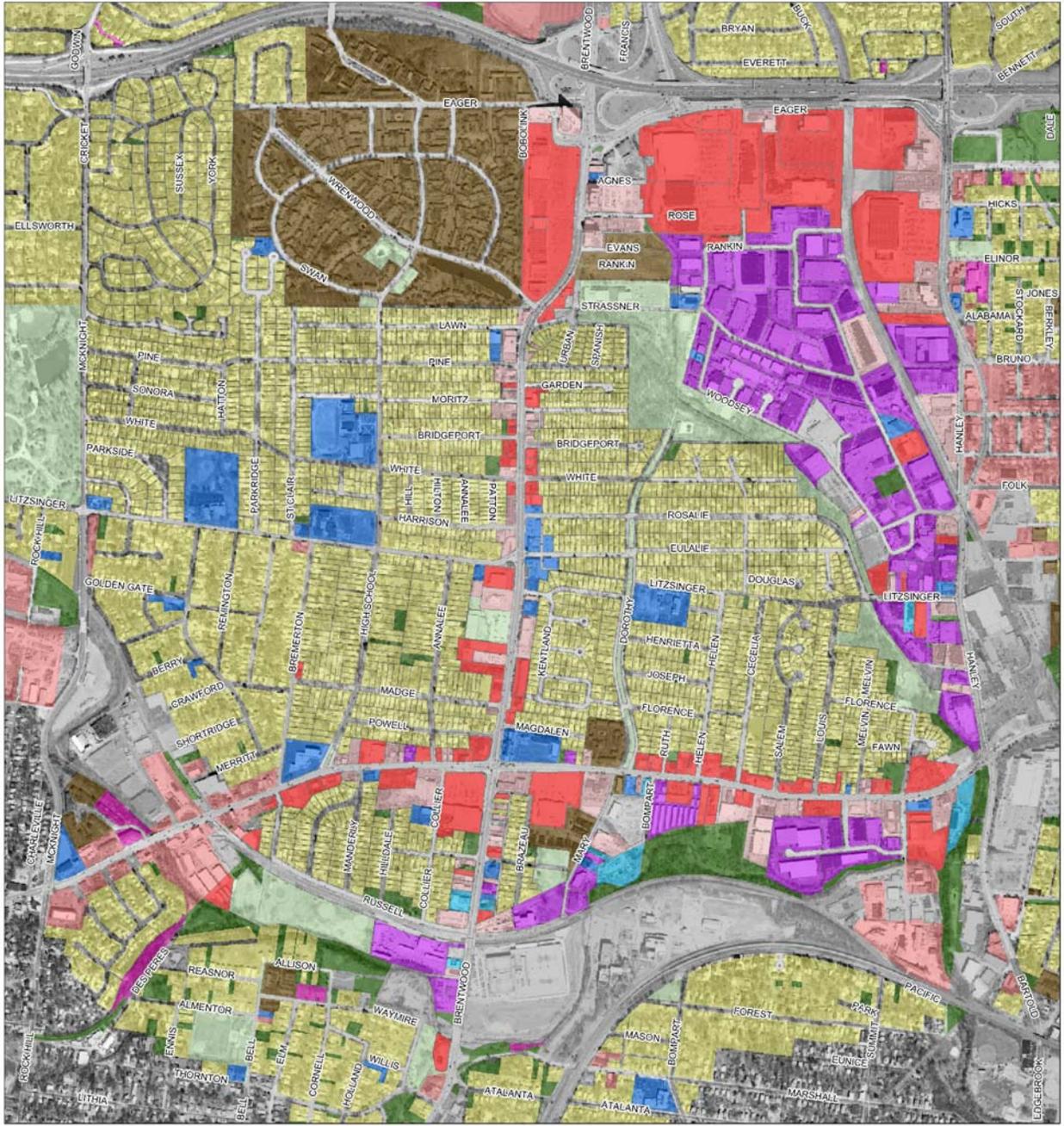
For a description of Institutional and Park/Recreation land uses in Brentwood, see the Public Facilities section.

Transportation land uses in Brentwood consist of the MetroLink light rail corridor and station area, a Burlington Northern Railroad spur, and the Metro bus maintenance garage south on Brentwood Boulevard.

A very small number of vacant parcels still exist in Brentwood. The majority of vacant land is along Deer Creek and

Black Creek. There also are vacant parcels scattered across the City in residential areas.

Existing Land Use Map



LBCS Categories

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Structure 1100-Single Family Residential |  Function 4000-Transportation, Communication, Utility |
|  Structure 1200-Multiple Family Residential |  Function 5000-Arts, Entertainment, Recreation |
|  Function 2000-General Sales or Services |  Function 6000-Education, Public Administration, Health Care, Other Institution |
|  Function 2100-Retail Sales |  Function 7000-Construction Related Business |
|  Function 3000-Manufacturing and Wholesale Trade |  Function 9900-Unclassifiable Function (Vacant Parcel) |



0 660 1,320 Feet

Source:
St. Louis County
Department of Revenue
July 2004

Community Facilities

Public Facilities

Public facilities are those buildings and services accessible to and serving the entire community. The location, accessibility, and quality of public facilities influence the ability of the facility to meet the needs of the community, and ultimately the community's ability to retain or attract residents and businesses. Public facilities in Brentwood include parks/parkways, trails/bikeways, recreation center, schools, municipal buildings, and other County, State, and Federal buildings.

Parks/Parkways

The City's park system consists of five parks and Rogers Parkway. Totalling approximately 42 acres, the parks are fairly well distributed geographically. Memorial Park and Oak Tree Park are located along Black Creek in the eastern portion of the City. Brentwood Park and Norm West Park are located along Deer Creek in the southern portion of the City. Rogers Parkway is an approximately $\frac{3}{4}$ mile long linear park located $\frac{1}{4}$ mile east of Brentwood Boulevard. Broughton Park is a small active recreation area located within the Parkway less than $\frac{1}{4}$ mile south of Memorial Park.

The northwestern portion of the City is not served locally by a Brentwood park. However, St. Louis County Tilles Park is located west of McKnight Road and is easily accessible to residents in northwest Brentwood. In addition, Brentwood Schools and churches serve as convenient neighborhood parks for

areas west and east of Brentwood Boulevard.

Trails/Bikeways

The City of Brentwood has 1.8 miles of grade-separated, paved trails. In certain areas where the trails could not be kept continuous, they are connected with sidewalks totaling 940 feet. The trails are located along Black Creek through Oak Tree Park and Memorial Park, along Rogers Parkway, and along Litzinger Road between Oak Tree Park and Mark Twain Elementary School. An effort to plan and create a trail along Deer Creek and up Black Creek to connect with existing City trail system is being undertaken by Great Rivers Greenway.

Recreation Centers

Recreation facilities available are both publicly and privately run. The Brentwood Community Center, run by the City's parks department, offers indoor recreation including fitness classes, adult activities, and ice arena programs. Brentwood is also a participant with Maplewood and Richmond Heights in PARC, Parks and Recreation Cooperative. Residents of the three communities are all eligible to use the programs and facilities offered by each municipality at resident prices.

Private recreation facilities in Brentwood include the Brentwood Swim Club and YMCA, both adjacent to Memorial Park, and a clubhouse, pool, and tennis courts available to the residents of Brentwood Forest Condominiums in northwest Brentwood.

In 2002, with the assistance of a national public survey firm, the City of

Brentwood conducted a parks and recreation needs assessment. General conclusions drawn from the survey included the following:

- For recreation programs in need of development or expansion, residents placed highest priority on festivals/special events, adult fitness/aerobics, ice skating/ hockey, swimming, and trips/ travel.
- For general parks and recreation system improvements, residents placed highest priority on developing or expanding walking and biking trails, neighborhood parks, and the Brentwood Community Center.
- For the park nearest their residence, residents placed highest priority on walking trails, restrooms, drinking fountains, and lighting.

In 1995, City residents passed a 1/8 cent, and in 1997 approved an additional 3/8 cent for a total of one half cent (0.5%), Stormwater/Parks Sales Tax. Generating an estimated \$1.2 million each year, proceeds are allocated annually to park and stormwater improvement projects throughout the City.

Schools

Brentwood is served by the Brentwood School District. The District operates four schools within the City: Mark Twain Elementary, McGrath Elementary, Brentwood Middle School, and Brentwood High School. The District also operates an administration office. McGrath Elementary, Brentwood Middle and High School, and the administration office are all located in the northwest

portion of the City. Mark Twain Elementary is located east of Brentwood Boulevard adjacent to Rogers Parkway at the intersection of Dorothy Avenue and Litzinger Road. The District had an FY03-04 enrollment of 858 students: 379 primary school students, 220 middle school students, and 259 high school students.

The school district has been experiencing a declining trend in enrollment. Between 1999 and 2004, the district's enrollment dropped over 7% (66 students, or 16.5/year). According to District projections, the population of school age children in Brentwood is expected to continue to decline at this same rate for at least the next three years. Based on the 2000 Census (1,131 Brentwood residents aged 5-19) and FY03-04 enrollment figures (670 resident students), approximately 60% of school age children residing in Brentwood attend Brentwood schools.

Additionally, the Brentwood School District participates in the State's voluntary desegregation program, supporting 188 non-resident enrollees. The Volunteer Transfer Students (VTS) program funded by State desegregation revenues will end in 2009 and funding will no longer be provided for new transfer students. The District anticipates students already in the program in 2009 will be allowed to complete their schooling in Brentwood; however, no new VTS students will be accepted. Termination of the VTS program will eventually lead to a decrease in total enrollment of approximately 200 non-resident students.

The Board of Education is committed to maintaining an independent school system in Brentwood, even though declining enrollment may eventually result in a district with 650 or fewer students.

Municipal Buildings

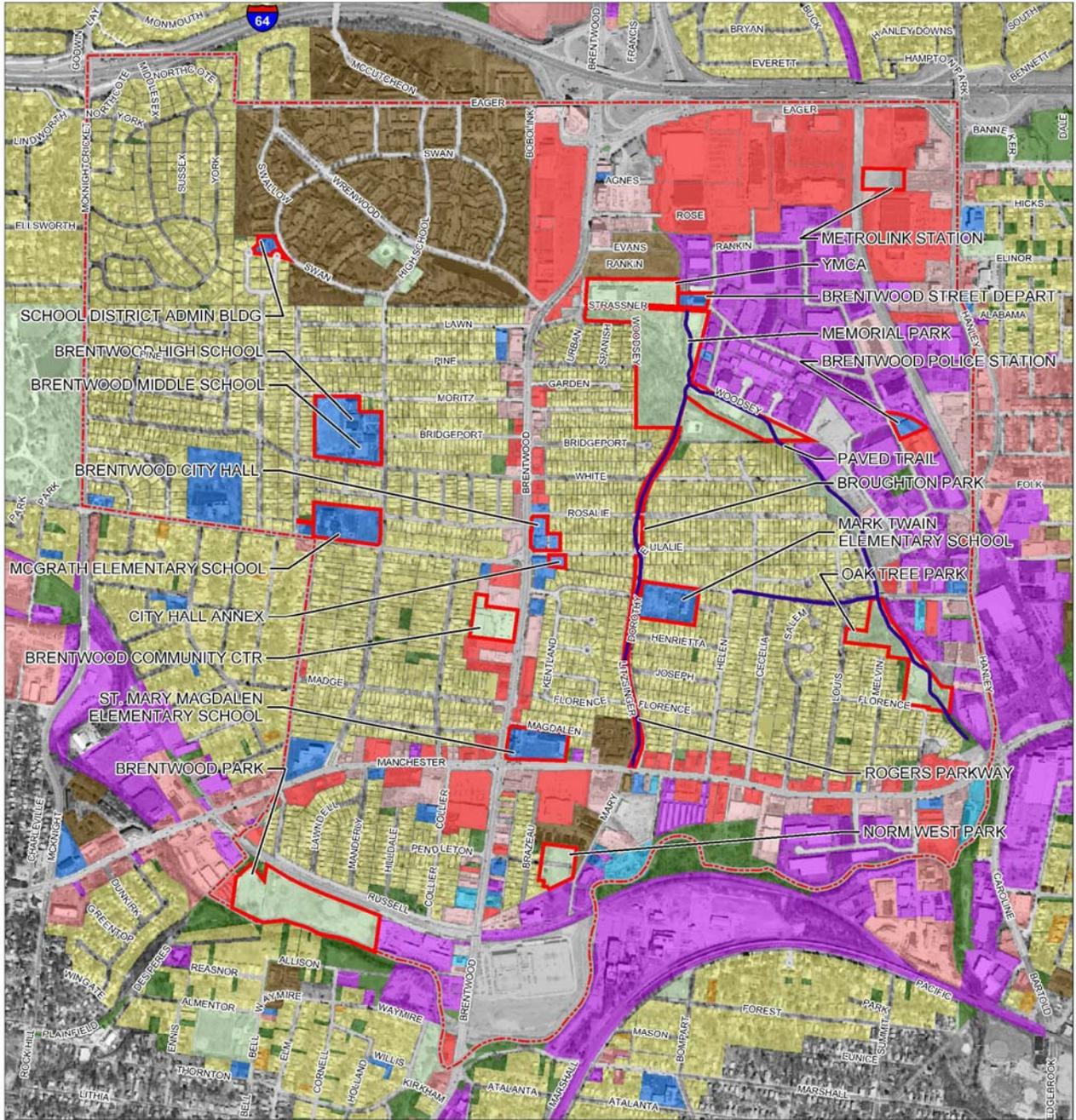
The City operates out of four municipal buildings: City Hall, City Hall Annex, the Police Station, and the Street Department building. City Hall and City Hall Annex are located in the center of the community at the intersection of Brentwood Boulevard and Eulalie Avenue. The City Library and Fire Department are collocated with City Hall. The Police Department and Street Department buildings are located in the Hanley Industrial Court.

Metro (formerly Bi-State Development Agency) Bus Garage is located south of Manchester Road, east of Brentwood Boulevard and is used for storage and repairs but does not offer direct service to the public. The Brentwood Post Office, formerly located on Brentwood Boulevard, was relocated to a temporary location in Maplewood to make way for a private development.

Future plans include:

- Expansion and remodeling of the existing fire station located at City Hall. This proposed project would provide larger bays to accommodate a new ladder truck, drive-through bays to eliminate the need to block traffic on Brentwood Boulevard to back into the existing bays, and improved restroom and sleeping facilities to provide for both male and female fire fighters in the future.
- Design and construction of a new City public works facility in the Hanley Industrial Court area as proposed and approved in the Strassner Road TDD referendum. A new public works facility would provide expanded and updated accommodations for manpower and equipment storage, maintenance, and dispatching to allow the City to meet its increased municipal service obligations, including the sewer lateral program and waste management.
- On March 7, 2005, U.S. Postal Service Representatives appeared before the Board of Aldermen and announced plans to replace the former Post Office in Brentwood. USPS is searching for an 8,000 square foot building or a 1 ¼ acre site for construction of a building as a location for mail carriers and sorting.

Public Facilities Map



LBCS Categories

- | | |
|-------------------------------------------------|--------------------------------------------------------------------------------|
| Structure 1100-Single Family Residence | Function 4000-Transportation, Communication, Utility |
| Structure 1200-Multiple Family Residence | Function 5000-Arts, Entertainment, Recreation |
| Function 2000-General Sales or Services | Function 6000-Education, Public Administration, Health Care, Other Institution |
| Function 2100-Retail Sales | Function 7000-Construction Related Business |
| Function 3000-Manufacturing and Wholesale Trade | Function 9900-Unclassifiable Function (Vacant Parcel) |
| | Public Facilities |



0 660 1,320 Feet

Source:
St. Louis County
Department of Revenue
July 2004

Infrastructure

Infrastructure refers to the services and facilities available to the entire community that are necessary for conducting business and residing in an urban area. The location, condition, and plans for infrastructure affect not only current residential and business activity, but also have a bearing on the feasibility of new or re-development. Elements of infrastructure covered in this report are storm sewers, sanitary sewers, and water supply.

Storm & Sanitary System

Storm sewers and sanitary sewers are both maintained by the Metropolitan St. Louis Sewer District (MSD). Small pockets of combined sewers are still scattered throughout the City with all sanitary and storm water eventually flowing to Deer Creek. Storm water flows directly into the creek. Sanitary sewage flows through a major sewer line beneath Deer Creek. During heavy storm events the sanitary sewage conveyance system, which also carries some combined sanitary/storm flows, may discharge directly into Deer Creek. Brentwood, the Black Creek watershed, and the Deer Creek watershed are all serviced by the MSD Lemay Treatment Plant located southeast of Brentwood at the confluence of the River Des Peres and the Mississippi River.

The sewer system in Brentwood functions “adequately” (i.e., doesn’t back up) except several neighborhoods are impacted by storm water problems. The neighborhood between Brentwood High School and Tilles Park in northwestern Brentwood and areas along Brentwood Place, Bridgeport Avenue, and Moritz Avenue Areas have experienced sewer

back-ups during heavy rain. The City Public Works Department considers this problem a top priority and, until a sewer separation project is completed, the City is protecting individual properties from combined sewer backups by isolating the house from the sewer mains with a wet well and pump system. The City of Brentwood also conducts a comprehensive sewer lateral repair program. Residents pay an annual fee and in return the City pays all costs for replacing broken sewer laterals.

Hanley Industrial Court and Black Creek also experience flooding during heavy rain. This situation has been extensively studied since the early 1980’s and various recommendations have been formulated to address the flooding problems. A summary of the Black Creek studies follows.

- The nature of Black Creek flooding is such that the creek quickly rises and falls in direct correlation to localized heavy rainfall events; i.e., within the creek’s relatively small 8.7 square miles. If this rainfall event occurred only within the Black Creek watershed (*a headwaters flood*), the peak discharge (100-year flood) is expected to be reached in less than one hour and remain at that level for only a few hours.
- However, it is more likely that events of this magnitude will occur over a larger area resulting in flooding of Deer Creek as well. The flooding conditions in Deer Creek and the configuration of the Deer Creek channel downstream of its confluence with Black Creek has a significant effect on Black Creek flooding (*a backwaters flood*). In fact,

the 100-year floodplain for Black Creek was established assuming that Deer Creek was experiencing the 100-year flood event as well.

- Therefore, no substantial reduction in flood elevations can be achieved without a significant capital outlay to improve both the Deer Creek and Black Creek channels.
- Improvements to the Black Creek channel were proposed by MSD (Havens & Emerson, Inc., January 1981) in their “Black Creek Drainage Study”. This study dealt with alternatives for improving the conveyance of the Black Creek channel. The study recommended 9 specific projects, estimated at \$7,550,000 (1981 dollars), in Black Creek to reduce flooding conditions. As of the 1997 Hanley Industrial Court Development Plan (Development Strategies, Inc.), due to funding only one of the projects had been completed.
- Improvements to the Deer Creek channel were proposed by the USACOE (June 1988) in their “River Des Peres Flood Control Project”. Deer Creek improvements are estimated at up to \$20,000,000 and are on hold pending approval of a 25% local match. The Corps’ cost benefit analysis of improvements along Black Creek determined that improvements along this channel were not economically justifiable. It was estimated that improvements to Deer Creek would lower the Black Creek flood elevations by only one foot along many sections of the industrial park.
- Improvements to the Black Creek channel were also proposed in the City of Brentwood’s (CDG Engineers, November 1996) “Black Creek Flood Study”. The study indicates a storm of a 2-year frequency will cause flooding in the Hanley Industrial Court. To provide some limited localized flash flood protection up to the 4-year flood frequency, improvement projects totaling \$216,400 (1996 dollars) were proposed but not completed. The study further recommended that the City request an investigation of the effectiveness of stormwater detention facilities constructed for the Galleria (study completed in 1998-99), and that future stormwater detention facilities upstream of the Hanley Industrial Court be carefully reviewed to assure they do not increase the frequency of flooding in the Industrial Court.
- Even with both improvements to the Deer Creek and Black Creek, the 100-year flood elevations in the Hanley Industrial Court would only be reduced by a few feet and significant portions of the park would remain in the 100-year regulatory floodplain.
- Three “cost-prohibitive” alternatives for reducing flooding in the Hanley Industrial Court were previously identified:
 - a) Temporarily store the floodwaters in designated areas (floodwater detention); however the amount of open space is not sufficient to provide enough volume of storage.

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- b) Improve the Deer Creek channel below Black Creek and improve the Black Creek channel; estimated cost of \$20 million.
 - c) Construct a levee by raising West Hanley Industrial Court 10 feet above its current elevation or raise the buildings east of this road above the 100-year flood elevation; this also would require significant improvements to the internal stormwater handling system.
4. The recommended alternative from the Hanley Industrial Court Development Plan (Development Strategies, July 1997) was to prohibit further development within the Black Creek floodplain and flood-proof existing structures to withstand the 100-year floods. The City has subsequently adopted FEMA's model floodplain management ordinance and established a "FP" floodplain overlay district in their zoning ordinance. The ordinance restricts development within the *floodway* unless the development will cause no more than a one foot rise in the 100-year flood elevation; and allows placement of fill in the 100-year *floodplain* outside the floodway, provided that the fill comes from within the same floodplain (balanced cut/fill).

As stated earlier, in 1995, City residents passed a 1/8 cent and in 1997 approved an additional 3/8 cent, for a total of one half cent (0.5%), Stormwater/Parks Sales Tax. The estimated \$1.2 million generated each year is allocated to park and stormwater improvement projects throughout the City. Between 1994 and 2004, more than \$5 million was spent by Brentwood (23%) and MSD (77%) on stormwater projects. By far the largest project was the \$3.4 million Harrison Sewer Separation project in 1999-2000. In addition, the City has taken the approach to study and design storm water solutions to problems to encourage MSD to undertake needed projects in Brentwood.

Water System

Water is supplied by the Missouri American Water Company. All parts of the City are "adequately" served with water; however, older parts of the distribution system are deteriorating. The City of Brentwood Public Works Department coordinates with Missouri American Water to replace the system on a project-by-project basis. When the City schedules a street for repair or replacement, they will coordinate with Missouri American Water to replace the water supply infrastructure concurrently with the street work.

Transportation

Transportation includes all methods of moving people and goods in the City of Brentwood. The condition and efficiency of the City's transportation system impacts the quality of life for residents and the economic environment for conducting business.

Transportation in Brentwood includes the street network, the MetroLink light rail system, and the freight rail line. The street network is the dominant transportation element in the City. Three separate government entities maintain the street network in Brentwood. The Missouri Department of Transportation (MoDOT) maintains I-64 and Manchester Road (MO 100). St. Louis County maintains Hanley Road, Brentwood Boulevard, and Eager Road. The City of Brentwood maintains the remaining streets.

Street Network

The East-West Gateway Council of Governments maintains a database on Roadway Functional Classification. Functional Classification establishes the intended purpose, and therefore the required physical characteristics, of the region's road system. In order of volume, the definition of Functional Classifications follows:

- **Interstate**—Thoroughfare with restricted access that provides the longest trip lengths and highest traffic volumes. Interstates also extend to other states and major metropolitan areas.
- **Ramp**—The means of access to and from an Interstate from an Arterial or Collector road.
- **Principal Arterial**—Roadway that connects regional activity centers and meets long-distance intra-urban demands. Principal Arterials may have limited access.
- **Minor Arterial**—Road that connects with and augments Principal Arterial roads. Minor Arterials provide service trips of moderate length at a lower level of mobility than Principal Arterials.
- **Urban Collector**—Road that provides both access and traffic circulation within neighborhoods, commercial areas, and industrial areas by collecting and distributing traffic between local roads and arterials.
- **Local Road**—Road that serves primarily to provide direct access to adjacent land and higher order roads and consists of all streets not classified as an Interstate, Ramp, Arterial, or Collector.

Roadway Functional Classification & Maintenance Responsibility		
Classification	Road Name	Maintained By
Interstate	I-64	MoDOT
	I-170	MoDOT
Principal Arterial	Brentwood Boulevard (north of Manchester Rd.)	St. Louis County
	Hanley Road	St. Louis County
	Manchester Road	MoDOT
Minor Arterial	Brentwood Boulevard (south of Manchester Rd.)	St. Louis County
	Eager Road	St. Louis County
	McKnight Road	Brentwood, Ladue
Urban Collectors	High School Drive	Brentwood
	Litzsinger Avenue	Brentwood
Local Road	All others	Brentwood

MoDOT, St. Louis County and the City of Brentwood are all proposing major changes to the transportation system. MoDOT adopted engineering plans for the reconfiguration of the interchanges of I-64 with Hanley Road, I-170, and Brentwood Boulevard. MoDOT is also in an on-going process to upgrade the Manchester Road right-of-way. In 2001, the Cities of Brentwood, Glendale, Kirkwood, Maplewood, and Rock Hill adopted the “Manchester Corridor Revitalization Plan” with the intent to improve the functionality and aesthetics of Manchester Road and the adjacent land uses. A proposition in 2004 to create a TDD sales tax was not approved by voters.

St. Louis County in conjunction with the Cities of Brentwood, Richmond Heights, and Maplewood developed a plan for Hanley Road to address issues raised from I-64 construction, MetroLink, and proposed commercial development. The plan involves accessing Eager Road from northbound Hanley Road via

a center exit lane into an underpass. A second project involves construction of an interchange between Hanley Road and Manchester Road, with Hanley passing over Manchester.

Traffic

Average daily traffic counts (ADT) for various sections of roadway in Brentwood were provided by St. Louis County (2002) and MoDOT (2003). The level of service (LOS) of a roadway or intersection describes the efficiency and ease of flow by traffic as perceived by users. There are six levels of service (A through F). An acceptable level of service in an urbanized setting like Brentwood would be level D, where level E represents operating conditions at capacity. The LOS is generally controlled by intersections, signalized or unsignalized, and interchanges.

Based on several assumptions related to the amount of trucks present, interpretation of analysis techniques

presented in the Highway Capacity Manual, the number of turning movements, and engineering judgment, a planning-level analysis of Brentwood's Principal and Minor Arterials was conducted. According to the provided traffic volumes, number of lanes, and speed limits, Brentwood Boulevard north of Manchester Road, Hanley Road, and Eager Road east of Brentwood Boulevard all operate at an LOS of E or worse. More detailed analysis of these corridors is warranted.

MetroLink Light Rail

The MetroLink light rail system is operated by Metro, the St. Louis regional transportation authority. One MetroLink station area is located in Brentwood just south of Eager Road (opening in 2006). A Park-N-Ride facility is proposed at this station. Funding for a parking structure at this location currently is not available. A surface parking lot will be constructed; however, capacity of the lot is expected to not meet the projected demand for parking. The City of Brentwood has requested a second station approximately ½ mile south of the existing station at the proposed extension of Strassner Road. Metro was not able to construct the second station as part of the original corridor construction due to a lack of funding. However, a future station could be constructed if funding is provided by the City of Brentwood or through redevelopment.

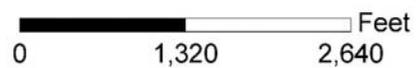
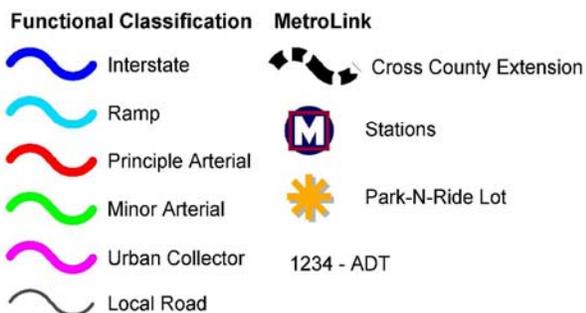
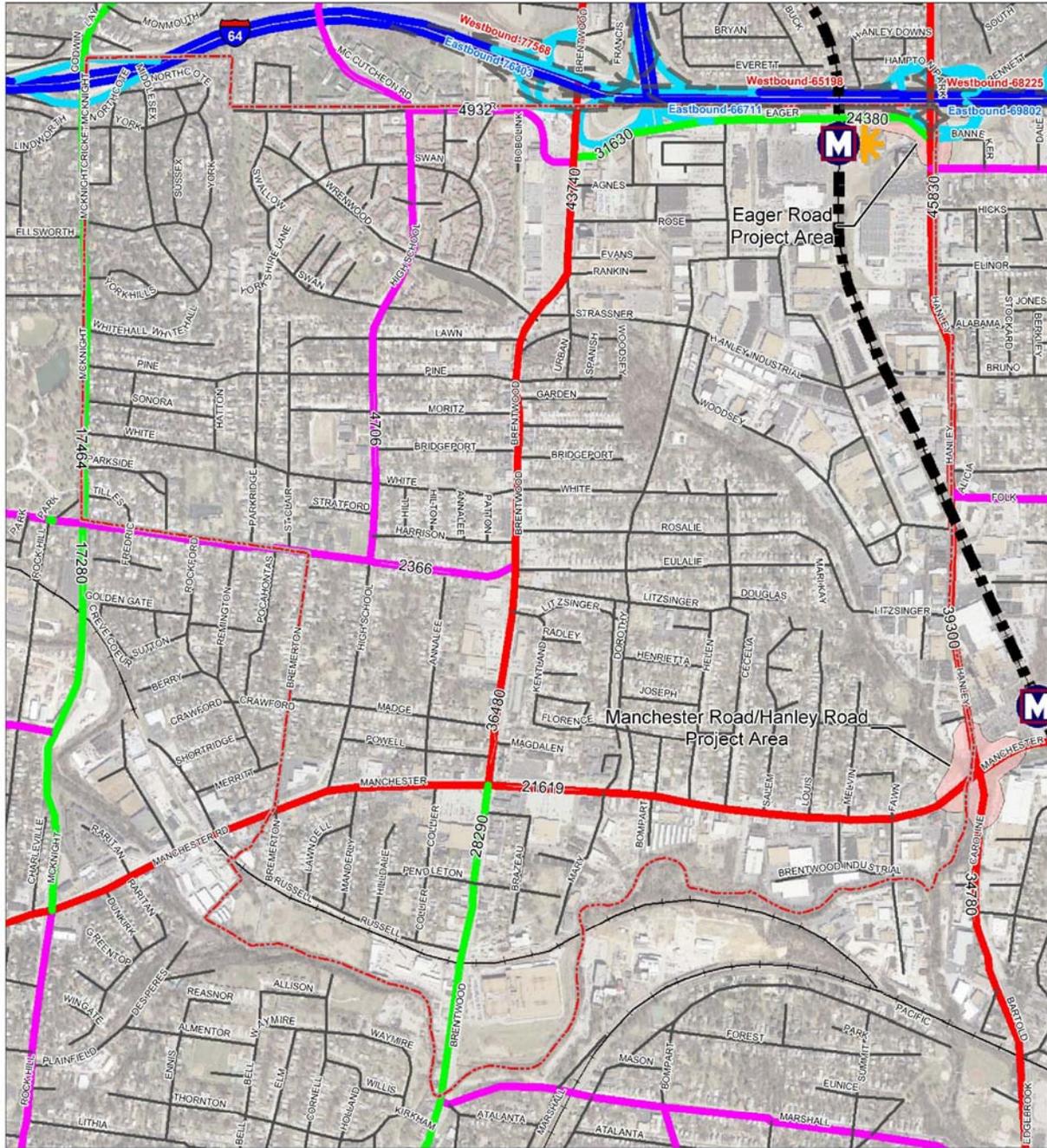
In 2004, City of Brentwood residents adopted the Brentwood-Strassner Road Transportation Development District (TDD) Proposition. The proposition authorized a district-wide sales tax at the rate of one-half of one percent (0.5%) primarily for the extension/ construction of Strassner Road as an east-west connection between Brentwood Boulevard and Hanley Road. When completed, the alignment will connect Hanley Industrial Court through to Bruno Avenue and upgrade the functional classification of Strassner Road and Hanley Industrial Court from a Local Road to either a Principal or Minor Arterial.

The TDD also provided for: the elevation of the MetroLink tracks over the planned Strassner Road extension (completed); improvement of Eager or other adjacent County roads; a pedestrian trail and bridge crossing Black Creek; various local road, utility, and streetscape improvements; and, if funds are available, the design and construction of a new City public works facility and MetroLink station at or near the Strassner Road extension.

Metro also operates the bus system with routes along Brentwood Boulevard, Hanley Road, Eager Road, Manchester Road, and I-64.

A rail spur off the Burlington Northern main line serves several industrial/ heavy commercial users in southwestern Brentwood along Deer Creek.

Transportation Map



Source: St. Louis County
 Department of Revenue
 Department of Highways and Traffic
 MODot

Natural Resources

Natural resources are elements of the landscape and natural processes that remain and continue to affect the built environment and/or future development. The protection and enhancement of natural resources are generally monitored and enforced by various government agencies. The location and quality of natural resources potentially can significantly impact development in their vicinity. Natural resources examined here include waterways, floodplains, and wetlands.

Waterways

The primary purpose of waterways is to carry stormwater. In addition, the majority of the natural resources discussed in this section are located along Brentwood's waterways. A waterway refers to any drainage ditch, stream, or river capable of transferring rain water. The waterways in Brentwood include Deer Creek, Black Creek, and a tributary of Black Creek. Deer Creek runs along the southern border of the City. Black Creek crosses under the I-64/Brentwood Boulevard interchange in northern Brentwood and runs southerly along the west boundary of Hanley Industrial Court. The tributary of Black Creek runs northwest to southeast through Brentwood Forest, under Brentwood Boulevard and converges with Black Creek in the City's Memorial Park.

Floodplains

Waterways as discussed above are delineated by their floodway and floodplain. Floodway is defined as that portion of a stream or river that cannot be obstructed without causing an increase in the elevation of the 100-year floodplain. Floodplain, also referred to as the 100-year floodplain, is the elevation the water level of a stream or river will reach as the result of a storm (inches of rain per hour) that has a 1% chance of happening in any given year. The 500-year floodplain is the elevation a waterway will reach during a storm that has a .2% chance of occurring in any given year. Floodways and 100-year floodplains are regulated by the US Army Corps of Engineers (USACE). Permits must be obtained from the USACE for any construction in these areas.

The major floodplain areas in Brentwood are along Deer Creek and Black Creek. The watersheds of the two creeks are heavily developed and, as a result, water levels rise and fall quickly during rain events. Land in the floodplains along these creeks also is densely developed causing streets, land and buildings in certain "problem" areas to be occasionally inundated. In the Hanley Industrial Court, 52 parcels are located within the floodplain of Black Creek. MSD recommended purchasing 28 of the 52 parcels which flood frequently. These 28 parcels total 22.2 acres. Along Manchester Road between Ruth Avenue and Salem Road, Deer Creek backs up resulting in frequent flooding of the roadway and standing water in buildings.

Potential Wetlands

Wetlands are defined as land having *all* of the following three characteristics:

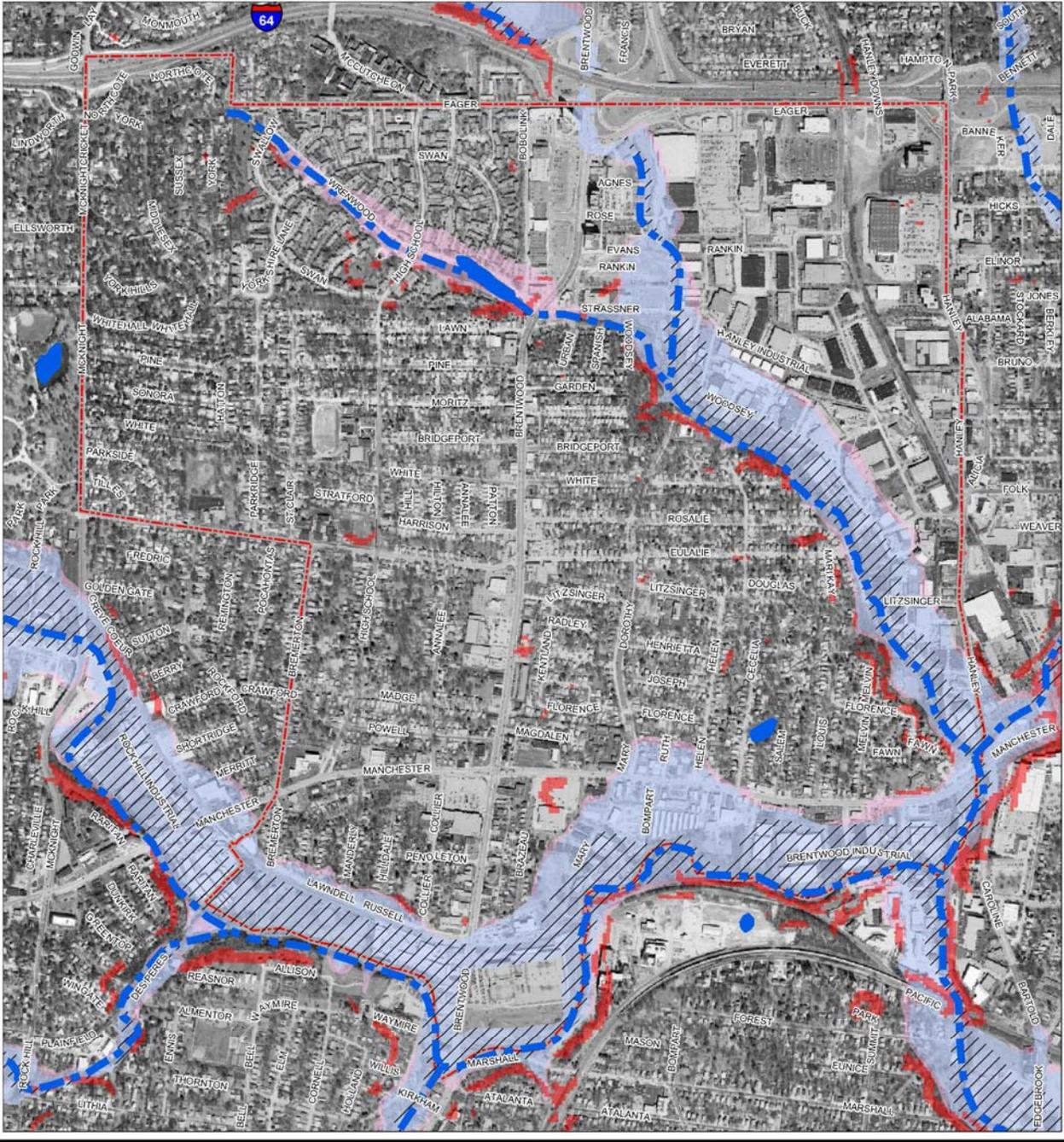
1. Supports aquatic organisms.
2. Contains undrained hydric soils.
3. Soil is saturated or covered by shallow water at some time during the growing season.

Wetland areas are also regulated by the USACE under authority of Section 404 of the Clean Water Act. The National

Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service identifies areas that possibly meet the characteristics stated above; however, areas of concern must be independently surveyed to assess the actual existence and quality of a wetland.

Two potential wetlands are identified by the NWI in Brentwood. One is the man-made pond in Brentwood Forest and the other is a spring-fed pond between Cecelia Avenue and Salem Avenue north of Manchester Road.

Natural Resources Map



Legend

- Streams
- Greater Than 20% Slope
- Potential Wetland
- 500-Year Floodplain
- 100-Year Floodplain
- Floodway



0 1,320 2,640 Feet

Source: St. Louis County Department of Revenue
 National Wetland Inventory
 USGS
 Missouri Spatial Data Information Service

Municipal Finance Overview

Situation Summary

In the preparation of a Comprehensive Land Use Plan, it is important to recognize the direct linkage between land use and municipal revenues and expenditures. Decisions on the future use of land in the community will have fiscal impacts on both the revenue side (property, sales, utility taxes and business license fees) and expenditure side (cost to provide municipal services such as police, fire, trash collection, library, and parks and recreation services). Therefore, the Plan should recommend the evaluation of changes in use or intensity of use also should consider the fiscal impacts of such decisions.

The City of Brentwood is significantly dependent on the business community for revenue. Approximately 80% of Brentwood's 2005 revenue was generated by local businesses in the form of Sales Taxes (55%), Licenses & Permits (11%), Utility Taxes (9%), and Property Taxes (3%). Brentwood residents do not pay a municipal property tax or utility tax.

Through this quick review, the City's dependence on retail sales taxes (55% of total revenue) becomes readily apparent. The City also estimates that up to 80% of sales taxes generated by Brentwood businesses are paid by non-residents. This situation allows the City to abate taxes on residential and commercial property at approximately \$1.3 million per year.

The \$1.3 million abatement normally would be imposed for approximately

\$500,000 in bond issue debt service, \$500,000 in utility taxes, and \$300,000 in property taxes. The City estimates one cent of residential property tax would generate \$22,000 in annual revenue. To achieve \$1.3 million, the City would need to levy 59-cents/\$100 assessed value in property taxes. The relative benefits of retail sales tax-generating businesses to residents are quite substantial.

While the market for new large-scale destination retail projects in the region is small, a market does exist in Brentwood for community-serving retail in walkable environments (ERA, 2005). In the case of Brentwood, future development of new or redeveloped retail centers will not necessarily lead to net gains in sales taxes. However, it will allow the City to remain competitive with other cities and retain the current proportion of sales taxes to total revenue by continually refreshing the retail product.

Summary of Municipal Revenue Sources

Three principal sources of municipal revenue in St. Louis County are sales taxes, property taxes and taxes on utilities. Rates vary among the 91 cities in St. Louis County, but all cities receive a substantial portion of their revenues from these sources (<http://www.co-st-louis.mo.us/taxes/muntax.html>).

Sales Taxes: Retail sales in St. Louis County are subject to state sales tax (4.225%), a transportation sales tax (0.5%), a mass transit sales tax for MetroLink (0.25%) and a Regional Parks and Trails sales tax (0.1%), plus a one percent (1%) local sales tax that is distributed among the 91 municipalities

and St. Louis County. St. Louis County's share is based on the unincorporated population of St. Louis County. Thus, the base retail sales tax rate throughout St. Louis County is 6.075%.

Sales Tax Distribution: A complex set of rules governs the distribution of the one percent local sales tax in St. Louis County. Some cities, including Brentwood, are designated point-of-sale or "A" cities and retain most of the sales tax revenues collected from businesses within their boundaries. These are cities that had local sales taxes before the countywide levy was enacted. Other cities are designated pool or "B" cities and share revenues with others in the pool on a per capita basis. Unincorporated St. Louis County is part of the pool. Legislation passed in 1993 provides for some sharing of revenues by point-of-sale cities: a sliding scale is used to calculate amounts contributed to the pool by point-of-sale cities. Finally, areas annexed by point-of-sale cities after 1995 remain in the sales tax pool. As a result, some cities have both point-of-sale and pool portions and are thus designated "A/B" cities.

Local Sales Tax Rates: In addition to the one percent local retail sales tax collected countywide, there are four local option sales taxes that individual cities may levy:

1. The 1993 revenue reform legislation allows cities to levy an additional one quarter (0.25) percent tax. Twelve and one-half percent (12.5%) of that additional money is shared with the members of the one cent pool.
2. Cities may levy an additional 0.5 percent for capital improvements

projects. For this tax, cities elect to participate in a revenue-sharing pool or retain 85 percent of revenue generated by this tax.

3. Another 0.5 percent sales tax may be levied for park and stormwater projects.
4. A .25 percent fire protection service sales tax for cities with fire protection responsibilities.

If all of the above taxes are levied by a given city, as is the case in Brentwood and six other County municipalities (Crestwood, Des Peres, Maplewood, Olivette, Richmond Heights, and Rock Hill) the total retail sales tax rate is 7.575%.

Property Taxes: Most but not all St. Louis County municipalities levy a property tax for municipal purposes. Municipal rates range from zero to \$1.27. Twenty cities have their own fire departments paid for out of city revenues (including Brentwood) while most of the rest obtain their fire protection and ambulance service from fire protection districts which have separate property tax levies. A few cities use municipal revenues to contract for fire service from neighboring municipalities or fire protection districts. Cities also vary as to what services they pay for with city revenues; trash collection and parks and recreation services in some cases are provided at city expense (as in Brentwood) and in many cases are not. Most cities, including Brentwood, are authorized to tax on personal as well as real property. Brentwood does not levy personal property taxes and annually abates real property taxes on residential property.

Comparison of Residential Real Estate Tax Rates – 2004: To determine comparable residential real estate tax rates for Brentwood and surrounding communities, the St. Louis County website: <http://revenue.stlouisco.com/collection/YourTaxRates> was used. This site provides look-up tables for tax codes throughout the County. The search selection process uses School District as the primary search parameter, followed by Sub Code and Tax Year.

For the purpose of this comparison, the surrounding communities and their principal School District were searched for 2004 tax rates. All Sub Codes within the School District that included the comparison community's Municipal tax rate were recorded. Through this process, we determined the Municipal

tax rate, the low and the high tax rate within the Municipality and the principal School District, and a simple average tax rate by averaging the tax rates for each Tax Code. The results are summarized below.

Utilities Gross Receipts Taxes: Cities in Missouri are authorized to levy these taxes on utility bills paid to electric, gas, telephone, water, and sewer companies. Cities have not levied them on sewer charges, however. For cities there is no maximum rate. Villages levy these charges on the electric utility only at a maximum rate of two percent. Some cities have different rates on different utilities, and some have different rates for residential and non-residential customers. Brentwood does not levy a utility tax on residential customers.

Comparison of Residential Real Estate Tax Rates – 2004				
Municipality	School District	Municipal Tax Rate	Low and High Combined Tax Rate	Average Combined Tax Rate
Brentwood	104-Brentwood	.4190*	6.0890 6.1490	6.1390
Clayton	106-Clayton	.6520	6.7529 6.9799	6.8775
Ladue	117-Ladue	.0000	5.5915 5.6515	5.6282
Maplewood	118-Maplewood-Rich. Heights	.9320	8.7505 9.3495	8.9625
Richmond Heights	118-Maplewood-Rich. Heights	.8030	8.3835 8.3835	8.3835
Rock Hill	134-Webster Groves	.7140	7.8280 7.8280	7.8280
Webster Groves	134-Webster Groves	1.0990	8.0680 8.4680	8.2288

* The Brentwood Residential Municipal Tax Rate of .4190 includes the Library and the Police & Fire Pension Funds. The Municipal Tax Rates of .1810 (\$222,000) for the General Fund and .1850 (\$227,000) for the Debt Service Fund are abated for residential property. The .1850 for the Debt Service Fund is also abated for commercial property (\$266,000).

Summary of Items for Consideration

Public Facilities

Parks

- Improve recreation programming, park amenities, and the Community Center to meet resident's needs as identified in the Needs Assessment.
- With the inclusion of school grounds, Brentwood parks provide convenient, walkable access to all community residents.
- Provide additional pedestrian trails and bikeways including a trail along Deer Creek and up Black Creek to connect with existing City trail system.

Schools

- Evaluate the requirements for maintaining an independent school system in Brentwood in light of declining enrollment.
- Recognize City development decisions impact on enrollment and financing of the Brentwood School District.

Municipal Buildings

- Expand and update the Brentwood Fire Station.
- Construct new Brentwood Public Works facility in Hanley Industrial Court.
- Pursue a new Brentwood Post Office with the U.S. Postal Service.

Infrastructure

Storm & Sanitary System

- Ensure MSD completes the separation of storm and sanitary sewers citywide and other priority projects in the Five-Year Stormwater Plan.
- Continue Black Creek flood mitigation and protection projects, and participate in regional efforts to improve Deer Creek's stormwater capacity.
- Continue installation of individual residence grinder pumps in needed areas.

Water System

- Continue coordination with Missouri American Water on water line replacement projects.

Transportation

- Participate with MoDOT in planning for improvements to I-64 and its interchanges with Hanley Road, I-170, Brentwood Boulevard, and McKnight.
- Participate with St. Louis County, Maplewood and Richmond Heights in implementing improvements to the Hanley Road/Eager Road and Hanley Road/Manchester Road intersections.
- Complete the extension of Strassner Road to Hanley Road.

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- Monitor MetroLink ridership and success of the TOD at Strassner Road and, if warranted, resubmit for TIP funds to construct a second Brentwood MetroLink station.
 - Continue work with MoDOT on Manchester Road improvements including the identification of funding sources.
 - Conduct traffic analyses for Brentwood Boulevard north of Manchester Road, Hanley Road, and Eager Road east of Brentwood Boulevard.

Natural Resources

- Continue to protect Brentwood's waterways, floodplains, and wetlands through local ordinances and coordination with appropriate Federal agencies.
- Encourage balanced redevelopment through cut and fill construction that has no impact on flood elevations.