

## H. Infrastructure

### Utility Infrastructure

The City of St. Louis Downtown study area has an aging infrastructure, but one with generally sufficient capacities for development/redevelopment projects. Construction of the infrastructure began near the turn of the century, and continued to support a City of St. Louis population of over 800,000 people in the 1960's. Today, with a population of 350,000 people, the infrastructure continues to age with much unused capacity. The historic population trends and utility conditions of the Downtown area are similar in nature to the overall City – loss of population, aging infrastructure, and available capacity for new development.

Nearly all City blocks have access to all utility services - sewer, water, gas, electric and telephone. Steam service is also available to some areas of the Downtown. Utility taps for new or redeveloped buildings are typically obtained through the local permit processes. Opportunities for development/redevelopment in the St. Louis Downtown area are seldom impeded by utility service access. However, special conditions and criteria are at times created by particular projects.

The capacity of many existing utility lines requires detailed analysis by specific location for pipe size, slope, materials, and condition. Proposed developments and redevelopments must be evaluated by business type and use for service load requirements. Proposed developments with significant changes in size and use from previous developments can require some utility service modifications.

Following is a brief description of the individual utility services in the Downtown area.

#### **Sewers**

The sewers are combined sanitary and storm water facilities under the jurisdiction of the Metropolitan St. Louis Sewer District. The sewer collection system is quite old but generally has capacities for existing and proposed developments and redevelopments. Sewer service is available along nearly all streets. The area is served by one of several regional wastewater treatment plants - also with adequate capacity.

#### **Water**

The water system and treatment facility is owned and operated by the City of St. Louis Water Division. Water quality flow and pressures are generally adequate for all users. Water lines/mains are located along most streets and available to all properties. The water treatment facilities have significant excess capacity for the demand and use.

#### **Natural Gas**

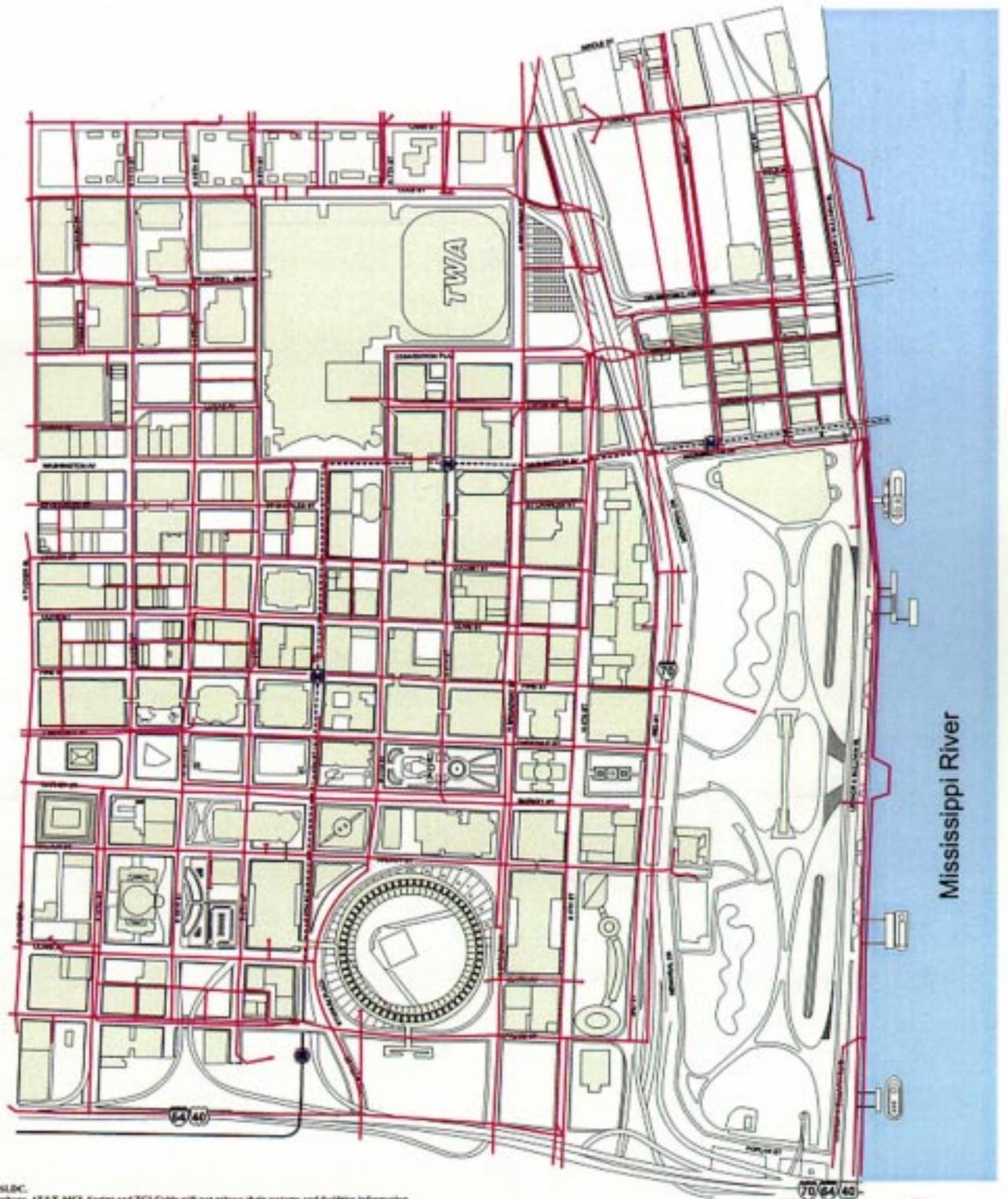
Natural gas is provided by Laclede Gas Company, a private utility company. Natural gas lines/mains are located along most streets and available to all properties, with adequate pressures and flows. Historically, there has been reliable natural gas service by Laclede Gas Company.



Primary Electric Service  
(All Underground)



## Communications and Other Cabling: Electric, Telephone, Fiber Optics



**Notes:**  
Boundaries provided by SLDC.  
Southwestern Bell Telephone, AT&T, MCI, Sprint and TCI Cables will not release their systems and facilities information.  
Street light fixtures and underground cables are located on all streets within the downtown study area.



### **Electric**

Electric service is provided by AmerenUE, a private utility company. Electric service is located along most streets with service available to all properties. Electric mains and distribution lines are generally underground, including transformer and switchgear in vaults throughout the Downtown area. Service capacity by AmerenUE has historically been positive.

### **Steam**

Steam service is provided by Trigen - St. Louis from its plant north of Laclede's Landing. There are about 22 miles of steam pipe under the Downtown streets that service about 135 customers.

### **Telephone**

Local telephone service is primarily provided by Southwestern Bell Telephone Company in the Downtown area and throughout much of the region. There are five competitive access providers in addition to Southwestern Bell, including Teleport Communication Group, Digital Teleport Inc., Metropolitan Fiber Systems, Fiber Net and MCI Metro Access. Telephone lines are generally underground in the Downtown area. Maps of the underground telephone line locations are not available from Southwestern Bell Telephone Company due to proprietary and security policies.

Long distance carriers in the City of St. Louis include AT&T, Sprint, MCI and World Com. Some local facilities of Sprint and MCI are reported to exist in the area. However, maps of their facilities will not be provided by them due to proprietary and security policies.

### **Cable Television**

Cable television is provided by TCI Cable Company in the Downtown area. Cable television distribution lines are generally underground. Maps of the underground cable lines will not be provided by TCI due to proprietary and security policies.

### **Street Lighting**

Street lighting is owned and maintained by the City of St. Louis Street Lighting Division. Most street light fixtures are standard cobra-heads. The City Street Lighting Division has several ornamental and decorative pole and luminaire light standard models that are pre-approved as City Standards. Other models can be submitted and requested for approval and use. The Lighting Division does have adopted standards and specifications for design and construction of street lighting facilities.

### **Standards**

The replacement and extension of utility distribution facilities are under the control and responsibility of the individual utility companies/agencies. Replacements of utility distribution facilities are generally a function of capacity needs and demands, emergency repairs, and operation-maintenance procedures and policies.

Design and construction standards have been developed by the various utility companies and agencies. Several of the utility companies provide their own design and construction within street right of ways and to the building development. These procedures generally apply to Laclede Gas, Union Electric, steam, telephone and cable television.

Other utility companies and agencies provide limited design and construction assistance for distribution facilities replacement or extensions related to new



construction. They have adopted design and construction standards for compliance by engineers and contractors for new development, and include detailed manuals for design of facilities, and extensive construction details for their standard facilities. These procedures generally apply to City Water, City Lighting and MSD Sewers.

Construction standards include specific standards for street lights (conventional street lighting and multiple pre-approved ornamental/decorative lighting standards), handholes/pull boxes, conduits, wiring, circuitry, etc. MSD standards include specific standards for the configuration and location of sewer manholes, storm water inlets, and grates; pipe materials and installation; and related connection methods.

Deviations from the utility companies/agencies standards require justification and approval from the responsible company. Their policy of utilizing standards and minimizing deviations is dictated primarily by maintenance and operations procedures and costs for special facilities.

## **Technology Infrastructure**

### **Fiber Optic Network**

There are over 386,000 feet of fiber optic cable within the St. Louis City limits. Almost every major street in the Downtown has access to fiber optic. A map of general locations of these cable locations is available for review in the City of St. Louis Communication Division. The main questions which remain unanswered are: does this fiber network serve the locations that the redevelopment plan will be concentrating on; are the size and quality of the installed fibers adequate for the job which the redevelopment plan will require; and are the costs/rates for these circuits reasonable and competitive for the business uses to which they would be put?

Experience with other cities and telephone companies across North America indicates that considerable extension to the existing infrastructure would be needed to meet all of the requirements needed for additional office, retail and residential use in the Downtown. Local providers will undoubtedly install additional communications facilities as required but the issues of timing and cost are areas that cannot be addressed at this time.

### **Abandoned Water Pipes**

In many older cities across North America there exists a complex of old, abandoned water utility pipes that can be renovated at low cost and utilized as in-ground conduit for installing new fiber optic cabling. It would appear that St. Louis either has no such infrastructure or that all records of such facilities have been lost.

This approach does, however, indicate potential ways in which an established City resource may be utilized to bring the benefits of new technology to the area.

### **Cable Companies**

The leading cable service provider in the St. Louis area, TCI Cablevision, currently only provides residential service in the area, utilizing slow-speed analog technology. They are planing an upgrade to faster, digital service in 1999 but will again be concentrating on predominately residential areas, with Downtown St. Louis scheduled for later completion.

### **City Services**

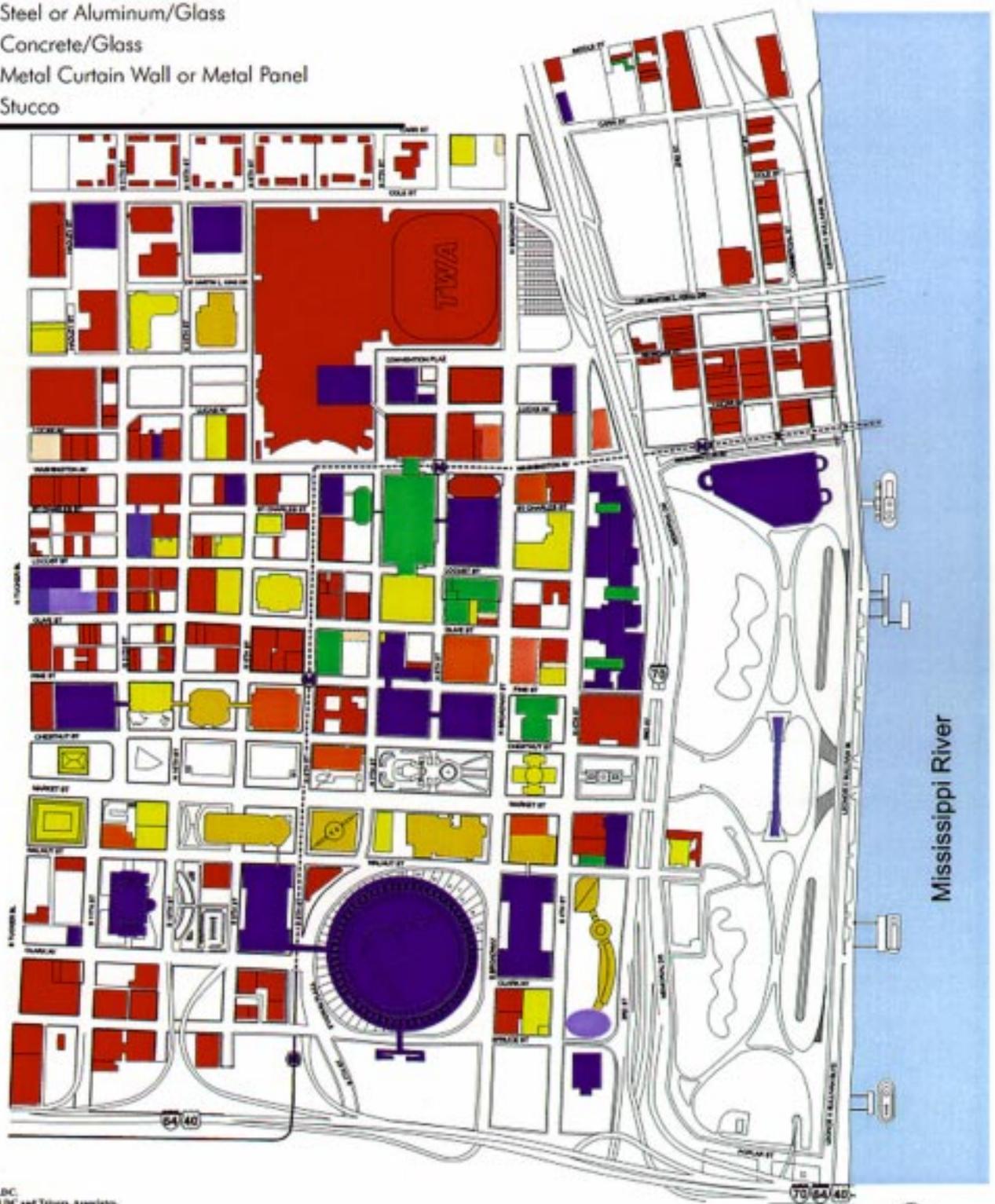
While no details have been provided, it is our understanding that the City of St. Louis is currently planning an extensive upgrade to the City traffic signal system. This will include the installation of new fiber optic cabling along many of the City streets in existing underground structures.

Depending upon the exact location of this planned infrastructure extension it may be prudent to install additional fiber strands that can be utilized to serve the business redevelopment needs of the St. Louis Downtown areas.



# Building Conditions Analysis: Exterior Building Materials

- Brick
- Concrete
- Stone
- Glass
- Brick/Glass
- Stone/Glass
- Steel or Aluminum/Glass
- Concrete/Glass
- Metal Curtain Wall or Metal Panel
- Stucco



Notes:  
 Base map provided by SLDC.  
 Base data provided by SLDC and Trivium, Associates.  
 Where no material record, data not available.

