

II. Existing Physical Conditions

A. Regional Conditions and Growth

Regional Place

The City of St. Louis is located on the eastern edge of Missouri just south of the confluence of the Missouri, Mississippi and Illinois rivers. Historically, the City became a literal “Gateway to the West” through its crossroads location of river travels from north to south and critical location for crossing the Mississippi for travel to the west. The City today is also in a prominent crossroads location due to the confluence of Interstates 44, 55, 64 and 70.

Numerous rail lines are active in the St. Louis region. These lines, which include the Burlington Northern, CXS Corp., Norfolk Southern, Union Pacific, Illinois Central, Gateway Western, Eastern, Alton, Southern, and Terminal Rail Road Association. Of these lines, the Burlington Northern and Union Pacific are the primary lines that travel north-south through Downtown St. Louis and the Norfolk Southern and Union Pacific are the primary lines that travel east-west through Downtown St. Louis.

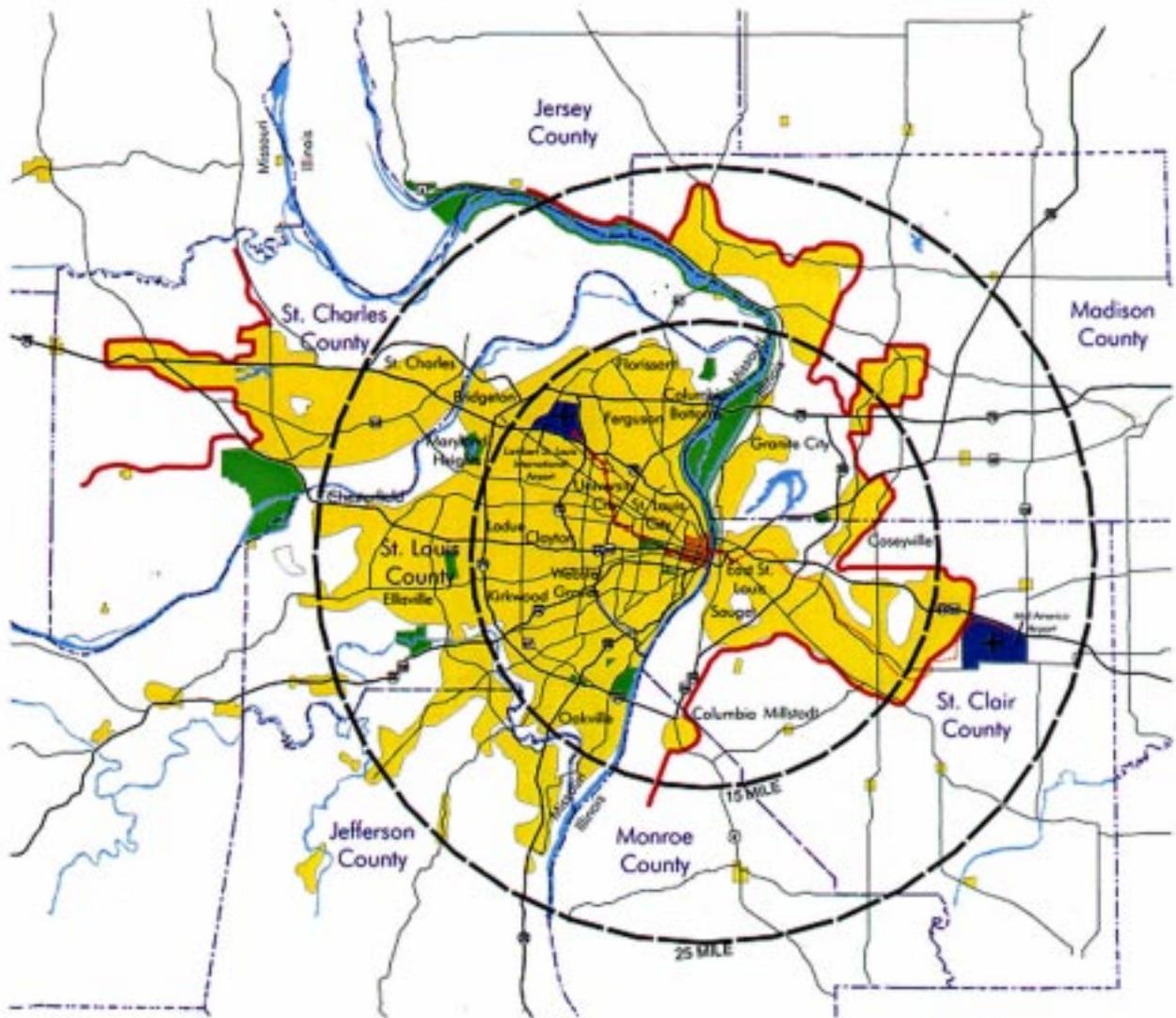
Lambert-St. Louis International Airport presently serves 17 carriers and is located 15 miles northwest of Downtown St. Louis. The airport is currently planning a multi million-dollar expansion that will add a runway and 20 gates. Mid-America airport is a new facility located in St. Clair County in Illinois, and may relieve some of the congestion at Lambert. Other regionally located airports, with runways under 8,100 feet, include the Spirit of St. Louis, St. Louis Regional Airport, St. Louis–Downtown Parks, Cahokia, and St. Charles Airport.

The St. Louis region ranks 17th in population nationwide, and is located within 500 miles of a third of the United State’s population. Much of the urbanized area within the 11 county Metropolitan Statistical Area (MSA) occurs within a 25 mile radius from the City, with additional concentrated growth extending west into St. Charles County. The entire MSA consists of 6,391 square miles, with a total population of 2.6 million people. Of this, 76% of the population is in Missouri and 24% is in Illinois. A total of 16% of the MSA population lives in the City of St. Louis.

Major natural amenities in the St. Louis region include the Missouri, Mississippi and Illinois Rivers which act as visual amenities, environmental corridors and shipping routes. Existing greenway systems have been developed along these rivers, providing flora and fauna environments for the region. Man-made amenities are abundant in the parks and open space systems developed by the individual communities and counties that comprise the St. Louis MSA. Forest Park, located in the City of St. Louis, is the primary regionally sized urban park.



-  Interstate Highway
-  MetroLink Light Rail Line
-  Proposed MetroLink Line
-  Prime Suburban Growth Areas
-  County Lines
-  Major Airport
-  Urbanized Areas
-  Study Area
-  Park



Note:
Base map and base data provided by Development Strategies, Inc.



Regional Transportation

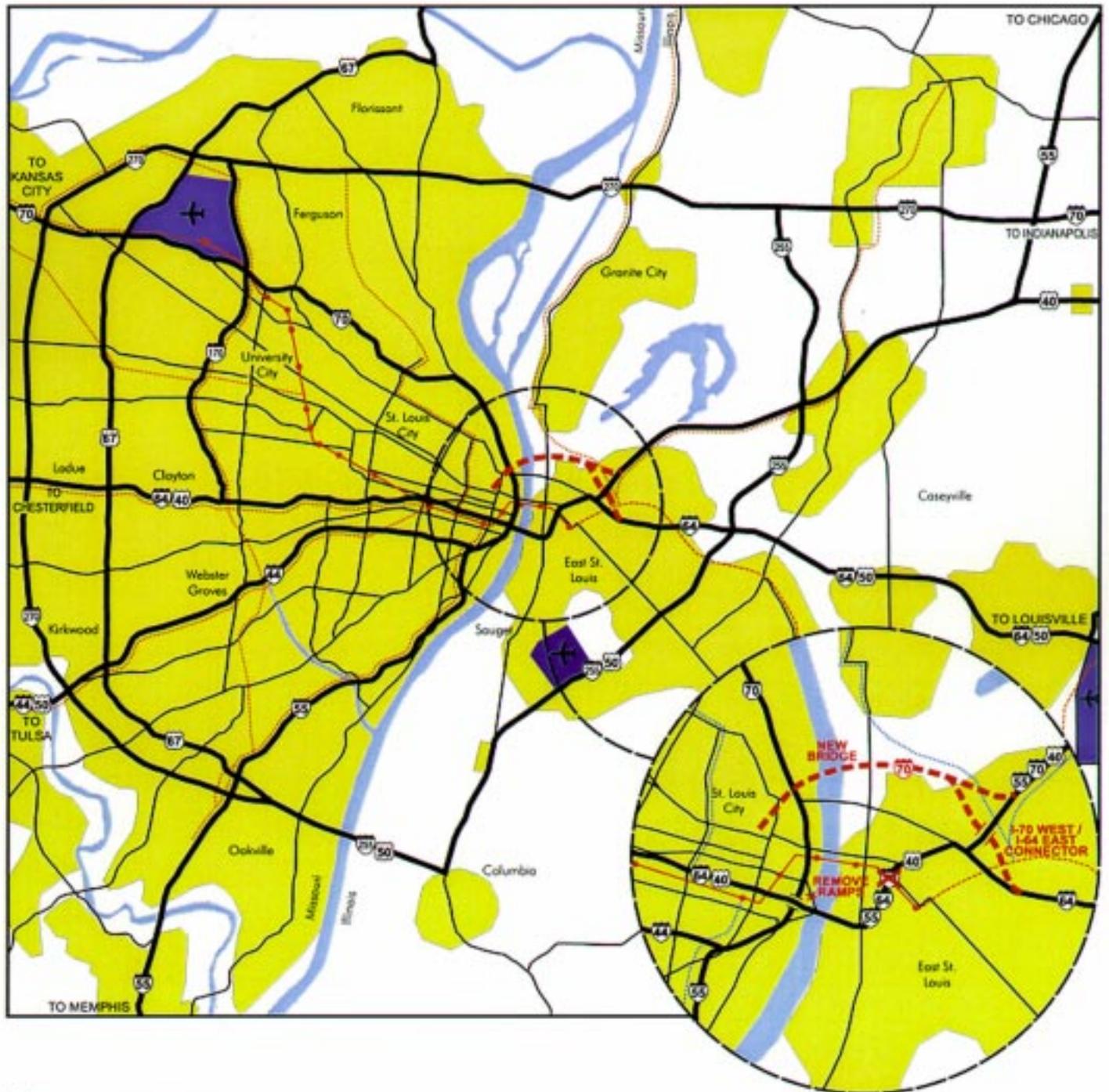
Existing Freeway Access

Downtown is generally well served by freeways with a total of 32 lanes passing through. Many people we interviewed felt that freeway access and capacity were quite good. This is borne out in the fact that the 32 lanes provide a carrying capacity of approximately 70,400 vehicles per hour. Volumes during the afternoon peak hour (estimated from daily counts) appear well within this capacity, using roughly 48% of outbound capacity and 29% of inbound capacity. However, there are some missing movements. Notably missing are movements between eastbound I-70 and westbound I-64, and between eastbound I-64 and westbound I-70. On a regional basis, these movements are handled further west by I-170 and within downtown they are handled by surface streets such as Broadway.



**Vehicular and Transit Circulation:
Existing / Proposed
I-70 / US-40 Service**

-  Interstate Highways
-  Future Interstate Highways
-  MetroLink
-  MetroLink Extension
-  Proposed MetroLink Extension
-  Urbanized Areas



Note:
Route map provided by Development Strategies, Inc.



Freeway Signs

Our field observations indicate that highway signing could be improved to reduce confusion, particularly for those not familiar with downtown. The number of freeways that radiate from the heart of the City present a challenge for signing from a visitors perspective. Interstate routes 44, 55, 64 and 70 pass through the City. I-64 has equal billing with its predecessor, US 40. I-64/US 40 connects only to the Poplar Bridge at the main downtown interchange. Connection with the north leg (I-70) or south leg (I-55, I-44) is via surface streets. Hence, freeway to freeway signing at the approach to the main interchange has to cover an overwhelming array of conventional freeway alternatives as well as local street routing messages. For example, a motorist heading east on I-70 is given the following four-sign overhead left to right lane display:

SIGN #1 - WEST I-44 / SOUTH I-55 Tulsa/Memphis

SIGN #2 - NORTH I-55 / EAST I-64, I-70, US 40 Illinois

SIGN #3 - Memorial Drive/ Arch Riverfront

SIGN #4 - Downtown / Pine St.

Motorists wanting to go West on I-64 / US 40 have to pick up post-mounted trailblazer signs along Memorial Drive.

Public Transit

Bi-State Development Agency provides a number of bus routes serving Downtown from outlying Missouri and Illinois (Madison and St. Clair counties) areas. Bi-State also operates the 18-mile MetroLink light rail system that passes through Downtown connecting with Lambert International Airport and East St. Louis. A 17-mile extension to St. Clair County is under construction and scheduled to open in 2001. Future extensions could radiate to Clayton, to Webster Groves, and possibly north to Florissant.

New Mississippi River Bridge

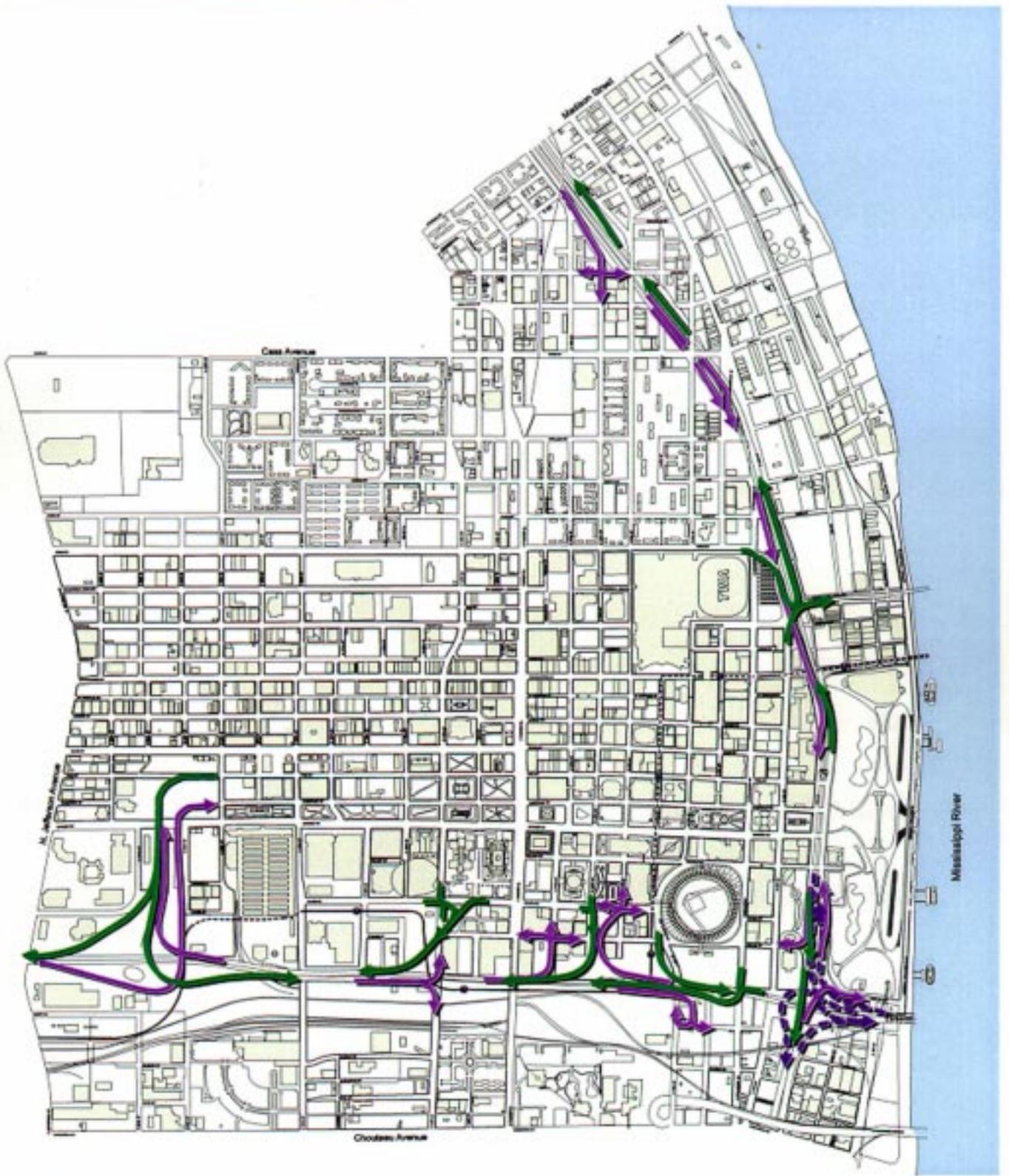
IDOT and MoDOT are jointly preparing a plan for a new interstate highway bridge that would connect with below-grade I-70 north of Downtown and I-55 and I-64 in Illinois. In essence, the new crossing will allow I-70 and some other interstate motorists to bypass the Poplar Street bridge. A draft EIS (Environmental Impact Statement) is being prepared for this major regional highway network addition. The EIS preferred plan depicts an extension of the bridge into the City west of I-70, eventually ramping down to grade at 14th Street just north of Cole. A partial (to/ from the east) interchange is depicted at Tucker Boulevard. In the process of updating the Poplar Bridge interchange to current safety standards as a related project, the two ramps connecting to the Bridge via Memorial Drive will be removed. The loss of these ramps will make access to the Arch grounds more circuitous for Illinois interstate travelers.



-  Freeway-to-Freeway Connector
-  Freeway On-Ramp
-  Freeway Off-Ramp



Vehicular and Transit Circulation: Existing Ramp Service



Note:
Boundary provided by MDC.



Ramp Service

The facing map shows the location of the existing freeway ramp system. Most ramps are 30-40 years old and in fair to good condition. A current construction project is replacing I-70 northbound and southbound ramps at the elevated section near the TWA Dome. The ramps will provide convenient surface street connection to/from the ML King Bridge.

Interstate highway travelers connecting with the City's street grid and connecting between I-70 and the Poplar Bridge heavily use the portion of Memorial Drive north of the Poplar Bridge to Pine Street. The heavy use of Memorial Drive by interstate motorists creates something of a barrier for pedestrians connecting to the Arch grounds during high traffic times.

Freeway traffic has the choice of eleven ramps for both inbound and outbound travel. These ramps provide capacity for approximately 17,250 vehicles per hour, or about 25% of the total freeway capacity. Generally, these ramps operate within their capacity though exceptions occur due to the multiplicity of ramp junctions and merges, which slow traffic.

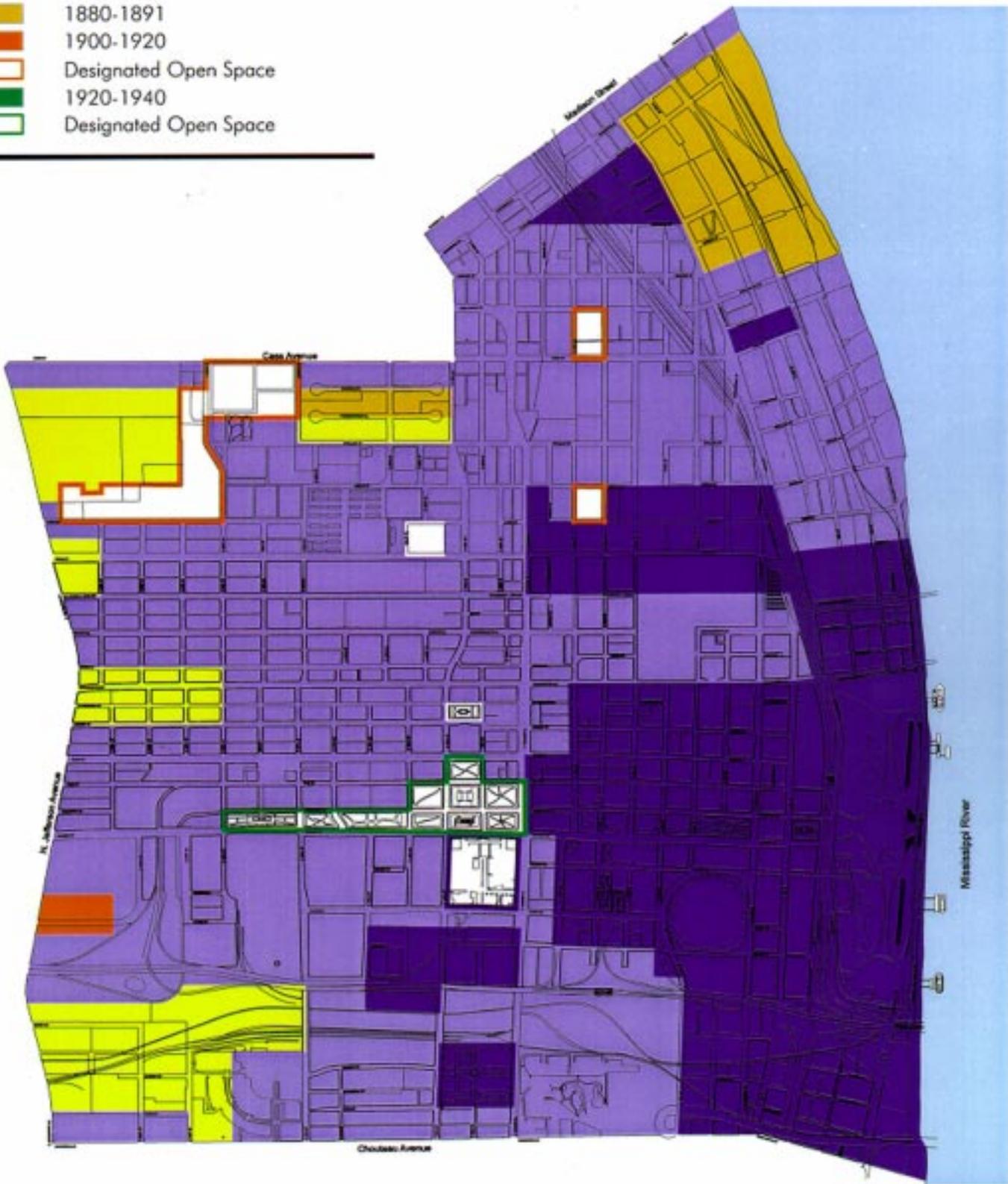
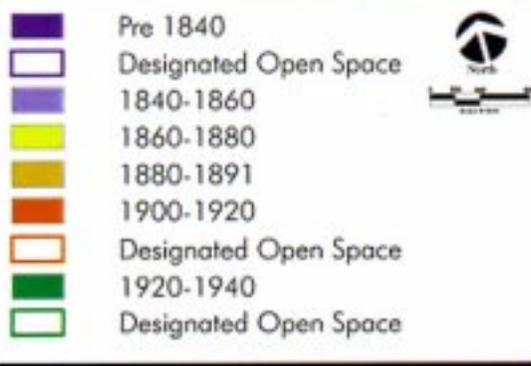
Data on hourly ramp volumes or documentation of their capacities was not available, however an estimate of likely ramp capacity based on the type of traffic control affecting the ramp and the number of lanes on the ramp is illustrated below.

**Table II-1
Freeway Ramp Capacity to Downtown**

Traffic Control	Ramp Capacity (Vehicles per Lane per Hour)	Inbound Lanes	Outbound Lanes	Total Ramp Capacity in Downtown
Stop	600	3	2	3,000
Signal	750	7	8	11,250
Free Flow	1500	1	1	3,000
Totals		11	11	17,250

Numerous US 40/I-64 on and off opportunities are available to Downtown in the stretch between the Poplar Bridge interchange and 22nd Street due to the existing double-deck structure. Left hand, as well as conventional right hand ramping is possible due to having stacked rather than side-by-side eastbound and westbound levels. Conversely, the absence of direct ramp connections between the double deck section of US 40/I-64 and either I-70 to the north or I-55 to the south leads to wayfinding problems for some interstate highway travelers who have an expectancy of such connections at typical freeway-to-freeway interchanges.





Note:
 Base map provided by SLDC.
 Base data provided by the St. Louis City Plan Commission, June 1977 Plan.

