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General Accounting Office
Washington, D.C. 20548



Resources, Community, and
Economic Development Division

B-261560

June 2, 1995

The Honorable Frank R. Wolf
Chairman, Subcommittee on Transportation
and Related Agencies
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

This report responds to your request for information about the City of Chicago's Central Area Circulator (Circulator)—a \$775 million light-rail project that is one of the major federal infrastructure investments in the nation. The objectives of our review were to (1) provide current information about the project's estimated costs, (2) describe current plans for the project's financing, and (3) identify issues concerning the project that are not fully resolved. In summary, we found the following:

- The Circulator is estimated to cost \$775 million. However, the project is at a relatively early phase—final design work is being completed, and construction has not yet begun.
- Funding for the project is to be split equally among federal, state, and city governments. As of April 1995, the federal government and the City of Chicago appropriated \$115 and \$78 million, respectively, for the project. The state appropriated \$20 million. On May 26, 1995, the state legislature did not act to approve the Governor's request for fiscal year 1996 funding of \$15 million for the Circulator. As a result, the city is assessing its options for funding for the project.
- Several issues regarding the Circulator merit continuing attention. First, the Circulator's impact on the operations of Chicago's existing mass transit system is uncertain. Second, experts we contacted stated that plans for the Circulator have yet to fully resolve how the Circulator will (1) link with other transit systems, (2) ensure that its advanced signal system operates as planned, and (3) ensure pedestrian and vehicular safety.

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GAO/RCED-95-216R, Chicago Circulator

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BACKGROUND

Since the 1960s, numerous studies have documented the need to better move people throughout Chicago's central business district. The need arose because this district has grown from a 1-square-mile area, known as "the Loop," to a 6-square-mile area with sections that do not have adequate transportation services. In 1989, the Metropolitan Planning Council—a Chicago civic organization—analyzed downtown Chicago's transit needs and concluded that a light-rail system had the technical feasibility, affordability, and attractiveness to meet these expanded transit needs.

According to transportation experts, the Circulator is a unique surface light-rail system—no other light-rail system in the United States has been constructed in such a congested area as downtown Chicago. When the Circulator is completed in December 2000, it will run mainly on tracks at street level in exclusive rail-only lanes currently used for parking or turning lanes. The Circulator will be linked to three existing commuter rail stations, seven rapid transit stations, and several bus routes. It will also provide transportation to recently developed areas—Chicago's Navy Pier exposition center and McCormick Place convention center. The Circulator will operate over 17.6 miles of track, stop at 32 stations, and have a fleet of 31 low-floor cars that can accommodate as many as 254 passengers each. Each train will have one or two cars and receive its power from overhead electrical wires.

The Circulator was specified as a transit new-start project pursuant to the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, and its final environmental impact statement was completed in July 1994. According to the impact statement, the Circulator is expected to reduce congestion by handling passengers at a rate of up to 11,200 passengers per hour compared with the automobile rate of 700 passengers per hour (using the same traffic lanes). The project is also expected to help improve the region's air quality by displacing automobiles and buses and to provide economic benefits by providing the infrastructure needed to support current and future business and job expansion. The Circulator's operator will not be selected until 1997. The candidates to operate the system could include the Chicago Transit Authority (CTA), commuter rail operators, or private companies operating transit systems in other cities.

COST ESTIMATES FOR CIRCULATOR HAVE NOT CHANGED

Circulator officials stated that their total estimate of \$775 million for the project's cost has not changed since the full funding grant agreement was signed in December 1994.¹ According to Circulator officials, the \$775 million includes a reserve of about \$117 million that has been allocated to account for unforeseen cost overruns and change orders during the construction phase. This reserve and reliance on private sector expertise will be used to control cost escalations. However, the project's construction has not yet begun. For example, Circulator officials stated that under the project, contracts for rails, special trackwork, and rail cars will be signed between June 1995 and January 1996. The estimated costs associated with these and other construction-related contracts will total about \$182 million.

FINANCING FOR THE CIRCULATOR

The full funding grant agreement for the Circulator committed the federal, state, and city governments to contribute about \$258 million each to the Circulator. As table 1 indicates, the federal government has appropriated \$115 million, the state has appropriated \$20 million, and the city has appropriated \$78 million to the Circulator through April 30, 1995.

Table 1: Chicago Circulator's Funding Through April 1995

Dollars in millions

	Federal	State	Local	Total
Total funding share	\$258	\$258	\$258	\$775
Appropriated to date	115	20	78	213
Expenditures through April 1995 (estimated)	28	15	3	47

Source: Chicago Central Area Circulator Project.

Illinois' Governor agreed to fund one-third of the Circulator's cost in December

¹A full funding agreement is a contract between the Department of Transportation and a grantee, in this case the City of Chicago, that specifies each parties' financial commitment, the timeframe for a project's completion, and remedies, should one or more parties default on the agreement.

1994. As part of this commitment, the Governor's budget proposed \$15 million for the project in fiscal year 1996 (the state's fiscal year begins July 1). However, Illinois' General Assembly did not appropriate funds for the Circulator nor capital funds for any transportation projects when it passed the fiscal year 1996 budget on May 26, 1995. For the state to meet its remaining \$238 million commitment to the project, the legislature would have to appropriate about \$48 million annually for the next 5 years.

The City of Chicago has provided \$78 million through April 30, 1995, and has bonding authority for up to \$300 million to fund its share of the project. The city also plans to fund the Circulator's operating deficit with revenues from central area parking taxes, fines, and parking meter fees. However, as a result of the state's actions, the city is assessing other funding options for the project. For example, Chicago businesses have stated that they would accept additional taxes to support the Circulator project as a result of the uncertainty associated with state funding.

SEVERAL ISSUES WARRANT CONTINUING ATTENTION

Transportation officials and experts we contacted identified several important issues that merit continuing attention. First, the Circulator's impact on CTA's operations and financing is uncertain. Second, plans for the Circulator have yet to resolve how it will (1) link with other transit systems, (2) ensure that its advanced signal system operates as planned, and (3) ensure pedestrian and vehicular safety.

Circulator May Affect CTA's Operating and Capital Funds

According to the metropolitan planning organization, CTA, and state transportation officials, the Circulator may affect CTA's operating and capital funds. CTA operates the primary mass transit system in Chicago, including the elevated heavy rail system known as the "el" and the bus system. Operating revenues are important to CTA because the state requires CTA to recover 50 percent of its operating costs from bus/subway farebox revenues in order to receive state funds. This fare recovery requirement has been a factor in making CTA's fares the highest in the nation. If the Circulator reduces CTA's ridership, this would decrease farebox revenues that could be used as CTA's operating funds. Raising CTA's fares to offset revenue losses would be difficult without driving away more riders and further reducing revenues, according to CTA and state officials. A revenue shortfall could jeopardize state funds, which constitute 42 percent of CTA's operating funds.

The Circulator analysis forecasts a positive effect on CTA's operating funds and states its intent to compensate CTA for incremental losses associated with any negative effects that the Circulator may have on CTA's ridership. However, CTA

officials indicated that the way in which fares from riders who transfer between systems will be split between the Circulator and CTA has not yet been decided. CTA officials stated that it was important for CTA to receive from riders the higher base fare rather than the lower transfer fare.

The Circulator may also have an impact on CTA's capital funds, according to CTA and state and regional transportation officials. A CTA official pointed out that capital funds are extremely important because CTA is a 100-year-old system whose infrastructure badly needs major repairs and replacements. Currently, CTA's rail modernization/bus funds and the Circulator's new-start funds come from separate sections of ISTEA. However, if federal transit funding were provided in block grants to the state, the two systems would compete against each other for capital funds. CTA officials expressed concern about whether CTA could compete for funds if the state received a block grant, especially if total federal transportation funds are reduced.

Several Operating Issues Remain Important

Transportation officials and experts we contacted indicated that the Circulator faces three important operating issues—establishing links with other transit systems, ensuring that its advanced signal system operates as planned, and ensuring pedestrian and vehicular safety.

First, CTA, regional transportation officials, and a Transportation Research Board (TRB) official emphasized that physical links between the Circulator and other transit systems are necessary to realize benefits for both riders and the systems. Intermodal connections are especially important because 65 percent of the Circulator's riders are expected to board from CTA's bus/rail system or the suburban commuter rail system. However, experts expressed concern that plans for the Circulator have not adequately addressed intermodal connections. In some areas such as the congested North Michigan Avenue retail and office area, planning Circulator-CTA bus connections will be difficult because space for transfer points and bus turnarounds is so limited.

Second, whether the Circulator's advanced signal system operates as planned—extending green traffic lights and shortening red lights for trains—is important. A state transportation official described the signal system as key to ensuring that trains clear intersections and avert gridlock in the congested central business area. However, our previous work in 10 cities, including Chicago,² indicated that

²Transportation Infrastructure: Benefits of Traffic Control Signal Systems Are Not Being Fully Realized (GAO/RCED-94-105, Mar. 30, 1994).

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difficulties with design, operation, and maintenance have an impact on signal systems' effectiveness. In addition, a TRB official told us that introducing advanced signal systems can be a problem if the existing signal system is not well-maintained or if the existing and new systems are too different. Whether the advanced signal system operates as planned and can be integrated with the existing signal system will be an important operating issue for the Circulator.

Third, according to transportation academics and the head of Friends of the Downtown, the Circulator's operation will need to focus on pedestrian and vehicular safety since the system will be operating in a very dense urban area. Although a peer review panel assessed the Circulator's safety plans and their recommendations were incorporated into the Circulator's design and operating plans, safety will require continuing attention.

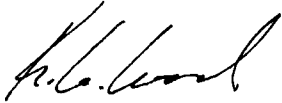
To prepare this report, we reviewed key Federal Transit Administration (FTA) and Circulator documents including the Circulator's Final Environmental Impact Statement and Alternatives Analysis and FTA's full funding grant agreement. We discussed downtown Chicago's transit needs—a light-rail system as opposed to other transit alternatives, ridership projections, and the project's cost estimates—with knowledgeable sources including those from the Circulator, FTA, Illinois Department of Transportation, local transportation and planning agencies; transportation experts at area universities and TRB, and Friends of the Downtown, a downtown civic group. However, time constraints did not allow us to independently analyze all data. We discussed our findings and analyses with FTA's Deputy Associate Administrator in Washington, D.C., and Regional Administrator in Chicago and the Circulator's Executive Director. The Circulator's director acknowledged that the issues we cited will continue to receive the project's attention. FTA officials stated that our findings and analyses were well balanced and thorough. We conducted our review between April and May 1995 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you announce its contents earlier, we plan no further distribution of this report for 30 days after the date of this letter. At that time, we will make copies available to interested congressional committees, the

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Secretary of Transportation, and the Administrator, FTA. We will make copies available to others on request. If you have any further questions, please contact me at (202) 512-2834.

Sincerely yours,



Kenneth M. Mead
Director, Transportation Issues

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