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FINANCING ATLANTA'S RAPID  
TRANSIT SYSTEM

This memorandum will summarize the most important figures on the financial implications for the local governments of the projected Metropolitan Atlanta rapid transit system. It is concerned with the potential impact on the governments of financing the capital costs of the system, no part of which will be amortized from the fare box.

It is assumed that the method to be used in channeling local funds into the system will be contracts between the local governments and the Metropolitan Atlanta Rapid Transit Authority (MARTA). Under this method, each participating government would contract to assume its share of the annual costs of amortizing bonds issued by MARTA, including both principal and interest payments and extending over the entire life of the outstanding bonds so issued.

The Georgia law establishing MARTA and the transit system also provided another method of which the participating local governments might handle their respective shares of the costs -- namely, issuance of their own general obligation bonds in behalf of MARTA. However, it is generally assumed that this method would not be used because of the pressing need for this bonding capacity for other capital needs of the local governments.

On the basis of detailed considerations of the potential impact of the system on economy, land use patterns and circulation systems of the local jurisdictions, a proposed formula has been devised for allocating the local share of MARTA's capital costs among the five participating governments. This formula uses weighted indexes of population, property tax digests (adjusted to a true basis) and employment for both 1965 and 1985. Following is the allocation of costs that the formula produces:

City of Atlanta	56.6%
Fulton County	12.0
DeKalb County	22.1
Clayton County	5.9
Gwinnett County	<u>3.4</u>
	100.0%

The allocations for Fulton and DeKalb counties, of course, are for only those areas of the counties outside the City of Atlanta.

As noted later, it is not proposed that Clayton and Gwinnett counties would be brought into participation in any system that would not reach out into and serve their geographical area. The allocation of costs among the three central jurisdictions in this eventuality would be as follows:

City of Atlanta	62.4%
Fulton County	13.2
DeKalb County	<u>24.4</u>
	100.0%

Present timing calls for submittal of the proposed financial plan for approval of the participating areas in 1968, with capital expenditures to get underway as soon after approval as possible. In these calculations, calendar years are used and 1969 is shown as the first year for drawing down capital funds for land purchase and construction. Federal funds estimated to be available in a fiscal year are shown on a calendar year basis -- for example, funds to be made available on or after July 1, 1968 for fiscal year 1969 are shown for calendar year 1969.

#### Federal and State Funds

The most critical variable in these estimates is the potential availability of Federal funds. It is not possible to predict with any accuracy how much Federal money might be made available. Not only is there the practical difficulty of looking beyond a current two-year Congressional appropriation, but there are also the serious uncertainties resulting from the Viet Nam and other international situations. Theoretically the Federal government could over time assume as much as two-thirds of the capital cost of the rapid transit system over and above what the system can produce from its own revenues for this purpose. However, it would not be realistic to take this as the basic assumption. In this memorandum, conservative and reasonable premises are taken with respect to Federal fund availability.

Another variable is the availability of funds from the State of Georgia. The recent constitutional amendment enables the state government to assume not to exceed 10 percent of the system's cost. The actual availability of this money for this purpose, however, will depend upon legislative appropriations. In this memorandum, it is assumed that the state's 10 percent share would be forthcoming. For purposes of these estimates the state money is distributed uniformly on an annual basis over the length of the construction period.

### The Basic 30-Mile System

The basic assumption to start off with is that a 30-mile system would be built extending between Brookhaven on the north, Decatur on the east, the Tri-Cities on the south, and Lynhurst Drive on the west, with possible additional spurs to the northeast into DeKalb County and to the northwest to Northside Drive. This system would cost \$332,000,000 to build (\$326,000,000 for construction and right-of-way, plus \$6,000,000 pre-operating expenses) and construction would take nine years (1969-1977).

It is regarded as fairly certain that MARTA in 1968 could get an immediate commitment for \$50,000,000 for this basic system from the Federal government. This would represent \$25,000,000 a year for each of two fiscal years (1968-1969 and 1969-1970). Prospects are good that Congress will make available for rapid transit at least \$200,000,000 for each of those years and under the 12 1/2 percent-per-state formula Georgia's share would produce these local amounts.

It is also not unreasonable, on a most conservative basis, that another \$50,000,000 would subsequently be made available from the same source, regardless of assumptions regarding Viet Nam. No one knows for sure but two observations might be valid: 1) if Viet Nam clears up, this assumption will undoubtedly be conservative; and 2) if things get worse and no additional Federal money is made available after 1970, then the MARTA system can be cut back but still be operational within the same local appropriation (as described later).

The \$100,000,000 assumption of Federal funds is therefore taken at the outset, with the following distribution of MARTA capital fund sources:

	<u>Amount</u> <u>(000,000)</u>	<u>Percent</u>
Local	\$199	59.9%
State	33	10.0
Federal	<u>100</u>	<u>30.1</u>
	\$332	) 100.0%

The schedule at the top of the next page shows how this basic 30-mile system might be financed over the nine-year period.

Table 1. POTENTIAL SOURCES OF CAPITAL FUNDS FOR  
THE 30-MILE RAPID TRANSIT SYSTEM  
(000,000)

	Drawdown (cumul.)	Availability of Funds				Cumulative
		Federal	State	Local 1/	Total	
1969	\$ 25	\$ 25	\$ 4	\$ 25	\$ 54	\$ 54
1970	54	25			29	83
1971	107	25	4	35	64	147
1972	158	25	4		29	176
1973	207		4	50	54	230
1974	258		4		4	234
1975	298		4	50	54	288
1976	320		4	30	34	322
1977	332		1	9	10	332
		\$100	\$33	\$199	\$332	

1/ MARTA revenue bonds supported by local government contracts

As noted in Table 1, this financing schedule calls for six revenue bond issues by MARTA. This is only a tentative listing of the dates and amounts of issues, but it indicates the timing of needs in general accordance with the drawdown schedule (governing fund availability for land purchase and construction) established by the engineers. Actually, it calls for the availability of funds somewhat in advance of needs as shown by the engineers. This is to level out and space out the MARTA bond issued for marketing purposes. The drawdown schedule itself is tentative, of course, and can be revised to accommodate advance purchases of land.

It is preliminarily assumed that each of the MARTA bond issues (guaranteed by pledges from the local governments) would run for 30 years at 4 1/2 percent interest. The annual cost of servicing these bonds (principal and interest) is shown in Table 2 on the following page.

Table 2. ANNUAL CARRYING CHARGES OF MARTA  
REVENUE BONDS, 30-MILE SYSTEM  
 (000)

	MARTA Bond Issues			Annual Cost <sup>1/</sup>
	Principal	Interest	Total	
1969	\$ 25,000	\$ 20,605	\$ 45,605	\$ 1,825
1970				1,825
1971	35,000	28,847	63,847	4,380
1972				4,380
1973	50,000	41,210	91,210	8,030
1974				7,725
1975	50,000	41,210	91,210	11,375
1976	30,000	24,726	54,726	13,138
1977	9,000	7,418	16,418	13,795
1978				13,185
1979				13,185
1980				12,575
1981				12,209
1982				12,099
1983				12,099
et seq	<u>\$199,000</u>	<u>\$164,016</u>	<u>\$363,016</u>	

<sup>1/</sup> Amortization (principal and interest) charges of all outstanding MARTA revenue bonds to be assumed by local governments under contract with MARTA.

It is noted in Table 2 that the annual cost of servicing these bonds drops off after 1977 (the date of the last issue) and declines to a level amount in 1982. This is because a 20 percent sinking fund reserve is provided for over the first five years of each issue, and at the end of five years each issue then carries a level payment to maturity. In effect, six years of payments are made in the first five years of each issue, and the amortization period is actually 20 instead of 30 years. The level cost of \$12,099,000 would continue through 1997 at which time it would drop as the 1969 issue would have been paid off, and so on until all issues are amortized.

Impact on Governments. It is assumed that all of the local cost of this basic 30-mile system would initially be assumed by the three central governments -- Atlanta, Fulton and DeKalb -- inasmuch as the system would not reach out into Clayton or Gwinnett. Later, however, if and when the system is extended, the outlying counties would pick up their pro rata

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shares of this basic cost. For purposes of this calculation -- and the approach to the governments and the people of the three counties -- the full impact of this basic system upon only the three governments is assumed, however.

Using the formula set forth earlier, the respective governmental shares of the annual costs of this basic 30-mile system are shown in Table 3, below. This is not the recommended funding schedule, however. Later it is recommended that substantially higher payments be made by the governments to MARTA in the early years in order to reduce the peak loads in later years.

Table 3. LOCAL GOVERNMENT "SHARES" OF MARTA BOND CARRYING CHARGES, 30-MILE SYSTEM  
(000)

	<u>Atlanta</u>	<u>Fulton</u>	<u>DeKalb</u>	<u>Total</u>
1969	\$1,139	\$ 241	\$ 445	\$ 1,825
1970	1,139	241	445	1,825
1971	2,733	578	1,069	4,380
1972	2,733	578	1,069	4,380
1973	5,011	1,060	1,959	8,030
1974	4,820	1,020	1,885	7,725
1975	7,098	1,502	2,776	11,375
1976	8,198	1,734	3,206	13,138
1977	8,608	1,821	3,366	13,295
1978	8,227	1,740	3,217	13,185
1979	8,227	1,740	3,217	13,185
1980	7,847	1,653	3,068	12,575
1981	7,618	1,612	2,979	12,209
1982	7,550	1,597	2,952	12,099
1983	7,550	1,597	2,952	12,099
et seq				

It is recommended that the flow of funds to MARTA be increased ahead of actual need in the early years to put in effect some ceiling in the later years when the annual requirements are so much higher. This would involve, of course, a provision in the agreements between MARTA and the local governments making it possible for the governments to make such advance payments to be subsequently applied against MARTA's revenue bonds as they are issued. It is assumed that appropriate legal steps could be taken to make this possible (including the establishment of special trust accounts in which the advance payments could be placed).

A realistic procedure might be to schedule payments so that the tax burden in no local government would ever exceed the equivalent of 3 mills against the net property tax digest for the 30-mile system. Inasmuch as Atlanta would carry the main burden, this in effect would mean a schedule in which the Atlanta impact would be held within a 3-mill ceiling with the other two governments carrying lower proportional ceilings.

The schedule of recommended payments that would operate with these ceilings is shown below in Table 4. The millage rate equivalents are shown and discussed later.

Table 4. RECOMMENDED PAYMENT SCHEDULE  
TO MARTA, 30-MILE SYSTEM  
(000)

	<u>Atlanta</u>	<u>Fulton</u>	<u>DeKalb</u>	<u>Total</u>
1969	\$2,828	\$ 598	\$1,106	\$4,532
1970	2,962	626	1,158	4,746
1971	4,659	986	1,822	7,467
1972	4,884	1,033	1,910	7,827
1973	5,121	1,083	2,004	8,208
1974	5,373	1,137	2,101	8,611
1975	5,643	1,194	2,206	9,043
1976	5,922	1,253	2,314	9,489
1977	6,222	1,316	2,434	9,972
1978	6,537	1,383	2,556	10,476
1979	6,873	1,454	2,686	11,013
1980	7,221	1,527	2,823	11,571
1981	7,596	1,607	2,979	12,174
1982	7,983	1,689	3,122	12,792
1983	8,400	1,777	3,284	13,461
1984	7,825	1,655	3,060	12,540
1985	7,550	1,597	2,952	12,099

et seq

As noted, the required payments drop off substantially after 1983 and from 1985 on they run at a steady rate of \$12,099,000 until bond retirement dates. In the earlier years, the governments pay in more than MARTA currently needs (through 1974). Between 1975 and 1983, they pay in less but the advance payment reserve covers the carrying charges above the current flow.

The full payment schedule to the year 2005 is given in Appendix Table B.

A great deal of research has been done (with the cooperation of the local finance officers) to set these MARTA requirements within the framework of overall future financial needs and resources of the local governments. This research documented what was already known -- that each of the local governments faces financial difficulties in the future. Both capital and operating needs are steadily mounting in the face of limitations of funds from existing sources. The seriousness of the situation was highlighted by careful forecasts that were made of future expenditure levels in each jurisdiction (tied into official forecasts of population and employment) and of future revenues from existing sources (also tied into official forecasts and additional estimates of factors such as the tax digest affecting fund availability).

Detailed research was also undertaken to anticipate the potential revenues that might be obtained from new sources. Many new sources were studied and the research effort was tied into similar explorations undertaken by other groups (such as the Georgia Municipal Association). Two sources were singled out for particular study -- a local option income tax and a local option payroll tax -- both of which are being currently employed in cities and urban areas throughout the country.

Three tables -- 5-A, 5-B and 5-C -- summarize key figures from this analysis for the City of Atlanta, Fulton County and DeKalb County, respectively. These tables are presented in sequence following this page.

In these tables, estimates are presented of the current operating funds required by each government for the future years of 1970, 1976 and 1983. These estimates do not include self-supporting services but do include debt service charges on general obligation bonds. The tables also present estimates of projected operating revenues of these governments for the same years from existing sources, including revenue from debt service taxes. In every case, substantial "deficits" are indicated -- potential deficits, that is, unless additional revenue sources are made available. The tables also show estimates of the potential yields of a sales tax in each of the years. The MARTA requirements (taken from Table 4, earlier) are then shown for comparison.

It is important to note that only one-half of the projected yield of the 1 percent sales tax is shown for general government operations in these tables. It is assumed that the other one-half would be made available to the schools under existing proposals.

The property tax situation should be particularly noted. If the recent court decisions hold up that would require all property to be assessed at 40 percent of true value, some changes in tax rates will be necessary simply to produce the same yields as would be produced under existing ratios and rates.

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Table 5-A, FORECASTS OF CURRENT FUND REQUIREMENTS AND POTENTIAL FUND AVAILABILITY, ATLANTA  
(000)

	<u>1970</u>	<u>1976</u>	<u>1983</u>
Fund requirements (excluding MARTA)	\$48,905	\$71,056	\$100,896
Available funds, existing sources:			
Property tax (40% valuation and adjusted millage) <u>1/</u>	19,267	26,097	37,557
Non-property taxes	<u>23,390</u>	<u>31,682</u>	<u>45,594</u>
	\$42,657	\$57,779	\$ 83,151
Projected operating "deficits"	\$ 6,248	\$13,277	\$ 17,745
Plus MARTA <u>2/</u>	<u>2,962</u>	<u>5,922</u>	<u>8,400</u>
Total "deficits"	\$ 9,210	\$19,199	\$ 26,145
Additional fund sources:			
Sales tax <u>3/</u>	\$ 9,377	\$11,544	\$ 14,001
Property tax	<u>-</u>	<u>7,655</u>	<u>12,144</u>
	\$ 9,377	\$19,199	\$ 26,145
Millage rate needs:			
To offset change in assessment ratio <u>4/</u>	-.4	-.1	+ .2
For MARTA	(2.0) <u>5/</u>	3.0	3.0
For other purposes <u>6/</u>		<u>1.0</u>	<u>1.1</u>
Total		3.9	4.3

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Further  
Definition*

- 1/ Assuming millage rates that would produce the same yield at 40% assessment ratio as present rates produce at present assessment ratio (see 5 below)
- 2/ Recommended level for 30-mile system (see Table , earlier)
- 3/ One-half of projected yield of one percent tax
- 4/ Change required in existing millage to get same yield at new 40% assessment ratio
- 5/ A pledge for bond purposes only
- 6/ To produce property tax additions shown above (in addition to MARTA)

Table 5-B. FORECASTS OF CURRENT FUND REQUIREMENTS AND  
POTENTIAL FUND AVAILABILITY, FULTON COUNTY  
(000)

	<u>1970</u>	<u>1976</u>	<u>1983</u>
Fund requirements (excluding MARTA)	\$45,044	\$68,333	\$100,883
Available funds, existing sources:			
Property tax (40% valuation and adjusted millage) <u>1/</u>	\$29,730	\$41,682	\$ 62,727
Non-property taxes	8,592	12,046	18,128
	<u>\$38,322</u>	<u>\$53,728</u>	<u>\$ 80,855</u>
Projected operating "deficits"	\$ 6,722	\$14,605	\$ 20,028
Additional fund sources:			
Sales tax <u>2/</u>	\$ 3,074	\$ 4,321	\$ 5,834
Property tax	3,648	10,284	14,194
	<u>\$ 6,722</u>	<u>\$14,605</u>	<u>\$ 20,028</u>
Millage rate needs:			
To offset change in assessment ratio <u>3/</u>	-4.8	-4.5	-4.3
For other purposes <u>4/</u>	<u>+2.0</u>	<u>+4.1</u>	<u>+3.8</u>
Net change	-2.8	- .4	- .5
MARTA requirements	\$ 626	\$ 1,253	\$ 1,777
Millage rate needed <u>5/</u>	1.3	1.7	1.5

- 1/ In effect, the same as a projection based on existing valuation ratios and existing millages
- 2/ One-half of projected yield of one percent tax
- 3/ The change from the existing millage rate to produce the funds shown in the second line, above, at the adjusted 40 percent assessment ratios
- 4/ To produce the additional property tax funds shown above as needed
- 5/ Outside the City of Atlanta only

Table 5-C. FORECASTS OF CURRENT FUND REQUIREMENTS AND  
POTENTIAL FUND AVAILABILITY, DEKALB COUNTY  
(000)

	<u>1970</u>	<u>1976</u>	<u>1983</u>
Fund requirements (excluding MARTA)	\$26,252	\$41,275	\$62,941
Available funds, existing sources:			
Property tax (40% valuation and adjusted millage) <u>1/</u>	\$16,427	\$25,266	\$42,121
Non-property taxes	<u>6,177</u>	<u>9,500</u>	<u>15,837</u>
	\$22,604	\$34,766	\$57,958
Projected operating "deficits"	\$ 3,648	\$ 6,509	\$ 4,983
Additional fund sources:			
Sales tax <u>2/</u>	\$ 2,610	\$ 3,704	\$ 4,991
Property tax	<u>1,038</u>	<u>2,805</u>	<u>-</u>
	\$ 3,648	\$ 6,509	\$ 4,991
Millage rate needs:			
To offset change in assessment ratio <u>3/</u>	+4.7	+4.4	+4.2
For other purposes <u>4/</u>	<u>+1.3</u>	<u>+2.3</u>	<u>-</u>
Net change	+6.0	+6.7	+4.2
MARTA requirements	\$ 1,158	\$ 2,314	\$ 3,284
Millage rate needed <u>5/</u>	1.9	2.3	1.8

- 1/ In effect, the same as a projection based on existing valuation ratios and existing millages
- 2/ One-half of projected yield of one percent tax
- 3/ The change from the existing millage rate to produce the funds shown in the second line, above, at the adjusted 40 percent assessment ratios
- 4/ To produce the additional property tax funds shown above as needed
- 5/ Outside the City of Atlanta only

### Property Tax Support

The question arises as to whether or not the entire local government commitment to MARTA might not be handled by new millage levies on property. The bond people say that pledges of millage backing will be necessary anyway in order to make the MARTA bonds saleable, even if the actual funds to MARTA came from other sources or out of each local government's general fund. Moreover, studies indicate that Metropolitan Atlanta's property tax burden is not high compared with other areas. In 1964-65, Metropolitan Atlanta's per capita property tax burden was one of the lowest in the nation. In that year Atlanta ranked 33rd out of the 38 largest metropolitan areas in per capita revenue to local governments from property sources. The median per capita load of all the areas was 36 percent greater than Atlanta's. (A comparison of the importance of the property tax in the 38 metropolitan areas is shown in Appendix Table A.)

In any event, the basic 30-mile rapid transit system in Metropolitan Atlanta could be financed locally entirely by property taxes at a tax rate that would not exceed 3.0 mills (\$3 per thousand of assessed value) in Atlanta, 2.8 mills in DeKalb and 1.9 mills in Fulton. These millage ceilings could be stayed within if some advance payments are made to MARTA from the governments, as mentioned earlier. It is assumed here that the local cost would be \$199,000,000 plus interest, as set forth earlier, with what might be conservatively regarded as a minimum assumption with respect to the availability of Federal funds.

The millage rates that would be required to produce the necessary MARTA support for the 30-mile system is shown for each government in Table 6 at the top of the following page. These rates are based on the recommended schedule of governmental payments to MARTA given earlier in Table 4, which calls for some advance payments at a beginning 2-mill rate in Atlanta and DeKalb and a beginning 1.3-mill rate in Fulton.

Table 6. MILLAGE RATES AND RESIDENTIAL CHARGES FOR FINANCING 30-MILE SYSTEM BY PROPERTY TAX

	Millage Rate			Cost on \$20,000 Residence		
	Atlanta	Fulton	DeKalb	Atlanta	Fulton	DeKalb
1969	2.0	1.3	2.0	\$12.00	\$ 7.80	\$12.00
1970	2.0	1.2	1.9	12.00	7.20	11.40
1971	3.0	1.9	2.8	15.00	9.00	13.80
1972	3.0	1.8	2.7	15.00	9.00	13.20
1973	3.0	1.8	2.6	18.00	10.80	15.60
1974	3.0	1.8	2.5	18.00	10.80	15.00
1975	3.0	1.8	2.4	18.00	10.80	14.40
1976	3.0	1.7	2.3	18.00	10.20	13.80
1977	3.0	1.7	2.2	18.00	10.20	13.20
1978	3.0	1.7	2.2	18.00	10.20	13.20
1979	3.0	1.6	2.1	18.00	9.60	12.60
1980	3.0	1.6	2.0	18.00	9.60	12.00
1981	3.0	1.5	2.0	18.00	9.00	12.00
1982	3.0	1.5	1.9	18.00	9.00	11.40
1983	3.0	1.5	1.8	18.00	9.00	10.80

et seq

As noted in Table 4 earlier, the actual requirements drop off after 1983 to follow a level course to the bond retirement dates. The millage rate requirements, of course, could be adjusted downward as the tax digests continue to go up MARTA requirements remain steady.

It should also be noted that the millages would have to go considerably beyond the ceilings showed in Table 6 if the heavier earlier payments to MARTA are not made. If the governments simply pay into MARTA what is actually needed to amortize the bonds in the early years, Atlanta's millage rate would go above four in the later years and the rates of the other two governments would be proportionately higher also.

Curtailment of Federal Funds. The question now arises: What happens if the second \$50,000,000 of Federal funds does not become available after the first two-year commitment in the same amount?

The answer is that a decision can be made (presumably in 1970 when the facts are known) to build a smaller system than the 30-mile system, if it is assumed that the ceiling on local funds would be held at the previously established levels. The engineers have designed a 21-mile "operational" system that can be maintained without a current operating deficit. It would cost \$276,000,000, only \$56,000,000 less than the 30-mile system.

This 21-mile operational system would take the same amount of local funds as the 30-mile system, assuming one-half as much available Federal money:

	<u>Amount</u> (000,000)	<u>Percent</u>
Local	\$199	72.1%
State	27	10.0
Federal	<u>50</u>	<u>17.9</u>
	\$276	100.0%

From the standpoint of engineering, the 21-mile operational system could be built in six years instead of eight. However, inasmuch as the same volume of local funds would be required to finance this system as to finance the 30-mile system, the local financing would have to extend over the eight-year period if ceilings on individual government outlays are to be maintained. A delay in construction could result in higher costs which could be partly offset by interest earned on advance payments held in trust.

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#### Prospects for Full System

The full 52-mile system that the engineers have designed would cost \$479,000,000 and take 12 years to build (with completion set for 1981). It would reach deep into Clayton and Gwinnett counties and would have a considerably broader coverage of the Atlanta-Fulton-DeKalb area.

Assuming that the 30-mile system is well underway with \$100,000,000 in Federal funds available, how much additional Federal money would be required to move directly into the 52-mile program without greatly increasing the local outlay (in total or on an annual basis)? If in 1972 or 1973 it would become clear that another \$50,000,000 in Federal funds would be made available, this would not be enough to support the 52-mile total system without a heavy increase in the local load. With the Federal government at \$150,000,000 and the state at \$48,000,000 (10 percent of the total), the local share would be \$281,000,000 -- considerably above the "ceiling" set at the beginning for local financing.

If in 1972 or 1973 it becomes clear that as much as \$200,000,000 in total Federal funds might be made available -- an additional \$100,000 over and above the same amount already plowed into the 30-mile

system -- the local share would not be much greater for the 52-mile system than for the 30-mile system. Here is the overall breakdown:

	<u>Amount</u> (000,000)	<u>Percent</u>
Local	\$231	48.2%
State	48	10.0
Federal	<u>200</u>	<u>41.8</u>
	\$479	100.0%

This is not an improbable assumption if Federal funds ever do break loose on a larger scale than at present. Indeed, it is presently estimated in Washington that \$500,000,000 a year will be needed on a regular basis to meet U.S. metropolitan transit needs rather than the \$200,000,000 level currently projected for the 1969 and 1970 fiscal years. MARTA's share in 1973 and thereafter could run as high as \$50,000 or \$60,000,000 a year.

At any rate, the availability of \$200,000,000 in Federal funds could swing the 52-mile system with an overall outlay for the three central governments only slightly higher than the 30-mile requirement. The point is that all five local governments would now share the totals, with the following distribution of the burden based on the formula presented earlier:

	<u>30-Mile</u> <u>System</u> (000,000)	<u>30-Mile</u> <u>System</u> (000,000)
City of Atlanta	\$124.2	\$130.7
Fulton County	26.3	27.7
DeKalb County	48.5	51.1
Clayton County		13.6
Gwinnett County		<u>7.9</u>
	<u>\$199.0</u>	<u>\$231.0</u>

It is assumed on a preliminary basis that the 51-mile system would call for at least seven MARTA bond issues compared with the six that might be scheduled for the 30-mile system (see Table 2, earlier). The carrying charges will be higher, of course, but five governments will be picking up the tab.

In Table 7 on the next page, the bond issue and carrying charge schedules of the two systems are compared.

Table 7. COMPARISON OF LOCAL COSTS, 30-MILE AND 51-MILE SYSTEMS IN SEQUENCE  
(000)

	Bond Issues		Carrying Charges	
	30-Mile	51-Mile	30-Mile	51-Mile
1969	\$ 25,000	\$ 25,000	\$ 1,825	\$ 1,825
1970			1,825	1,825
1971	35,000	35,000	4,380	4,380
1972			4,380	4,380
1973	50,000	40,000	8,030	6,995
1974			7,725	6,995
1975	50,000	40,000	11,375	9,915
1976	30,000		13,138	9,488
1977	9,000	40,000	13,795	12,408
1978			13,185	11,920
1979		30,000	13,185	14,110
1980		21,000	12,575	15,155
1981			12,209	15,155
1982			12,099	15,155
1983			12,099	14,667 <sup>1/</sup>
et seq	\$199,000	\$231,000		

<sup>1/</sup> Drops to \$14,301,000 in 1984 and levels off at \$14,045,000 in 1985

The reason for the lower local requirements for the 51-mile system in the 1973-76 period, of course, is the projected availability of \$100,000,000 more in Federal money. This fact, plus the sharing of the local cost by five instead of three governments, would produce an actually lower demand upon Atlanta, Fulton and DeKalb for the larger system in a number of years.



The following table (Table 8) compares the projected millage rate equivalents of each local government's share of financing the two projected systems.

Table 8. COMPARATIVE MILLAGE RATES NEEDED TO SUPPORT 30-MILE AND 52-MILE SYSTEMS

	30-Mile System <sup>1/</sup>			52-Mile System <sup>2/</sup>				
	Atlanta	Fulton	DeKalb	Atlanta	Fulton	DeKalb	Clayton	Gwinnett
1969	2.0	1.3	2.0	2.0	1.3	2.0		
1970	2.0	1.2	1.9	2.0	1.2	1.9		
1971	3.0	1.9	2.8	3.0	1.9	2.8		
1972	3.0	1.8	2.7	3.0	1.8	2.7		
1973	3.0	1.8	2.6	3.0	1.8	2.6	1.4	1.5
1974	3.0	1.8	2.5	3.0	1.8	2.5	1.4	1.5
1975	3.0	1.8	2.4	3.0	1.8	2.4	1.4	1.5
1976	3.0	1.7	2.3	2.8	1.6	2.2	1.4	1.5
1977	3.0	1.7	2.2	2.8	1.6	2.1	1.4	1.4
1978	3.0	1.7	2.2	2.8	1.5	2.0	1.4	1.4
1979	3.0	1.6	2.1	2.8	1.5	2.0	1.4	1.4
1980	3.0	1.6	2.0	2.8	1.5	1.9	1.4	1.4
1981	3.0	1.5	2.0	2.8	1.4	1.8	1.4	1.4
1982	3.0	1.5	1.9	2.8	1.4	1.8	1.5	1.5
1983	3.0	1.5	1.8	2.8	1.4	1.7	1.5	1.5

et seq

1/ From Table 6. Assumes \$100,000,000 in Federal and \$33,000,000 in state funds.

2/ Assumes \$200,000,000 in Federal and \$48,000,000 in state funds.

All of the indicated millage rates (or their equivalents) will drop after 1983 -- for all governments. Bond service charges remain constant and property digests continue to rise. The actual dollar amounts involved in the 52-mile schedule are given in Appendix Table C.

A Note on Clayton and Gwinnett. Until the decision is made to go to the 51-mile system, Clayton and Gwinnett counties would not be involved. In order to keep a ceiling on the cost of the system to these governments even after they are brought into the picture (assumed to be in 1973), their participation is calculated in a lower rate up to 1983 than their ultimate share of the total cost would indicate. This simply means a deferral of the main impact on these outlying governments until the system is actually in operation -- and their tax base more able to handle the burden. Even so, the peak impact would never exceed the 1.5 mills shown in Table 8.

Appendix Table A. REVENUE FROM PROPERTY TAXES TO LOCAL GOVERNMENTS,  
THIRTY-EIGHT LARGEST METROPOLITAN AREAS, 1964-65 1/

<u>Rank</u>	<u>Metropolitan Area</u>	<u>Per Capita Revenue to Local Governments from Property Sources</u>	<u>Property Revenue as Percent of Revenue from Local Sources</u>	<u>Property Revenue as Percent of Revenue from All Sources</u>
1	Newark	\$202.74	82.0%	68.6%
2	San Francisco	\$199.39	69.8%	46.5%
3	New York	\$180.29	56.1%	41.2%
4	Los Angeles	\$178.30	69.7%	46.8%
5	Milwaukee	\$178.29	80.1%	54.2%
6	Boston	\$176.86	85.6%	60.0%
7	Anaheim	\$176.03	73.6%	47.5%
8	San Bernardino	\$169.67	67.7%	43.4%
9	Paterson	\$168.92	84.6%	74.4%
10	Minneapolis-St. Paul	\$156.14	73.3%	52.1%
11	Buffalo	\$155.90	75.6%	49.0%
12	Cleveland	\$154.08	75.1%	59.1%
13	Denver	\$143.58	71.9%	53.5%
14	Chicago	\$143.24	72.9%	56.7%
15	Portland (Oregon-Wash.)	\$141.90	73.4%	55.5%
16	Detroit	\$140.04	71.2%	49.6%
17	Indianapolis	\$136.89	83.5%	62.1%
18	Rochester	\$132.76	67.7%	40.7%
19	San Diego	\$129.96	66.6%	39.4%
20	Dayton	\$122.79	70.1%	52.3%
21	Miami	\$119.88	56.7%	44.6%
22	Cincinnati	\$117.14	60.1%	46.1%
23	Providence	\$116.19	87.0%	65.8%
24	Houston	\$113.65	71.5%	55.4%
25	Washington, D.C.	\$111.00	49.3%	31.6%
26	Baltimore	\$110.83	71.8%	42.3%
27	Kansas City	\$108.00	61.0%	48.0%
28	Seattle	\$103.49	53.9%	35.8%
29	Philadelphia	\$101.48	58.8%	47.9%
30	St. Louis	\$101.40	62.0%	50.8%
31	Dallas	\$ 97.77	67.9%	53.5%
32	Columbus (Ohio)	\$ 97.06	63.4%	45.2%
33	ATLANTA	\$ 95.52	59.6%	43.7%
34	Pittsburgh	\$ 94.42	59.8%	46.3%
35	Tampa-St. Petersburg	\$ 87.61	49.9%	37.9%
36	Louisville	\$ 70.28	47.2%	36.0%
37	San Antonio	\$ 59.34	66.6%	41.6%
38	New Orleans	\$ 44.75	38.6%	23.3%
	Average	\$129.94	67.3%	48.6%

1/ These are the areas recorded as the most populous SMSA's in the nation by the 1960 Census of Population, when each of them had at least 700,000 inhabitants.

Source: U.S. Bureau of the Census, *Local Government Finances in Selected Metropolitan Areas in 1964-65*, Series G.F. - No.9.

Appendix Table B. ANNUAL FUND REQUIREMENTS FOR LOCAL GOVERNMENTS  
TO SUPPORT MARTA BONDS, 30-MILE BASIC SYSTEM

Assumptions:	Federal funds	\$100,000,000
	State funds	33,000,000
	Local funds	<u>199,000,000</u>
		\$332,000,000

	<u>City of</u> <u>Atlanta</u> (000)	<u>Fulton</u> <u>County</u> (000)	<u>DeKalb</u> <u>County</u> (000)
1969	\$ 2,828	\$ 598	\$ 1,106
1970	2,962	626	1,158
1971	4,659	986	1,822
1972	4,884	1,033	1,910
1973	5,121	1,083	2,004
1974	5,373	1,137	2,101
1975	5,643	1,194	2,206
1976	5,922	1,253	2,314
1977	6,222	1,316	2,434
1978	6,537	1,383	2,556
1979	6,873	1,454	2,686
1980	7,221	1,527	2,823
1981	7,596	1,607	2,979
1982	7,983	1,689	3,122
1983	8,400	1,777	3,284
1984	7,825	1,655	3,060
1985	7,550	1,597	2,952
1986-96 (11 years @1985 rate)	83,050	17,567	32,450
1997	7,550	1,597	2,950
1998	6,602	1,396	2,581
1999	6,602	1,396	2,581
2000	5,273	1,116	2,062
2001	5,273	1,116	2,062
2002	3,376	714	1,320
2003	3,376	714	1,320
2004	1,479	313	579
2005	342	72	133

Appendix Table C. ANNUAL FUND REQUIREMENTS FOR LOCAL GOVERNMENTS  
TO SUPPORT MARTA BONDS, 52-MILE TOTAL SYSTEM

Assumptions: Federal funds           \$200,000,000  
                   State funds             48,000,000  
                   Local funds            231,000,000  
   \$479,000,000

	<u>City of Atlanta (000)</u>	<u>Fulton County (000)</u>	<u>DeKalb County (000)</u>	<u>Clayton County (000)</u>	<u>Gwinnett County (000)</u>	<u>Total</u>
1969	\$ 2,828	\$ 598	\$ 1,106			\$ 4,532
1970	2,962	626	1,158			4,746
1971	4,659	986	1,822			7,467
1972	4,884	1,033	1,910			7,867
1973	5,121	1,083	2,004	\$ 288	\$ 168	8,661
1974	5,373	1,137	2,101	312	178	9,100
1975	5,643	1,194	2,206	340	194	9,577
1976	5,527	1,169	2,161	371	212	9,440
1977	5,807	1,228	2,271	405	231	9,942
1978	6,101	1,291	2,385	444	254	10,475
1979	6,415	1,357	2,508	482	275	11,037
1980	6,740	1,426	2,635	528	302	11,631
1981	7,090	1,500	2,772	578	330	12,270
1982	7,451	1,576	2,919	677	387	13,005
1983	7,840	1,658	3,066	740	423	13,727
1984	7,923	1,673	3,103	1,015	586	14,301
1985	7,781	1,643	3,048	997	575	14,045
1986-96 (11 years @1985 rate)	85,591	18,073	33,528	10,967	6,328	
1997	7,781	1,643	3,048	997	575	14,045
1998	6,940	1,465	2,718	889	513	12,525
1999	6,940	1,465	2,718	889	512	12,525
2000	5,761	1,216	2,256	738	426	10,397
2001	5,761	1,216	2,256	738	426	10,397
2002	4,412	932	1,728	566	327	7,965
2003	4,412	932	1,728	566	327	7,065
2004	3,065	647	1,200	393	227	5,533
2005	3,065	647	1,200	393	227	5,533
2006	1,719	363	672	220	127	3,101
2007	1,719	363	672	220	127	3,101
2008	708	149	277	91	52	1,277
2009	708	149	277	91	52	1,277