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RAPID TRANSIT, A LAST CHANCE FOR DETROIT?

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# 1. THE PROBLEM

## 1.1. Introduction

"Detroit may just become another suburb of either Chicago or Toronto" a well-known economist warned recently.<sup>1</sup> Indeed, the realm of influence of these two metropolitan areas is growing steadily, at the expense of Detroit, and many smaller cities. Detroit has had the opportunity to expand its cultural and economic influence, and seemingly still has. It has expanded its daily commuter realm over large parts of Southeastern Michigan and the adjacent areas of Ontario and Ohio.<sup>2</sup> However, in terms of highly specialized services and in terms of cultural activities, as measured by weekend trips for entertainment and recreation, Chicago and Toronto reach far into the Detroit agglomeration.

With the advent of new commuting facilities such as the AMTRAK rapid-transit connections between the major urban centers, visits to Chicago may become more frequent. It is hard to predict these specialized, non-periodical commuter patterns, as Detroit's potential may still unfold.\* It depends to a large degree on what happens to the Inner City of Detroit. Cultural assets and/or events, which draw on a megalopolitan audience, are traditionally accommodated in "downtown" facilities, because that is the place

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\*This paper does not focus on inter-urban public transportation, but on inner-urban rapid transit.

where the greatest diversity of complementary services can be offered within easy reach.

The following explores Detroit's potential by inference of American and European precedents.

### 1.2. Universal aspects of high density and transportation

Historically cities have developed into a state of significant compactness. This has too often been attributed to reasons of necessity such as defense while ignoring those advantages of compactness which produced its chief attraction in modern times: the high level of communications potential and the most exciting style of collective life. Clearly the former is at the base of economic prosperity, while the latter contributes to cultural vitality. Once compactness exceeds the threshold of floor-area-ratio of about 1 over a large portion of the city, it becomes hard if not impossible to service such an area by private vehicles alone. At densities such as Manhattan's it is inconceivable that transportation be resolved in any way except with high capacity public transportation.

### 1.3. The U.S. conception of the problem

Against the background of a strong trend towards decentralization of urban functions, with the result of low density urbanization, the fact remains that highly compact activities retain their economic viability. New York, Chicago and other cities in the U.S. testify to this fact. Even Los Angeles has started to give its center-development a strong new impetus, after decades of

being characterized as a "metropolis in search of a center".<sup>3</sup>

Central locations have a tendency to generate both the highest order of functional complexity and the highest demand for service activities with low-skill labor. Around the nation a tendency towards accommodating low-skill, low-income groups within proximity of the metropolitan center could be observed for several decades, particularly after the more affluent groups of society moved to the urban periphery. Poli-nucleated metropolitan areas increasingly show the same trend for secondary centers.

Therefore, there are fundamentally two basic reasons for introducing (or maintaining) public transportation means in urban areas:

- A. To provide service to areas which are so compact as to be unserviceable by private transportation alone.
- B. To provide service to people who are in no position to afford private transportation or who for reasons of age or other disabilities, cannot drive a private vehicle.

A recent document on "Public Transportation" by the U.S. Department of Transportation states:

"Public transportation also has the ability to provide transportation for people who for one reason or another are not able to use the private automobile mode. Unfortunately, today's public transportation systems too often leave unserved those who most need service: the poor, the handicapped, the old, and the young. Recent studies have shown that approximately 23% of all households in the U.S. have no car; in central cities the figure is 35%.

This jumps to 48% for households headed by persons over 65 years of age. The poor are particularly dependent upon public transportation. Again, car-ownership statistics document this strikingly. More than half of all families with incomes under \$4000 own no automobiles."

The manual concludes that in forecasting future urban growth and population data, "the ability to solve these problems by means of the private automobile alone becomes impractical, if not impossible."<sup>4</sup>

This acknowledgement by the Department of Transportation promises a more balanced national policy on transportation than has been the case in past decades. It is high time for the emergence of an effort to resolve the needs of public transportation, similar to the effort for the vast interstate freeway network. All the signs point to the inevitability of such a vast enterprise if the center-cities are to survive.

A recent article in the New York Times pointed out correctly that the image of cities changes under the impact of suburbanization to the point where suburbia surpasses the assets of the core city: "Transfixed by the image of bedroom towns in the orbit of true cities, most Americans will speak of suburbs. But a city's suburbs are no longer just bedrooms. They are no longer mere orbital cities. **THEY ARE NO LONGER SUB.**"

Unfortunately they are separated governmentally from the historical center-city and thus are not only competitive but, in many ways, have the legal power to establish the status of a

sep-urb, not a suburb. Sep-urbs have stripped off any reference of subservience to the center-city. "They are broad ballooning bands, interlinked as cities in their own right. In population, jobs, investment, construction, stores, political power -- all the measurements that add up to 'urban' -- the old inner city is now rivaled, often surpassed by the new. This is the Outer City. And from its massive, centerless development, repeated again and again across the country, spring the most serious implications for the quality of urban life." "Downtown has ceased to have any real relevance." "Now such independence of the city is being massively fortified with concrete. Broad beltways already encircle 10 large cities and will soon rim 70 more -- the accidental new main streets of the outer cities. And the residents of the outer cities have become so independent that it is common to hear people brag that they haven't been downtown in months, even years." <sup>5</sup>

Thus the center city seemingly has a chance of survival in only one context: in due time, the suburban communities too will age. It must be the strategy of metropolitan center cities to retain all their activity assets in order to recycle their physical facilities for a time when it competes with equally mature sep-urbs. For social and for economic reasons it would be fatal to let the central cities drift towards obsolescence only to be rediscovered when the bustling suburban communities of today in turn become obsolete within another generation.

Such a strategy is urgent for all metropolitan centers, "for nearly all the nation's metropolises share the same malaise, even

though the symptoms may differ. Thus, while New York suffers from an exodus of corporations and New Orleans from an exodus of middle-income homeowners to the outlying parishes, the result is the same: a steady shrinkage of the tax base."<sup>6</sup>

#### 1.4. The Detroit case, contrast between societal life-style and life in the Inner City

The disparity between the stereotype expectations about life in metropolitan Detroit and the factual attainment of Inner City residents could not be more distressing. To contend that the remaining public transportation lines may be phased out one by one due to insufficient patronage borders on hypocrisy.

A significant portion of the population has acquired a level of mobility that makes it insensitive to the unfulfilled aspirations of the less mobile groups and individuals. The major reason for this occurrence lies in the fact that most metropolitan services have been duplicated or multiplied to the extent that the travel patterns for mobile groups rarely coincide with those of immobile groups. This inadvertant segregation accounts for the virtual lack of physical relations. An Inner City resident may not know much about suburban life-style except by hearsay, and the average suburbanite never encounters the experiences and frustrations of being "locked" into the low-income areas, literally and figuratively.<sup>7</sup>

Actually the public transportation network in the city of Detroit is still dense. But this is misleading since service as measured by price and comfort is dissatisfactory. Only a person



who depends on busing and transfers year in and out could describe the inconveniences, particularly during winter. Yet very little information is available on those 26.8% of the households in the city of Detroit, which have no car available to them.<sup>8</sup> This problem had been recognized when the Southeastern Michigan Transportation Authority was established in 1967, since it was authorized to recommend improvements for all the public transportation systems within the 6 county area of SEMCOG, including, specifically, proposals for the consolidation of the present systems, most of which are bus lines. As this consolidation is aimed at bringing all public transportation under joint management, accountable to the public, it may be assumed that public and social needs will receive recognition. It can be implicitly assumed that the shortcomings of the present service were registered and that they prompted the idea of consolidation.

Virtually everyone interviewed by this writer agrees that rapid-transit is a necessity, but it is emphasized time and again that probably no government will be willing to pay for it.

## 2. DETROIT'S PUBLIC TRANSPORTATION SYSTEMS UP TO THE PRESENT

### 2.1. Impact of the street-car era on the city structure

If one analyses the current zoning ordinance of the city of Detroit,<sup>9</sup> one is immediately struck by the corridor-configuration of retail and industry. The strip commercial development in the plan is as much a result of past development forces as it is a reflection of intent in the Master Plan. In fact a comparison of

the streetcar network of the twenties and thirties with the Master Plan reveals that many of the zones for commercial development were originally determined by the routing of fixed-rail public transportation. Commercial use potential was the predictable outcome of this public infrastructure, as long as it generated a captive market of users and incidental customers.

As fixed-rail operations succumbed to the more flexible bus system the commercial use potential no longer was as predictable because routing of buses is not bound to the original track network but rather to capacities of street space and to demand. Nevertheless, the strip commercial development proved to be more enduring, because for a long time it could also perfectly serve car-oriented commercial activities.

It is interesting to note that, despite the total absence of street-car service today major arterial roads were serviced until relatively recently by the street-car.

These are the dates of track abandonment for street-car operations in some major corridors:<sup>10</sup>

Woodward Avenue	1956
Gratiot Avenue	1956
Michigan	1955
East Jefferson	1954
Mack	1951
Grand River Boulevard	1947

It cannot be stressed enough that still today the commercial strips are essentially the product of the high concentration of potential customers channeled through the corridors by the early public transportation network. Thus, while bus routing is a

somewhat volatile phenomenon, the Master Plan still recognizes the existence of these corridors. Attempts at phasing out some of the strips through zoning have been slow in implementation, and truly successful only in urban renewal operations.

It may well be that due to the very extensive public transportation network in the past, Detroit's Center City underwent pressures from the competing strip commercial development, long before the obvious competitive force of Northland, Eastland, Oakland Mall, etc. came into existence. Downtown may have suffered the loss of investments as much as a consequence of vast strip commercial development during the street-car era as it suffers today as a result of utter decentralization of metropolitan center functions.

(It would be interesting to evaluate in this context to what extent the Michigan Banking Law, limiting banking operations to a zone with a 25 mile radius, is accountable for the limited size of downtown. Obviously it enforces the establishment of independent banking operations throughout the state whenever the area-limit of Detroit's banks is exceeded. Financial establishments tend to locate in regional centers and constitute a growth generator in their own right for other regional center investments.)

Three factors emerge from the past impact of public transportation on the physical setup of urbanization:

1. Public transportation has had a forceful impact on the investment decisions of private enterprise.

2. It may be expected that the introduction of rapid transit will be as forceful an investment-determinant in the future, i.e., a strong resurgence of development will occur within the subway corridors, if and when this transportation mode is put into operation.
3. Detroit still faces the heritage of overzoning for strip commercial use in zones which have ceased to be relevant for the particular services they provide. Policies for phasing out such obsolete commercial strips must be introduced.

Finally, industrial strips which originated along rail corridors should be considered as serviceable by public transit, inasmuch as they contain substantial concentrations of blue collar employment, and because the right of way theoretically available for such service.

## 2.2. The predicament of early subway proposals

Given the rapid growth of Detroit's population in the first decades of this century,

1900	285,704
1910	465,766
1920	993,678

it seems natural in retrospect that the construction of a subway was seriously considered. Fifty years ago all historical precedents of cities with that magnitude of growth and total population pointed to the logic of alleviating the burden of traffic generation for work trips by means of a high capacity rapid transit system.

It is also understandable in retrospect that the extremely extensive streetcar system coupled with rapidly expanding car ownership satisfied traffic demands. Moreover, the traffic system permitted a settlement pattern of relatively low density to come into existence, unlike the settlement pattern in comparable urban agglomerations. The general wealth of the average wage earner also brought about a very high ratio of home-ownership to rental accommodation. Detroit still ranks first among the major U.S. cities in terms of privately owned homes, with the resulting low residential densities. All of these factors predicated the failure of subway schemes in the past.

Nevertheless, there was another peculiar factor which contributed to this predicament. It was the failure of one man whose less than responsible flamboyance raised hopes which never materialized.

One of the first persons to push for a subway in Detroit, Markus Pollasky, was characterized as a "gay dreamer" in the Detroit News of May 28, 1924 after he died.

"Brilliant, well educated, erratic, irresponsible, spectacular, his death removes a bizarre character more familiar to the Detroit of 20 years ago than today." "He first came into public notice with a plan to provide the city with rapid transit. The matter went before the Council, and he nearly got his franchise, but Mayor William C. Maybury vetoed the ordinance. Before a vote could be taken on the veto two members of the Council died. Pollasky had the support of two thirds of what was left of the Council - enough to pass it over the Mayor's veto.

In 1922 when the Rapid Transit Commission formed, Pollasky was still propounding his subway system. He ran for Congress several times, but his candidacy was never taken seriously.

In the literature he issued in his last campaign, he called himself the father of Subways in the Western Hemisphere, having incorporated the first subway company under the laws of Illinois in March 1894, and now actively engaged in an effort to build a complex system of subways in Chicago and Detroit."

A former judge who knew him well characterized Pollasky with the comment "he did not keep looking in the same direction long enough".<sup>11</sup>

Detroit's modern growth can be attributed to a large extent to the impact of Henry Ford's assembly-line production of cars, a somewhat accidental phenomenon to happen precisely in Detroit. The lack of good rapid transit in the city, seemingly a logical consequence of the car production, seems to be attributable to the inconsistent whims of an individual, Pollasky, who occupied the base of a technical-political stance, but never gave it sufficient attention. Had he left a factual vacuum in those crucial early twenties to anyone more seriously dedicated and deeply committed to rapid-transit, the city of Detroit might be very different today.

### 2.3. The decline of public transportation

It is well documented how rail transportation in general suffered under the impact of highway and air-transport. Aside

from the logic of this development, there are increasing indications that the sheer rumor of decline has a devastating effect on use habits. Who wants to use a service which "obviously" falls behind new competitive services? Or worse, who wants to be labeled old-fashioned?

For the last 20 years the Swiss National Railroads have demonstrated through their enormous advertising campaigns that patronage can be heavily influenced by publishing any and all improvements of the service, even though it is fundamentally still the same "old" system.

"The intelligent person rides the train" (Der Kluge fährt im Zuge) was not only a most effective advertising slogan, but it could be backed up by statistical evidence, and most noteworthy, by the increasing use of computer technology for added capacity, convenience, reliability and safety. It must be admitted that the Swiss National railroads are publicly operated and that they incur financial losses on passenger transportation.

By contrast, when U.S. public transportation suffered losses in passenger operations -- particularly when organized through private enterprise -- service was gradually cut. It would be immensely valuable to understand to which degree the image alone contributed to this development. How much of it is attributable to the notion that "only poor people" use the system? What relevance do ethnic considerations have in such value judgments?

In Detroit the DSR (Department of Streets and Railroads) which operates the bus service has had a declining patronage, if compared

to the post-war period up to 1951, when the system offered in excess of 300 million rides. However, the ridership has been steady through the last 5 years.<sup>12</sup> The number of riders leveled on what might be called a "minimum subsistence" base in terms of dependency.

<u>Annual rides</u>	<u>Year</u>
122,801,245	1966
130,718,222	1967
126,649,186	1968
121,027,939	1969

It must be noted that even a highly organized bus service -- inexpensive, frequent, comfortable -- may be unattractive if it is not fast. Given the road congestion at peak hours, a bus system can only lose attractiveness unless it operates on separate lanes and with preferential treatment at intersections. A brief experiment in Seattle showed the advantage of separate-lane operation for public transit. Of course, the capacity for the remainder of the road traffic had to be reduced.

When the "Lake Shore Bus Company" discontinues service<sup>13</sup> between the Grosse Pointes and downtown Detroit another loss will be incurred in the "image-value" of public transportation. The correlation with resident status of the suburban communities cannot be avoided.

### 3. THE CAR, COMPETITOR NO. 1 OF PUBLIC TRANSPORTATION

#### 3.1. The ongoing impact of the car on the urban structure

It must be anticipated that the private transportation mode will continue to thoroughly determine the physical structure of



most new parts of the urbanizing metropolitan area. This will be particularly true if and when the combustion engine is replaced by an aggregate of pollution-free propulsion techniques.

An analysis of past developments strongly indicates that given a choice between various degrees of personal freedom, the individual urban dweller will opt for the greater freedom. This refers not only to the mode of transportation but also to the kind of residential accommodation, the type of employment, the network of social contacts and the expressions of cultural activities. Collective individualized life-styles. Thus the private motor car is a logical expression of modern footloose life, if not its epitomy.

While car ownership is expected to increase to the magnitude of 250 million vehicles in the U.S. by the year 2000, there are bound to be changes in the use of the car. The whole set of attitudes towards individual freedom must be constantly tested and collectively safeguarded against misuse. Toronto's abandonment of the Spadina (crosstown) expressway may become a test case for similar decisions across the continent.<sup>14</sup>

The individual private transportation mode might essentially be left in uncontested control only of low-density development on the urban fringe. In addition, this means of transportation would be given controlled access to most zones of the urbanized area except for some pedestrian enclaves. The controls will increasingly be imposed by capacity thresholds in the movement systems or in the available parking space. Other controls will limit the immission of noise and noxious exhaust. Capacity

thresholds are already effectively curbing the use of the car in European cities for key periods of the day or week.<sup>15</sup>

Thus, when we conjecture about the future use of private transportation we must assume that there are limitations built into it, which reduce its usefulness in more compactly developed urban areas. Although the question is occasionally posed in the form of "either public or private transportation" (such as in the Spadina controversy in Toronto) we will essentially see cities structured to accommodate both. For each segment of city, and at any particular time in the development - or renewal - of a city like Detroit, priority must be given to one or the other.

### 3.2. Built-in limitations

All major Detroit-based motor companies are researching the possibility of using a road vehicle with aspects of collective travel, either by grouping individual cars into trains (guideway-system) or assembling people along similar routes for a system related to a taxi-bus concept, computerized to maximize efficiency. While doubtless these or other systems will be put into operational use sometime in the future, there are many completely unresolved technical and spatial problems.

Increased capacities in total numbers of private vehicles undoubtedly calls for increased parking space. There are definite limitations in compiling parking space if one judges from the present systems of operating parking, at locations of high concentrations of activities. Can the guideway system be operated without such high concentrations?

Already some 74% of Detroit's downtown are allocated to the moving and parking of cars. Since much of this parking is on ground level lots, there is a theoretical added capacity in multiple deck parking, without further loss of vital floor space for the typical inner-urban activities. But parking becomes a problem both of space and implicitly of cost.

The automated guideway system will require the gradual exchange of the present type of vehicle for the automated types. The high initial cost for the guideways is incurred at once, while ownership of the automated vehicles is building up only slowly due to the completely new technical equipment and the new sophisticated maintenance services. While such a lag is nothing new with innovative technology, can it be paid for by the users alone? Are there new right-of-way requirements? As this new method of transportation coincides with a grass-roots aversion against demolition of any city fabric, how can it be avoided that this particular mode will be interpreted as serving the affluent and that it will be even more strongly opposed?

From superficial evidence, it seems that priorities in urban transportation for Detroit must be set in favor of public transportation for an extended period of transition. TALUS forecasts suggest that such a transitional period may well extend into the 1990-ies.<sup>16</sup> While the same statistical source projects a raising affluence level, 74.5% of the population with incomes over \$10,000 current-value, there will still be the same absolute number of people below the poverty line of \$3,000 current value.

In conclusion, can the new transportation technology, on the basis of private cars, be introduced in Detroit? When Inner City income levels are already (or still) below the limit of what is needed for car ownership, will a more expensive type of vehicle not aggravate this condition?

#### 4. S Y N T H E S I S

##### 4.1. A special case for high capacity systems

Confronting these issues, Detroit could opt to improve the existing DSR service, as it has reluctantly done in the past. It could once again try to recapture the growth impetus for its internal economy by incremental changes. But Detroit seems to be in such a lethargical state, with tax resources declining, tax base in residential sectors quickly eroding, a large financial backlog in its educational system compounding the already marked social inadequacies.

It appears that only a very forceful program will awake the city out of its lethargy. To overcome the serious deficiencies governing Detroit's present development incentives, an infusion of new energy is required very urgently. Out of a European perspective Detroit lacks in programs that have any large-scale immediate results.

The rapid transit system, originally proposed by TALUS, now in a more detailed planning phase under the direction of SEMTA, promises to become an element of strategic importance. Toronto's subway generated some \$15 billion of new investment in construction

directly attributable to the initiation of its subway lines. The impetus is far from exhausted. The occurrence is taken to be symptomatic (although the magnitude may be exceptional).

"Any decision to shift major emphasis to mass transit in U.S. urban growth areas would cause radical transformations in the pattern of development typical of such areas during the last twenty five years."<sup>17</sup> Detroit is about to consider this kind of major shift and there is every reason to expect radical transformation as a consequence. The following factors contribute to this expectation:

- a. Rider demand is substantial.
- b. Present levels of densities in several corridors are high enough to ensure sufficient use in the first period of transition between inception of service and target levels for satisfactory support.
- c. Densities of land use are comparatively low, providing for a proportionately higher incentive for private investment to rationalize the high land use potential.
- d. Land acquisition or purchase of right-of-way concessions are ostensibly lower than that of any other added transportation media in the corridors (even if the level of service is not assumed to be equal for all systems, i.e., higher for rapid transit).
- e. Federal resources allocated to rapid transit schemes are available at a level unprecedented in U.S. history.
- f. No other local system is likely to produce the badly needed tax base to maintain and improve public services, particularly social services.

g. Distributions of employment throughout the corridors are such that a ballanced flow of inbound traffic versus out-bound traffic might be expected at peak hours. This by itself is a unique positive phenomenon. The last point is particularly true for the 1st priority Woodward corridor.

h. Unlike the social problems which beset the city, one can argue that a decision on rapid transit does not necessitate the now common consultation with all parties ultimately concerned. The decision-making process is also less complicated by the fact that both the technology and the methodology of study for rapid transit are firmly established. At a time often characterized by stale-mated governmental action, this is of immense value.

i. Social conditions and ethnic tension have risen to themes of predominant governmental concern, partly because in a short-term perspective, none of the present programs on the social front could engender the resource generation which was designed into them, or which corresponds to expectations. No ones expectations, not even the automotive industries', need to suffer from mass rapid transit.

j. It may be surmised that, notwithstanding all the rumors to the contrary, investors are waiting on the sidelines to reinvest in some potential growth areas in Detroit. (How else could property values averaging \$400,000/acre on Woodward Avenue be explained?).

k. A significant factor relates to the political setting of the region in the near future. Understandably the black community of Detroit aspires to gain control of government in Detroit. It would seem that a government, dominated by representatives of the black community, will be in a much stronger bargaining position with outside governmental units if it has an economically viable city to back up its position. Inasmuch as substantial new investment may result only from a rapid transit system designed to favor the metropolitan center, and because a system, initiated only in the next decade, would unlikely give the Inner City this preferential position, the black community should support this new transportation network now.

l. Alfred Berarducci "the man who probably did more than anyone else to build Detroit's expressway system", Detroit's Public Works Commissioner, commented upon retirement: "But we have got to develop a mass transit system". From the person who presided over the building of the Ford, Lodge, Chrysler, Fisher and Jeffries expressways this is certainly more than a good symptom. A policy change is overdue.<sup>18</sup>

#### 4.2. SEMTA's Rapid Transit System

The South East Michigan Transit Authority works on the basis of premises which can be summarized here:<sup>19</sup>

A network of five subway trunc-lines would service southeastern Michigan by the year 2010. The first segments should be in operation by 1980.

The corridors should tentatively conform with the recommendation by the "Detroit Regional Transportation and Land Use Study". These corridors coincide with the major strips of high concentrations of present development in Wayne County and extend in principle to major centers of the region. The corridor selection of the TALUS study contains the Woodward Avenue line to Pontiac, Grand River Avenue and Schoolcraft Road to Plymouth, Michigan Boulevard and an extension to Metro Airport, Gratiot Avenue and Van Dyke Road to Sterling Heights, and finally a mixed radial and cross-town line linking the Grand Boulevard through Fort Street to the southwest and through Kelly Road to the northeast.

Station spacing shall range from 3/4 miles in the central parts to 3 miles in suburban locations.

An average speed of 45 miles per hour will be coupled with a maximum frequency of one train per 3 minutes in the central portions of the region. The network is to be supplemented by surface feeder lines, buses or other surface transit.

The system shall be conceived with a maximum of automation. The question of attractiveness and comfort shall be addressed through the use of amenities e.g., air conditioning, mechanical transfer equipment such as escalators, and most significantly by providing every rider with a seat.

In assessing 12 alternative modal systems, 5 of which were selected for more detailed analysis, the Board of SEMTA concluded that, with respect to the first branch, a fixed steel rail system was most promising for reasons of cost and timing. Major weight



is given to servicing the area as fast as possible with a strong impact on the total transportation network and on user attitudes. It is explicitly acknowledged that changes in transportation technology may be forthcoming and that they will be considered for later supplements to the network.

Cost comparisons include cost of construction, cost of maintenance and such external cost as those resulting in differences among the modes.

Notably absent are considerations of benefits to the construction industry (measurable) and benefits accruing to the communities' tax base (estimates). This alone has significant ramifications in the economies of the many governmental units directly affected, let alone the expected surge in private construction, initiated by rapid transit within the corridor.

After marginal reference to inflation the cost analysis concludes "All things considered, the sooner investment in a high speed system can be completed, the larger and more secure will be the consequent benefits to the region."<sup>19</sup>

#### 4.3. The Woodward Corridor

The corridor of Woodward Avenue contains an impressive number of viable activity centers. It is in the process of developing clusters of metropolitan functions around the financial district of downtown, around the medical center, the campus of Wayne State University, the General Motors administration in the "new center" and many employment centers clustered along the spine of Woodward, all along to Pontiac.

Both the number and the diversity of such clusters within the corridor is striking if one considers the otherwise dispersed pattern of employment and activity centers throughout the region. While downtown is weak in comparison to other metropolitan centers serving a population of Detroit's size, (San Francisco, Toronto, Montreal), the cumulative total within the Woodward corridor is potentially strong. However, it requires the linkage, spatially and functionally, which can be induced by a rapid transit scheme.

Within the corridor we find such special functions as the Civic Center, the Art Center, Palmer Park, the Michigan State Fairgrounds and the cultural/recreational facilities further out.

The blue collar employment centers in the industrial belt along the GTRR tracks, the Ford and Chrysler plants in Highland Park, would benefit from the larger labor market within reach of a rapid transit system, and so would labor with respect to the employment opportunities.

Present plans of SEMTA envisage the technical possibility of introducing service on the Woodward trunc-line by 1976.. Since early initiation is crucial to prevent further decentralization of activities presently within the corridor, the technical feasibility study should quickly be complemented by the necessary changes in land use policy. Essentially the corridor must be conceived as a high density multiple land use zone, permitting the optimal clustering of activities. Very definitely discriminatory single use zones should be eliminated immediately to make place

for special zoning, permitting the superposition of complementary activities, (such as presently separated into different zones).

Through the dynamic of coalescing urban function, the goal of unifying the activities within Woodward corridor into one system becomes an unconscious reality beyond questioning. This is by no means a closed system, although its inner cohesiveness greatly increases beyond any functional interrelationships of today's Detroit.

The new system will automatically exercise a greater attraction than the sum of the activities assembled in the corridor today.

If the 1976 target should turn out to be achievable - a fact to be determined within one year - there is little a professional planner could argue to challenge it. If the target proves too optimistic, the expectation could be built up by a superbly functioning bus system on separate lanes, with express buses for longer runs. Demand should be built up for the eventual inception of subway service.

Needless to say that such an interim service would not pay for itself but could be justified only by stimulating new private investment, and implicitly new taxable resources, a certain consequence of the ultimate subway system.

Data about ridership demand in the corridor suggest that 12,000 to 15,000 people would use the subway at peak hour. For a whole day 120,000 riders were anticipated by the TALUS study (both directions). Very similar figures constituted the base for deciding in favor of the "Lindenwold Line" in Philadelphia, now in operation.

#### 4.4. Necessity of a strategy toward success

A rapid transportation system must be a public enterprise in this part of the century. Private enterprise has failed to measure up to the challenge, although if intelligently conceived such a system should be profitable. In an era of increasingly diversified conglomerates it is not altogether logical for private enterprise to ignore the cumulative growth which emanates from a high capacity carrier within its corridor of service. However, we may assume at this point that SEMTA, a public institution, will be the organizational backbone to this new venture.

The Southeastern Michigan Transportation Authority is governed by a 9-member board, 6 of which are appointed by SEMCOG, the voluntary council of governments for the same area. Voluntary associations by definition, have their ups and downs according to their effectiveness in strongly competitive situations. Right now, summer 1971, SEMCOG's support is at an ebb. The community of common interest is threatened by the economic difficulties of its individual members. SEMTA, therefore, cannot afford a failure in its policies.

Many authors have illustrated the sequential build-up of either success or failure. In talking to a cross section of Detroiters one gets the impression that there are very few commonly shared societal goals. If this is true for Detroit, it pertains even more strongly to SEMCOG. "There is the Detroit that stops at the city limits ... There is the Detroit that has expanded all over the map."<sup>20</sup> Underlying this artificial boundary is the image

that the city will be predominantly black, governed by a black mayor. An investigation of people's attitudes might reveal that stakes in the future are more articulately explained by black people only in the sense that they foresee the necessity for a lot of things to change. Changes in the political power distribution must be firmly accepted. But as a planner I strongly advocate that all of these changes take place in a package set of references measured by the viability of the metropolitan center, politically, socially, economically. It might even be argued the rapid transit is such an element of necessary change, though this writer sees public transportation as devoid of ethnic considerations.

The city badly needs the productive impulse of a large scale success; SEMTA's operations depend on it and so does SEMCOG. And each of them deserves its share of credit for having supported what seems to inevitably turn out to be a success.

Finally, the taxpayer sees his funds not only matched by massive Federal aid under the Mass Transportation Act, but also as a spin-off, by private enterprise resources returning to Detroit. Clearly there is a highly speculative component in this prediction, and it would be naive to ignore the marginal present interest of private capital, precisely because the speculative potential is overshadowed by innumerable alternative locations. The San Francisco Bay Area is an excellent current laboratory to observe. Its surge in economic vitality should be closely observed by those who wish to see an Inner City evolve towards a viable and livable urban

environment. San Francisco's population too is likely to be predominantly black within a decade. The Bay Area Rapid Transit will be opened to service in 1972. It is noteworthy that the economic revitalization took place before the opening of this new transportation mode. Most observers agree, however, that the decision to initiate the BART rapid transit was the base for the ensuing success in attracting private resources.

## 5. U N R E S O L V E D Q U E S T I O N S

### 5.1. Weighing of the five major corridors

Present priorities call for the Woodward line to be put into operation first. No one can seriously challenge this choice in principle since user demand is crucial.

How has this priority been established among the five major corridors? Each corridor per se? On a basis of user demand per subsection?

If one combined several subsections of these corridors into alternative packages, would the choice turn out again in favor of the Woodward line to Pontiac?

If construction on one line could be started, but the assumption had to be made that it will remain the only one for 10 or more years, which strategic points have to be observed?

Can the portion from the 8-mile or ten-mile roads to Pontiac be substituted by a short leg across to Windsor's center? Or by a segment of a downriver line to link up the industrial zones in River Rouge?

Which line is likely to spark the greatest amount of private investment? Have interviews been conducted to test the private interest in following up the initial decision on a subway through the generation of new activities, new employment in the corridors?

Which rationale would be developed if the subway had to be operated by private enterprise? Would this rationale differ from the one following public interest? Why? What reasons are there for a synthesis between the two realms of interest, public and private?

What land use policies are pursued in each of the corridors? Which transportation policies are pursued for each of the corridors, pertaining to supplementary transit and transfers, including transfers from private car to subway? Does SEMTA's authority suffice to assert all policies, necessary for the functioning of the total transportation system?

When will zoning adjustments be made in the first priority corridor, knowing the number of municipalities involved? Is zoning change a necessary prerequisite for the establishment of priorities among the corridors?

## 5.2. Timing optimism, public relations, information gaps

Timing optimism is an age-old fallacy of planners. While politicians notoriously promise a lot, planners cannot afford to suggestively raise expectations concerning timing unless they have solid ground for their predictions. As long as they have only tentative sets of reference, they unwittingly invite a correlation between their ability to stay within the time schedule and

the merits of their operation all together. I hope, therefore, that SEMTA has superb confidence in running on schedule for opening service in 1976.

By contrast, the Zurich metropolitan transportation plan was established without a specific time horizon. Instead, in Zurich we worked with population and employment horizons, roughly one generation hence, respectively two. The time span is variably assumed to be 30-40 years for data covering the evolution through one generation, or 60-80 years for two generations. I can advocate the flexibility of the ensuing planning process, for it greatly facilitated discussions on matters of strategy.

Out of the data for the years 2000-2010, respectively 2030-2050 a set of transportation problems could be deducted which pointed out the necessity for immediate action on a subway network. For some reasons quite similar to the ones developed by SEMTA, the choice of mode came out in favor of a fixed rail system for the first line. This first line, while about 2/3 the length of the proposed Woodward subway line to Pontiac, consists of two radial branches connected in downtown. This reflects a typical output, if the analysis of transportation problems is directed at maximizing loads of passengers. The alternative of substituting the chosen line for any one radial, extending further to the periphery of the metropolitan area, was never even posed.

If, in contrast, the objective had been to maximize mileage and to minimize time of construction, undoubtedly Zurich's choice of a first mass transit line would resemble the present first



priority line in Detroit. This conclusion stems from the differential in cost and time of construction, when central below-ground sections are compared to outlying segments at level or even on existing rail rights-of-ways.

Obviously one would wish to consider the impact of locational alternatives on supplementary construction, private or governmental. Taking the Stockholm subway as a base for rapid transit can be demonstrated by the many new towns at subway stops. Again the objective was in part a different one: the ability to fully control suburban development around stations was clearly a basic input into corridor selection.

Which are the criteria of choice in favor of the Woodward corridor? As a neutral observer I note that the following package is recurrently mentioned:

- a) the assumption of a satisfactory patronage
- b) the availability of a level free right of way from 8-mile to Pontiac
- c) the ability to provide a sizeable length of subway in a limited time (success!)

What is being optimized with this choice? Is the time element crucial? (It was pointed out before that time was relevant in the San Francisco Bay Area in the sense that the decision to go ahead with construction had a thorough influence on private construction. Implicitly the time of completion was less relevant.

There is something magic about 1976. It will be the bi-centennial for the nation. Yet, since the proposed transit system

is technologically rooted in precedents already in existence, maybe Detroit might contribute to the bi-centennial not through the opening to service of its first subway line, but through a demonstration of human-resources oriented technology.

#### Public relations, information gaps

When the costs of construction were tabulated for Zurich's subway, a shock-wave penetrated all politically oriented groups. No referendum had ever reached the astronomical figure of a billion Swiss Francs (250 Million Dollars) on a local issue.

Lets acknowledge, a subway is a significant venture in any metropolitan area, even if no public vote is required. It might be wise to conceptualize public-relations in Detroit as if a public vote would be formally required. Then a comparison of the procedures becomes interesting. The most striking contrasts to date are these:

Detroit's system is institutionally backed by SEMTA, indirectly by SEMCOG, under an appointed chairman.

Zurich's system is institutionally based on a large commission with representatives of the national, state, and local administrations under the chairmanship of an elected state-official.

Detroit's efforts have received only intermittant low-key publicity.

Zurich's plans have been widely and regularly reviewed in the press, and in the last two years, they have been publicized by means of a movie on the subject and a traveling exhibit, both of which are shown in each of the roughly 70 communities of the region.

Since the public is largely ignorant or indifferent about the controversial aspects of rapid transportation one might refer to an information gap if an intelligent stand has to be taken by many presently uninformed parties.

In Detroit all indications point towards a strategy of presenting conclusions.

In Zurich the strategy toward public information consisted in pointing out the problem.

In Detroit, the most elegant tool of persuasion seems to be a mixture of Federal Funding promise and political support through the Governor's office.

In Zurich the most persuasive argument in support of the system stems from the preconceived notion that the city will pay for it alone, if no other level of government assists in the funding. Such a claim is possible only after extensive preliminary public relations.

In Detroit there is a serious set of alternatives to be fought (the most effective competitor of a fixed rail system is still a bus system with preferential treatment.)<sup>21</sup>

In Zurich there is no alternative because the marginal cost of any other system is prohibitively high.

This last point makes it imperative for SEMTA to place high priority on public-relations. The difficulty of rallying support, for reasons of credible opposition-arguments, makes it unavoidable to play an open, intelligently conducted game of disseminating information prior to forcing decisions.

Detroit cannot afford residual opposition, when the evidence for a decision is not overwhelmingly supportive. From all the available material, one cannot yet conclude that Detroit is about to change its engrained car-oriented policies. Nothing will be as effective in producing such a change as a well-informed public.

It might be of interest here to note the most effective means of public information, or public-relations, prior to the public vote on March 14, 1971 in which the citizens of Zurich approved the first one-mile of subway.

In every location of a future station along the entire planned subway-network mock-up station-entrances were mounted. Posters showed the plan of the network, with travel-times indicated for each segment. People were invited to add up total distance for their customary runs through the city. Polls suggest that they did a lot of home-work on their arithmetic.

### 5.3. Other Questions

In order to claim social benefits from the very beginning, rapid transit should provide construction jobs for the hard-core unemployed in the Inner City. Can labor unions be gained to support this objective in view of the fact that they might have to support non-union labor? Are there other ways to introduce Inner City unemployed into the job market of subway construction work? What is SEMTA's position in regard to the DETROIT PLAN, a proposal for a construction trades' agreement?<sup>22</sup>

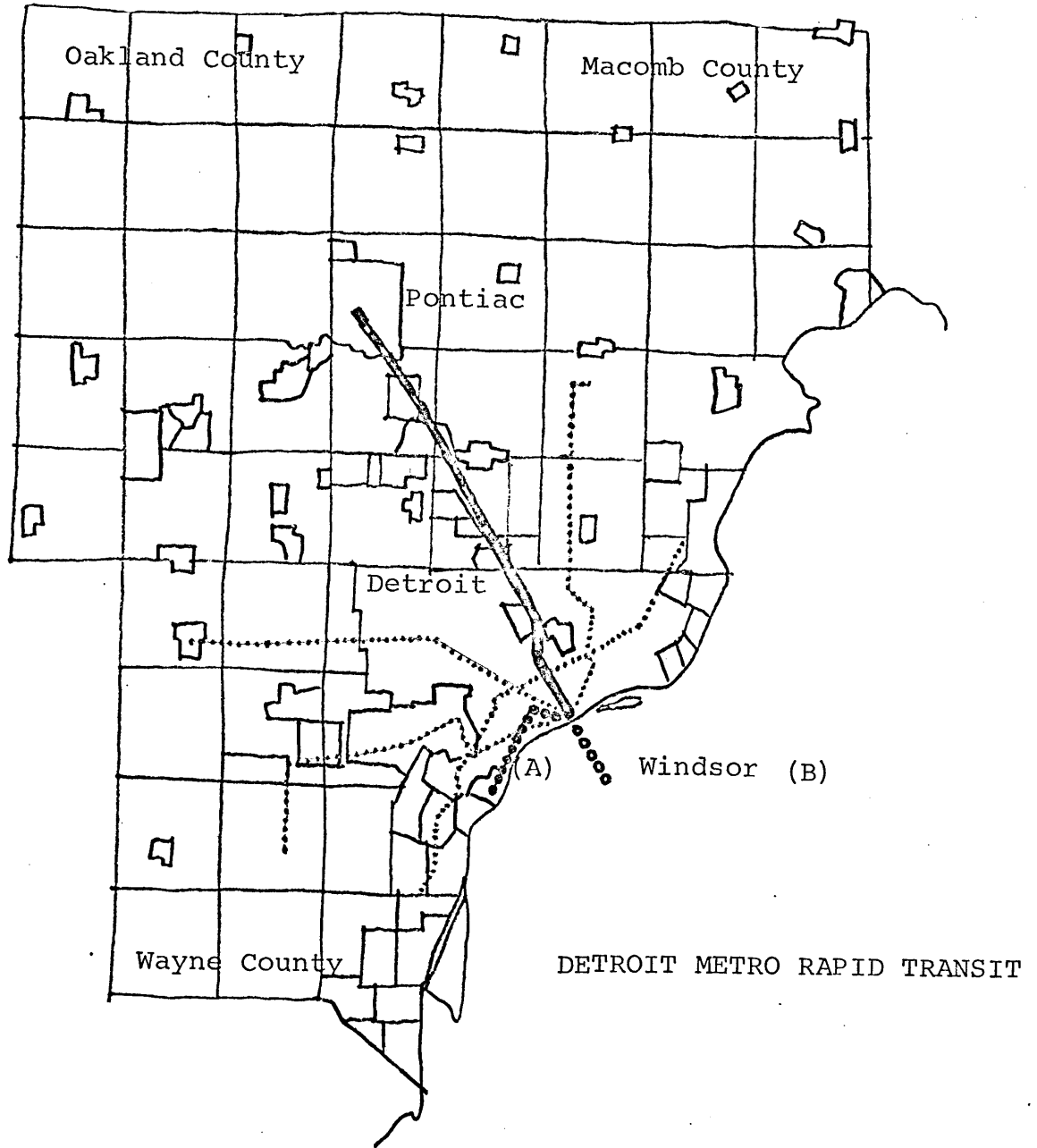
Under the hypothesis of linking up Windsor, Canada, to the

first metro-line, could Canadian financial support be obtained for the expensive tunnel section?

When SEMTA's financial support base was formally established in the enabling act, DSR profits were assumed to pay for interest on bond issues. As it turned out the profit of that one year, when the enabling act was passed, was a unique phenomenon. There have been and there will likely be deficits in the future with the DSR operations. Thus the funding could never be reliably established on the basis of the original design.

Since the Michigan legislature established SEMTA under misleading assumptions concerning its financial basis, what is undertaken with the legislature to correct the erroneous conclusions?

As alternatives to the first-priority line to Pontiac an extension of the Woodward-line to either Windsor (B) or to River Rouge (A) are mentioned in the paper.



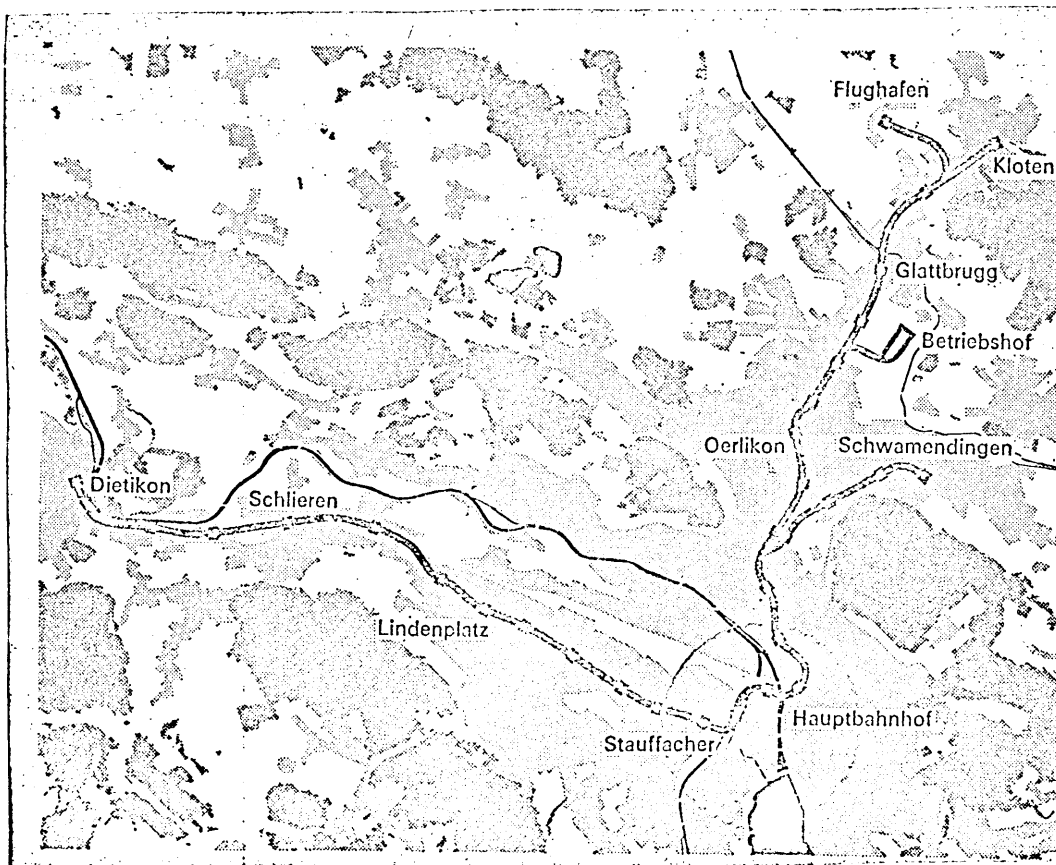
PLANNED SUBWAY FOR ZURICH -- START OF CONSTRUCTION, 1971

The line systematically links up the areas with the highest concentration of trip generation.

It links the city-center with the airport in the north, with the blue-collar sections down-valley to the west.

The line will be the first of a system of three lines, which will be further complemented with 5 major radial commuter lines operated by the Federal railroad.

Present demand in the corridor (people carried by surface transit today) is 170,000 trips per day.



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