BENEFIT ASSESSMENT IN THE LOS ANGELES SUBWAY PROJECT

Peter R. Stopher

Evaluation and Training Institute
12401 Wilshire Boulevard, Suite 304
Los Angeles, California 90025, U.S.A.

1. INTRODUCTION

Los Angeles is one of the largest metropolitan areas in North America. In 1980, the population of the metropolitan area was approximately 11.5 millions. In the nine years from 1980 through 1988, Los Angeles County, the most heavily urbanized portion of this area, grew by 930,000 population, making it the largest growth of any county in the 48 contiguous states of the U.S.A. This phenomenal rate of growth spills over into the neighboring counties that also make up the balance of the metropolitan area. The total population of the region is estimated to be about 13 million in 1989.

There are many debates currently concerning the future growth of the region. Many experts have declared over the past decade that Los Angeles County had already reached saturation, a contention disproved by the continued growth of the county. Others have maintained that the entire region will shortly choke on its own smog, congestion, and lack of water. However, the metropolitan area continues to grow and thrive, despite these concerns. Congestion in the region is clearly more severe now than in the past, and the peak periods have extended noticeably in response. In 1967, the peak periods were defined as lasting 2 hours in the morning (7-9) and three hours in the evening (3:30-6:30). Transportation planners are now considering redefining the peaks to 4 hours in each of the morning (6-10) and the evening (3-7), with the prospect of the peaks lengthening yet further in the next decade.

Smog is less severe in Los Angeles now than a decade ago, although still far from meeting federal and state standards. Progress has been made in cleaning the air and current initiatives in place in the region are aimed at making more significant impacts on the air quality in the next few years. Finally, despite a drought now in its third year, a natural rainfall of less than 15 inches per year, and a decreasing share of water available from the Colorado River, the Metropolitan Water Board has recently gone on record that it foresees adequate water supplies to support the continued growth of the region through the next two decades. Projections to the year 2010 currently foresee growth of the region to a population in the range of 15 to 16 millions. In 1980, projections for 1990 foresaw a regional population of 12.5 millions, whereas it is now expected that the actual population may be as high as 13.5 millions. Given the history of conservative population projections, it is plausible to suppose that the region could exceed significantly the least conservative population projections of 16 millions by 2010.

Within this context, the transportation system is rapidly falling behind in its ability to provide adequate capacity for the region. Los Angeles began to grow at much the same time that the automobile began to dominate the transportation scene. In the 1960s, Los Angeles began to build what was then the most extensive urban freeway network in the United States. With the automobile the predominant mode of travel in Los Angeles, an existing network of street cars was rapidly decimated to make more room for cars and to permit the growth of the bus as the principal alternative to the automobile. The streetcar system in Los Angeles was paved over or torn up, and

replaced by freeways and major boulevards to carry the ubiquitous automobile throughout the enormous region that was rapidly urbanizing into today's Los Angeles.

Growth has been so great in Los Angeles that the region has declined over the past three decades from having the highest per capita mileage of freeways in the nation to ranking only eighteenth today. With continuing growth and the lack of significant freeway building, it is likely that it will continue to decline in rank among North American cities in freeway mileage, while demands for travel continue to grow in the region. Today, many freeways are congested from early in the morning until late in the evening in both directions. Much of this congestion stems from the multinucleated nature of the region. Unlike most eastern and midwestern cities that grew to maturity before the automobile became dominant, Los Angeles grew during a period when accessibility to almost any part of the region was high. As a result, many of the original towns and cities of the region have grown into major centers, and the downtown of Los Angeles has emerged only within the past 15 years and remains much smaller in proportion to its regional population than is the case for any eastern or midwestern city.

Growth of the region in many centers, with a relatively constant but comparatively moderate density of development over most of the area between centers makes the task of introducing mass transportation to the region a particularly challenging one. Only since the early 1970s has the region begun to take seriously the notion of a balanced transportation system. The bus system that replaced most of the streetcars and has offered the only alternative to the private automobile has continued to struggle to gain a reasonable share of the urban travel market and, although carrying over 1.5 million rides per day, succeeds in capturing a mere 3 percent of the trips made in the region each day. The current bus system attempts to provide linkages between and among the various centers and the residential areas, competing with the auto on both city streets and freeways, but providing a level of service that is generally not competitive with the private car. Although the region as a whole runs over 2,500 buses in each peak period, the bus system is overstretched and overcrowded, while yet being seriously uncompetitive.

Since the 1970s, plans have moved forward rapidly towards the development of a network of rapid transit lines, particularly to serve the most densely urbanized areas within Los Angeles County. In 1982, voters approved by referendum the adoption of a countywide plan in Los Angeles County for 150 miles of rail to be built over the next several decades (1). Unfortunately, the realization that the automobile cannot perform the entire transportation function and that bus must be supported by high quality linehaul transit on separate rights of way has occurred at the wrong time in the nation's evolution. Within the past decade, federal spending on new mass transportation projects has declined in real terms, and there have been repeated attempts to eliminate such spending in the face of continuing federal deficits. Similarly, as the federal government has reduced spending on various urban programs, the burden on state and local funds has grown, with the result that state and local funds for mass transportation projects have also declined.

Within the transportation sector, the picture becomes yet gloomier as a result of earlier heavy capital spending that now demands major expenditure to rebuild and refurbish facilities that have passed beyond their normal economic life. Much of the urban infrastructure in the United States is badly in need of major repairs and reconstruction. Therefore, funds available for transportation expenditure are increasingly needed to keep existing infrastructure in operation, rather than adding new. The situation facing the planners in Los Angeles was how to put together a financing package for a new rail project in the face of these dwindling resources from federal, state, and local funding sources. Responding to recent pressures from the Urban Mass Transportation Administration as well

as to the realities of the situation in Los Angeles, it was decided to attempt to use the mechanism of value capture or benefit assessment to raise part of the funding for the Metro Rail project, as the first 18-mile subway project is known. The balance of this paper describes how this was done and what has been the result of this process to date.

2. THE FINANCING PACKAGE FOR THE LOS ANGELES METRO RAIL PROJECT

Building a rapid transit system is an expensive process in a well-developed urban area, such as Los Angeles. For most of the length of the 18-mile Metro Rail Project, it is designed to be tunneled in bedrock, with stations averaging about 60 feet deep. The tunneling provides a means both to avoid extensive real estate acquisition and to achieve a high degree of resistance to earthquakes. Current estimates of the cost of the rail project are well in excess of $3 billion.

In 1982, the voters of Los Angeles County approved a regional plan for 150 miles of light and heavy rail transit (as shown in Figure 1) to assist in solving some of the transportation problems of the region. They also approved the levy of a half-cent sales tax (1), the proceeds of which would be used entirely for operation and construction of transit projects, with a portion set aside specifically for capital construction of the rail system. While there also existed a federal funding program for transit capital projects with a formula permitting up to 80 percent of the costs to be met by the federal government, it was clear that sufficient funds to meet the 80 percent formula were not available for the Los Angeles region, and that the competition for scarce funds by various cities would require local contributions to exceed 20 percent substantially.

In Los Angeles, a number of sources exist for local funding. The State has various programs of assistance to local cities and counties that could be tapped for part of the local contribution. Some of these funds are derived from the state gasoline tax, while others are from general revenues of the State. The City of Los Angeles also has a transportation budget from which contributions will be made to assist in paying for the construction of the Metro Rail project. The aim established by local politicians and decision makers was to show a local contribution to the Metro Rail project of 45 percent of the costs, so that the request to the federal government could be held to no more than 55 percent of the total project costs. This local portion included 40 percent of the revenues raised by the local sales tax increment, as well as the maximum amounts available from the various state and city sources.

After all available sources had been included, the region still remained $170 million short of the goal to provide 45 percent of the project costs from nonfederal sources. To achieve the goal, the region looked to one further potential source of local funds that had been identified some years previously and that the federal government had hoped would be considered by local officials in various cities. This source was that of "value capture" or benefit assessment.

Clearly a variety of mechanisms exist to obtain funding from the private sector, including increments on real estate taxes, corporate taxes, and a variety of fees and assessments related to station connections and the use of real estate around stations (2). However, two local circumstances dictated that some of these alternatives could not be considered further, while the potential of some of the others to raise funds were insufficient for the goal of local funding for this project. Specifically, the passage of Proposition 13 (3) restricts the capability of local governments in California to raise new revenues through additions to the property taxes, while any other type of Countywide levy, coming on top of the voter approval of the additional sales tax, was considered to be politically unacceptable. Therefore, while connector fees and joint development projects would still be considered to assist in

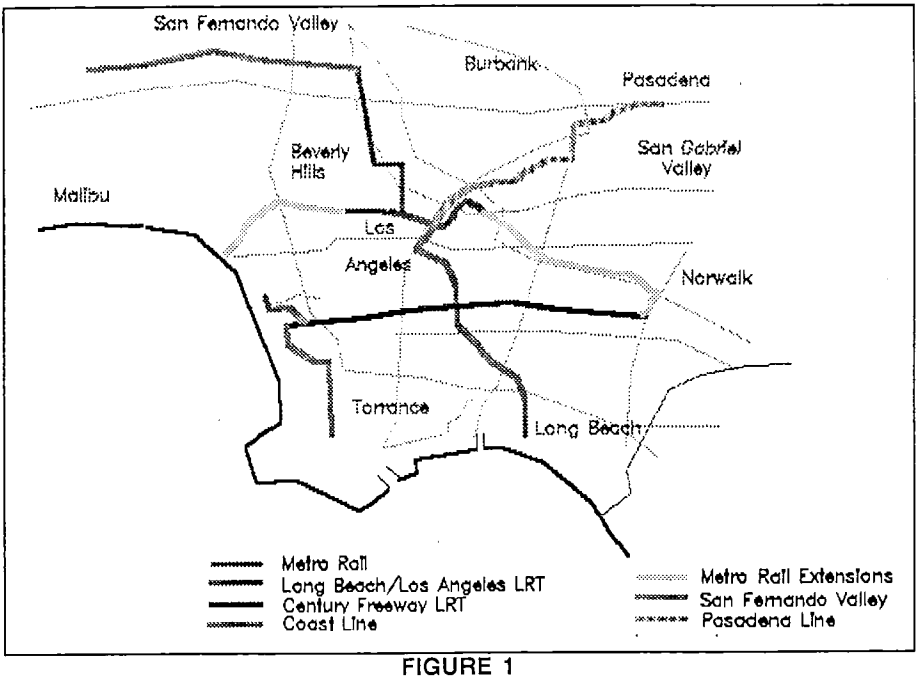

FIGURE 1

LOS ANGELES COUNTY RAIL TRANSIT SYSTEM

the overall project financing, "value capture" remained the only feasible option for raising the needed additional $170 million.

Under benefit assessment, the funding of the project becomes more equitable from many viewpoints. The region as a whole will benefit from the rail project and everyone in the region will pay a portion of the system cost through federal, state, and local taxes. The rail system users will benefit specifically and will pay through fares towards the cost of operating and maintaining the system. By adding benefit assessment to the financing package, the property owners near rail stations, who will benefit from increased property values, will also help pay for the system through benefit assessment.

This paper describes the process used for the first Phase of the Metro Rail project, construction of an underground segment of the line from Union Station on the northeast side of the Central Business District to the Wilshire/Alvarado station to the west of the CBD. This initial segment included about 4 miles of revenue-service line and the tailtracks and yard and shop at the Union

Station end of the line. It also included the largest and most expensive stations on the line through the CBD, as well as the most expensive tunneling sections in the same area. For this first portion, for which the initial construction estimate was $1.2 billion, the shortfall in funding was $130 million, to be raised by benefit assessment.

3. THE BASIS FOR BENEFIT ASSESSMENT

In California, benefit assessment is rooted securely in state laws enacted primarily in 1911 (4), 1913 (5), and 1915 (6), which vested in local governments the right to assess real property for the benefits of public works such as street lighting, sewer installation, road improvements, water lines, and other similar public works. These state laws also provided for local governments to use the assessments received to repay loans through bonding, thereby permitting property owners to pay assessments over an extended period of time, while making the capital available at the time of construction. These laws also established that assessments should be collected by County Tax Collection Agencies, administered by County Assessors' Offices, and that, unpaid, the assessments placed a lien on real property. The lien ensures that assessments cannot be avoided in the long term, because any subsequent property sale cannot be completed without settlement of the lien. Such enforceability of the collection of the assessment has major practical benefits to the rating of a bond issue that is supported by the benefit assessment.

A further aspect of these state laws is that the courts have held that the property owner bears the burden of proof, should he or she decide to challenge a benefit assessment. In other words, the property owner must demonstrate clearly and unequivocally to the court that no benefit has been or will be received from the public works project for the assessment to be set aside. In order to set up a defensible benefit assessment district, the local government is required to be as nonarbitrary as possible and not to show any capriciousness or favoritism in establishing the boundaries of an assessment area.

The principle underlying benefit assessment is that the construction of certain public works projects confers benefits on surrounding private property, a portion of which should be returned to the public sector to assist in paying for the project. It is similar to the notion of taxing windfall profits, i.e., those profits that private industry may acquire through no actions of its own, but rather through some fortuitous action of government. Without benefit assessment, the value increase conferred by the public works project would represent a profit to the property owners who happen to be close to the project and in a position to benefit from it.

One issue that has been debated at some length is the extent to which private property accrues value from a transit project. This is not taken up in this paper, but has been discussed elsewhere (2, inter alia). Suffice it to say that, to date, the assertion that benefits accrue to property owners in the vicinity of a transit project has withstood challenges, and was initially argued convincingly enough to obtain general approval of benefit assessment by the property owners along the first 4 miles of Metro Rail.

While the principle of benefit assessment is well-established for a wide range of public works, its application to transit projects has been extremely limited throughout the world. Within the U.S.A., there are a few examples of its use for a specific facility such as the Nicolet Mall in Minneapolis (7), and the proposed Downtown People Mover in Fort Lauderdale (7). Both of these cases represent projects of limited extent and a relatively clearly-defined area of influence and were set up to raise a relatively small amount of capital. Use of benefit assessment to assist in the funding of a major

transit project in an extended corridor has not been used previously. Second, the amount of money that is to be raised in Los Angeles not only exceeds by a substantial margin the amount raised in projects such as the Nicolet Mall, but also represents an order of magnitude more money than is typically raised for sewer, lighting, and paving projects. Investigations of the potential to bond the amount of money required for the Los Angeles Metro Rail project, revealed that the total amount of bonds was about equal to that issued in the past 50 years of benefit assessments for other public works in California.

3.1 Practical Application to Los Angeles

In order to establish benefit assessment as a funding mechanism for the Los Angeles Metro Rail project, a Task Force was set up, comprising representatives of property owners and managers, elected officials, and representatives from various other agencies. The Task Force met over a period of several months to consider the various issues relating to establishing benefit assessment districts for funding the project, and reviewed and reached consensus on the various aspects of the districts and the administration of the benefit assessment process. The Benefit Assessment Task Force was assisted in this process by professional staff from the agency charged with planning and constructing the Metro Rail project, and consultants to the agency. Throughout the process, these professionals developed information and materials for consideration by the Task Force, and created initial test cases to assist the Task Force in understanding the issues to be considered.

In the application of benefit assessment to the Metro Rail project in Los Angeles, the Task Force accepted the limited technical data as establishing that rapid transit projects conferred added value not only on the entire metropolitan area, but also specifically on the property within the immediate vicinity of the rail project. There was no consensus on the extent of the value added by a rapid transit project, and the decision on the appropriate rates to charge was deferred to the issues of the amount of money needed to be raised, the amount of property that could be assessed, and the reasonableness of assessments compared to other taxes and assessments on property in this urban area. It became clear in this process that most of the major developers in the Central Business District of Los Angeles accepted the notion that the rapid transit project was good for the local economy and were prepared to tax themselves to the extent required to make the project a reality.

4. DEFINING THE BOUNDARIES

Both general and special benefits arise from a rapid rail project. The general benefits accrue to the entire urban area within which the project is built, while the special benefits accrue to the properties in its immediate vicinity. Several issues of importance arise relating to the incidence of value increases and the location of boundaries. These include the types of property that will benefit, the pattern of value increases, and the distance at which special benefits can be assumed to cease and give way to general benefits. The ideal boundaries would include all properties receiving a special benefit and exclude all properties that are not capable of benefiting. The ideal rate would recover from each property an identical proportion of the added value received by the property, and would leave sufficient to be gained by the developer to encourage additional development near stations.

The framework for setting boundaries for the Los Angeles Metro Rail project consisted of legal constraints, definition of the area of special benefits from the project, equity considerations, and the revenue-generating capacity required. Legal constraints were set in the enabling legislation, California S.B. 1238 (enacted as a section of the Public Utilities Code) (8), which defined the maximum extent

of benefit assessment districts for Metro Rail as being one mile from the center of stations in the Central Business District and one-half mile from the center of stations outside the CBD.

To comply with the legal constraints, two definitions were required: the locus of the center of the station and the measurement of distance from the center of the station to the boundary of the assessment district. The center of the station was defined as the projection to ground level of the geometric center of the station "box," the space below ground within which the station would be constructed. Walking distance measured as the shortest distance along block faces, but measured at the street centerline was defined as the distance measurement, because the incidence of benefits is related to pedestrian activity. Figure 2 illustrates the block inclusion rule that was developed to define when a block should be included or excluded. Boundaries were defined to run along street

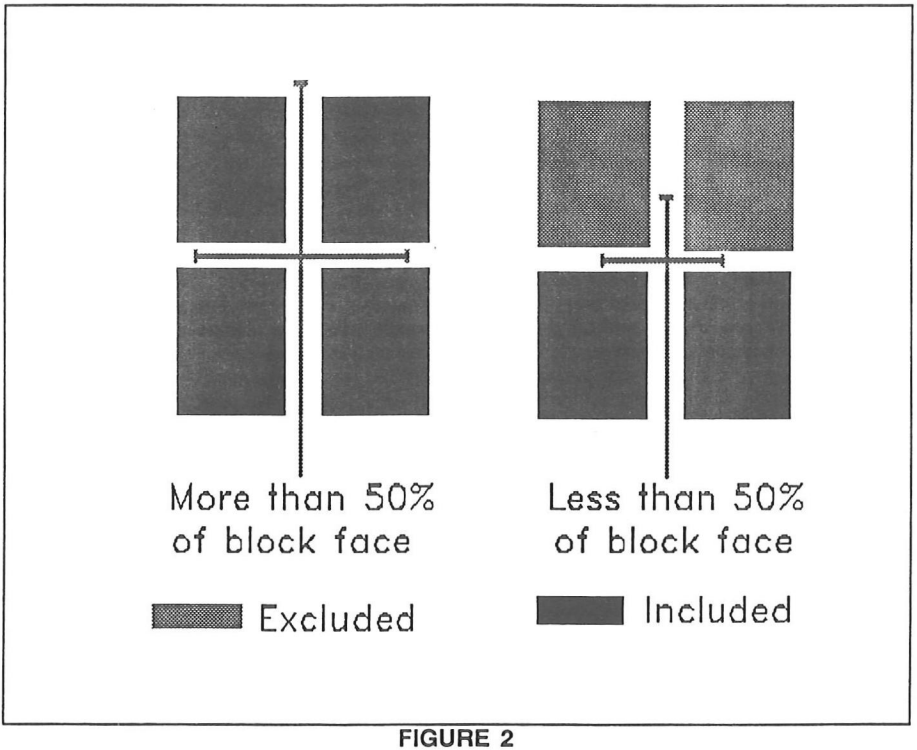

FIGURE 2

BLOCK INCLUSION RULE

centerlines so that buildings would not be split, with part inside and part outside the benefit-assessment district.

An issue that received considerable debate was that of the equity of buildings on one side of a street being assessed while those on the other side were not. Benefit-assessment case law recognizes the need to establish a boundary and acknowledges that, in so doing, properties along the margins of the boundary may appear to be treated inequitably. Provided that the benefit-assessment district has been defined reasonably, prudently, and within statutory constraints, however, the courts have upheld established boundaries. This was interpreted to mean that considerable care must be taken to ensure that the boundary rules could be applied unambiguously to define exactly the same boundaries every time, regardless of who applied the rules.

After examination of a number of alternatives that fit the criteria, distances were defined as one-half mile in the CBD and one-third mile outside the CBD, with the following additional modifications:

- o the district so defined would not overlap a neighboring district, so that contiguous districts would have a common boundary midway between the two district centers;
- o the district so defined should not cross a barrier to movement, whether natural or man-made, leaving part of the district on the side of the barrier furthest from the rapid transit station; and
- o application of the "block inclusion rule" (9) should not be allowed to lead to creation of irregularly-shaped districts that would provide an obvious inequity. Figure 3 shows how the boundary could be changed to avoid irregularities that would not be equitable.

The land uses to which assessment was to be applied were also considered by the Task Force. The primary beneficiaries are offices, retail stores and services, other commercial uses, hotels and motels, and residences (2). Specific legislation was adopted by the City of Los Angeles to exclude the assessment of residential property because this would pose a hardship to most owner-occupiers. It was proposed initially that assessments should be levied on both land and the improvements (developments) on the land, and that assessments should be made on the "highest and best" use of the land. Subsequently, through consensus of the Task Force, it was decided to assess the maximum of land or improvement, and to do so based on the current use. However, it was also agreed that assessments would be reviewed and be subject to change whenever a property changed hands, or whenever a permit was approved for occupancy of redeveloped space. Thus, if a developer took advantage of the benefits conferred by the project, a higher assessment could be levied on the developer or owner, once those benefits were realized. Because the intent of the assessment was to capture only a fraction of the added value, the developer would still realize sufficient added value to make redevelopment attractive.

Equitable treatment of properties would seem to demand that the same fraction of added value be assessed to all properties within the boundaries of the assessment district. Given that imprecise measurement of the value added is beyond the state of the art, the best that can be done is to propose a graduated rate, decreasing as distance from the station increases. In addition, distinction would appear to be appropriate between land uses, because not all land uses will benefit equally. Although initial proposals for both of these procedures were made, the consensus of the Task Force was to apply a uniform rate to those land uses categorized as benefiting from the rapid transit project. The argument was accepted, however, that value is added through increased lease rates, increased

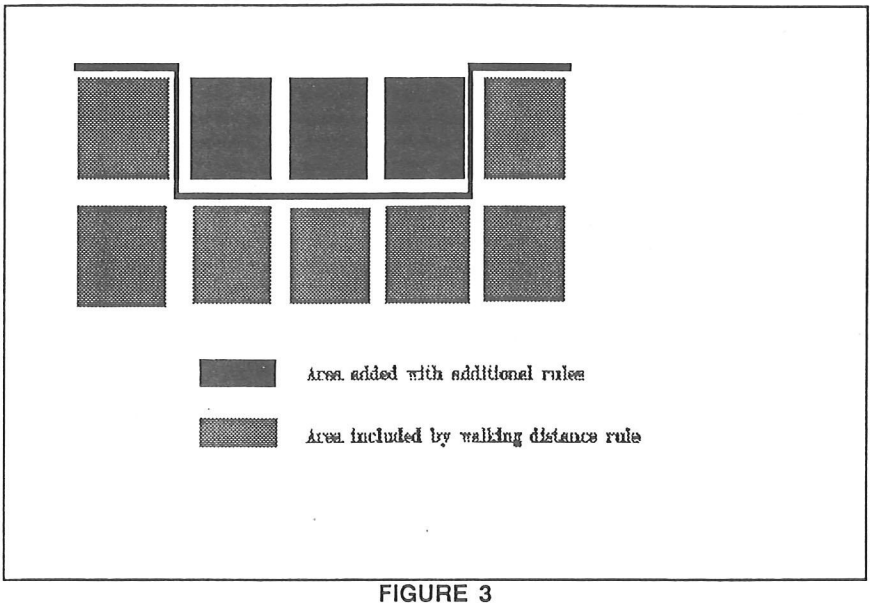

FIGURE 3

BOUNDARY MODIFICATION FOR IRREGULARITY

sales, increased occupancy, and a willingness of local government to zone to a more dense development pattern. Therefore, it was proposed that value should be considered to be added to both land and improvements on the land. It was also argued that value would be added to land irrespective of the use of that existing land.

Under the adopted scheme, all land, irrespective of use, is assessed at a standard rate reflecting the additional value accruing from the rapid transit project. The assessment applies to vacant land, as well as to land on which either benefiting or nonbenefiting developments have been constructed. The Task Force members expressed concern that the benefit to land and property could not be distinguished sufficiently to permit a complex system of differential assessments. Therefore, a flat rate was adopted to be applied to the land or to the assessable floor area, whichever is greater. A parcel on which a nonbenefiting development has been constructed would be assessed solely for the land, while a parcel on which a benefiting property is constructed would be assessed on either the land or the developed space, whichever is greater. A number of exemptions to assessment were also defined, including:

- land and improvements in use for residential purposes (except hotels and motels);

- land and improvements owned by a public entity *and* in use for a public purpose; and
- land and improvements owned by a qualified non-profit organization *and* in use by a qualified non-profit organization.

Specific definitions of public entities and qualified non-profit organizations were provided to enable these exemptions to be applied equitably. It was also recognized that many properties would include a mix of uses that may include exempt and non-exempt, and assessable and non-assessable uses. It was specified, therefore, that only the portion of the improvement that was assessable would be used for computing assessments. If this was less than the land area of the parcel, then the land area would be used.

5. THE STRUCTURE OF THE ASSESSMENT RATE

In California, taxation legislation, known locally as Proposition 13, limited the use by any governmental unit in California of special taxation based on property value, over and above the existing property tax. With only minor exceptions, such an additional *ad valorem* tax is illegal. Therefore, an alternative basis for setting rates had to be established for the Los Angeles Metro Rail project. A permissible and legal basis for assessment is floor area, and this was adopted as the most logical and defensible basis for assessment. In setting rates, it was also recognized that some buildings are more efficient than others. A building that encompasses a large central atrium may have a gross floor area that is considerably larger than the floor area that can be leased or sold for use. For the purposes of the resolutions forming the assessment districts, it was specified that buildings were assumed to be approximately 80 percent efficient. Thus, the rates were based on the assumption that approximately 20 percent of a building would be used for such purposes as corridors, stairways, atriums, elevators, etc., and would not be leasable. If a property owner could substantiate that a specific property was significantly less than 80 percent efficient, then a reduction in assessment could be obtained through an appeal to the hearing officer.

With the mechanism of assessment and the basis of the rate established, and having provided sufficient evidence that property benefits from a new rapid transit project, two issues still remained to be determined: the rate to be charged and the period of time for which it would be charged, with the second issue tied to the uses to which the money may be applied.

By the enabling legislation, the use of the assessment revenues was limited to the stations within the assessment district, but no limits were set on the tenure. This meant that assessment revenues could be spent on construction, operation, and maintenance of the stations, not including tunnels between stations, and not including the operation or maintenance of trains. This proved not to be a limiting condition, because the construction of stations was generally estimated to be in the region of $50 million each, while the total sought from five stations was $130 million. While property owners should be concerned with the maintenance of stations and the replacement of capital equipment at the end of its economic life, the consensus reached was to restrict use of the assessment to the initial construction of the stations. This does not preclude reopening the issue of maintenance and replacement at a future date, but limits the current assessments to defraying only costs of the initial construction. It was also stipulated that assessment rates should be adjusted downwards as new property comes into use, thereby increasing the total assessable floor area within the assessment districts. The downward adjustment would be made so as to keep the annual revenue flow constant.

The basis for setting the rate was to determine if a reasonable assessment rate could be applied over a reasonable time period to fund the capital shortfall. Several scenarios were considered: no new development in the assessment districts: only that development currently committed and permitted; and continuation of past trends of development, but at a declining rate based on growth forecasts for the region. Furthermore, the initial consideration of the tenure of the assessment was based on the expectation that the assessment revenues would be used to underwrite a 20-year bond issue, whereby the capital funds would be provided at the time of construction with the bonds paid off after the system has been in operation for some years.

From the 20-year period and the various scenarios, it was determined that a maximum rate of 42 cents per square foot at any time over the entire 20-year period would be adequate to underwrite bonds that would raise the required $130 million. Furthermore, it was determined that an initial assessment rate of about 30 cents per square foot would be adequate and that, if additional development occurred as expected, this rate could decline to 28 cents after about four years, and then through three steps to zero in the last three years of the assessment, as shown in Figure 4. These assessment rates can be compared to lease rates for commercial space in the assessment districts that are currently in the vicinity of $12 to $36 per square foot per year.

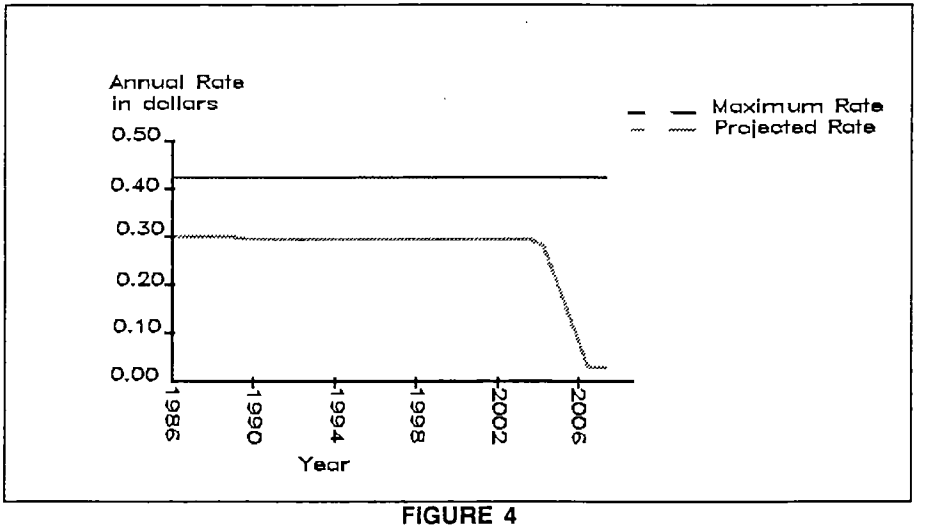

FIGURE 4

ASSESSMENT RATE EXPECTED OVER TIME

6. IMPLEMENTATION OF VALUE CAPTURE FOR LOS ANGELES

As outlined in this paper, value capture or benefit assessment for the Metro Rail project in Los Angeles was developed into a resolution that became binding on the properties within the assessment districts early in 1986. In June 1986, a suit was filed in Los Angeles District Court by several influential property owners challenging the legality of the assessment and questioning the right of the Southern California Rapid Transit District to impose the assessment. In August 1986, the first assessment was placed on the County's Joint Consolidated Tax Bills and the tax bills were mailed out during October 1986 to nearly three thousand property owners. Following that mailing, a number of individual property owners appealed their assessments and asked for clarification of the basis on which assessments had been computed.

In order to provide funds when needed for the construction, it had been decided to implement benefit assessment while construction was still in its early stages and some years in advance of the realization of benefits. As a result of a number of protests made, the SCRTD Board subsequently voted to delay further collection of assessments until construction is completed. However, the initial collection of assessments has demonstrated the collectability of the assessment revenues and has allowed bonding to proceed as needed with the anticipation of underwriting the bonds from future assessment revenues. In the meantime, the case brought in June 1986 was heard by the District Court, which ruled against the property owners on all counts. Subsequently, in October 1987, the District Court ruling was appealed to the State Court of Appeals. In December 1987, this court upheld the ruling of the lower court. It has now been appealed to the State Supreme Court where action is still pending. The court rulings to date establish the concept of benefit assessment for rail rapid transit in California and clear the way for its implementation wherever the legislature wishes to provide the right of assessment to a local government agency responsible for constructing such projects.

An important lesson that should be learned from this application is the value and contribution made by involving the property owners and interested legislators in the establishment of the benefit-assessment process. The mechanism that has been implemented has weathered court challenges to its legality to date, is relatively simple to administer and understand, and appears likely to be able to provide the funds needed to meet the shortfall in available construction funding.

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