APPENDIX A : Capital Plan

CAPITAL PLAN OVERVIEW
AC Transit’s planning for capital projects involves integration of federal and regional grant-funding processes with the District’s internal planning, budgeting, and project approval processes. The Capital Plan Overview section describes how these two processes are linked and includes a summary of the funding sources that are available to AC Transit.

The next section, Capital Facilities and Equipment, describes the various components of the District's Capital Improvement Program. The projected costs of the various capital projects are summarized in Figure A-1, RTP Baseline Capital Budget.

The final section, Other Grant-Funded Projects, describes grant-funded projects that provide needed resources for District programs, such as marketing and Welfare to Work services, providing a source of funds to partially offset the cost of overall District operations.

CAPITAL AND GRANT PLAN DEVELOPMENT
Plan Development
There are several primary planning documents that are used to identify AC Transit’s capital and operating needs. The Short-Range Transit Plan (SRTP) lays out the business plan for District Operations. It incorporates the Capital Improvement Program (CIP), which describes the capital replacement program that ensures the continued viability of the equipment needed to support baseline services. The Capital Improvement Program also covers equipment that is needed for the expansions outlined in the Business Plan section of the SRTP.

Current federal and state legislation requires that programs and projects for which the District is seeking funding must first be submitted in the SRTP, whether as a specific project or as a general program. Normally, the SRTP is updated every two years, although sometimes a modified update is prepared to take advantage of changes in legislation that may provide new grant funding opportunities. Each year, AC Transit staff and Board members work together to determine which programs and projects should be submitted for possible federal, state or local grant funding. Projects that are included in the SRTP and/or Business Plan may be submitted for funding without further action by the Board.

Another planning document that outlines the annual element of the Capital Improvement Program is the District's Annual Budget. The capital section of the Budget Book is based on the Capital Improvement Program in the SRTP, updated to reflect any changes that have taken place due to new funding opportunities, changes in the actual versus anticipated funding allocations, and changes in District capital needs that are identified in the annual budgeting process. In recent years, the District has revised its capital budget format to include items such as engines and transmissions and tires and tubes. These costs first became eligible for capital funding under the federal Transportation Equity Act for the 21st Century (TEA-21), and are expected to remain eligible under SAFETEA.
Programs or projects identified in the SRTP are included in county congestion management plans and in the six-year Transportation Improvement Program (TIP) that is developed by the Metropolitan Transportation Commission (MTC), the Metropolitan Planning Organization for the nine-county Bay Area. The TIP includes transportation-related capital projects within the region for which federal and state funding will be requested. A scoring process was adopted by the various transit operators in the Region to establish priorities for capital funding.

MTC, along with the nine county Congestion Management Agencies, develops a Regional Transportation Improvement Program (RTIP). District programs/ projects must be in the RTIP to receive consideration for state-administered transportation funding.

**FEDERAL ELEMENTS**

The Intermodal Surface Transportation Efficiency Act (ISTEA), enacted as federal law in 1991, greatly increased funding flexibility between highway and public transportation projects. ISTEA included several mandates that directly impacted AC Transit’s capital planning process, including working more closely with both local and county agencies to resolve regional transportation issues and maximize the use of available capital funding. ISTEA also required that counties be included in processes for allocating and monitoring federal transit capital funds. Because AC Transit operates in three counties – Alameda, Contra Costa and San Francisco – District planning activities must be coordinated with the Congestion Management Agencies and/or Transportation Authorities for each county.

In 1998, the successor to ISTEA, named the Transportation Equity Act for the 21st Century (TEA-21) was signed into law. TEA-21 expired September 2003 and is expected to be replaced by SAFETEA, the name given the proposed new authorization. Congress has approved a five-month extension and a one-month continuing resolution to bridge the gap until the new Act is approved. Other federal legislative acts, such as the Clean Air Act (CAA) and the Americans with Disabilities Act (ADA), also have a major influence on the District’s transportation and capital plan.

**REGIONAL ELEMENTS**

Regional and local mandates and interagency processes within the region play a major role in the District’s capital planning process. Unlike many urbanized areas of the country, the nine-county Bay Area has approximately 20 public transit operators that compete with city and highway projects for limited capital and operating funds. After the 2000 Census, the federal government added 7 new Urbanized Areas (UA’s) to the Bay Area Region. This action reduced the funding allocated to the San Francisco/Oakland (UA), which is the area from which AC Transit obtains its federal formula 5307 funds. To address the issues that arose with this change in UA’s, MTC has implemented a Regional Priority Model to apportion projects that are eligible in multiple UA’s, to minimize the impact on those operators who are only eligible in one UA.

The regional planning cycle for grant-funded projects begins with the development of the regional TIP, which includes the transportation-related capital projects for which federal and state funding is requested. The TIP is updated every two years but may be amended between these updates.
Various public entities, such as municipalities, county agencies, and regional agencies oversee other regional processes that impact AC Transit’s capital planning, including:

- Land Use and Development Planning
- Congestion Management
- Air Quality Management

The District includes the use of regional planning documents in its capital planning process, such as:

- Regional Transportation Plan for the San Francisco Bay Area (MTC)
- California Transportation Plan (California Department of Transportation – Caltrans)
- California Clean Air Act (State of California)
- Bay Area Clean Air Plan (Bay Area Air Quality Management District)
- Alameda County Congestion Management Plan (Alameda County CMA)
- Contra Costa County-wide Comprehensive Transportation Plan (Contra Costa Transportation Authority – CCTA)
- Contra Costa County Congestion Management Plan (CCTA)

**DISTRICT ELEMENTS**

The development of the Capital Plan is based on AC Transit’s Mission, Goals and sub-goals. Active participation in regional transportation planning forums, compliance with federal, state and local mandates, existing regional transportation plans, input from internal departments and the District’s fiscal policies are all integral to the development of the Plan.

**FUNDING SOURCES**

**Federal Grants**

**FTA Section 5307 – Urbanized Area Formula Funds**

This section of SAFETEA provides funding for the acquisition, construction, improvement, and maintenance of transit facilities and equipment. Resources are allocated to urban areas according to a population and statistically based formula and are usually matched on an 80% federal, 20% local basis. Up to ten percent of the total annual formula funds can be set aside for paratransit services, under the Americans with Disabilities Act.

**FTA Section 5309 - Capital Program-Discretionary Bus**

This section of SAFETEA provides discretionary funds allocated on a project basis. They are primarily directed to rail modernization and major bus projects that require funding beyond that available under Section 5307. This funding source usually requires a 20% local match. Recently, the District has been successful in obtaining federal earmarks under this funding program, such as partial funding ($500,000) for the San Pablo Rapid, partial funding ($1 Million) for the Hydrogen fuel cell facility project, and $1million for paint booths.

**Congestion Mitigation and Air Quality Program (CMAQ)**

Section 1110 of TEA-21 provides funding for Clean Air Act projects, State Implementation Plan Projects, and other projects that the Department of Transportation and the federal Environmental Protection Agency determine will help attain mandated air quality standards. Demonstration service projects are eligible for this funding source. MTC has
used CMAQ funds to fund its LIFT program and the District’s Student Pass Demonstration program. Funds are apportioned to every state based on the population in "non-attainment" areas, adjusted in line with the severity of the pollution. The Bay Area has been designated as one of these non-attainment areas.

**Surface Transportation Program (STP)**
The Surface Transportation Program was created by Section 1108 of TEA-21 to provide funding for highways, bridges, transit capital, bicycle and car pool programs, and other multimodal uses.

**Clean Fuel Program**
TEA-21 included a program to provide approximately $50 million each year for Clean Fuel projects. Eligible projects include:
- Purchase or lease of clean fuel buses
- Construction or lease of clean fuel electrical recharging facilities
- Improvements to existing facilities to accommodate clean fuel buses
- Repowering pre-1993 engines with clean fuel technology
- Retrofitting or rebuilding pre-1993 engines if before mid-life rebuild

MTC will be the grant recipient for this program in the Bay Area. To date, the only funding received under this program has been approximately $1.8 million in funding for the District’s Repower Engine Program, which has now been completed.

**Intelligent Transportation Systems (ITS)**
The ITS program provides for the research, development, and operational testing of Intelligent Transportation Systems (ITS) aimed at solving congestion and safety problems, improving operating efficiencies in transit and commercial vehicles, and reducing the environmental impact of growing travel demand.

AC Transit received funding under this program in federal years 2001 and 2002 for a portion of its SATCOM project. The funding requires a 50/50 match and has stringent cost and evaluation requirements. In FY 2003 the District received $1 million in funding for the SATCOM project from Federal Section 330. These funds only require a 20% match, compared to the ITS program which requires a 50% matching share.

**Job Access And Reverse Commute (JARC)**
The Job Access and Reverse Commute grant program assists states and localities in developing new or expanded transportation services that connect welfare recipients and other low income persons to jobs and other employment related services. Job Access projects are targeted at developing new or expanded transportation services such as shuttles, vanpools, new bus routes, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low income persons. Reverse Commute projects provide transportation services to suburban employment centers from urban, rural and other suburban locations for all populations.

The Job Access and Reverse Commute grant program is intended to establish a coordinated regional approach to job access challenges. All projects funded under this program must be the result of a collaborative planning process that includes state and metropolitan planning organizations, transportation providers, and a range of other welfare...
and housing agencies, employers and other stakeholders. The program is expected to leverage other funds and encourage a coordinated approach to transportation services. The District has received earmarks of $2 Million a year for federal years 2001 and 2002. A 50% local match is required.

STATE AND REGIONAL GRANTS

Regional Bridge Tolls
Bridge toll revenues provide funding for transit projects on bridge corridors (including trans-bridge services, terminals, and guideways); improvement of alternative public transit that affects bridge traffic; bicycle facilities; ferry planning, capital and operations; rail extensions that serve bridge corridors; and designated highway improvements. Bridge toll revenues normally serve as state and local match for AC Transit and other operators to secure federal capital funds. In recent years, however, the funding available from this source has not been sufficient to provide the match for all funded capital projects. The first priority for matching funds is given to projects funded under the federal Section 5307 program. Remaining funds may be allocated as match for high scoring projects funded under the CMAQ/STP and STIP programs.

Potential New Bridge Toll Funding (SB 916)
Legislation that would substantially increase Bridge Toll funding for transit will be submitted to the voters for final approval in March 2004. A portion of the new funds is earmarked to support the operating costs for express bus service over the Dumbarton, San Mateo, and Bay Bridges and the capital and operating costs of Bus Rapid Transit on Telegraph and East 14th Street. Buses and Bus related equipment is included in the proposed funding.

State Transportation Improvement Program (STIP)
The State Transportation Improvement Program (STIP) is the major program for state transportation dollars. Eligible projects include improvements on state highways, local roads, public transit, pedestrian and bicycle facilities, rail grade separations, transportation system management, transportation demand management, soundwall projects, intermodal facilities, and safety projects. STIP funding cannot be used for transit operations.

STIP is a four-year program, consisting of two main categories:

- Regional Improvement Program (RIP) – These are the funds included in the Regional Transportation Improvement Program, and are directly programmed in the Bay Area by MTC. While the California Transportation Commission allocates funds, decisions on what should be included in the program, and the responsibility for amending, delivering and managing the program, fall to MTC. Seventy-five percent of all state funds available for capital programming flow through this mechanism.
- The State Interregional Funds – These funds make up the remaining 25% of funds available for capital improvements, split into two parts.
  - A total of 15% for interregional roads and intercity rail projects, of which at least 15% must go to intercity rail projects.
  - A total of ten percent for discretionary improvements to facilitate the interregional movement of people and goods
Traffic Congestion Relief Program (TCRP)
This program was implemented as part of the Governor’s Budget for FY 2000, and funds specific transportation projects that address traffic congestion. AC Transit has been awarded $8 million from this source for its Hydrogen Fuel Cell Bus Demonstration Project. Another project funded under this program is the capital element of the Express Bus Program, described in the Revenue Fleet section of this document. Funding for this program flows through MTC.

Transportation Fund For Clean Air (TFCA)
The Bay Area Air Quality Management District administers the Transportation Fund for Clean Air, which draws its revenue from vehicle registration fees, in the Bay Area. Forty percent of the funds raised in each county are returned to that county and administered by a designated county agency. The remaining 60% go first to certain pre-established programs, with the remainder distributed on a competitive basis. Project criteria are very specific and only transportation projects that result in a demonstrable reduction of vehicular emissions in the Bay Area are eligible for funding. Currently, AC Transit receives TFCA funds for several programs, including:

- Hydrogen Fuel Cell Bus Demonstration
- Transit Signage Project
- Connecting service to BART on two routes

LOCAL FUNDS

Alameda County Half Cent Sales Tax (Measure B)
Alameda County voters approved a half-cent sales tax for transportation projects in 1986 for a period of fifteen years. The initial Measure B program ended in 2002. Voters authorized a new Measure B program in November 2000, by a majority of over 80%. This new measure, which went into effect in April 2002, more than doubles the share of sales tax funds for AC Transit from 11% to approximately 23%. The newly authorized Measure B funds increased transit service in Alameda County, provides a substantial portion of the local match for the District’s welfare to work programs and provides added funding for paratransit service (which is provided under a consortium agreement with BART). The new Measure B will also provide limited funding for capital improvements in heavily traveled corridors. The Alameda County Transportation Improvement Authority administers this program.

Contra Costa County Half Cent Sales Tax (Measure C)
Contra Costa County voters approved a half-cent sales tax for transportation projects in 1988 for a period of twenty years. This program is administrated by the Contra Costa County Transportation Authority, and subsidizes a portion of AC Transit service in that county, particularly Line 70. Planning for the new measure is currently underway with a proposal to take it to the voters as early as November of 2004.

DISTRICT FUNDS
AC Transit’s Board of Directors approved Policy No. 360, which sets the District’s Goal for establishing comprehensive operating and capital reserves, to ensure that it can meet...
unanticipated expenses resulting from natural disasters or economic disruptions, and capital expenses. For capital purposes, two percent of unrestricted general operating revenues are to be set aside each year, together with proceeds from the sale and lease of District-funded assets. The District has been forced to spend down its reserves to address the impacts of the economic crisis that is facing the state and the nation. Funds programmed for capital replacement projects are limited to those projects that must be completed to meet CALOSHA requirements or emergency situations.

**CAPITAL FACILITIES AND EQUIPMENT**

**Revenue Fleet**

AC Transit’s active revenue fleet as of December 2003 is projected to include 706 buses. New services in the south of the AC Transit service area as well as congestion problems in northern Alameda County necessitated the retaining of older vehicles to meet the basic service plan. The initial plan called for additional Central County services, increased frequencies for the San Pablo Bus Rapid Transit Project and new express bus services that were projected to require further fleet expansion. Since that time, the economic situation facing the District has necessitated a substantial (20%) service reduction, which will reduce the active fleet by approximately 118 buses. These changes are shown in Figures A-2 and A-3. The Tables assume replacing current equipment with like equipment, and do not reflect future changes in bus size and/or bus type. This is consistent with the way MTC calculates equipment replacement needs for the Transit Improvement Program (TIP). Changes in size and or bus type will be addressed as the formula program for each year is developed. The shaded area in Figure A-2 identifies active revenue vehicles that are due for replacement. Included in this schedule is the start of the planned rebuilding of the fleet, once the economy turns around. This replacement schedule, which conforms to Federal Transit Administration requirements, is updated annually.

The planned rebuilding of the fleet, the age of the bus when replaced, and the funding sources of the expansion buses, is shown in Figure A-4. The plan does not reflect the actual size and type of the replacement bus, which will be determined when the replacement is programmed for funding. All future bus purchases for local service will be of the low-floor design that was first introduced to AC Transit in 1998.

In FY 2001, District staff explored the feasibility of purchasing European-style buses; to address the District’s need for new style transit vehicle. The goal was to find a bus that could be equipped with three with more doors (three doors on the 40-ft. buses and four doors on 60-ft. vehicles) and be delivered more quickly. Since these buses were purchased from outside the U.S., they were not eligible for the federal funds that would otherwise have been used for this purpose. Instead, AC Transit used non-federal funds from its operating budget, that would normally be used to fund preventive maintenance. In turn, MTC approved the District’s request to substitute a Preventive Maintenance Program for the federal funds originally programmed for bus replacements. A competitive Request for Proposals was issued to both domestic and European bus manufacturers, with Van Hool of Belgium being the only responsive responsible bidder.
The Van Hool bus, with its vast window space, extra doors for fast and easy boarding and truly low-floor design, are particularly valuable in providing a new look for the San Pablo Bus Rapid Transit corridor service, which was introduced in June 2003.

The District’s ongoing Revenue Vehicle Replacement Program prescribes the replacement of buses that have exceeded their useful lives. The program establishes an acceptable life of 12 years for a bus and 16 years for an over-the-road coach. These vehicle lives conform to those established by the Federal Transit Administration and in the Bay Area region.

Figure A-3 depicts the replacement requirements for the District’s revenue vehicles consistent with the Regional Transportation Plan (RTP). The table differs from the RTP in that there is not sufficient funding for the Region to be able to replace all vehicles that have reached their useful life and reflects recent agreements/proposals to defer bus replacements in exchange for preventive maintenance funds. To address the funding constraints, MTC has placed a cap on replacement projects that limit the available funding for each bus sub fleet to $20 million in federal dollars. This table reflects the results of this limitation.

Express Bus Program
This program is funded under the Governor’s Traffic Congestion Relief Program (TCRP), which provided $40 million to the Region to purchase approximately 100 new buses. MTC was the recipient of the funds and entered into agreements with the various agencies to allow for the transfer of funds. AC Transit received funding for the following projects:

- Increased frequencies from 15 to ten minutes on the I-80 Richmond Transbay service from the Richmond Parkway Park-n-Ride lot
- New service from I-880 Hayward BART to Silicon Valley
- Route change to the I-80 Richmond Transbay Service, providing connections at Golden Gate Fields parking facility which will serve as a Park-n-Ride option
- New Stanford University service from Fremont BART across the Dumbarton Bridge, offering headways of 30 minutes in the peak period and 60 minutes at other times
- Line M – Service across the San Mateo Bridge connecting Hayward BART to Hillsdale CalTrain.

AC Transit received $18.9 million for buses and bus related equipment, accounting for more than 45% of the total funds available for this program. AC Transit will also receive approximately $679,000 in operating subsidies for the first two projects listed above. A three-year demonstration grant will provide the operating funds for Line M service. Operating funds for Line U – Stanford University service, are anticipated to come from a second demonstration grant using CMAQ funds.

Service Vehicles
The District has established a non-revenue vehicle replacement program that is currently funded with its own funds, as it has not received federal Section 5307 funding for this purpose since FY 1993/94. These non-revenue vehicles include the automobiles, trucks, vans, and other motorized vehicles necessary to support bus service. Vehicles should be replaced at the end of their cost-effective useful lives or when they have operated more
than 100,000 miles. Although FTA guidelines allow a shorter life span, the MTC capital planning procedures require a seven-year life for these vehicles.

AC Transit has included replacement of non-revenue vehicles in the District-funded Capital Budget since the unavailability of grant funding for this program has resulted in many vehicles that have far exceeded their useful lives. Due to the current economic climate, the District has deferred its non-revenue vehicle replacement program until there is sufficient funds available for this purpose. The optimal replacement cycle is every four to five years.

**Preventive Maintenance**
The new flexibility under TEA-21 allowed for the capitalization of preventive maintenance costs, including both labor and materials, without a limit on the total amount that may be capitalized.

Total costs for maintenance far exceed this request; therefore the Region has proposed a Revenue Vehicle Sustainability Program which would provide approximately $100,000 per bus for a mid-life overhaul. This concept is still under discussion but has been submitted as part of the Capital Improvement Plan currently under development for the RTP. The summary Figure A-1 includes this program. In FY 1999 the District elected to defer some of the scheduled bus replacements for a period of two years in exchange for funding for preventive maintenance. This action provided $4.9 million in federal Section 5307 Preventive Maintenance funding over a four-year period starting in FY 2000 and ending in FY 2003. The funds from this exchange were used to expand service to demonstrate what service enhancements could be anticipated if the voters supported the reauthorization of Measure B, the local Alameda County Sales Tax Measure.

Under an arrangement with MTC, the District substituted a Preventive Maintenance Project for approximately $53.5 million in funds originally programmed for bus replacement, in order to facilitate the purchase of European-style buses as discussed previously in this section. The program will include both labor and materials, but not tires and tubes or engine/transmission replacement, which have been included in both past and current SRTPs as separate programs (Figure A-5).

In FY 2003-2004 the District proposed that all operators defer their planned bus purchases for one year, and use the funds available for bus replacements to help reduce projected operating deficits. After many discussions, a plan was adopted to divide the Federal Section 5307 funding among the various operators. Operators could choose to use these funds for Preventive Maintenance, which would offset operating costs, or to use them for other capital needs that otherwise would not have been funded under the 5307 Program. The District received $18.3 million in preventive maintenance funding for FY 2003-2004.

As the downturn in the economy is projected to continue, the District has submitted a proposal to MTC to again exchange funding programmed for bus replacements in FY 2004-2005 and FY 2005-2006 for Preventive Maintenance Funds. This action, which, as proposed, is limited to AC Transit, would defer the planned replacement of 103 buses for a period of twelve years. Replacement of additional 15 buses would be deferred for a period of four years. Since the District has been forced to drastically cut service to balance its
budget, these buses would not be needed in the short term. The bus replacement plan indicates when the buses would re-enter to program to rebuild the fleet.

**Tire and Tube Replacement**
AC Transit’s Tire and Tube Replacement Program received funding under the Federal Transit Act definition of materials and supplies as associated capital items that are eligible for TEA-21 funding. The Tire and Tube Replacement project directly benefits passengers as it enables the District to maintain a fleet of buses that are safe and reliable.

The funding covered a four-year period and has now been fully utilized. This type of project currently does not score high enough to receive funding; therefore the Tire and Tube Replacement program will be funded with District operating funds. The amount allocated for this project annually is approximately $1.25 million.

**Engine and Transmission Replacement**
Under the Federal Transit Act definition of "materials and supplies" as associated capital items that are eligible for TEA-21 funding, the District proposed its Engine and Transmission replacement program for funding in the STIP program. The award provided $1.7 million per year over a four-year period beginning in FY 1999/00. The final piece of this funding, $710,000, is currently on hold due to the lack of adequate obligation authority for the State to allocate these funds.

This project partially funded the rehabilitation of approximately 80 engines and 80 transmissions per year. Total annual costs for this program are budgeted at $2.4 million annually. These rehabilitated engines enable the District to maintain the major components of its transit vehicles to ensure that the vehicles achieve the planned service life (Figure A-5). Some of these funds were used in conjunction with repowering projects for buses where it was considered more beneficial than rebuilding the engine.

**Facilities and Equipment Program**
The Facilities and Equipment Maintenance Program was established by AC Transit to ensure that facilities are properly maintained to avoid deterioration, and that heavy equipment is upgraded or replaced to ensure optimum performance. This program will help the District achieve the maximum economic life from existing assets at the lowest cost.

The program is consistent with one of the stated, but primarily unfunded, intents of TEA-21, which stipulates the importance of scheduled maintenance and/or replacement of the current transit infrastructure. The District does not anticipate receipt of adequate funding for this program from federal, state or local resources in the foreseeable future. In an attempt to address critical deferred maintenance and equipment replacement needs, a portion of this program has been included in the District-funded Capital Budget. The District will receive $1.5 M in Formula 5307 funding for this purpose in FY 2004-05. While some funds have been received from STP/CMAQ/STIP programs in the past, currently the only funds programmed for Facility Maintenance and heavy duty equipment replacements is $3.7 million in the outer years of the STIP program.
Existing Facilities
In addition to its general offices at 1600 Franklin Street in downtown Oakland, AC Transit maintains six operating and maintenance facilities:

- The Training and Education Center (20234 Mack Street, Hayward) is used for maintenance, operator, and management training.
- The Central Maintenance and Purchasing and Stores Facility (106th Avenue and East 14th Street, Oakland) performs major maintenance and repair functions for all of the District’s buses. Purchasing and Stores maintains a central stock of parts that are delivered on request to the operating facilities.
- Four operating facilities, from where all regular service is dispatched. Additionally, Division 4 serves as the site for a new operating division, Division 8, out of which paratransit service is operated.
  1. Emeryville Operating Facility (D-2); 45th Street and San Pablo Avenue, Emeryville
  2. East Oakland Operating Facility (D-4); Seminary Avenue and San Leandro Blvd.; Oakland
  3. Richmond Operating Facility (D-3); 23rd Street and MacDonald Avenue, Richmond
  4. Hayward Operating Facility (D-6); 1758 Sabre Street, Hayward

Expansion Facilities
The District needs to expand its maintenance and operating facilities to accommodate projected future service levels, particularly planned growth resulting from new Bridge Toll Program and the state and local-funded Express Bus Program. If the new Bridge Toll Legislation is approved, funding will become available for the expansion of express bus and local service feeding BART service. Measure B is another source of funding for expanded express and connecting bus service.

To this end, AC Transit is looking at options to build a new facility in South Oakland or central Alameda County. This would house approximately 250 buses, leaving some room for future growth. In the short term, the District may elect to expand an existing facility to address immediate needs.

Improvements to the Hayward facility could provide space for additional buses to fulfill expansion plans in southern Alameda County and the two express routes that will operate from here. The Hayward Division currently has capacity for approximately 200 buses and operates 173 peak hour buses from this division.

FIXED ASSET REPLACEMENT SCHEDULE
AC Transit has developed a Fixed Asset Replacement Schedule that identifies the timeline for preventive facility maintenance and equipment upgrades and replacements. This covers replacing equipment such as hydraulic systems, dynamometers, and paint booths; repaving yard parking areas; repainting buildings; repairing or replacing roofs; refurbishing office space; repairing or replacing heating, air conditioning and ventilation systems; and upgrading facilities and sites to meet increasingly stringent federal, state, and local building codes, environmental protection standards, and toxic waste disposal and handling restrictions.
The District uses life cycle analysis and programmed inspections to effectively schedule replacements and repairs. Criteria for fixed asset replacement are based on the MTC’s Bay Area Finance Plan. Figure A-X depicts the most critical maintenance and equipment projects identified in the District’s budgeting process. This list will be used to prioritize projects that will be funded as grant and District resources become available.

As noted above, the District-funded Annual Capital Budget has provided funds for a small portion of this program, and limited funding has been received under the STP/CMAQ/STIP programs. However, many scheduled replacements have been delayed due to lack of sufficient funding.

**Information System Replacement/ Upgrades**

Information Systems (data processing) projects make a direct contribution to the safety of AC Transit service, through providing timely, reliable and up-to-date information to facilitate decisions on all aspects of District operations, including fleet maintenance. The District has established an executive-level Information Technology Steering Committee, which is developing a five-year Information Technology strategic capital plan to determine how and when equipment and software will be replaced or upgraded.

AC Transit has so far received limited external funding for its Information Systems capital replacement needs, such as the award of $3 million in CMAQ funding for replacement of its Maintenance and Materials Management Information System (MMMIS) with a new state-of-the-art Enterprise Asset Management System (EAMS).

The District has and will continue to utilize its own funds to maintain and upgrade its Information Systems. The PeopleSoft Human Resources and Payroll systems were implemented in January 1999, and provide ready access to time reporting, payroll, human resources and benefits information. The network has been upgraded to a Wide Area Network, new servers have been introduced, and software and hardware upgrades provide better network security. The District is now in the process of selecting new financial systems, including purchasing, inventory, and fixed assets management, with a web-enabled reporting interface which will replace the current variety of time-consuming manual reporting processes. Other projects proposed include improving telecommunications throughout the District, fully computerizing fuel islands, and further upgrading management information systems, the computer network and computer hardware.

**ON-BOARD EQUIPMENT**

On-Board Equipment refers to additional or special devices installed on revenue and non-revenue vehicles to facilitate or enhance efficient bus operation.

**Radio Communication System/SATCOM**

AC Transit’s Radio Communication System and Automatic Vehicle Monitoring/ Location (AVM/AVL) project, now known as SATCOM, first received federal funding in FY 1992/93. The total project budget of nearly $10 million has since been expanded to approximately $15 million, with $2 million for the PA Announcement Project, and approximately $3 million
in STP funding. The District has received three earmarks from Congress totaling $1.8 million, bringing the total project funding to $16.8 million. The earmark funds will be used to provide technological enhancements to existing information systems to maximize the use of the SATCOM technology.

The SATCOM project reflects a system-wide application that integrates the various information systems and/or functions such as on-board stop announcements. It includes:

- **Automatic Vehicle Monitoring/Location (AVM/AVL).** This provides continuous, real-time information on the location of each bus, and allows the entire system to be monitored from the Central Dispatch Center. By providing up-to-date information, an AVM/AVL system will result in better on-time performance, better security, more reliable ridership information, and better public information. It will serve as a data tool for operations, scheduling, and planning, and will also have potential benefits for maintenance administration.

- **Automated stop and external announcements.** These assist visually impaired riders in reaching their destinations and in identifying which bus to board, bringing AC Transit into compliance with this part of the Americans with Disabilities Act.

- **"NextBus" information displays.** The SATCOM schedule and route adherence data can be processed by software designed to predict bus stop arrival times. This predicted arrival time could then be displayed at bus stops using standard paging technology. This will lead to the dissemination of more accurate information and increased confidence in the AC Transit system.

- **Passenger information kiosks.** Similar in design and appearance to automatic teller machines used in the banking industry, these interactive kiosks allow passengers to request information regarding the current status of transit operations. The dissemination of accurate route and schedule information, updated in real-time with SATCOM schedule adherence data, is a critical factor toward increasing ridership. Estimated cost of this project is $500,000.

Other technology enhancements may include additional radio channel licenses, web-based real-time schedule information and traffic signal priority. It may also be possible to link the system with TransLink, the universal fare payment system that is currently being implemented by MTC.

SATCOM includes upgrades of the data systems, such as scheduling software and maintenance management information systems that will interface with SATCOM.

**Fare Collection System/Translink**
MTC has been working with regional transit operators for several years to develop a universal ticket that can be used on all Bay Area transit systems. BART and the Central Contra Costa Transit Authority demonstrated the first phase of the regional project. The demonstration indicated that the Region needed to rethink the technology it would use for TransLink as the BART technology was outdated and was not compatible with bus operations. MTC and Regional operators have since been working together to redefine "TransLink." An RFP was issued in January 1998, and MTC awarded a contract for implementation to the Motorola Corporation.
A six-month pilot program was implemented in early 2002. AC Transit was one of a handful of Bay Area operators who participated in the TransLink pilot, and equipment has been installed on all 124 buses at the Richmond Division. Funding for TransLink is being provided under a FTA grant to Golden Gate Transit, which will function as the grant administrator. A full rollout of the TransLink Program at AC Transit will occur in the fall of 2004.

**Transit Centers/Park-N-Ride Lots**

To ease passenger transfers between routes and improve passenger comfort, transit centers are being developed at key points throughout the system. Transit centers allow several buses from different routes to be present at once so that patrons can transfer with minimum waiting times. The facilities allow buses to arrive and depart without blocking other buses and provide a safe and pleasant waiting environment. The centers are strategically located where several routes naturally converge, resulting in high transfer activity.

In addition to facilitating bus-to-bus transfers, the transit centers may also accommodate intermodal transfers. They are located near major activity centers that generate a significant number of walk-in passengers. Most BART stations in the AC Transit service area will serve as transit centers to facilitate both regional and local travel.

From the time the transit centers were initially envisioned in 1987, construction costs were consistently adjusted for inflation. However, other economic factors have resulted in rising construction costs. Therefore, the District will be seeking additional funds to complete the transit centers. A list of the proposed centers and funding sources is shown in Figure A-6. Proposed Park and Ride Transfer Centers are included in Chapter 4: Future Direction.

**Transit Center Shelter Safety Mitigation Project**

This project seeks funding to ensure that the District’s non-BART Transit Centers remain safe, attractive waiting environments for passengers once they are built. It would replace broken windscreens, lighting and other transit center amenities that need to be kept in good working order. Consistent with Transit Enhancement legislation, replacing damaged landscaping would also be a part of this project.

Experience at our Contra Costa College Transit Center site has indicated a need for this type of project to address the damage inflicted by vandalism that results in passengers feeling concerned for their safety, thus reducing their use of public transit.

**SECURITY VIDEO CAMERA INSTALLATION**

**Buses**

The District has installed Video Cameras on a portion of its bus fleet. This project would replace cameras that become damaged or obsolete and would seek new funding to provide video surveillance equipment for the entire fleet.

**Facilities and Transit Centers**

District facilities are also equipped with video surveillance equipment. Replacement of the facility cameras is included in the District’s capital program. The District has completed two transit centers that are located at non-BART sites. The first transit center opened in
1997 at Contra Costa College. A second transit center at Eastmont Town Center became fully operational in early 2001. The District will seek funds to add video surveillance cameras at these centers and future transit center sites.

Experience with the Contra Costa College site has indicated a need for more surveillance to ensure that riders feel safe while waiting for buses. To address these concerns, the District plans to seek funding to install video cameras at both transit centers. This project is consistent with the stress on "safety and security" that has been incorporated into the Region’s planning process. As new centers are developed, the District will seek adequate funding to include the provision of this safety feature in the overall project plan.

**ADA RELATED PROJECTS**

**Paratransit Vehicles**

AC Transit purchased ten paratransit vehicles with grant funds received in FY 1994/95, which were used to provide services under a consortium agreement with BART. The services are provided under contract with a broker, currently ATC/Vancon, who is responsible for contracting out the services to private or public agencies, which in turn provide the vehicles needed.

In addition to these vehicles, the District purchased 27 paratransit vehicles from Laidlaw Transit in 1997. This action was taken when the District elected to become one of the providers under the consortium agreement, when one of the original contractors determined they could no longer provide this service. All of these vehicles were replaced with District funds in 2002.

**Paratransit Vehicle Costs**

As noted above, AC Transit and BART have entered into a consortium agreement for the provision of paratransit services in their common service areas. This project proposes to fund the vehicle portion of the total annual cost of providing these services.

The broker, ATC/Vancon, enters into contracts with private and/or public service providers who supply the drivers and vehicles utilized for the paratransit service operations. Currently, there are five service providers, Friendly Transportation, Inc.; MV Transportation; A Paratransit; First Transit, and AC Transit. The total projected costs for FY 2003/04 for these contracted services is $24.3 million, of which $1.988 million is attributable to the cost of the vehicles. AC Transit’s share of the vehicle costs is 69% or an annual cost of approximately $1.372 million.

**ADA Pedestrian Enhancements at Transit Centers**

This project seeks funding to implement ADA Transit Center Design Enhancements that were developed in conjunction with the Accessibility Advisory Committee. These enhancements will improve safety and mobility for persons with visual and other disabilities. The project will address deficiencies at both BART and non-BART transit center sites. Other ADA amenities may include improvements to signage and pavement surface contingent on the availability of funding.
Consistent with the guidelines of the regional program for this area, these improvements go beyond the specific ADA requirements. The improvements are estimated to cost $50,000 per transit center site. The District has received STP/CMAQ funding for the four transit centers located in Contra Costa County. AC Transit will continue to seek funding for appropriate sites in Alameda County.

**SPECIAL PROGRAMS**

Special Programs are comprised of projects that may not fall under general replacement or construction categories, yet are active elements of the District’s Capital Plan. This section includes plans or programs which are geared to improve District operations, increase ridership or plan for upcoming federal mandates.

**Transbay Terminal**

Each weekday, about 15,000 AC Transit passengers on more than 700 bus trips uses the Transbay Terminal. Based on regional forecasts, the level of Transbay bus patronage could increase to more than 40,000 passengers by 2025 with higher service levels and bus priority improvements in the East Bay.

The current Transbay Terminal, owned and operated by California Department of Transportation, is a 64-year-old facility with significant seismic and disabled access deficiencies. Since the mid-1960’s, various studies have highlighted the need to improve or alter the facility – the latest study, commissioned by MTC in 1999, led to a regional consensus on the need and financing of a combined bus-rail station. This consensus led to the creation of the Transbay Joint Powers Authority to design, build, and operate the new terminal. AC Transit is a member agency of the Authority.

Following the creation of the Authority, Caltrans negotiated to transfer the terminal building and about 19 acres of additional Caltrans property in the vicinity of the terminal to the Authority and to the City and County of San Francisco. Based on these agreements, the City is required to use all the proceeds from the Caltrans property to build the terminal, and to dedicate all the tax increments created by the new development on the property to the terminal project. SB 916, the new Bridge Toll legislation, which goes to the voters in March 2004, allocates $150 million to the project, and the proposed San Francisco transportation sales tax reauthorization goes to the voters in November 2003 with about $270 million allocated to the terminal project. A final EIS/EIR has been circulated with a federal Record of Decision expected by December 2003. The current construction schedule calls for demolition of the existing facility in 2006, with occupancy of the new terminal in 2010.

**CLEAN AIR PROGRAMS**

**Fuel Cell Technology (Hydrogen Bus Program)**

Hydrogen fuel cell technology offers the promise of quiet, emission-free public transportation. Though still in its infancy, it will profoundly change the way we travel, equivalent to the transition from horse and buggy to horseless carriage.

In November 1999, AC Transit successfully hosted one of the first real world tests of the XCELLSIS ZEbus, a prototype 40-foot standard-size, zero-emission bus. Shortly afterwards, the District joined the California Fuel Cell Partnership (CaFCP), bringing its
long experience as a leading urban bus operator to this consortium of vehicle and fuel cell manufacturers, fuel companies and government agencies. AC Transit will play a vital role in developing and testing methods for operating standard sized fuel cell buses under the demands of a large and busy system.

To this end, AC Transit has partnered with UTC Fuel Cells and ISE Corporation for the development and integration of a hydrogen fuel cell, hybrid-electric drive system into a Van Hool 40 foot vehicle that has been specifically engineered as a fuel cell, hybrid-electric vehicle. Three vehicles are in production and will be delivered to AC Transit beginning September 2005.

AC Transit has recently signed a contract with Nexant for the design and engineering of permanent hydrogen fueling facility and modifications to maintenance bays at our East Oakland facility. This facility will not only fuel the AC Transit vehicles but will be available for the CaFCP light duty passenger vehicles.

AC Transit’s Hydrogen Bus Program is designed to demonstrate that fuel cell buses can be fueled and maintained efficiently, and can perform reliably. AC Transit, in conjunction with the National Renewable Energy Laboratories (NREL), UC Davis, and other transit agencies has developed an extensive Fuel Cell Evaluation and Analysis Program. This will provide solid information that can be shared with the transit industry regarding the performance of the fuel cell buses in a fleet application, focusing on five principal areas:

- Maintenance and Life Cycle Costs
- Operational Performance
- Safety
- Capitalization (Cost of new buses, life expectancy, and replacement costs)
- Consumer/Public Acceptance

Additionally, AC Transit is proud to have the first California Fuel Cell Partnership (CaFCP) Satellite Fueling Facility located at our Richmond Division. This small, electrolyzing unit produces up to 24 kg of hydrogen a day with a storage capacity of 47 kg. This facility has allowed AC Transit to operate and demonstrate a prototype 30-foot fuel cell hybrid-electric bus, in revenue service since mid-October. The propulsion system on this bus is a smaller version of the drive system that will be installed in the District's 40’ fuel cell buses. The reception by the riding public to this Zero Emission Bus has been quite positive.

AC Transit, through its Hydrogen Bus Program, is recognized throughout the world as a leader in the development and advancement of hydrogen as a commercially viable technology.

**Bus Catalyst Retrofit Program**

The District received approximately $3 million in funding for the retrofit of particulate traps on 378 buses, to meet the emission requirements of CARB. MTC requested operators to further reduce NOx emissions to address air quality issues in the Region. Accomplishing this goal requires a more expensive piece of equipment than the particulate trap, known as a bus catalyst. This device will reduce NOx emissions by 25% and particulates by 85%. To provide for the additional costs of the bus catalyst equipment, MTC agreed to provide an additional $6,229 million in CMAQ funds, to cover the incremental costs of adding this
equipment to approximately 769 buses. The funding requires an 11.47% match, or $769,000. MTC expects to allocate Bridge Toll funds to cover the matching portion if sufficient funds are available in the Bridge Toll Fund for this purpose.

FUTURE PROGRAMS
Hydrogen ICE Hybrid-Electric Transit Bus
The District is seeking additional grant funds to build demonstration hydrogen ICE (internal combustion engine) hybrid-electric 40’ bus that would utilize the same vehicle and electric drive system as the fuel cell bus, but an ICE would provide the electrical supply in place of a fuel cell. Hydrogen fuel cell technology offers considerable promise to significantly reduce and potentially eliminate harmful emissions, while leading the way toward a sustainable energy economy. AC Transit has recognized the long-term value of utilizing hydrogen as a source of fuel and committed itself to the development of a $15 million fuel cell demonstration program in partnership with public agencies and private industry. Notwithstanding this effort, the high cost and long lead-time to make fuel cell buses commercially viable require the development of affordable transition or “bridging” technologies that can utilize in the near term the many environmental advantages of hydrogen fuel. If the District is able to secure the necessary funds to build this bus, it will be evaluated much in the same way as the fuel cell buses.

Gasoline Hybrid-Electric Buses
As another possible transition technology, AC Transit is exploring the possible use of gasoline hybrid-electric buses in future procurements of 30’ low-floor community service buses. These engines not only have very low emissions, but they are also very quiet, and extremely energy efficient, expending half the fuel of a standard diesel bus. Additionally, their electric drive systems are expected to be considerably cheaper to maintain and operate than standard ICE drive systems.

MAJOR CORRIDOR CAPITAL IMPROVEMENTS
For the Major Corridors and Trunk Routes, the investments are based on three levels of service improvements:

• Basic Improvements
• Rapid Bus
• Bus Rapid Transit (BRT)

The three tiers are additive, meaning that the lower tiers of improvements contribute to the achievement of the next higher level. The Rapid Bus tier incorporates the entire Basic tier and the BRT tier incorporates most of the Rapid Bus tier. The BRT improvements are the most capital intensive and would be applied to only the most heavily used corridors. Other corridors would still warrant improvements to signals or stops, yet would not necessarily be designated as “Rapid”. This is primarily due to the anticipated service levels.

Tier One: Basic Improvements
Basic improvements are defined here as changes to bus operations and new infrastructure that offer modest reductions in vehicle travel time, enhance the environment for passengers and help contribute to a unified corridor identity. They represent the minimum
investment needed to result in measurable changes in ridership and system efficiency, and can generally be implemented at low cost through normal procurement channels or other existing programs. However, some basic improvements such as traffic signal systems are capital-intensive and are dependent on as yet unidentified sources of revenue.

Future Corridors

Basic Improvements - Bancroft, Sixth/Hollis, Sacramento, MacDonald/MLK, Mission/E.14th, Hesperian

These bus routes have somewhat lower daily ridership than the top five trunk lines. However, each corridor provides important connectivity and is a key element of an improved trunk line system. None of these corridors would have limited stop service but each could benefit from basic improvements to fixed infrastructure and service enhancements. The District would need to evaluate the additional capital and operating requirements if limited stop service is pursued in these corridors.

In December 2002, the Central County Policy Advisory Committee established the Mission/ outer E.14th Street corridor as their priority for further action. This is due to redevelopment efforts currently underway, in addition to the current construction of bus and pedestrian related improvements along the corridor. Additionally, the Hesperian Corridor has also been included in MTC’s approved and final Regional Transit Expansion Program of projects.

Timeline: Identify funds for Planning and Operations Study by 2004

Bus Arrival Information

From the passenger’s perspective, the time spent waiting for a bus is more onerous than the time spent riding in the vehicle. As well as cutting the actual time spent waiting through increasing frequencies, AC Transit can reduce the perceived wait time by providing accurate bus arrival information. Such systems use satellite-based tracking to predict the arrival of buses at stops, and provide information via electronic signs at stops, the Internet, and portable devices such as personal digital assistants and phones.

Traffic Signal Improvements

Traffic signal improvements should be sought for every trunk route in the District. Currently, every bus is susceptible to delays from traffic congestion and poorly timed traffic signals, resulting in slower average travel speeds, compromised schedule reliability and added operating costs.

Tier Two: Rapid Bus

Rapid includes all the Basic Improvements listed above, plus additional measures to speed up service and increase reliability, described below. The improvements begin to allow for high quality limited stop service with close headway spacing. The District recently implemented Rapid Service on San Pablo Avenue and riders have experiencing a 20% reduction in travel time.
Many transit agencies are advocating that the Federal Transit Administration adopt a definition for BRT that is closer to AC Transit’s Rapid concept. The idea is to permit more projects to qualify for Federal New Starts funding, which is generally restricted to projects with a transit guideway component. However, the three tiers of improvements outlined here could remain the same, regardless of the final Federal definition for BRT.

In September 2003, the District adopted a definition for its Rapid service, which established minimum thresholds of service and capital improvements to match this designation. Because there is a mix of nomenclature that varies nationally and regionally, the District felt that such a definition would help to communicate the vision for the corridors to our partner agencies. This definition also helps to communicate which elements will be included when the District implements Rapid service in specific corridors.

At a minimum, Rapid service should exhibit the following characteristics:
- 12-minute headways (or better)
- Headway-based scheduling
- Bus stops 1/2 to 2/3 of a mile apart
- Far-side bus stops when possible
- Traffic signal treatments such as signal timing or coordination, transit priority, or queue jump lanes
- Distinctive shelters with Rapid branding and bus arrival information signs
- Distinctive vehicles with Rapid branding and features to reduce dwell time.

**Future Corridors**

**Rapid Bus--Foothill, MacArthur, Shattuck / Alameda and College/ University /Broadway**

Foothill Boulevard and MacArthur Boulevard serve densely populated East Oakland neighborhoods. Each of these routes carries about 20,000 daily riders. The College/University/Broadway corridor and the Shattuck/Alameda corridor link Berkeley with downtown Oakland, with the latter serving Alameda. Each of these corridors would have a high-frequency limited stop service. Bus-only lanes or queue jump lanes would be sought only where substantial benefits to operations are possible. Additional feasibility studies would be needed to determine if these corridors warrant a Bus Rapid Transit type of service and to determine the capital and operating impact to the District. Both the Foothill and MacArthur Corridors have been included in MTC’s approved and final Regional Transit Expansion Program of projects.

**Timeline:** Begin Planning and Operations Study (including System Engineering Study for Signal Treatments) by 2004

**Tier Three: Bus Rapid Transit (BRT)**

Bus Rapid Transit (BRT) involves the highest level of capital investment, with the construction of fixed infrastructure, and is intended for the most heavily used corridors. BRT uses a dedicated, bus-only right-of-way to speed service, and features highly developed stations, together with most of the basic improvements and Rapid Bus improvements described above. The intent is to create a rail-like riding experience for passengers and achieve the fastest, most reliable bus service possible. BRT also focuses
on supporting transit-oriented development and increasing the comfort and safety of passengers.

**Bus-Only Lanes**
The key operational and visual feature of BRT Corridors is the provision of dedicated bus-only lanes, either in the median or along the curb, to permit buses to bypass the vagaries of traffic congestion. Other motor vehicles would be prohibited from traveling in these lanes, and turns across them would only be permitted only at signal-controlled locations.

The lanes also permit the bus to travel a straighter path along the street, increasing the comfort of passengers and allowing the bus to pull more precisely parallel to the boarding platforms or curb stops. Bus-only lanes also reduce conflicts between buses and bicycles and other motor vehicle traffic.

**Transit Stations**
BRT stations would resemble smaller versions of light rail transit stations, rather than conventional bus stops. They could have varying designs for basic stations and for major transfer points or centers of activity. Each station would have the following basic features:

- Shelters and seating
- Fare vending machines
- System information such as maps and schedules
- Electronic bus arrival signs, as discussed above
- Boarding platforms level with the bus floor

**Lane Assist and Precision Docking**
Emerging bus guidance technologies can aid the driver of the bus, improve the comfort of passengers, reduce accidents and increase operating efficiency. They can be manually overridden by the driver at any time. Automatic guidance offers two applications for BRT:

- Lane assist, which uses the guidance system to travel between stations. This may help conserve right-of-way by allowing for narrower lanes. Additional benefits include a smoother ride for passengers and greater safety.
- Precision docking at bus loading platforms. Tolerances of less than a half inch are possible that could allow direct platform to bus boarding of wheelchairs and easier entry and exit for all passengers.

Two technologies are available:

- Optical systems. These are in use in several French cities, and involve a camera mounted in front of the steering wheel, which can read coded markings painted on the road. The system keeps the vehicle on the required route with a tolerance of a few inches, and fits it accurately into bus bays at bus stops for effortless level access. The optical guidance bars are merely painted on the road surface and can be relocated at minimal expense.

- Magnetic systems. A magnetic guidance system, developed by the PATH program at UC Berkeley, is ready for commercial implementation. It uses ceramic magnets imbedded just below the pavement surface, read by on-board detectors. The system is more accurate than the optical system and is capable of precision movement within tolerances of two inches.
Berkeley-Oakland-San Leandro BRT Project

Based on the criteria used to evaluate the corridors presented above, the highest priority in the District is Telegraph-International-E.14th Street, which reflects the current planning activity and funding status of the project. This corridor is included in both Track 1 of the RTP and the Regional Transit Expansion Plan (RTEP), and is recommended for funding as part of Senator Perata’s bridge toll measure. Congresswoman Barbara Lee and Congressman Pete Stark have also submitted this project in the reauthorization of TEA-21. This corridor also enjoys a higher degree of readiness to implement capital elements due to existing working relationships with the local jurisdictions and the Congestion Management Agency.

Project Description

Project Features: The Board adopted Bus Rapid Transit as the preferred technology for the Telegraph Avenue/International Boulevard/E. 14th Corridor, with the understanding that light rail should be considered as a long-term goal. The BRT system in the corridor will be designed in a way to maximize the possibility of a potential future upgrade to light rail. The project is currently under environmental review. The BRT system will include the BRT features referenced above:

- Dedicated transit lane along the corridor
- Traffic signal priority and coordination throughout the corridor
- Frequent BRT service with a background local service (five to 7.5 minutes between BRT buses)
- Wider BRT station spacing than existing bus service (1/3 to two miles between BRT stations)
- BRT stations including shelter, boarding platform, benches, security features, fare machines, real-time bus arrival information and other amenities
- Proof-of-Payment ticketing
- Low-floor, multi-door, level-boarding, clean-fuel BRT buses

Route Alignment.
The recommended alignment primarily uses Telegraph Avenue in the northern portion of the corridor and International Boulevard/E. 14th in the southern portion. It begins in the north near the Downtown Berkeley BART station. From there, the alignment uses Shattuck Avenue Bancroft Way/Durant Avenue, Telegraph Avenue and Broadway to Oakland City Center. It leaves downtown Oakland using some combination of 11th, 12th or 14th St., and proceeds on International Boulevard and E 14th through Oakland and San Leandro, with a possible deviation into the San Leandro BART station. It terminates at Bay Fair BART.

A dedicated transit lane is being studied on Shattuck Ave, Telegraph Ave, and Broadway, and on the sections of International Boulevard and E. 14th between the Oakland/San Leandro border and Davis Street and between San Leandro Boulevard and Bay Fair Drive. Options such as converted sections of various streets to a transit-only mall are also being considered which would provide significant travel time benefits to the rider.

Further goals of environmental justice: The corridor has 50% more non-white residents and twice as many people living in poverty than the average for the AC Transit service
area. Transit investment in this corridor would contribute to improved mobility for area residents and greater access to jobs.

**Project Phasing**
Recognizing that implementing the full BRT program will take several years, the AC Transit Board agreed to implement Rapid Bus features, such as bus priority at traffic signals, as a first phase. This will provide immediate benefits for corridor riders, while putting in place many of the elements of the eventual BRT system.

**Phase 1 – Rapid Bus:** The first phase consists of the improvements possible with the Track 1 funding identified in the Metropolitan Transportation Commission’s Regional Transportation Plan. This currently amounts to $175 million in dedicated and potential funds. The goal is to begin construction for most of these improvements by 2004:
- New, high-frequency limited-stop bus service
- Transit priority at traffic signals
- Bus arrival information
- Proof-of-Payment fare verification
- Improvements at some local bus stops

In addition, the following BRT components could also be implemented as part of the Track 1 project. These elements could be completed by 2007:
- A portion of the final design effort
- A portion of the total length of bus-only lanes
- A portion of the BRT Stations with associated guideway improvements
- Mitigation of some environmental impacts

**Phase 2 - Bus Rapid Transit:** The Track 2 portion of the project would consist of the following elements:
- Completion of final design
- Line haul portion of guideway between BRT stations
- Mitigation of environmental impacts
- Major utility relocation

**Other Grant-Funded Projects**

**JOB ACCESS/WELFARE TO WORK**
The District’s Externally funded Welfare to Work (WtW) program was first implemented in FY 1999 when the District received its first Job Access and Reverse Commute (JARC) grant funding for its Line 376, North Richmond welfare to work service. The initial grant provided $143,000 in federal funding. Currently the Line 376 service costs approximately $1 Million dollars annually, of which over 60% are covered by outside funding.

Currently, all federal funds for WtW programs are funneled through the JARC program and require a 50% match. Starting in FY 2002/2003, part of this match was provided through the use of the new Measure B welfare-to-work funding which is now projected to provide $1.3 Million annually. This is down from the original projections for FY 2002/2003 and FY
2003/2004, which were $1.53 Million and $1.59 Million, respectively. Measure C funds have been allocated annually to provide partial match for the Line 376 service.

New service was added to Line 13 with funding provided through the Metropolitan Transportation Commission’s JARC program known as Low Income Flexible Transportation or LIFT.

The Alameda Point Service which was introduced in August 2001 under the Metropolitan Transportation Commissions Low Income Flexible Transportation (LIFT) program will be almost fully funded in FY 2003/2004 through a grant from the Alameda County Social Services Agency. Service to the Hayward Industrial Area, which also received LIFT funding in FY 2001/2002, will be reduced to a level consistent with available funding.

The East/West Oakland WtW service will be eliminated in December 2003, due to lack of outside funding.

This year we have requested a $4 Million earmark, which will be used to support these vital transit services. The earmarks for FY 2001 and FY 2002 were approximately $2 Million each. Given the current economy, without these federal funds to support the WtW program, it is doubtful that the District could continue operating all of these vital lifeline services. Currently, the FY 2003 earmark request is pending final approval by Congress. The Senate version allocates $3 million, while the House version allocates $1.5 million. The District plans to request at least $4 Million annually to support these programs. Earmarks are programmed over two fiscal years due to the timing of receipt of the funds.

Figure A-6 shows the services that comprise the District’s Welfare-to-Work program. The program budget assumes $1.7 Million of our FY 2003 request.

**TRANSIT SIGNAGE PROJECT**
This project will improve signage throughout the Alameda portion of the District’s service area. Funds for this project come from the Transportation Fund for Clean Air (TFCA) administered by the Bay Area Air Quality Management District.

**SERVICE PROJECTS**
Bay Area Air Quality Management District approved two new grants in FY 2003, which will provide $1.15 Million in TFCA funding to cover the cost of service on the MacArthur Line N and the new Orinda service.

**LIFELINE TRANSIT SERVICE**
The District submitted a project to MTC for inclusion in the new update of the RTP. The project would provide partial funding for Lifeline Transit Services, such as Welfare-to-Work, late night and owl service, and flexible service for areas that have minimum service levels. In the last RTP, MTC included Lifeline Transportation Service as one of the Regions goals.