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Collaborative Funding to Facilitate Airport Ground Access

CASE STUDY REPORT: OAKLAND INTERNATIONAL AIRPORT ROADWAY PROJECT

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ABSTRACT

This case study report documents the experience with collaborative funding of airport ground access involved in the expansion and improvement of highway access to the Oakland International Airport (OAK) in the San Francisco Bay Area. The Airport Roadway Project (ARP) was undertaken by the Port of Oakland, the operator of the airport, and involved widening Airport Drive, at the time the only access road to the passenger terminal area, widening one of the two principal access routes to the airport from the nearby Interstate 880 freeway, and constructing a new roadway across part of the airport. This new roadway, which became named the Ron Cowan Parkway, provides improved access from communities to the west of the airport as well as improved access to a FedEx air cargo facility located adjacent to the new roadway. The project also included the construction of an underpass taking Airport Drive under Doolittle Drive, a major local arterial that runs along the northern boundary of the airport, reducing congestion at the intersection of Airport Drive and Doolittle Drive.

The project was developed and funded in partnership with the adjacent City of Alameda, the City of Oakland, and the Alameda County Transportation Authority (ACTA). Construction of the ARP commenced in June 1999 with the award of three contracts for different sections of the work, although the start of work on two of the three contracts was delayed while required permits were obtained and the Federal Aviation Administration issued its Record of Decision on an Environmental Impact Statement for the project. The first section of the roadway was completed in December 2001 and the final section opened in March 2004. The total cost for constructing the project increased over the course of the project from an initial estimate of about \$77 million in 1986 to a final cost of about \$121 million. The principal source of funding was provided by ACTA from revenues from a local Alameda County sales tax measure for transportation projects. The ACTA contribution covered 64 percent of the project costs. The second largest contribution was provided by the Port of Oakland, which covered 28 percent of the project costs, with the cities of Alameda and Oakland contributing much smaller amounts.

The project significantly expanded the roadway access capacity to the airport, as well as improving access to a major air cargo facility at the airport and increasing the capacity of a local arterial street serving the area between the airport and Interstate 880. The project is a good example of funding collaboration between an airport operator and surrounding jurisdictions to improve both airport access and the capacity and performance of the local arterial street system in the vicinity of the airport. The project was almost entirely funded with local funds, with a major component of the funding coming from a county-wide transportation improvement program supported by a voter-approved increase in the local sales tax.

Abstract

OAKLAND INTERNATIONAL AIRPORT ROADWAY PROJECT

INTRODUCTION

Oakland International Airport (OAK) is one of three primary air carrier airports in the San Francisco Bay Area located on the east side of San Francisco Bay about eight miles southeast of downtown Oakland. The airport is owned and operated by the Port of Oakland, which was created in 1927 and functions independently of the City of Oakland. It operates the nation's fourth largest container port in addition to the airport and oversees 900 acres of maritime terminal facilities. The Port is directed by a seven-member Board of Port Commissioners, which the City of Oakland Charter vests with exclusive control and management of the Port.

During the 1990's, OAK had been steadily handling more passengers and cargo annually. The airport was originally designed to accommodate 8 million passengers, but by the mid-1990's it was apparent that this would soon be exceeded. By 2000 the airport was handling over 10 million passengers and over 700,000 metric tons of air cargo, ranked it in the top 30 airports in the world for cargo traffic.³ The growth in passenger and cargo traffic required the development of an improved access road system to better connect the airport with Interstate 880 (I-880) to the northeast and with Bay Farm Island, a community immediately to the west of the airport, and to link the airport passenger terminals and cargo center with the nearby Harbor Bay Business Park.⁴

The Oakland International Airport Roadway Project (ARP) widened Airport Drive, at the time the only access road to the passenger terminal area, from two lanes to six lanes, widened 98th Avenue, one of the two main routes between I-880 and the airport, and constructed a new road that linked Bay Farm Island to Airport Drive, improving commutes for City of Alameda residents working at the airport and access for businesses between the airport and I-880. The ARP was seen as a major contribution to enhancing the movement of passengers, airport employees, and cargo to and from the airport, as well as alleviating future congestion due to increased airport capacity and regional population growth.

The ARP was developed as part of a larger Airport Development Program (ADP) that was intended to increase airport capacity, provide improved airport ground access, and enhance the airport's flight reliability.⁵ As things turned out, the projection that airport traffic would continue to increase proved correct for a number of years. Passenger traffic continued to increase after 2000 to reach a peak of 14.6 million passengers in 2007, although the growth in air cargo traffic ended after 1998, with air cargo traffic levels fluctuating around a slowly declining trend. By 2007, annual air cargo traffic had dropped to about 667,000 metric tons. After 2007, passenger traffic also began to decline due to the combination of the general decline in air travel as a result of the recession that started in late 2007 and an expansion of service by low-cost airlines at San Francisco International Airport (SFO). This expansion resulted in lower fares at SFO in several key markets, which attracted some of the traffic that had previously been served by OAK. By 2010 annual passenger traffic had declined to 9.5 million passengers, although by early 2012 there were indications that the decline had bottomed out and passenger levels were starting to recover. Annual air cargo traffic also declined sharply after 2008 to about 511,000 metric tons in 2010, with no obvious signs of recovery by early 2012.

Project Description

The ARP extended from the 98th Avenue interchange on I-880 along 98th Avenue and Airport Drive and included a new road between Airport Drive and Bay Farm Island in the City of Alameda. The new road was originally called the Cross-Airport Roadway and later renamed Ron Cowan Parkway. Figure 1 shows the principal access roads serving OAK from I-880 and the surrounding communities. Prior to the construction of Ron Cowan Parkway, Doolittle Drive on the north boundary of the airport was the only direct access route from Bay Farm Island and the City of Alameda to the airport, and the two-lane road became very congested at peak times.

In addition to providing improved access between Bay Farm Island and Airport Drive, the Ron Cowan Parkway serves the FedEx air cargo complex located to the west of Taxiway B that links the air carrier runway on the south side of the airport with the general aviation runways to the north of the passenger terminal complex. Prior to the construction of an underpass under Taxiway B as part of the project, vehicles accessing the FedEx complex had to enter the aircraft movement area and cross Taxiway B at a controlled crossing.

Partner Agencies

The project was structured as a partnership between the Port of Oakland, the City of Alameda, the City of Oakland, and the Alameda County Transportation Authority (ACTA), which evolved during the course of the project into the Alameda County Transportation Improvement Authority (ACTIA). The Port of Oakland owns and operates Ron Cowan Parkway and Airport Drive up to the interchange between 98th Avenue and Doolittle Drive. The stretch of 98th Avenue between Doolittle Drive and I-880 is part of the street system of the City of Oakland.

ACTA was created on August 5, 1986 by the Alameda County Board of Supervisors to administer funding for transportation projects in the county generated by Measure B that the Board had placed on the November 1985 ballot and had been approved by voters. Measure B increased the sales tax in Alameda County from 6.5 percent to 7 percent for 15 years and defined a \$990 million transportation spending plan.⁷

California Senate Bill 878 (Boatwright) had made it possible for any California county to place a sales tax of up to one percent on the ballot to fund transportation projects. The original Measure B expired in 2001 but was re-authorized by voters for a further 20-year program. When the new program was established, the Board of Supervisors established a separate agency, ACTIA, to administer the program, although ACTIA and ACTA had the same board members and staff. ACTA continued to administer the original Measure B funds, while ACTIA administered the new funds. The ACTA and ACTIA board is made up of five members of Alameda County Board of Supervisors, two representatives from the Cities of Hayward, Fremont, Newark, Union City, Pleasanton, Livermore, and Dublin appointed by the Mayors Conference, one representative appointed by the Mayors Conference from the cities of San Leandro, Oakland, Alameda, Albany, Berkeley, Emeryville, and Piedmont, and one representative chosen by the Mayor of Oakland. In 2010, ACTIA merged with the Alameda County Congestion Management Agency to become the Alameda County Transportation Commission.



Figure 1. Oakland International Airport Environs and Access Roads Source: Google Maps, maps.google.com (accessed July 30, 2011). Imagery © 2011 Digital Globe,

GeoEye, U.S. Geological Survey, USDA Farm Service Agency; Map data © **2011 Google**.

HISTORY OF THE PROJECT

The growth in passenger and cargo traffic at OAK required the development of an improved access road system to better connect the airport passenger terminals and cargo center to I-880 to the northeast, as well as to Bay Farm Island and the nearby Harbor Bay Business Park. The new and expanded roadways that together formed the ARP were included in the larger ADP that was intended to increase the airport's capacity to handle the growing volume of passenger and cargo traffic. In addition to the ARP, the ADP included plans to

expand Passenger Terminals 1 and 2, construct a two-level terminal roadway and parking structure, and various other projects.

In August 1986, the Airport Roadway (as it was termed) between Bay Farm Island and the 98th Avenue/I-880 intersection was included in the list of projects to be funded by Measure B if it were to be passed by the voters that November. Following the passage of Measure B and the establishment of ACTA, the Port of Oakland proceeded with the detailed design and preparation of environmental documents for the ARP.

On May 7, 1996, the Board of Port Commissioners authorized the execution of funding agreements for the ARP with ACTA and the Cities of Alameda and Oakland, a Measure B implementation agreement with ACTA, an agreement with ACTA on the value of property contributed by the Port for the project, and a contract with ICF Kaiser Engineers to prepare detailed designs and construction documents for the ARP.¹¹

Following delays due to litigation over the Environmental Impact Report for the ADP, discussed further below, the Board approved the plans and specifications for the project on April 6, 1999 and authorized Port staff to advertise for construction bids. Construction of the ARP was divided into three contracts, as shown in Figure 2, which were awarded by the Board of Port Commissioners on June 29, 1999, through Resolutions 99264, 99265, and 99266.

- Contract A: Widened Airport Drive between a new grade-separated interchange at Doolittle Drive and the passenger terminal complex, developed a new link between Harbor Bay Parkway and Airport Drive, and constructed an underpass under Taxiway B. The project included relocating utilities, installing new duct banks, and constructing the new road between the existing Air Cargo Road that served the FedEx complex and Harbor Bay Parkway.
- Contract B: Constructed a new grade-separated interchange at Doolittle Drive and Airport Drive that allowed traffic on Airport Drive to access 98th Avenue by passing underneath Doolittle Drive.
- Contract C: Widened 98th Avenue between I-880 and Airport Drive.

Work started on Contract C in July 1999 and was completed on December 31, 2001. The start of work on Contract B was delayed until February 2000 while the Port obtained required wetland permits from the U.S. Army Corps of Engineers and the Regional Water Quality Control Board. The work on this contract was completed on September 13, 2002. The start of work on Contract A was delayed until January 2001 while the Port waited for the Federal Aviation Administration (FAA) to issue a Record of Decision (ROD) on the Environmental Impact Statement (EIS) for the ADP, which was required before work on that part of the ADP could begin. The improvements to Airport Drive were completed and opened to traffic on February 7, 2004. The new road between Bay Farm Island and Airport Drive, the final component of the ARP, became fully operational on March 12, 2004.

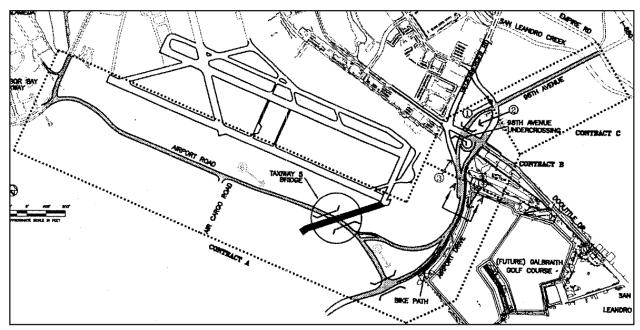


Figure 2. Work Covered by the Three Airport Roadway Project Contracts

Source:Port of Oakland, "Calendar – Special Meeting of the Board of Port Commissioners, Tuesday, February 16, 1999," Agenda Sheet, Item No. 3, page 3 (excerpt), www.portofoakland.com/pdf/board/1999_agenda.pdf (accessed March 20, 2011).

Litigation

On December 16, 1997, the Board of Port Commissioners approved the Final Environmental Impact Report (FEIR) for the ADP. The City of Alameda and other parties representing the surrounding communities had expressed concerns about the impacts of the planned airport expansion during the environmental assessment process and had challenged the adequacy of the analysis of the project's impacts presented in the FEIR. In January 1998, the City of Alameda and a local community group, Citizens League for Airport Safety and Serenity, filed a lawsuit in the Alameda County Superior Court contesting the Port's approval of the FEIR. In February 1999, the Court ordered the Port to prepare a Supplement to the FEIR that included additional analysis of environmental impacts. However, the Court ruled that the ARP was not involved in the issues that required further analysis and the Port could proceed with the project.

Although the Court had ruled that the Port could proceed with the ARP, the FAA delayed issuing a ROD on the EIS for the ADP until all the litigations issues were resolved, as noted above. This delayed the start of Contract A, and hence the construction of the new cross-airport road, for a further two and a half years. As a federal agency, the FAA needed to prepare an EIS before it could approve any of the projects in the ADP that involved changes to the airfield or use of federal funds.

PROJECT COSTS

Partly due to the delays in starting Contract A, the estimated costs to construct the ARP increased several times in the course of the project.

The original project cost estimate in the 1986 Measure B Expenditure Plan was \$77 million, with Measure B funds contributing \$60 million and the balance being contributed by local funding sources. How May 1996, when the Board of Port Commissioners authorized the funding agreement with ACTA, the estimated costs had increased to \$81.71 million, due to cost escalation and other factors. By December 1997, the estimated costs had increased again to \$97.5 million, due to cost escalation, safety and engineering concerns, and mitigation measures identified in the environmental review process. The estimated costs had initially increased to \$107 million, but value engineering efforts and design revisions reduced the cost estimate by \$9.5 million.

By June 1999, with the design work completed and the work put out to bid, the estimated cost had risen to \$104.485 million.²⁰ The City of Alameda agreed to reduce the value of contributed property for right-of-way by \$400,000, as discussed below, reducing the project budget to \$104.085 million. The composition of the various cost categories as of June 1999 is shown in Table 1.²¹ By August 2000, the estimated project cost had increased for the third time since the initial funding agreement to \$114.748 million, as shown in Table 1. The principal causes of the cost increase were a significant increase in construction management and administration, provision for contingencies, special contracting provisions, and acquisition costs of third-party properties for right-of-way, as highlighted in green in Table 1. The increase in the provision for contingencies was intended to budget for anticipated construction change orders on Contract A. The special contracting provisions comprised an allowance in the contracts for construction cost escalation due to delays in issuing notices to proceed.

Table 1. Third Increase in Airport Roadway Project Estimated Cost

Cost Category	Projected Cost June 1999	Projected Cost August 2000	Difference
Construction	\$59,713,525	\$55,566,812	-\$4,146,713
Engineering and Management	\$8,601,375	\$8,187,001	-\$414,374
Construction Management and Administration	\$4,728,204	\$12,680,729	\$7,952,525
Contingency	\$4,953,221	\$10,528,374	\$5,575,153
Special Contracting Provisions	\$1,492,838	\$2,823,390	\$1,330,552
Contributed Properties	\$11,598,000	\$11,598,000	\$0
Third Party Properties (a)	\$8,498,191	\$9,613,846	\$1,115,655
Addition Wetlands Mitigation	\$2,000,000	\$1,650,000	-\$350,000
Hazmat Allowance/ Overall Contingency	\$2,500,000	\$2,100,000	-\$400,000
Total	\$104,085,354	\$114,748,152	\$10,662,798

Note: (a) Third party properties refer to properties owned by other entities besides those involved in the project that had to be purchased before construction began.

Source: Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, September 5, 2000," Agenda Sheet, Item No. 1, page 2, www.portofoakland.com/pdf/board/2000_agenda.pdf (accessed March 20, 2011).

By January 2005, with work on Contract A substantially complete and work on Contracts B and C completed, the estimated project cost had increased to approximately \$122 million.²²

FUNDING SOURCES

The original funding plan contained in the 1986 Measure B Expenditure Plan envisaged that Measure B funds would provide \$60 million of the estimated \$77 million project cost (77.9 percent), with the balance being contributed by unspecified local funding sources.²³ By the time the initial Funding Agreement was signed between ACTA, the Port of Oakland, the City of Alameda, and the City of Oakland in May 1996, the estimated project cost had increased to \$81.71 million. The agreed contributions from each agency are shown in Table 2. The share of the project funding to be provided by ACTA increased slightly to keep the total local contribution the same as specified in the 1986 Measure B Expenditure Plan.

Table 2. Initial Airport Roadway Project Funding Plan

Agency	Amount	Project Share	Local Share (a)
ACTA	\$64,710,000	79.19%	
City of Alameda	\$6,035,000	7.39%	35.5%
City of Oakland	\$255,000	0.31%	1.5%
Port of Oakland	\$10,710,000	13.11%	63.0%
Total	\$81,710,000	100.0%	100.0%
Local Total	\$17,000,000		

Note: (a) The local share refers to the amount of funding contributed to the project by the City of Alameda, the City of Oakland, and the Port of Oakland, as local match for the Measure B funds.

Source: Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, May 7, 1996," Agenda Sheet, Item No. 2A, www.portofoakland.com/pdf/board/1996_agenda.pdf (accessed March 20, 2011).

The Port and ACTA also signed an Appraised Value Agreement that established a value of \$9.5 million for the Port's property on which the road would be constructed. This value would count as part of the Port's contribution to the project, so the Port would only have to contribute \$1.21 million in cash or eligible Port services, such as project engineering and administration.²⁴

By December 1997, the estimated project cost had increased to \$97.5 million, an increase of \$15.79 million over the project funding level in the initial agreement. The Funding and Implementation Agreements between the four parties were amended to allocate the increased costs in four increments, each with a different allocation among the parties, as shown in Table 3. The first \$11.225 million would be allocated among the parties in the same proportions as the initial funding agreement. The next \$1.327 million would be allocated among the Port, the City of Alameda, and the City of Oakland in proportion to the shares of local matching funds in the initial funding agreement, with no contribution from ACTA. The next \$1.938 million would be divided between the Port and the City of Oakland, with the Port contributing 97.62 percent. The final \$1.3 million of the increased costs would be borne entirely by the Port.

This increased the Port's contribution to the project by \$5.5 million. However, it was agreed that the value of the property contributed to the project by the Port would be increased to \$11.5 million, leaving the Port to contribute \$4.71 million in cash or services.

Table 3. Allocation of First Increase in Estimated Project Cost

Agency	Amount (a)	Percent Share
First Increment		
ACTA	\$8,890,000	79.19%
Port of Oakland	\$1,471,000	13.11%
City of Alameda	\$829,000	7.39%
City of Oakland	\$35,000	0.31%
Subtotal	\$11,225,000	100.0%
Second Increment		
ACTA	\$0	
Port of Oakland	\$836,000	63.0%
City of Alameda	\$471,000	35.5%
City of Oakland	\$20,000	1.5%
Subtotal	\$1,327,000	100.0%
Third Increment		
ACTA	\$0	
Port of Oakland	\$1,893,000	97.62%
City of Alameda	\$45,000	2.38%
City of Oakland	\$0	
Subtotal	\$1,938,000	100.0%
ourth Increment		
ACTA	\$0	
Port of Oakland	\$1,300,000	100.0%
City of Alameda	\$0	
City of Oakland	\$0	
Subtotal	\$1,300,000	100.0%
Total .		
ACTA	\$8,890,000	56.3%
Port of Oakland	\$5,500,000	34.83%
City of Alameda	\$1,300,000	8.23%
City of Oakland	\$100,000	0.63%
Total	\$15,790,000	100.0%

Note: (a) Some amounts are rounded from the amounts calculated using the agency percent shares specified in the Amended Agreement.

Source: Author analysis from Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, December 2, 1997," Agenda Sheet, Item No. 1, www.portofoakland.com/pdf/board/1997_agenda.pdf (accessed March 20, 2011).

It was anticipated that about \$12 million of the funding provided by ACTA would be obtained from the State and Local Transportation Partnership Program (SLTPP), a state program that provides matching funds for local transportation funds generated by local tax measures.^{26,27}

The Funding Agreement was amended for a second time in May 1998 in order to address how the project costs that had been already incurred would be shared by the four parties if the agreements were terminated prior to the Port receiving all the required development approvals or the FAA issuing a ROD that includes approval of the project on terms acceptable to the parties. At the time, it had become apparent that the litigation that was in progress over the ADP could significantly delay the receipt of the necessary development approvals or result in conditions that would not be acceptable to some or all of the parties. However, as things turned out, the delays did not result in the agreements being terminated and the required approvals were eventually obtained, so the provisions of this amendment were never applied. The amendment did not change the project funding plan if the project were to go ahead as planned.

By June 1999, the estimated project costs had increased for a second time by \$6.985 million from \$97.5 million to \$104.485 million. The increased funding contributions by each of the parties to cover this increase in costs are shown in Table 4. The first \$4.225 million of the cost increase was allocated between the Port, and the Cities of Alameda and Oakland in proportion to the initial shares of the local matching funds. The balance was divided between ACTA, the Port, and the City of Alameda, with about 75 percent being covered by the Port. ACTA agreed to contribute a further \$0.3 million in Measure B funds. In addition, the available funding from the SLTPP had reduced by \$4.4 million since December 1997, due to the continuing delays in starting work on the project, which ACTA agreed to make up with Measure B funds.²⁸

These changes were reflected in a third amendment to the Funding Agreement and a second amendment to the Implementation Agreement. These amendments also increased the assumed value of the property contributed to the project by the Port to \$11.598 million, reflecting the increase in total area of the contributed property due to design changes. The City of Alameda agreed to reduce the assumed value of its contributed property by \$200,000 and Harbor Bay Isle Associates agreed to reduce the assumed value of its property to be sold to the project for right-of-way by \$200,000. The combined amount of \$400,000 was credited as the contribution of the City of Alameda to the second increment of the increased funding. This amount was taken off the project budget, giving a revised budget of \$104,085,354.

The amendments to the Funding and Implementation Agreements also addressed how any savings would be distributed among the parties if the project costs were to ultimately come in under the project budget defined in the Funding Agreement, although as things turned out this provision became moot.

The resulting project funding budget and its allocation to the parties is shown in Table 5.

Table 4. Allocation of Second Increase in Estimated Project Cost

Agency	Amount (a)	Percent Share
First Increment		
ACTA	\$0	0.0%
Port of Oakland	\$2,662,000	63.0%
City of Alameda	\$1,500,000	35.5%
City of Oakland	\$63,000	1.5%
Subtotal	\$4,225,000	100.0%
Second Increment		
ACTA	\$300,000	10.9%
Port of Oakland	\$2,060,354	74.6%
City of Alameda	\$400,000	14.5%
City of Oakland	\$0	0.0%
Subtotal	\$2,760,354	100.0%
otal		
ACTA	\$300,000	4.3%
Port of Oakland	\$4,722,354	67.6%
City of Alameda	\$1,900,000	27.2%
City of Oakland	\$63,000	0.9%
Total	\$6,985,354	100.0%

Note: (a) Some amounts are rounded from the amounts calculated using the agency percent shares specified in the Amended Agreement.

Source: Author analysis from Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, June 15, 1999," Agenda Sheet, Item No. 7, www. portofoakland.com/pdf/board/1999_agenda.pdf (accessed March 20, 2011).

Table 5. Airport Roadway Project Funding Budget as of June 1999

Agency	Amount	Project Share	Local Share
ACTA with SLTPP	\$73,900,000	71.0%	
City of Alameda	\$8,835,000	8.5%	29.27%
City of Oakland	\$418,000	0.4%	1.38%
Port of Oakland	\$20,932,354	20.1%	69.35%
Total	\$104,085,354	100.0%	100.0%
Local Total	\$30,185,354		

Source: Port of Oakland, , "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, June 15, 1999," Agenda Sheet, Item No. 7, www.portofoakland.com/pdf/board/1999_agenda.pdf (accessed March 20, 2011).

The amended agreements also addressed how any increase in cost beyond the project funding budget of \$104,085,354 would be allocated among the parties.²⁹ ACTA agreed to contribute a share of any residual Measure B tax revenues that were available after the projects authorized by the 1986 measure were completed, but this amount was obviously not known at the time. Any additional costs would be divided among the other three parties in proportion to the initial local funding shares, but subject to a limit of \$500,000 for the City of Alameda, and a pro-rated limit for the other two parties. This implied that the agreements would cover an increase of costs of no more than \$1.408 million plus any contribution from ACTA.

The estimated project costs had increased for a third time by August 2000, as shown in Table 1. The increase of \$10,662,798 exceeded the provision for allocation of further cost increases among the parties contained in the third amendment to the Funding Agreement by \$9.363 million.³⁰ The other parties refused to increase their contribution to the project and the Port agreed to cover the balance of the increase, resulting in the project funding budget and its allocation to the parties shown in Table 6.

Table 6. Airport Roadway Project Funding Budget as of August 2000

Agency	Amount	Project Share	Local Share
ACTA with SLTPP	\$73,900,000	64.4%	
City of Alameda	\$9,264,000	8.1%	22.68%
City of Oakland	\$439,000	0.4%	1.07%
Port of Oakland	\$31,145,152	27.2%	76.25%
Total	\$114,748,152	100.0%	100.0%
Local Total	\$40,848,152		

Source: Port of Oakland, Board of Port Commissioners, Resolution No. 20322, September 5, 2000, www.portofoakland.com/pdf/board/2000_resolutions.pdf (accessed March 20, 2011).

These changes were formalized in a fourth amendment to the Funding Agreement and a third amendment to the Implementation Agreement.

By January, 2005, with the work on the project substantially completed, the estimate of the total project costs had increased for the fourth time from \$114,748,152 to about \$122 million. The Port approached ACTA to enquire about the possibility of ACTA contributing additional funds to cover some or all of the increased costs. ACTA agreed to contribute \$4.2 million toward the increase in costs and the parties signed a fifth amendment to the Funding Agreement and a fourth amendment to the Implementation Agreement that established a final project funding budget of \$121,248,152, with the increased costs divided between ACTA and the Port, as shown in Table 7. Any further increase in costs above \$121,248,152 would be paid by the Port.

Table 7. Allocation of Fourth Increase in Estimated Project Cost

Agency	Amount	Percent Share
ACTA	\$4,200,000	64.62%
Port of Oakland	\$2,300,000	35.38%
Total	\$6,500,000	100.0%

Source: Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, January 18, 2005," Agenda Report, Item No. A-4, www.portofoakland.com/pdf/board/2005_agenda.pdf (accessed March 20, 2011).

The resulting final agreed level of project funding and its allocation to the parties is shown in Table 8.³¹ For reasons that are not clear, the allocations of the funding to be provided by the Cities of Alameda and Oakland were reduced to those in the agreements as of June 1999. This resulted in the contribution from the Port increasing by \$450,000 above the amount shown in Table 7.

Table 8. Airport Roadway Project Final Funding Allocation

Agency	Amount	Project Share	Local Share
ACTA with SLTPP	\$78,100,000	64.4%	
City of Alameda	\$8,835,000	7.3%	20.48%
City of Oakland	\$418,000	0.3%	0.97%
Port of Oakland	\$33,895,152	28.0%	78.56%
Total	\$121,248,152	100.0%	100.0%
Local Total	\$43,148,152		

Source: Port of Oakland, "Calendar – Regular Meeting of the Board of Port Commissioners, Tuesday, January 18, 2005," Agenda Report, Item No. A-4, www.portofoakland.com/pdf/board/2005_agenda.pdf (accessed March 20, 2011).

In addition, ACTA agreed to lend the Port \$2.3 million (the amount of the Port's share of the increase in estimated project costs) at an annual interest rate one percent above that paid by the local agency investment fund (a program allowing local governments in California to contribute to a state-run investment portfolio managed by the Pooled Money Investment Account). If ACTA had any residual funds left over from the 1986 Measure B tax revenues after completing all the projects in the 1986 Measure B Expenditure Plan, then the ACTA Board could decide to forgive some or all the loan.³²

The amount of the ACTA contribution to the project funding that was provided by SLTPP funds changed throughout the project due to the delays in completing the work. In September 2000 it was anticipated that the SLTPP funds would contribute \$7.4 million.³³ However, by March 2004 the planned ACTA contribution from Measure B funds was \$75.2 million,³⁴ with the \$2.9 million balance of the ACTA contribution being provided by SLTPP funds.

SUMMARY AND CONCLUSIONS

The Oakland Airport Roadway Project improved and expanded the system of access roads serving Oakland International Airport, allowing air passengers, employees, and cargo trips to access the airport more efficiently. The roadway improvements also provide an alternate route for travelers from the City of Alameda and Bay Farm Island to the west of the airport to reach Interstate 880 and businesses located between the airport and the freeway. The project involved constructing a new cross-airport road between Bay Farm Island and Airport Drive, as well as widening Airport Drive and 98th Avenue, one of two major arterials between I-880 and the airport. The project also included constructing a grade-separated interchange that takes Airport Drive/98th Avenue under Doolittle Drive, an arterial that runs along the north boundary of the airport. The planning, design and construction of the project was managed by the Port of Oakland, the operator of the airport.

The initial cost estimate for the project was \$77 million in 1986, when the project was included in the Expenditure Plan for a ballot measure to increase the Alameda County sales tax to fund designated transportation projects. By the time an agreement had been reached in 1996 between the Port of Oakland and the Cities of Alameda and Oakland to provide the required local matching funds, the estimated costs had increased to \$81.7 million. Construction of the project was delayed by litigation, and by the time the final segment of the project was completed in 2004 the total cost for the project had increased to over \$121 million.

One of the main reasons for the project cost increase was a delay by the Federal Aviation Administration is issuing a Record of Decision for the Final Environmental Impact Statement for the portion of the project on airport property, until the litigation had been resolved. This delay extended the duration of the project, incurring significantly higher contract management and administration costs, as well as additional payments to the contractors.

A total of five agencies contributed funding to the ARP:

- Alameda County Transportation Authority, which managed the distribution of the 1986 ballot Measure B funds;
- Port of Oakland;
- City of Oakland;
- City of Alameda;
- The California Department of Transportation, through the State and Local Transportation Partnership Program.

ACTA and the Port of Oakland provided the majority of the funding for the ARP. The ARP was funded without any direct federal aid and with a relatively small amount of state funding from the SLTPP, which contributed \$2.9 million to the project. Thus the project was almost entirely funded by local agencies with local funds. The largest share of the funding

(62 percent) came from revenues generated by a local sales tax measure passed in 1986 to fund transportation projects in Alameda County. The second largest share (28 percent) was provided by the Port, largely through its Capital Improvement Program, although some \$11.6 million of this (9.6 percent of the total project funding, or about a third of the Port's total contribution) consisted of the agreed value of the airport property contributed to the project for right-of-way, which reduced the amount of cash and services that the Port needed to contribute to the project.

The ARP is not only a good example of a project to enhance airport ground access that involved collaborative funding by the airport authority, adjacent jurisdictions, and a county-level transportation improvement funding agency, but is also an example of a successful effort to include an airport ground access project on the list of designated projects to be funded by a county-wide sales tax ballot measure. By the completion of the project, with the final allocation of project costs to the various parties collaborating in the funding, the contribution of sales tax revenue accounted for over 68 percent of the project costs excluding the value of property contributed by the Port, while the Port's contribution of cash and services accounted for a little over 20 percent of the project costs excluding the value of airport property used for the project. Thus including the project in Measure B significantly leveraged the investments by the Port in improving ground access to the airport.

In addition to way that the funding for the project was shared by multiple agencies, the ARP is a good example of a project sponsor persevering through extended delays due to a contested environmental review process that led to increased project costs and the need to identify additional sources of funding. As Oakland International Airport attracts more air passengers and air cargo in the future, the road improvements provided by the ARP will make an important contribution to meeting the future ground access needs of the airport.

ABBREVIATIONS AND ACRONYMS

ACTA Alameda County Transportation Authority

ACTIA Alameda County Transportation Improvement Authority

ADP Airport Development Program (Oakland International Airport)

ARP Airport Roadway Project (Oakland International Airport)

EIS Environmental Impact Statement

FAA Federal Aviation Administration

FEIR Final Environmental Impact Report (California document)

OAK Oakland International Airport (airport code)

ROD Record of Decision

SFO San Francisco International Airport (airport code)

SLTPP State and Local Transportation Partnership Program

(California program)

Abbreviations and Acronyms	

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ENDNOTES

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