

July 3, 2012

President Larry Reid
and City Council Members
City of Oakland

FILED
OFFICE OF THE CITY CLERK
OAKLAND
12 JUL -3 PM 3:43

Re: Bus Rapid Transit, Detrimental to Oakland Citizens and Small Businesses

Dear Members of the Oakland City Council,

I am a Berkeley resident who was involved with the opposition to dedicated bus lanes in Berkeley. We were successful because we were able to educate a large number of Berkeley residents about the details of BRT, an extremely detrimental project. People who learn about the project are naturally opposed, as it offers *nothing* to people who live in the cities that would be impacted by it, and would benefit only AC Transit.

AC Transit stands to acquire millions of dollars in Federal Small Starts funding if you allow it to take over portions of your streets for dedicated bus lanes. The City of Oakland would still own the streets, but AC Transit would build huge concrete stations in the center of the streets. It is my considered opinion that the likelihood of the project being successful is zero. If the project doesn't work and were ever to be dismantled, the City would be responsible for demolition and restoring the streets to their original condition.

A project that thrives on secrecy

AC Transit has been extremely negligent about informing the public of the detriments of the BRT project. Fortunately, Berkeley residents learned about it through the work of fellow citizens, and were able to persuade their Council members to drop the dedicated bus lanes. Oaklanders have not been so lucky – at least to date.

Despite AC Transit's poor outreach (for example, disallowing the public to speak at "public outreach" meetings), the Temescal merchants managed to become informed about the project. I believe this was an important reason why AC Transit has chosen the shorter Downtown Oakland to San Leandro (DOSL) route, excluding dedicated lanes north of the downtown. Sadly, this means that the relatively poorer East Oakland residents and the small merchants on International Boulevard are the ones who will suffer from this project.

I believe that East Oakland residents and businesses have received even less information from officials about the project than Berkeley and North Oakland people received. My tax preparer, located on International Boulevard, has *never* been informed by either AC Transit or Oakland officials about the project. The only party that has ever informed him of the project is one of his clients (me).

Track record on big projects?

AC Transit has a poor record with construction projects. The Uptown Transit Center (UTC) on 20th Street in Oakland is its only project involving extensive construction that I am aware of. It opened November 9, 2007. Please see attached AC Transit's Summary Report of January 23, 2008 about the UTC (GM Memo No. 08-016, Exhibit A). The first page shows that the project took nearly three years to complete and cost \$4.76 million, while it had been expected to take approximately one year and cost \$3 million.

The 13-page Summary Report of the UTC project details the problems encountered by AC Transit, many caused by the failure to anticipate what would be found under the sidewalk once construction began. The Report says on page 7, "By this time, the once simple project

had been delayed 9 months". The project had not been simple – AC Transit had simply failed to prepare for events that would have been anticipated with better planning.

Pages 11 and 12 of the Report list eleven "Lessons Learned" that are expected to "assist AC Transit in managing and implementing similar projects in the future." The third bullet point says, "Project designers must conduct a site survey early in the design process to determine AC Transit's financial exposure related to underground infrastructure and utilities." (They didn't bother to do this with the UTC?). The ninth bullet point says regarding the canopies over the bus stops, "The value-engineer should examine the use of lighter materials, standardization of parts and more caulking in lieu of welding." (!?!)

Soon after completion, The UTC project needed expensive alterations. By April 23, 2008 it was clear that the canopies, even without the odd cost-cutting measures recommended above for future projects, didn't provide rain protection for riders waiting for their buses (see 1st page of GM Memo No. 08-096, Exhibit B). By September of 2008, AC Transit was requesting allocation of an additional \$600,000 for weather protection improvements from MTC (see 1st page of GM Memo No. 08-211, Exhibit C).

Coincidentally, the UTC Report reveals a potential safety problem with the BRT project. On page 4 of the report, regarding proposed 14-inch high curbs, it says, "In the end, the City only approved an 8-inch curb height ... City staff asserted that a higher curb would create unsafe pedestrian access". Yet AC Transit is proposing 13 to 15-inch high curbs for the BRT curbside stations (see page S.2-4 from the Final Environmental Impact Report [EIR], Exhibit D). Because I frequently AC Transit Board meetings, I know that the curbside stations were added to the project late in the process, and I believe that they may not have been adequately studied.

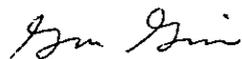
This sort of discrepancy, where the BRT EIR says there will be raised curbs, and the UTC Summary Report says that Oakland staff have previously determined that raised curbs would be unsafe for pedestrians – is the sort of red flag that should lead to a very careful and thorough investigation of the project before you commit to anything.

AC Transit should focus on bus service

I beseech you to do your part to encourage AC Transit to remember its original mission, providing bus service to people, by disallowing the agency to harm the people of East Oakland in order to acquire \$millions from the Federal Small Starts program for an ill-conceived construction project. I strongly recommend that you not approve dedicated bus lanes for Oakland as the so-called "locally preferred alternative". Please insist upon the "no-build" option. Protect the people of East Oakland, most of whom have never been informed that they are in danger of being needlessly harmed by this misguided project.

If you do allow AC Transit to build this project on land for which you are responsible, I think you can expect a comedy of construction errors, cost overruns and delays, and questionable practices such as the use of "more caulking in lieu of welding".

Sincerely,



Gale E. Garcia
galeg13@gmail.com

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 08-016

Meeting Date: January 23, 2008

Committees:

Planning Committee
External Affairs Committee
Rider Complaint Committee
Board of Directors

Finance and Audit Committee
Operations Committee
Paratransit Committee
Financing Corporation

SUBJECT: Consider receiving project summary report for the Uptown Transit Center Project

RECOMMENDED ACTION:

Information Only Briefing Item Recommended Motion

Fiscal Impact:

None

Background/Discussion:

On November 9, 2007, AC Transit held a ribbon-cutting ceremony for the opening of the Uptown Transit Center (UTC) located in the City of Oakland's developing Uptown District. The transit center is significant because it provides accessible, near-level boarding to many AC Transit buses, while providing safe and comfortable covered waiting areas. On weekdays, this portion of 20th Street now has 29 buses per hour traveling through in each direction and is the nexus of three major AC trunk corridors: San Pablo, International/Telegraph and Grand/Macarthur. The Uptown Transit Center will also serve as a stop for the future Bus Rapid Transit (BRT) service, and will be a key transit hub for all of the Transit Oriented Developments in the Uptown District.

From project conception to completion, the UTC took nearly three years, with a final budget of \$4.76 million. The fund source for this project was Regional Measure-2 (RM-2). AC Transit took the lead on the project, which also involved interactions with staff from the City of Oakland and the Alameda Congestion Management Agency (ACCMA). When it began, staff anticipated that the project would be combined with the City of Oakland's adjacent streetscape projects, take approximately one year to complete, and cost an estimated \$3 million.

BOARD ACTION:

Approved as Recommended [] Other []
Approved with Modification(s) []

The above order was passed on:

Linda A. Nemeroff, District Secretary
By _____

This memorandum summarizes the process that led to the completion of the UTC project. It outlines the positive progression of the project as well as some of the challenges of the project, due primarily to unforeseen circumstances. The memo also lists the key lessons learned from the project and its process which will assist AC Transit in managing and constructing similar projects in the future.

Background

In November 2004, the City of Oakland asked AC Transit to re-route all buses from Telegraph Avenue, between Latham Square (16th Street) and 20th Street. This request was made to accommodate two prospective City of Oakland projects:

1. The Inner Telegraph Streetscape Project
2. The Uptown Arts & Entertainment District Project

The Inner Telegraph Streetscape Project was initially scheduled for construction in Fall 2005. Prior to making the bus re-route request, the City had indicated that Broadway to 20th Street would be the preferred route alternative for AC Transit's future BRT project through downtown Oakland. Consequently, AC Transit programmed \$150,000 in RM-2 funds for BRT station design, and developed a rough concept for a station along 20th Street.

AC Transit had previously re-routed Line 72 off of Inner Telegraph and onto Broadway and 20th Street because of the City's initial plans to close off Latham Square to vehicular traffic. As a result of this re-route, AC Transit and the City created a bus stop at 20th & Broadway in front of the I. Magnin Building. The new bus stop generated high patronage as it served all of the 72 lines along with the 15 and NL. Unfortunately, it created numerous problems for the tenants of the I. Magnin Building. Windows were broken, trash accumulated and the building's vestibule became the de facto bus waiting area during poor weather. I. Magnin also complained about loiterers and illegal activity around the building's entryway, which coincided with the installation of the bus stop. The property manager sent a complaint to AC Transit and the City of Oakland. The three parties met numerous times to resolve the problems, but with little success.

In summary, AC Transit staff understood there to be two issues that needed to be resolved:

1. The City's request to reroute all service off Telegraph (and the corollary issue of routing the BRT line via Telegraph, 20th and Broadway)
2. The concerns of the adjacent property owners over vandalism and poor behavior.

To honor the City's request would require rerouting all bus service via 20th Street. As this would result in about 30 buses per hour in each direction traveling on the street, additional bus stops would be necessary, and more automobile parking would have to be eliminated. Staff anticipated that the loss of parking would not be well-received by

merchants and property owners. On the other hand, the existing sidewalks were narrow and of poor quality, and without any transit amenities such as shelters or real-time information.

AC Transit proposed the following approach to the City and the I Magnin owners:

- AC Transit would re-route all bus service off Telegraph Avenue between 16th Street and 20th Street, with the provision that the City eliminate all parking on 20th Street, and permit AC Transit to make the necessary improvements.
- AC Transit would commit to rebuild the street with wider sidewalks, better lighting, first class structures and new drainage.

Staff had previously suggested to the City that building the transit center would alleviate the issues in front of the I. Magnin property, but that suggestion was not endorsed until AC Transit connected the proposal with the relocation of buses off of Inner Telegraph.

Planning & Design Process

The City planned to begin construction of the Inner Telegraph Streetscape Project in mid-2005. Accordingly, AC Transit determined that it would be necessary to re-route buses to 20th Street prior to the start of that project. In order to meet the mid-2005 construction schedule, staff requested that the City combine construction of the UTC and the Streetscape Project into one contract. After long consideration, however, the City denied the request because it had already completed a complex California Environmental Quality Act (CEQA) exemption process for the Streetscape Project. Adding the transit center to the scope of work would cause the City to have to go through the process again. The City's decision left AC Transit solely responsible for the construction of the UTC, which needed to be completed within 6-9 months, and which would include contract procurement as well as obtaining the necessary permits and approvals.

In February 2005, through the agency's ongoing Architectural & Engineering design contract, AC Transit hired Carter-Burgess (C-B) to act as the lead project designer and engineer of the UTC. C-B's initial design fee for the UTC project was roughly \$387,000, with a four-month deliverable schedule. C-B's fee and schedule originally included complete design of the roadway and sidewalk (also known as the "flatwork"), and assumed the use of standard, "off-the-shelf" bus canopies. C-B's scope of work was divided into two phases:

- 1) completion of schematic design of flatwork and conceptual design of the canopies
- 2) completion of final project design and construction documents.

Staff eventually decided to include custom-designed canopies in order to create a more functional and aesthetically pleasing transit center that appropriately fit into the

surrounding landscape. By this time, start of construction for the Inner Telegraph Streetscape Project had been rescheduled for early 2006.

From the start of the planning process, the strategy of staff and C-B was to reach early consensus with the appropriate City of Oakland departments in order to streamline the subsequent permit and approval process. Both staff and C-B underestimated this effort because even though there was agreement on the construction of the UTC in concept, the City questioned a number of project details, including:

- sidewalk width
- traffic lane configuration
- drainage
- manhole cover design
- curb height
- accessibility
- parking loss
- traffic impacts
- canopy design
- canopy color
- transition into adjacent City projects
- construction phasing

Reaching consensus on these details required numerous meetings among District staff, the design team and City staff, as well as time to make key decisions. In addition, the consensus-building process required multiple engineering iterations, research and field tests by the designer.

For example, staff and the design team initially proposed 14-inch high curbs for the transit center in order to facilitate level bus boardings. The City asked that the design team provide additional supporting information for the proposal. Staff conducted a simulation of buses pulling up to different curb heights and concluded that a 10-inch curb was the maximum curb height that would not cause damage to AC Transit buses. In the end, the City only approved an 8-inch curb height because it was an existing standard, and City staff asserted that a higher curb would create unsafe pedestrian access.

The foregoing process was repeated for every design detail that the City questioned. At times, the process led to the approval of some design concepts, while at other times it led to a compromise. Ultimately, the design team worked with the following persons or agencies in order to work through the approval process and build the UTC:

- Oakland City Council Member Nancy Nadel
- City of Oakland ADA Administrator
- City of Oakland Community and Economic Development Agency (CEDA)

- City of Oakland Transportation Services
- City of Oakland Building Services
- City of Oakland Permitting
- City of Oakland Street Furniture Project Manager
- City of Oakland Landmarks Preservation Commission

The City determined that all of the construction projects in the Uptown District were going to create significant traffic issues for the surrounding roads. As a result, the City created the Uptown Transportation Management Plan to resolve traffic problems and sidewalk accessibility issues during construction of all Uptown projects. Since construction of the UTC would generate traffic back-up, and the other construction projects would affect AC Transit routes, The City asked AC Transit to fund half of this plan, at a cost of \$39,500.

As a result of the design team's efforts and resources being focused on the City of Oakland approval process, C-B was not able to advance other aspects of the project, such as site surveying. Consequently, only the project design was completed at the end of phase 1 of design. This additional coordination with the City of Oakland would eventually lead to more design fees and hours.

By the summer of 2005, the City had agreed to the flatwork design, in concept. The project budget escalated to \$3.2 million based upon the preliminary engineer's estimate. At the same time, the construction schedule for the Inner Telegraph Streetscape Project was rescheduled again to mid-2006, which would coincide with AC Transit's plans to launch the International Rapid, Line 1R. This change in schedule allowed the design team additional time to complete the project design. The team had already completed the 65% Construction Documents for the UTC. These documents were based upon *existing conditions* drawings provided by the utility companies as well as some of the adjacent properties. C-B eventually conducted its own site survey, which would give the designers the exact locations of underground utility facilities and property basements. The site survey work was not included in C-B's scope of work, but became a critical added deliverable that AC Transit funded.

The design team began to realize that the project site had the potential for numerous utility and basement conflicts that could affect construction. The existing conditions drawings and the site survey revealed utility conflicts with Time Warner Telecom (TWTC), AT&T, East Bay Municipal Utility District (EBMUD) and PG&E. It was discovered that the basements of adjacent properties were extremely shallow and extended out to the existing sidewalk edge. While the design team expected conflicts with underground utilities, they did not anticipate the discovery of major PG&E electrical ducts, transformers, switches and vaults. The detection of these major electrical utilities caused significant delays and cost overruns for both the project design as well as the estimated construction budget. The problems continued as additional utilities were identified during construction.

The location of the basements proved to be equally challenging because of corresponding impacts to the type of sidewalk pavement that could be used. The basements also constrained the structural design of the canopies. The plans for the canopies went through multiple iterations, until finally a solution was found which included structural footings that did not conflict with the basements or the existing fixed utilities, particularly a 12 kilo-volt PG&E electrical line that powered a number of Oakland city blocks. The only viable canopy structure solution was one with an 8-foot wide by 40-foot long overhang. The footings of the canopy fit exactly between the basement wall and the high-voltage power-line, but extended over 20 feet into the ground for proper structural support. The canopy roofline needed to be at least 11 feet high (measured from the sidewalk) in order to clear the height of AC Transit buses and to avoid collisions as buses pulled in and out of the bus stops.

The City approved the canopy design, but staff and the designers also wanted approval from the I. Magnin Building property management since they were a key project stakeholder. Because of existing utility constraints in the site plan, the designers placed one of the canopies directly in front of the main I. Magnin entrance on 20th Street. I. Magnin did not support this and requested a different solution. The tenants did not want seating in front of the property, because of the issues encountered earlier with the existing bus stop. The design team responded with a modified 20-foot long canopy that did not block the I. Magnin entryway and had no bench seating. I. Magnin management was pleased with the design revision and approved the project for construction.

By fall of 2005, the design team had completed the 100% design drawings for the UTC flatwork and was ready to add the final canopy design to its scope of work. The cost to AC Transit for this additional design work was \$132,000.

With completion of the flatwork design, AC Transit moved to the construction phase of the project. The goal was to complete UTC construction by June 2006, when the 1R line was originally planned to be implemented, and before construction was to begin on the Inner Telegraph Streetscape Project. Staff was interested in avoiding a conflict between the 1R service route and construction of the UTC. Staff and the design team addressed this problem in two ways:

- 1) Construction of the UTC was divided into two contracts; one for the flatwork and one for the canopies
- 2) Alameda County CMA (ACCMA) agreed to manage construction of the UTC flatwork as part of its Smart Corridors program

By dividing the project, procurement and construction of the flatwork could begin while the design team finalized the canopy design. Staff concluded that this solution would eliminate conflicts with the International Rapid Bus and the Inner Telegraph Streetscape Project. Once the flatwork was done, AC Transit could immediately run the Rapid buses along Broadway & 20th Street and avoid any construction conflicts on Inner Telegraph. Transferring construction of the flatwork over to the ACCMA would tie

completion of the project with the implementation of the International Rapid. Also, the ACCMA's Smart Corridors Project carried a City of Oakland permit exemption that could also apply to construction of the UTC.

With the transfer of the flatwork construction, the ACCMA charged AC Transit for on-site construction management, procurement fees, administrative support from sub-contractors and a 10% CMA administration fee of \$150,000. These fees totaled \$801,000. At this point, the UTC project budget neared \$4,000,000.

To simplify the project and address future, ongoing maintenance issues, AC Transit staff asked the City of Oakland to take over ownership of the transit center once it was complete. This request would free AC Transit from any maintenance and liability in the City of Oakland right-of-way. The City denied this request, instead requiring AC Transit to own and maintain the bus canopies. In order for AC Transit to do this, the District needed to apply for a Minor Encroachment Permit that required City Council approval. The City requested this permit despite ACCMA's Smart Corridor permit exemption. The process for this permit took the design team three months to complete and left AC Transit responsible not only for all project capital costs, but all operational costs as well. The Minor Encroachment Permit application process delayed start of flatwork construction until spring of 2006. By this time, the once simple project had been delayed 9 months.

AC Transit would also eventually need to apply for building permits since it was building above-ground canopy structures that the City did not own. These permits were not covered under the Smart Corridors exemption. The total cost of all city permits for the UTC Project was \$29,000.

The design team and FMG Architects completed final canopy design, as it was needed for the Minor Encroachment Permit. The engineer's estimate for the fabrication and installation of the canopies (six in total) was over \$900,000, or roughly \$150,000 per canopy. Staff initially estimated a cost of \$60,000 per canopy. This estimate was based upon previous AC Transit canopy projects at the Eastmont Transit Center and the Fruitvale BART Station. The nearly 200% increase in estimated canopy costs was primarily due to the rise in steel and material prices over the past few years.

Construction Process

In October 2005, construction began on the Uptown Transit Center. The utility companies were the first crews to break ground. These companies were responsible for relocating any utilities that were in conflict with the UTC design. Although the work was conducted by the utility companies, AC Transit was financially responsible for the work. The one utility company that did not complete its relocations prior to start of the UTC construction was PG&E. Coincidentally, PG&E had the most utilities to adjust and relocate. In order to meet project deadlines and minimize conflicts with other construction projects, AC Transit and the ACCMA proceeded with procuring a

contractor to begin construction of the flatwork. PG&E and the selected contractor would need to coordinate construction as a result.

In December 2005, the ACCMA awarded the flatwork construction contract to NTK Construction (NTK). The selected contractor bid the contract at \$1.6 million – about \$200,000 under the engineer's estimate. AC Transit and the ACCMA did not issue a Notice to Proceed to NTK until March 2006. This delay was due to the Minor Encroachment Permit process for the canopies. AC Transit instructed the ACCMA not to proceed with construction until the City issued this permit because the permit would determine whether or not NTK would construct the canopy foundations as part of the flatwork contract.

AC Transit was fortunate to have a fair and cooperative flatwork contractor in NTK. However, there were a number of issues with construction that affected the budget and schedule. From the start, NTK had a number of questions (Requests for Inquiries or RFIs) regarding C-B's flatwork design. Although the CMA's Smart Corridors construction management team (Harris & Associates) was responsible for addressing the RFIs, C-B still needed to provide quick responses in order to avoid causing a delay in the schedule. The abundance of RFIs and some contractor errors resulted in additional construction support fees paid to C-B by AC Transit in the amount of \$50,000. Ideally, the construction manager should have caught these errors and provided input, but it is difficult to define and resolve every error in the project during construction. Unfortunately, AC Transit was financially responsible for these errors.

The two main issues that resulted in cost overruns on the flatwork construction were PG&E coordination and I. Magnin basement problems. As work progressed on the flatwork, NTK discovered additional PG&E utilities that needed to be adjusted or relocated. In one instance, NTK construction crews drilled into an abandoned electrical duct bank. Rather than allowing NTK to proceed with its work, PG&E halted construction, fixed the broken duct bank and charged AC Transit for the repairs. In another instance, PG&E needed to power down a transformer that was to be relocated. The transformer powered a Lawrence Laboratory "super computer" that required 30 days notice to shut down. This lead time created significant construction delays. NTK worked for as long as possible, but eventually there was no work to be done that didn't require PG&E coordination. Fortunately, NTK did not issue any delay claims against the ACCMA or AC Transit on this project.

Additional necessary PG&E utility relocations discovered in the field resulted in cost overruns from the designer, the construction contractor and PG&E, because none of these relocations were planned. Consequently, there was extra design and construction effort needed to accomplish these additional relocations. All of the extra work resulted in extra construction time and a delay in schedule. However, by this point, AC Transit had delayed the launch of the new Rapid, and the City had also once again pushed back the start of the Inner Telegraph Streetscape Project construction.

The other source of delay on flatwork construction was the I. Magnin basement issue. In the demolition phase of construction, NTK broke through I. Magnin's basement water-proof membrane (not identified in the site survey or the existing conditions plans). NTK also discovered some sub-standard basement roof patchwork. The construction manager halted construction in order to consult with the design team and determine a solution to re-install the water-proof membrane and to structurally improve the basement roof. This unforeseen condition required additional design and construction work while again delaying the project schedule. Again, NTK did not issue any delay claims for this project hiatus. AC Transit paid for the cost of the water-proof membrane and split the cost of the basement roof improvements with I. Magnin. Overall, these repairs cost AC Transit an additional \$20,000 in construction.

By December 2006, NTK completed the UTC flatwork with change orders totaling less than \$120,000, or 8% of the contract bid. This percentage amounts to about half of the standard contingency budget on most construction projects. In addition, the project budget plus change order fees still amounted to less than the engineer's estimate. After completion, the City opened the roadway to vehicular and pedestrian traffic. AC Transit pushed back the launch of the Rapid to June 2007 and the City delayed the Inner Telegraph Streetscape Project indefinitely due to a lack of funding and existing infrastructure and basement conflicts.

In February 2007, AC Transit independently awarded the UTC canopy fabrication and installation contract to Dahl-Taylor & Associates (Dahl-Taylor). Dahl-Taylor's bid for the contract was \$845,000, about \$50,000 less than the engineer's estimate. It was estimated that fabrication and installation would take five months to complete. AC Transit took on the construction management responsibilities for this contract through the agency's newly formed Architectural & Engineering Services Department. Like NTK Construction, Dahl-Taylor was a fair and cooperative contractor that did not issue any delay claims for design-related issues or errors from the previous contract. In addition, AC Transit had more control over this contractor, since the District was the direct project and construction manager for the work.

Dahl-Taylor ran into construction problems with the misaligned footings from the previous contract. NTK had had difficulty installing the footings, but they needed to be installed with the flatwork. The alignment of the canopies and the footings required additional engineering and construction work by C-B and Dahl-Taylor. Engineering the solution consequently created delays in the construction schedule. Dahl-Taylor also had a number of RFIs which resulted in some contract change orders, and additional construction support hours from the design team. Dahl-Taylor misinterpreted the design plans at times, but also identified missing information in them. Overall, Dahl-Taylor charged AC Transit an estimated \$50,000 in contract change orders, or about 6% of the contract bid.

Dahl-Taylor faced extensive delays in the fabrication and installation process, but generally did not charge AC Transit for additional construction hours. Although actual

fabrication and installation was more difficult and labor-intensive than it appeared, Dahl-Taylor did not change its original contract fee. The contractor completed the canopies in November 2007. With all of the canopy fabrication and installation difficulties, the design team expended additional construction support and engineering hours, which cost AC Transit an additional \$25,000. However, the added effort and responsiveness by C-B on the entire project was necessary to complete the transit center.

In the end, planning, design and construction of the Uptown Transit Center presented numerous political and technical issues. As the project progressed, staff realized that streetscape improvement projects in Downtown Oakland are very challenging due to old underground infrastructure (i.e. basements). Of the various streetscape projects in the new Uptown District, all three faced significant cost-overruns and schedule delays. Fortunately, AC Transit worked through the infrastructure obstacles and now owns the only completed streetscape improvement project in Uptown.

Cost-Overruns and Schedule Delay Summary

The following table summarizes and quantifies the source of estimated project schedule delays and cost overruns for the Uptown Transit Center Project:

Issue	Responsible Party	Estimated Delay (in months)	Estimated Additional Design Cost	Estimated Additional Construction Cost
City construction or AC Transit construction?	City of Oakland	1	\$0	\$0
Project design details approval	City of Oakland	3	\$14,000	\$30,000
Project transition to Inner Telegraph	City of Oakland	1	\$5,000	\$80,000
Uptown Transportation Management Plan	City of Oakland	0	\$39,500	\$0
Site survey work	Carter Burgess	0	\$26,500	\$0
Custom canopy design	Carter Burgess	0	\$132,000	\$0
Additional CMA construction management	CMA	0	\$0	\$500,000
CMA administration fee	CMA	0	\$0	\$150,000
Minor Encroachment Permit Application	City of Oakland	3	\$0	\$1,000
Building permits	City of Oakland	2	\$0	\$28,000
Additional canopy fabrication fees	Dahl-Taylor	0	\$0	\$490,000
Additional PG&E utility relocation	PG&E	2	\$12,000	\$13,000
PG&E abandoned duct bank repair	PG&E	0.5		\$58,000
PG&E major transformer relocation	PG&E	1	\$0	\$0
I.Magnin basement water-proofing	I. Magnin	0.5	\$2,000	\$14,000
I.Magnin basement roof repair	I. Magnin	0.5	\$3,000	\$3,500
NTK construction RFI responses & support	Carter Burgess	0	\$14,000	\$0
NTK construction change orders	NTK	1	\$0	\$97,000
Dahl Taylor RFI responses & support	Carter Burgess	1	\$27,000	\$0
Dahl Taylor construction change orders	Dahl-Taylor	1	\$0	\$50,000
Dahl-Taylor fabrication delays	Dahl-Taylor	2	\$0	\$0
Dahl-Taylor installation delays	Dahl-Taylor	2	\$0	\$0
TOTAL		21.5	\$275,000	\$1,514,500

Lessons Learned

Staff learned a number of lessons from this unique project which will assist AC Transit in managing and implementing similar projects in the future:

- City coordination must occur in a preliminary engineering phase where the affected city and AC Transit come to design consensus. This is particularly important for AC Transit since it does not own any right-of-way. It is also easier for AC Transit to act as a project sponsor rather than a project lead if the affected city is willing to take on this responsibility.
- Streetscape improvement projects in downtown Oakland and any other areas with old underground infrastructure are extremely challenging because all conflicts are not discovered until actual construction starts. However, an experienced and qualified engineering team can work through the conflicts with a thorough underground investigation and the ability to anticipate potential issues prior to construction.
- Project designers must conduct a site survey early in the design process to determine AC Transit's financial exposure related to underground infrastructure and utilities.
- AC Transit should have staff that can act as a liaison to utility companies in order to facilitate project utility issues.
- AC Transit should never divide a construction project into two separate contracts regardless of the circumstances.
- In situations where AC Transit is the project lead, the agency should manage and procure a construction project on its own as much as possible. With more control of a project, there is a better chance to maintain the project schedule and minimize project cost-overruns.
- If AC Transit is not capable of completing a project in-house, the agency should minimize the number of contractors to hire so that they are held more accountable. For example, on this project, the design team and the construction team should have been the same company. That company would be familiar with the project and be able to quickly respond to contract RFIs.
- AC Transit should capitalize on public/private partnerships to assist in the funding of these types of projects. On this project, the Forest City Development was adjacent to the UTC, yet the developers were minimally involved.
- If AC Transit intends to use the canopy design for future projects, the plans and specifications should be value-engineered to determine ways to reduce fabrication and material costs, simplify the design details and streamline the installation process. The value-engineer should examine the use of lighter materials, standardization of parts and more caulking in lieu of welding. The value-engineer should explore pre-fabricated options if they are appropriate for the surrounding landscape.
- AC Transit and the project designers will re-examine and analyze the effectiveness of the canopies in terms of providing ample weather protection. Although there are many constraints which dictated the design, the design team

will explore options which will improve weather protection while keeping costs down and maintaining structural and aesthetic integrity.

- There is a learning curve with this type of project because AC Transit is rarely the owner of streetscape improvement projects. If the agency can take advantage of its existing resources to complete a similar project in the future, it will manage it better and more efficiently.

Prior Relevant Board Actions/Policies:

GM Memo 07-216: Uptown Transit Center Project Update

GM Memo 06-187: Resolution for RM-2 funding for Uptown Transit Center canopies with initial IPR included

GM Memo 05-172a: Uptown Transit Center Project Update

Attachments: Uptown Transit Center Project Budget

Approved by: Rick Fernandez, General Manager
Nancy Skowbo, Deputy General Manager, Service Development

Prepared by: Robert del Rosario, Senior Transportation Planner

Date Prepared: December 31, 2007

Uptown Transit Center Final Project Budget

Flatwork		
	Design	
1	Phase 1 Design	\$ 149,980
2	Phase 2 Design	\$ 237,114
3	Potholing	\$ 26,590
4	Uptown Transportation Management Plan	\$ 39,500
5	Additional Construction Support	\$ 50,000
6	Design Total	\$ 503,184
	Construction	
7	Construction and Signal Interconnect work	\$ 1,590,343
8	Additional BART insurance coverage	\$ 8,300
9	Signal Interconnect work (paid by Rapid Bus budget)	\$ (85,800)
10	I. Magnin payment for elevator shaft infill/decorative sidewalk	\$ (3,500)
11	Total Construction Change Orders	\$ 118,203
12	Construction Total	\$ 1,627,546
	Project & Construction Management	
13	Advertisement	\$ 10,000
14	Kimley-Horn bid preparation/coordination/assistance	\$ 75,000
15	PDM	\$ 98,666
16	WRBD	\$ 5,000
17	VSCE	\$ 50,470
18	Harris & Associates Construction Management	\$ 453,980
19	CMA Administration fee	\$ 148,666
20	Signal Interconnect work (paid by Rapid Bus budget)	\$ (40,757)
21	Project & Construction Management Total	\$ 801,025
	Utility Relocation & Services	
22	Time Warner Tele-Communication Utility Relocation	\$ 140,768
23	SBC Utility Relocation	\$ 19,476
24	EBMUD Utility Relocation	\$ 12,400
25	PG&E Utility Relocation	\$ 467,901
26	Utility Relocation Total	\$ 640,545
27	Flatwork Total	\$ 3,572,300
Street Furniture and Amenities		
28	Canopy Fabrication and Installation (6 canopies)	\$ 845,100
29	Street Furniture/Canopy Design	\$ 132,274
30	Additional Construction Support	\$ 26,940
31	Minor Encroachment Permit/Bullding Permit	\$ 28,702
32	Total Construction Change Orders	\$ 50,080
33	Street Light Banners	\$ 3,000
34	Nextbus Service & Signage	\$ 55,328
35	Street Furniture and Amenities Total	\$ 1,141,424
Project Total		
36	Flatwork Total	\$ 3,572,300
37	Street Furniture and Amenities Total	\$ 1,141,424
38	Ribbon Cutting Ceremony Total	\$ 1,000
39	Grand Total	\$ 4,713,724
	MTC available funds	\$ 4,757,000
	Remaining MTC funds	\$ 43,276

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 08-096

Meeting Date: April 23, 2008

Committees:

Planning Committee
External Affairs Committee
Rider Complaint Committee
Board of Directors

Finance and Audit Committee
Operations Committee
Paratransit Committee
Financing Corporation

SUBJECT: Consider Update on Retrofit of the Uptown Transit Center Bus Canopies in Order to Improve Rain Protection

RECOMMENDED ACTION:

Information Only Briefing Item Recommended Motion

Fiscal Impact:

To be determined after constructability review. Project will be fully funded with Regional Measure-2 funds.

Background/Discussion:

In January 2008, staff provided the Board of Directors with a verbal update on the status of the Uptown Transit Center bus canopies. In particular, staff addressed the issue of the lack of rain protection inside the canopies, which was a concern raised by riders. Staff worked with the canopy designers (Jacobs Carter Burgess and FMG Architects) to analyze the problem and determine possible solutions. Together, staff and the designers concluded that the primary source of rainwater entering the canopies came from run-off from the pitched roofs; the water would drip off the roof, splashing off the top of the windscreen frame and into the waiting area. This became problematic in moderate to heavy rain conditions.

BOARD ACTION:

Approved as Recommended [] Other []
Approved with Modification(s) []

The above order was passed on:

Linda A. Nemeroff, District Secretary

By _____

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 08-211

Meeting Date: September 10, 2008

Committees:

Planning Committee
External Affairs Committee
Rider Complaint Committee
Board of Directors

Finance and Audit Committee
Operations Committee
Paratransit Committee
Financing Corporation

SUBJECT: Consider Recommending Adoption of Resolution No. 08-054 Amending the Uptown Transit Center Initial Project Report (IPR) to Request Additional Capital Funds from MTC and to Amend the Construction Contract with Dahl Taylor to Include Weather Protection Improvements to the Uptown Transit Center.

RECOMMENDED ACTION:

Information Only Briefing Item Recommended Motion

Recommend adoption of Resolution No. 08-054

Fiscal Impact:

Request to MTC for new Regional Measure 2 allocation in the amount of \$600,000 and approve \$456,398 construction contract amendment with Dahl Taylor for the weather protection improvements to the Uptown Transit Center.

Background/Discussion:

The changes to the uptown project will be fully funded with Regional Measure 2 (RM2). Approved by the voters in 2004, RM2 revenues are generated from the third dollar on the State-Owned toll bridges.

In January 2008, staff provided the Board of Directors with a verbal update on the status of the Uptown Transit Center bus canopies. Specifically, staff explained that riders had raised concerns about the lack of rain protection inside the canopies. Staff worked with the canopy designers (Jacobs Carter Burgess and FMG Architects) to analyze the problem and determine possible solutions. Together, staff and the designers concluded that the primary source of rainwater entering the canopies came from run-off from the pitched roofs. This design became problematic in moderate to heavy rain conditions.

BOARD ACTION: Approved as Recommended [] Other []
Approved with Modification(s) []

The above order was passed on:

Linda A. Nemeroff, District Secretary
By _____

Sections 2.3.2 and 2.3.3 of the Alternative chapter provide detail on BRT alternatives, and Figure 2.3-2 shows the limits of the alignment types.

S.2.2.3 Stations

There are 47 stations proposed as part of the LPA, including six stations in Berkeley, 36 stations in Oakland, and five stations in San Leandro. Other than crossing Lake Merritt Dam and I-580, all stations are less than 0.45 miles apart, with 90 percent of stations less than 0.4 miles apart. Average station spacing is 0.31 mile. The DOSL Alternative includes 32 of these stations, from 20th Street south to San Leandro BART.

For passengers, BRT stations in Oakland and San Leandro will be the most recognizable feature of the East Bay BRT Project. Stations in the roadway median will be designed to provide passenger platforms typically 12-feet wide and 60-feet long, raised 13 to 15 inches above the top of the roadway pavement. Stations along the curb will extend approximately six to eight feet from the curb and be raised 13 to 15 inches above pavement at the boarding edge, be integrated into the adjacent sidewalk, and also be 60-feet long. Platforms will be at or slightly lower than the floor level of BRT buses, allowing fast and convenient passenger loading and unloading. Buses will pull into the station for boarding and alighting through either left-side (median stations) or right-side doorways (curbside stations). For median stations, which there are 28, boarding will occur via left-side doorways. The median stations are located in segments where there is a dedicated median transitway. Curbside stations occur where there is no dedicated transitway or in the limited segments with dedicated transitway along the outside travel lanes.

The typical BRT operational configuration is to have only one bus picking up or dropping off passengers at a station at any time. In certain locations, where local buses operating on other routes follow the BRT alignment and also could stop to pick up and drop off passengers, stations will be extended to 120 feet to accommodate two buses simultaneously.

Curbside stations in Berkeley will include ticket vending machines, passenger information, and passenger shelters. BRT stations in Oakland and San Leandro will provide a high level of amenities and provide convenient, safe, and secure areas for system users. All stations will include the following features:

- Raised platforms with lighting.
- Ticket vending machines and ticket validators; a minimum of one at each station platform. Passengers will be able to buy fare cards using cash and credit/debit or smart cards.
- Passenger information kiosks featuring active data displays and ADA-compliant audio capability for announcing information such as actual bus arrival times, and display space for maps, schedules and other passenger information.
- Windscreens and framed canopy shelters with benches for the comfort of waiting passengers. Canopy shelters will be well lit and open to view from the street. Examples of canopy shelters and other station features are shown in Section 4.6, Visual/Aesthetics.
- ADA-compliant routes of access and egress from the street crosswalk or sidewalk.