CITY OF OAKLAND
AGENDA REPORT

TO: Office of the City Manager
ATTN: Deborah Edgerly
FROM: Public Works Agency
DATE: March 9, 2004

RE: **SUPPLEMENTAL REPORT TO THE RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A PROFESSIONAL SERVICES AGREEMENT WITH RAJAPPAN & MEYER CONSULTING ENGINEERS INC. FOR DESIGN SERVICES FOR THE 12TH STREET RECONSTRUCTION PROJECT FOR AN AMOUNT NOT TO EXCEED FOUR MILLION SEVEN HUNDRED THOUSAND DOLLARS ($4,700,000)**

SUMMARY

At the February 24, 2004, Public Works Committee meeting, Public Works staff presented a report on the subject project. The report presented a detailed description of the project, described the consultant selection process, and recommended awarding the project to the most qualified firm, Rajappan and Meyer. Public Works Committee requested additional information regarding the distinguishing aspects of the two top-ranked consultant teams, Rajappan & Meyer and Parsons Brinckerhoff.

The City received seven proposals for design services in response to the project's RFP. On December 2, 2003, the top three short-listed teams gave detailed presentations on their proposals to a seven-member panel assembled by the City. Based on these interviews and presentations, Rajappan & Meyer Consulting Engineers was selected as the team most qualified to complete this project. Rajappan & Meyer was ranked first by six of the seven panel members, while Parsons Brinckerhoff was ranked first by only two members. Although both teams are highly qualified with strong experience in urban, landscape, streetscape, highway, and general civil engineering design, they differ in their vision, design approach, and understanding of project challenges.

FISCAL IMPACT

This is a supplemental report. No additional fiscal impact is identified.

BACKGROUND

The 12th Street Reconstruction Project is one of the most important urban design projects to be proposed for the City of Oakland. This project constitutes one of the largest components of the Lake Merritt Master Plan, which has extensive community support, as demonstrated by the wide margin approval of "Measure DD", the Oakland Clean Water, Safe Waterfront Parks and Recreation Trust Fund.

Given the size of the project and its budget of $47.25 million, and in order to produce the best possible results, the City of Oakland solicited proposals from qualified firms for design services as outlined in the Lake Merritt Master Plan.

KEY ISSUES AND IMPACTS

Selected sections from the proposals of the top two consultant teams are provided in Attachment A (Rajappan and Meyer) and Attachment B (Parsons Brinckerhoff), which review their relevant experience and project approach and organization.

Local Business and Staffing

Although all of the teams met the requirements for local participation, the Rajappan & Meyer (R&M) team is the only one that is led by a small local business and is comprised of a large number of small firms. Over 50% of the work will be completed locally. Although not a part of the decision-making process, it is important to note that this team includes firms with national and international reputation and all are headquartered in the Bay Area.

Key principals of R&M and ROMA Design Group have committed significant time and energy of highly qualified individuals to the project. The Team Project Manager will be Keith Meyer and the Lead Civil Engineer will be Bala Rajappan from Rajappan & Meyer; the Lead Architect will be Boris Dramov and the Lead Landscape Architect will be Bonnie Fisher from ROMA Design Group. These are the principals with the experience and qualifications which distinguished their firms.

The team that Parsons Brinckerhoff (PB) assembled for this project was composed of Oakland firms and individuals with a thorough understanding of the project history and issues. They also shared the vision of creative possibilities to improve the community. Key members of the PB team were involved in the development of the Lake Merritt Master Plan. The team studied the history and relevant documents to form a plan of action to meet the goals outlined in the plan. PGA Design, James Vann, and Bottomley Design were some of the key subconsultants on the project team.

Qualifications

The R&M team has extensive experience with streetscape, highway, and general civil engineering design projects. The firm has completed projects throughout Northern California, such as the Almaden Boulevard project and the San Pedro Improvements in the City of San Jose.

Rajappan & Meyer's experience in the engineering design of urban roadway reconstruction projects of comparable size and nature makes them extremely well qualified for this project. They maintain one of the largest transportation design staff in Northern California, have managed transportation projects of more than $70 million in value, and demonstrated an in-depth understanding of local issues, construction methods and cost control procedures.

ROMA Design Group, as the urban design lead on the R&M team, has established an international reputation for design excellence and commitment to the improvement of the urban environment. ROMA has completed waterfront projects in San Francisco, Suisun City, Portland, Seattle, and Vancouver. Also, ROMA won the competition (out of 1000 national and international entries) for the design of the new Martin Luther King Jr. National Memorial in Washington, DC. Please refer to Attachment A.

The PB team was also highly qualified. The team led by Parson Brinckerhoff was augmented by eight subconsultants who were chosen for their recognized strengths in their fields and their proven track record in working with PB. Key members have extensive experience in working with the City of Oakland on streetscape and capital improvement projects.

Terry Bottomley of Bottomley Design & Planning has extensive experience in urban planning and design especially in revitalization related development plans and capital improvement projects. His work includes land use and redevelopment area master plans, development of design standards and design guidelines, streetscape and public space concept design, and construction plans. Terry Bottomley was instrumental in the development of the Downtown Oakland Master Plan.

However, the R&M team demonstrated unparalleled experience in the design of transportation and open space improvements in unique waterfront settings. This team's proposed organizational structure, which integrated the design of transportation, hydrologic, and open space improvements, was outstanding. The direct involvement of the principals of R&M and ROMA in the project management and design gave their team an edge over their competitors.

Vision and Design Approach

During their presentation, the R&M/ROMA team demonstrated significant understanding of the project issues and challenges exceeding the level of understanding by other teams. Here is a brief description of some of these challenges and the team's vision and approach:

- More than any other team, the R&M team demonstrated an in-depth understanding of the community's vision for the site and how its potential could be realized. The team's grasp of functional and aesthetic considerations related to open space, transportation, hydrology, grading and landscape design was unsurpassed.

- The R&M team demonstrated superior experience in completed projects which have replaced single-purpose transportation facilities and which helped to knit the city fabric and its unique resources back together to create meaningful and lively public places. As the urban design lead, ROMA's projects on the Oakland, San Francisco, Portland, Seattle and Vancouver waterfronts on the West Coast, and ROMA's design for the Martin Luther King, Jr. National Memorial in Washington, DC demonstrated design excellence and outstanding qualifications for this project.

- One of the main challenges identified by ROMA is the need to improve the transition from the Convention Center parking lot area to the lake elevation with a flatter slope. As proposed by the traffic study referenced by the Lake Merritt Master Plan, the construction of six traffic lanes with parking and two left turning lanes requires high retaining walls to approximate the large open space envisioned on the park plan.

- The R&M team modeled the proposed street alignment and a computerized traffic simulation was presented to demonstrate the need to refine the traffic study results outlined on the Lake Merritt Master Plan. The model defined excess capacity and potential traffic congestion areas. The added benefits include, shorter pedestrian crossings and additional space needed to transition from the high roadway elevation to the lower lake level; thus flattening the transition slope and proposed ADA ramps.

- Another challenge identified by R&M is the need to revisit the 7th Street pump station relocation proposal. Relocating the pump station to 12th Street removes the flood control protection from 7th Street to 12th Street, and may require more than a year to relocate. To expedite the 12th Street Reconstruction Project and permitting process they have suggested relocating the pump station downstream and implementing the 10th Street bridge replacement project ahead of schedule; thus extending the park improvements along the channel earlier than originally anticipated.

Although most teams met the requirements outlined in the Lake Merritt Master Plan, the Rajappan and Meyer's proposal, presentation, and interview, included identifying and proposing solutions to some of the challenges for the 12th Street Reconstruction and associated Lake Merritt Channel projects. Again, a thorough understanding of the project challenges, creative solutions to these challenges, and a clear ability to successfully complete the design of this project, gave the R&M team high scores in their proposal and presentation.

Implementation

Although all top teams presented strong proposals, the R&M team showed exceptional expertise in the analysis of environmental issues and in the preparation of clear, complete and defensible environmental documents. The R&M team also proposed a community involvement process with proven techniques in eliciting input from all interest groups and gaining support from a broad and diverse cross-section of the community.

The R&M team's proposed approach to the permit approval process and their experience with all of the applicable related permitting and review agencies was unsurpassed. They thoroughly analyzed the proposed project schedules for all associated channel projects and suggested improvements to expedite the permitting process. Rajappan & Meyer's proposal includes integrating the urban design to provide continuity along the channel projects.

The R&M team proposed the most efficient construction staging plan. The proposed construction staging consists of a two-stage process to facilitate roadway and bridge construction and the

removal of the existing culverts. This minimizes traffic impact and reduces the construction time frame.

The top two teams, R&M and PB, proposed compressed design and construction schedules. However, the R&M team prepared a work program to demonstrate how they could save the City significant time and money. R&M developed an approach that could reduce the project timeframe by two years with construction complete by 2007 that could result in savings of more than 15% in project cost.

PROJECT DESCRIPTION

This is a supplemental report (see Attachments).

SUSTAINABLE OPPORTUNITIES

The additional sustainable opportunities by the R&M team consist of increasing the proposed open areas by reducing roadway width thus minimizing the amount of paved area.

DISABILITY AND SENIOR CITIZEN ACCESS

Both teams expressed concerns for ADA access issues. Both included in their proposal, for the 12th Street Reconstruction Project, improved access from the Kaiser Convention Center and Laney College to Lake Merritt. Also, the existing pedestrian tunnels will be replaced with at-grade signalized crosswalks. All pathways will be in compliance with the physical access requirements of the Americans with Disabilities Act (ADA), providing equal opportunity and access along Lake Merritt and to the Channel Park.

RECOMMENDATION AND RATIONALE

Although all of the top teams presented a strong understanding of the Master Plan vision and many of the challenges, the R&M was selected as the team most qualified to complete this project. Therefore, it is recommended that the resolution be approved authorizing the City Manager to enter into a Professional Services Agreement with Rajappan & Meyer Consulting Engineers Inc., a qualified small local engineering firm, for an amount not to exceed $4,700,000 including a 5.3% contingency.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council approve the resolution.

Respectfully submitted,

RAUL GODINEZ II, P.E.
Director, Public Works Agency

Reviewed by:
Fuad Sweiss, P.E.
Supervising Civil Engineer
Engineering Design Division

Prepared by:
Jose Martinez, P.E.
CIP Coordinator
Engineering Design Division

APPROVED AND FORWARDED TO THE
PUBLIC WORKS COMMITTEE:

OFFICE OF THE CITY MANAGER

Item: 3
Public Works Committee
March 09, 2004

Attachments:

Attachment A-Rajappan & Meyer

Relevant Experience

Project Approach and Organization

Attachment B-Parsons Brinckerhoff

Relevant Experience

Project Approach and Organization

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Attachment A

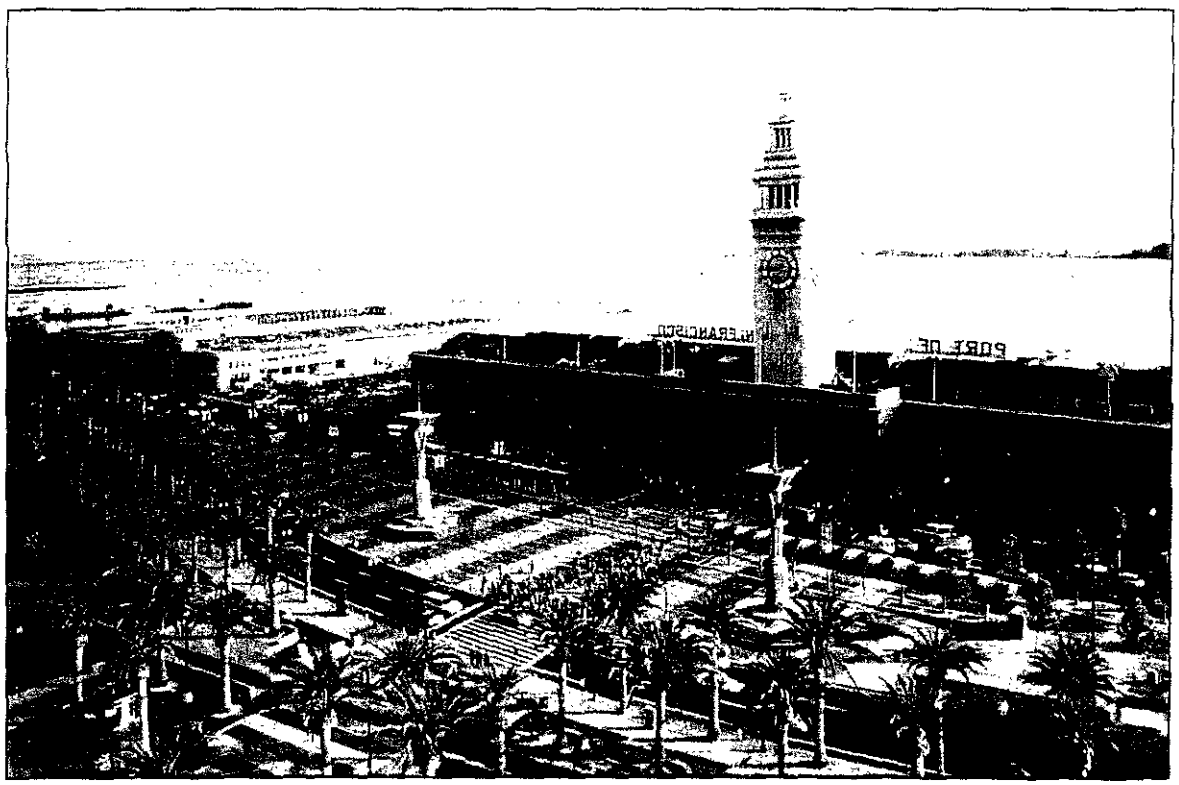
Rajappan & Meyer

Relevant Experience

Project Approach and Organization

Section 4 – Relevant Experience

SAN FRANCISCO WATERFRONT
Port of San Francisco



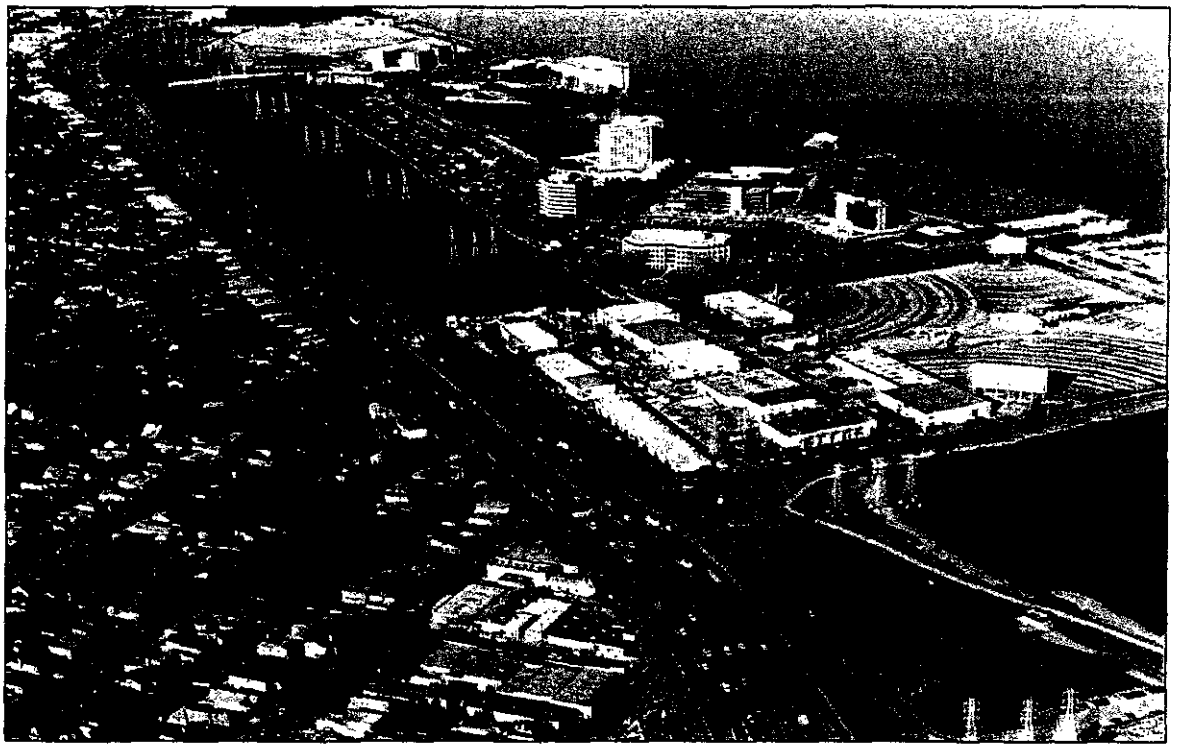
ROMA has undertaken numerous projects on the downtown San Francisco since the removal of the Embarcadero Freeway following the Loma Prieta earthquake. Our projects include the Mid-Embarcadero Transportation and Open Space Project, which includes a major new plaza in front of the historic Ferry Buildng, along with new transit facilities and improvements to the Embarcadero Roadway. In addition, ROMA designed the Downtown Ferry Terminal, on the waterside immediately to the north and south of the Ferry Building, which includes two new basins and passenger improvements, and the pedestrian and public access improvements that create a new setting for the Ferry Building. ROMA's role was the design of public space, roadway, parks and transit facilities within the Mid-Embarcadero waterfront, from Broadway to Folsom Streets.

Construction Completion Date: Mid-Embarcadero Transportation and Open Space Projects - 2000; Ferry Building Promenades and Public Spaces – 2003; Downtown Ferry Terminal – 2003; Public Access Pier (Pier 14) – 2004.

Construction Cost: $90 million for the Mid-Embarcadero Open Space and Transportation Project alone; $20 million Downtown Ferry Terminal.

Contact: **Nita Mizushima, Chief Harbor Engineer, Port of San Francisco, (415) 274-0559**
Pier 1, San Francisco, California 94111

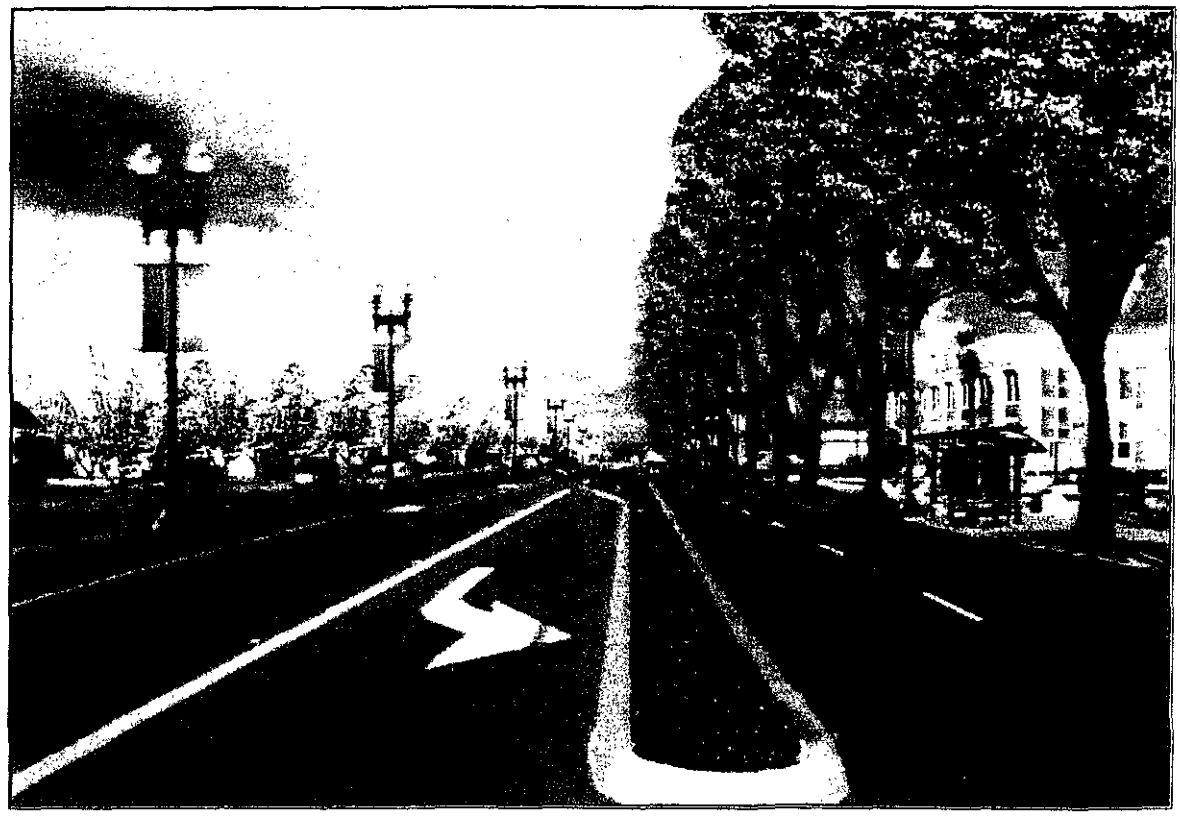
US-101 WIDENING & US-101/PENINSULA AVENUE INTERCHANGE
San Mateo County Transportation Authority



R&M is underway with the Project Report, Environmental Document, and PS&E for this $70 million widening of US-101 to include northbound and southbound auxiliary lanes for a distance of 3 miles, reconstruction of the Peninsula Avenue overcrossing, replacement of an existing pedestrian overcrossing, construction of a new pedestrian overcrossing, construction of 2 kilometers of soundwalls, construction of new and improved drainage systems, construction of 8 new retaining walls, and new freeway landscaping. The project is funded by the San Mateo County Transportation Authority (SMCTA) and Caltrans, and traverses through the Cities of Millbrae, Burlingame, and San Mateo. R&M has completed all surveying and utility investigation for the project and is now preparing 95% PS&E, design exception fact sheets, right of way data sheets, environmental documentation, and a project report. Permitting is required from the Bay and Coastal Development Commission (BCDC), Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and State Department of Fish and Game. Unique features of this project include the design of the Peninsula Avenue Interchange Overcrossing, retaining walls, and pedestrian/bike paths that blend in with the City of San Mateo's Municipal Golf Course on the southeast corner, as well as natural settings of the San Mateo County Coyote Point Park on the northeast corner. Extensive public outreach was conducted during planning and design phases. PS&E is scheduled to be completed in December 2003. Construction will start in June 2004 and be completed in June 2006.

Contact: Jim McKim, Principal Engineer, SMCTA, (510) 286-7226
1250 San Carlos Ave., San Carlos, CA 94070-1306

ROUTE 185 (INTERNATIONAL BOULEVARD) IMPROVEMENT PROJECT
City of Oakland



The City of Oakland hired R&M to prepare construction documents and PSR/PR for a $4 million high-profile streetscape and widening project along a 2 mile section of International Blvd, between 40 to 44th, 70th to 75th, 80th to 89th and 105th to Durant Avenue, which is also Caltrans SR-185. This project includes sidewalk widening to provide for pedestrian and bus nubs, construction of medians, modifications to traffic striping and cross-walks, street drainage, a 35-ft. high landmark structure, transit plazas, utility relocations and signal modifications. Architectural elements include hardscape design, trees and other landscape, pedestrian lights, street furniture and kiosks. R&M is responsible for project management, design of all civil elements, gaining approval from Caltrans-Dist 4 for all design exceptions, preparation of metric PSR/PR document, preparation of PS&E, permits and construction traffic support. In order to facilitate speedy approval by Caltrans, the project was packaged into sets of PS&E's – one for work inside Caltrans right of way, and one for work outside Caltrans right of way. Both projects will be wrapped into one bid document for ease of construction management by the City and to reduce cost through construction by a single contractor. Project construction will begin in May 2004 and end in June 2005.

Contact: **Emad Mirsaedi, Interim Supervising Civil Engineer, City of Oakland, (510) 238-6603**
250 Frank H. Ogawa Plaza, Oakland, CA 94612

DOWNTOWN SANTA MONICA
City of Santa Monica

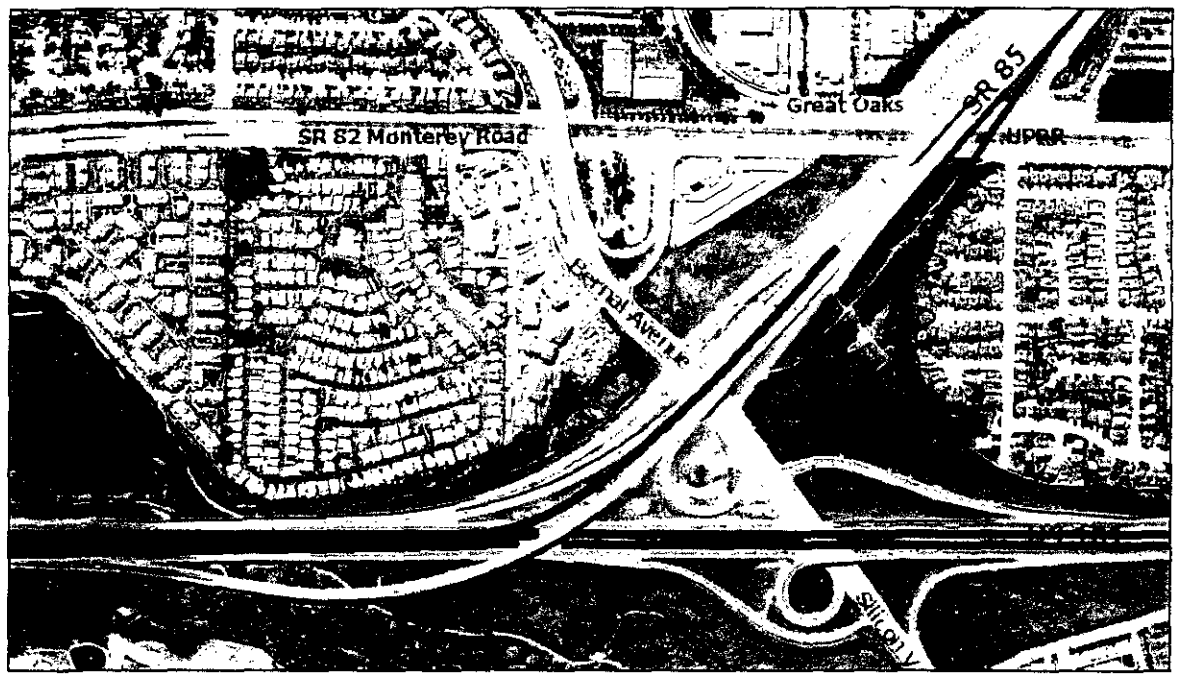
ROMA has undertaken a number of important projects in Santa Monica's downtown, beginning with the design of the Third Street Promenade, perhaps the single most successful pedestrian and social gathering place in the Los Angeles region. In order to extend the success of Third Street to adjacent areas, ROMA has worked with the City of Santa Monica on the design of the Transit Mall downtown as well as all of the public spaces and new streets and pedestrian linkages in the nearby Civic Center district. ROMA prepared the urban design plan for downtown Santa Monica as well as the master plan for the Civic Center, which will convert underutilized buildings and large scale parking lots to a number of major new parks and open spaces that serve community needs and which will add to the image, identity and livability of the city as a whole. ROMA's role was the design of all improvements; construction documents and supervision of Third Street Promenade.

Construction Completion Date: Third Street Promenade – 1990; Downtown Transit Mall – 2001; Public Safety Plaza and new Olympic Drive – 2003.

Construction Cost: $25-30 million

Contact: **Suzanne Frick, Planning Director, City of Santa Monica, (310) 458-2275**
1685 Main Street, Room 212, Santa Monica, California 90401

ROUTE 101/ROUTE 85 INTERCHANGE AND FREEWAY WIDENING PROJECT
Santa Clara Valley Transportation Authority



R&M was Prime Consultant to the Santa Clara Valley Transportation Authority (VTA) to prepare preliminary and final design of the Route 85/101 freeway-to-freeway interchange in south San Jose. The $65 million project includes a new median-to-median HOV direct ramp connector from Route 85 to Route 101 (south leg). The Project also includes widening of US 101 to eight lanes for a length of 4 kilometers, including two new bridges, widening of five other bridges and a new bridge over the UPRR/JPB tracks. 1000 linear feet of soundwalls are also being provided in the project. Extensive coordination with USFWS and ACOE was required for project permitting. R&M also prepared the construction and maintenance agreement for a new crossing of the UPRR. R&M completed PS&E in November 2001. The bids were 9% under R&M's estimate. The project started construction by the VTA in January 2001 and is schedule for completion in August 2004.

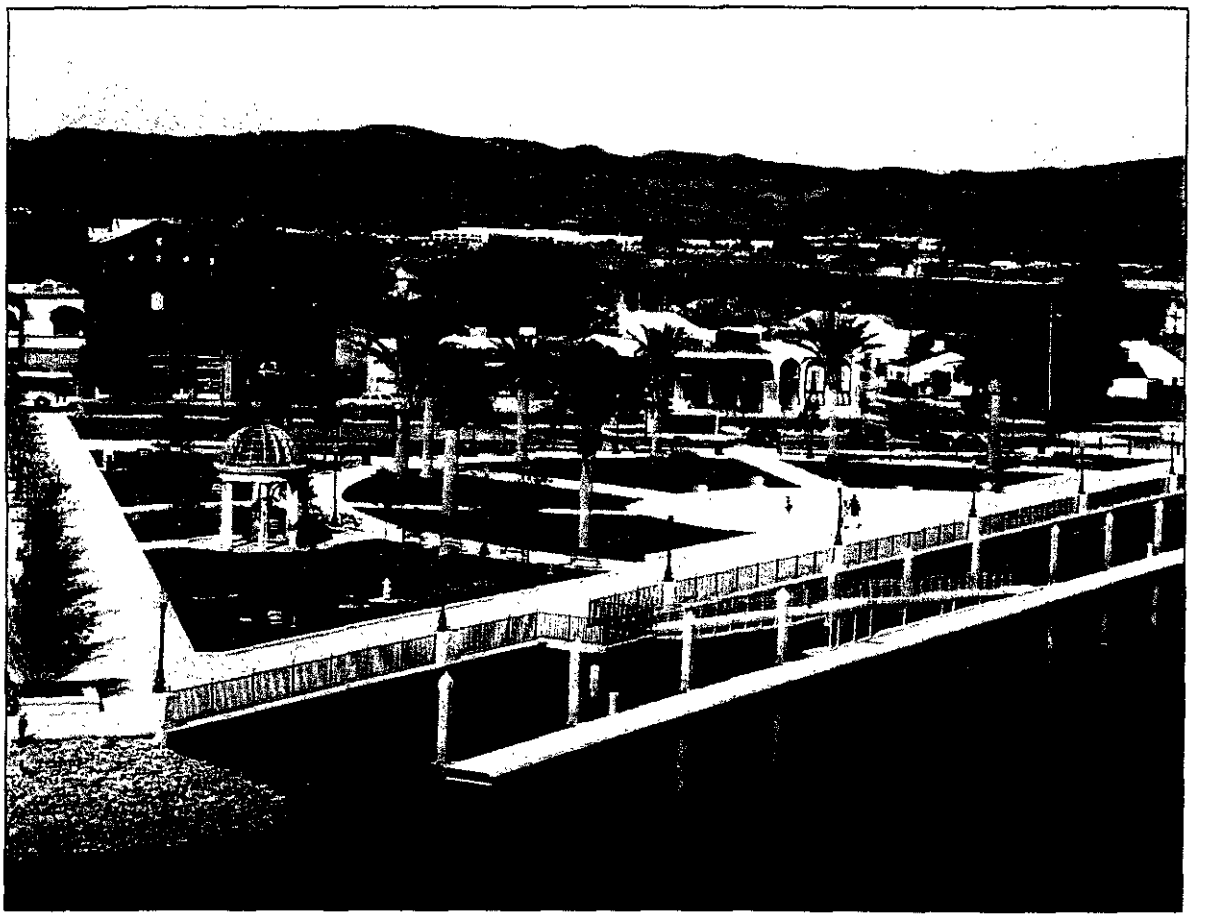
Contact: **John Ristow, Highway Design Manager, VTA, (408) 321-5713**
3331 N. First Street, San Jose, CA, 95134-1906

SAN PEDRO AND WEST SANTA CLARA IMPROVEMENTS
City of San Jose

As prime consultant, R&M prepared bus stop improvements, roadway, drainage, pavement, utility relocation, signal, lighting and landscape PS&E for the premier outdoor dining district in Downtown San Jose. San Pedro Street provides conduits for the Downtown power grid; as a result, extensive coordination with PG&E and other utilities was required. Ten major restaurants exist on the street, which utilize the new sidewalk for outdoor dining. Special attention was paid to massive utility conflicts existing on both streets. Extensive coordination with business and property owners was conducted to ensure project constructability. The $3 million project was fast tracked with design completed in 12 weeks. Construction started in April 1998 and was completed by December 1998.

Contact: Ru Veerkoon, San Jose RDA, 408-277-4744
100 W. San Fernando, San Jose, CA 95113

DOWNTOWN HARBORFRONT
Suisun City



Over the past eight years, ROMA has acted as the design architects for Suisun City's dramatic revitalization, preparing the initial master plan and serving as architects and landscape architects on numerous projects including the Town Plaza, all of the new commercial buildings, the Harbormaster's Building; the new marina, waterfront promenades and open spaces, and rehabilitated train station for intermodal use. ROMA also planned the new residential neighborhood which also has been built and a mixed use live/work complex south of the downtown. The Town Center, which includes new commercial residential and live/work development has been highly acclaimed throughout the country for its innovative mixed-use approach, design that is responsive to the historic character of the community, creating a pedestrian orientation and a vital mixed use center which is the focus of city life. ROMA's role was the design of all improvements, public space, parks, and transit facility within the Suisun Town Center.

Construction Completion Date: Town Plaza - 1994; Marina, Waterside Promenades, Parking Lots - 1994; Harbormaster's Building - 1994; Historic Rail Station - 1992; Downtown Streetscape Improvements - 2003 .

Construction Cost: $10 million

Contact: Mayor Jim Spering, Suisun City, (707) 421-7300.
701 Civic Center Boulevard, Suisun City, California 94585

ALMADEN BOULEVARD PROJECT
City of San Jose

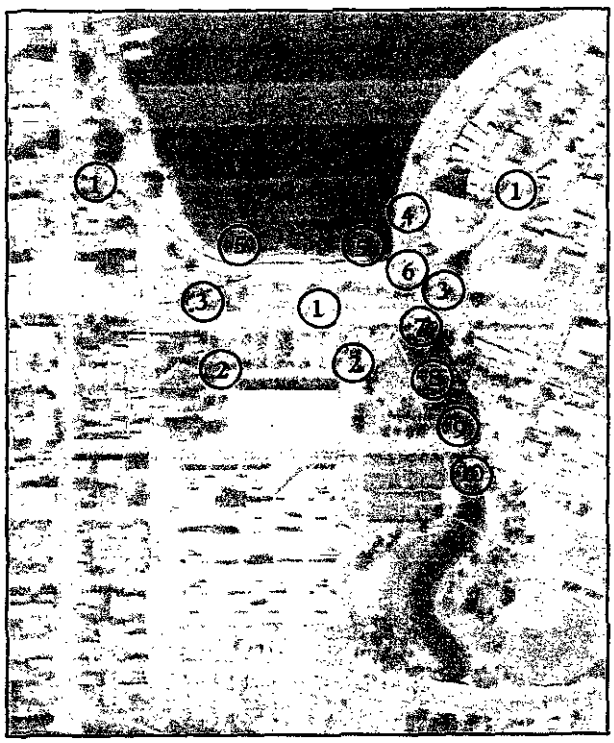
As prime consultant to the City of San Jose, R&M prepared roadway, drainage, pavement, utility relocation, signal, lighting and landscape PS&E for the final segment of signature improvements in Downtown San Jose. Special attention was paid to traffic controls along this highly visible and heavily traveled arterial street. The $1 million project was fast tracked with design completed in 10 weeks. Construction started in April 1999 and was completed in December 1999.

Contact: Ru Veerkoon, San Jose RDA, 408-277-4744
100 W. San Fernando, San Jose, CA 95113

Section 5 – Project Approach & Organization

INTRODUCTION

The City desires to retain an engineering and architectural design consulting team to implement the 12th Street Reconstruction project. The improvements are to be based on the recommendation from the Master Plan, dated July 2002, covering the subject areas. The projects consist of the following main components:



1. Reconfigure roadways at the south end of Lake Merritt, including 12th Street. Modify impacted traffic signals, street configurations at 11th, 12th, 13th, and 14th on the west side, Lakeshore Avenue, 1st Avenue, International, 15th, Foothill, and 12th on the east side, and modify corresponding traffic striping, new and improved drainage system, permanent surface runoff treatments, and relocate impacted utilities.
2. Improve access to the Kaiser Convention Center and Laney College.
3. Replace unsafe and unsightly pedestrian tunnels with at-grade signalized crosswalks.
4. Improve bicycle lanes and maintain an interim bicycle route during the early phase of this project.
5. Create a 5-acre shoreline park, adjacent to the modified 12th Street section, with a beach, pier, restroom, turf areas, a promenade, and multi-use paths.
6. Remove existing culverts at the Lake Merritt Channel. Construct a new pedestrian bridge over the channel.
7. Construct an attractive vehicular bridge at 12th Street to improve the natural tidal circulation into Lake Merritt and enhance water quality and wildlife habitat.
8. Widen Lake Merritt Channel to remove channel lining, create a channel park, and proivde slope stabilization underneath the bridges.
9. Provide direct pedestrian, bicycle, and boat access from Lake Merritt along the Lake Merritt Channel Park, allowing access to the Bay Trail and Estuary.
10. Implement a regulatory permit process and applications which will clear all channel projects to the extent possible.

The 12th Street Reconstruction Project, if realized, is one of the most important urban design projects to be proposed for Oakland in many years. Our approach to this project will be to provide a strong design vision, which transforms 12th Street from an expressway into a tree-lined boulevard, and which improves vehicular and pedestrian circulation while significantly enhancing the experience for the park's users.

While Lake Merritt is one of the most heavily used recreational areas in the City of Oakland, the 12th Street connection around the lake is its least attractive space. Both the Proposed Concept Plan and the Alternate Concept Plan present a vision which, if realized, would significantly improve the recreational potential of the lake. However, by their nature, Master Plans are painted with a broad brush. Large concepts are explored and goals generalized. It will be our job to take the next step: Looking more closely at the specific details of the Master Plan and the reactions of the city staff and the community to it. We will finalize the design development of the project to confirm the most desirable solution, and insure the feasibility of every aspect of the plan. Our goal will be to celebrate the cultural richness of Oakland and to provide a vibrant urban space of which we can all be proud.

URBAN DESIGN APPROACH

The R&M/ROMA team will take a strong urban design approach to the project, looking at the design in the context of the larger community and landscape. The majority of ROMA projects involve the "reknitting" of urban lands and the removal of physical, visual and psychological barriers created by single purpose vehicular movement facilities. As a result of this experience, we know how to restructure facilities and reconfigure land to maximize accessibility to waterfront and parkland resources. We see the 12th Street Project as an important act of city-building for Oakland, creating stronger linkages to the Estuary, Lake Merritt Park and the surrounding neighborhoods. This project will be the first in a series of improvements that will dramatically reshape this part of the city and reconnect the city with the water. It must be conceived as a transitional piece that is designed in consideration of existing conditions but anticipates the future possibilities that it will create.

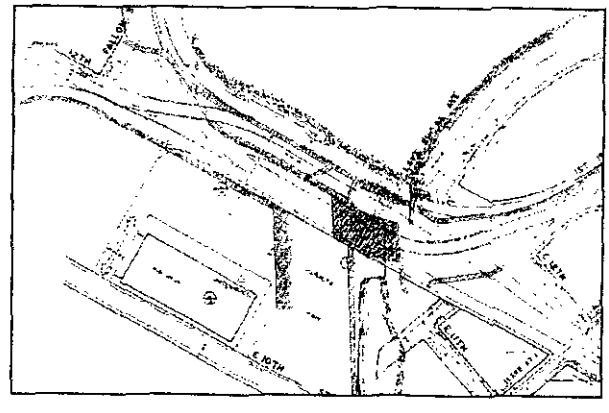
Our approach to the 12th Street Project places a major emphasis on implementing a high quality project that realizes the community vision for the site and which everyone can be proud of in the future. For us, high quality does not necessarily mean "expensive" nor does it require a dependence on extravagant materials and finishes. Rather, some of the most elegant solutions are beguilingly simple and straightforward, deriving strength through integrity of spatial form, human scale and urban/environmental context. We believe that they also are often the ones that deal with construction budget limits creatively, using these constraints as benefits to guiding intelligent design decisions. Our bias is towards expenditures that will allow the project to gain in value over time, not in those that give an

immediate effect but depend upon extraordinary maintenance or replacement in the future. For this reason, such issues as the detailing of planting areas, the grading of slopes, the beach and water's edge, are all important components that will become the focus of the design effort.

Identity, too, is a critical ingredient in establishing a high quality project. Lake Merritt and, in particular, the portion of the water's edge to the south, is a distinct and special environment unlike any other in the Bay Area, and one that has been altered and transformed in as many ways as the land which adjoins it. Design solutions need to recognize the specifics of the lakeside environment, and the environmental conditions that are intrinsic to its sense of place. At the same time, the lake and this portion of the lake will be undergoing a major transition and transformation once again, as these improvements are made and as the lake opens up to the bay. The design of elements - the beach, the park and promenades, the bridges and streets - must all reinforce the sense of place and reveal its intrinsic qualities. They must also be designed with connectivity in mind - but should go beyond merely allowing linkages on pathways and trails to convincingly demonstrate the *necessity* of implementing these future related projects.

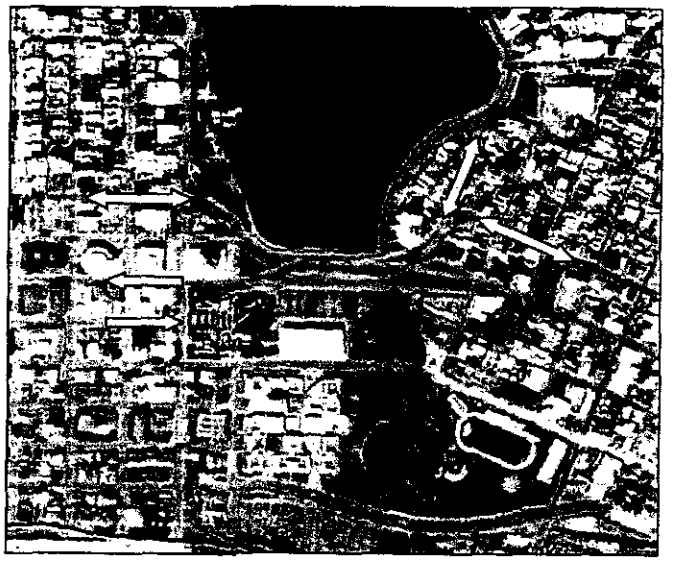
Our approach will be to design the lake as an integral part of the spatial structure of the 12th Street improvements. The lake extends the open space and recreational values of the lakeside environment, but land and water areas need to be thoroughly engaged with one another to heighten the experience of the place and to create a stronger and more effective open space. Our approach is that public spaces - no matter how artfully composed - are never successful unless people use them and enjoy them. The dimension of human experience is at the core of our approach and we pay special attention to the design of the activity program, which will be explored in more specific terms in the preliminary design phase of the work.

ENGINEERING ISSUES

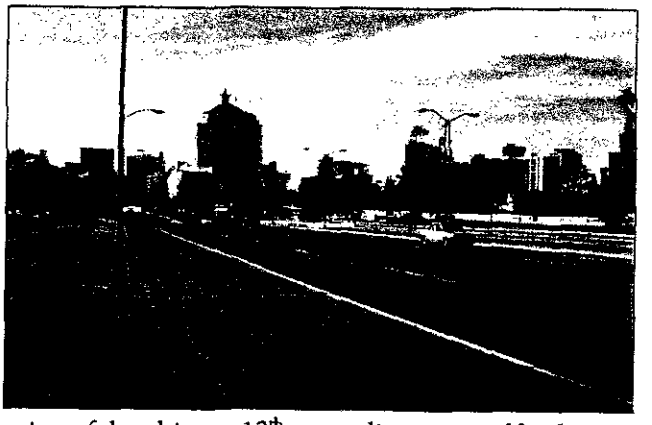


The primary mechanisim for implementing the project will be reconfiguration of roadways at the south end of Lake Merritt, including 12th Street. The project will modify street configurations at 11th, 12th, 13th, and 14th on the west side, Lakeshore Avenue, 1st Avenue, International, 15th, Foothill, and 12th on the east side, and modify corresponding traffic signals, striping, drainage and utilities. As part of this work, existing culverts at the Lake Merritt Channel will be replaced with an attractive clear-spanning pedestrian bridge, currently depicted as an old stone bridge. The culvert will also be replaced with a vehicular bridge at 12th Street to improve the natural tidal circulation into Lake Merritt and enhance water quality and wildlife habitat. Work on the Lake Merritt Channel will remove channel lining, create a channel park, and proivde slope stabilization underneath the bridges.

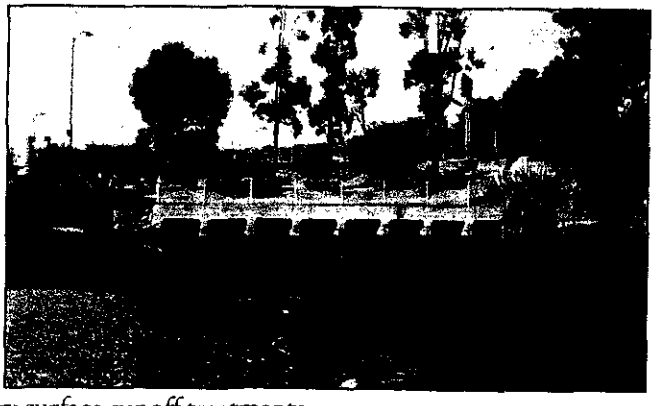
- **Confirming the traffic movement concept** and its integration with the urban fabric is the first priority task, since it will drive the remainder of the project. It is important to ensure that the concept will provide the best pattern of traffic flow in and around the south end of the lake. The concept will be reviewed for safety, operation, turning movements and bottlenecks that may cause congestion in the future. We believe that the circulation concept can be revisited to ensure that maximum operational benefit occurs on the 11th/12th Street Couplet and on 14th Street into Downtown Oakland. The traffic engineering concept will be fine tuned to maintaining visual sightlines at all pedestrian and vehicular crossings, to facilitate construction of the project and to ensure that the maximum usage along the waterfront is realized.



- **Stage Construction Planning** is vital to maintaining traffic during demolition and construction for large scale projects such as this, in order to minimize traffic impact for construction period of two years. Coupled with the need to maintain bicycle and pedestrian access will likely dictate that the northern segment of box culver be demolished first and replaced with the pedestrian and bike bridge as a first order of work. Once complete, closure of some streets and creation of the ultimate 12th street alignment and bridge can take place.



- **Temporary erosion and pollution control** is vital to preservation of lake habitat, and channel slope and habitat. Since this project will eliminate the tidal barrier, temporary flood control measures will have to be taken during construction including reroute of existing storm drain system. Temporary storm drain facilities will be constructed to outflow to the Lake Merritt channel outside of project work area, supplemented with temporary surface runoff treatments.



- **Fish friendly features** along the channel is a must during construction and as a part of final project feature to improve habitat along the channel as well as the lake. This requirement is mandated by the National Marine Fisheries Service as a requirement prior to approval of the required permit. R&M is very familiar with this work, having recently completed fish friendly design in Coyote Creek, in southern San Jose for the US 101-SR 85 Improvement project.

- The **construction schedule** has to accommodate winter periods when construction will be prohibited along sections of the channel slope. Channel work will only be able to occur between April 15 and October 15, with low flow channel work not starting until June 1. In addition, maintenance of continuity of pedestrian and bicycle paths, and connections to Bay Trail for the interim bike paths will be required during construction

WORK APPROACH

The objective of the work is to refine the concept presented in the Master Plan and further develop the design, gain approval and prepare contract documents for the construction of the 12th Street Reconstruction Project. Also, R&M will assist the City during bidding and construction of the project to review contractor submittals and respond to contractor questions.

TASK 1 - PROJECT PLANNING & MANAGEMENT

R&M is highly experienced in managing a team with strength in civil engineering, urban design, architecture, and landscape architecture. We anticipate establishing a close working relationship with City and agency staff, to make sure that technical issues of design and regulatory/permitting issues related to implementation are not left to the end but take place at the beginning of the process. We will work closely with the staff to define project issues, examine project costs, and identify construction phasing and staging in an iterative effort throughout the design and engineering process. We envision monthly management meetings with staff, as well as daily communications on a variety of topics, related to scheduling of meetings, consultant brainstorm and presentation sessions, integration of CEQA and permitting efforts, and the overall timing and scheduling to guide the production of project deliverables on time and on budget.

1.1 - Coordination Meetings.
R&M/ROMA will attend bi-weekly coordination meetings with the City. The meetings will be held to refine the concept, develop the design further, resolve design issues, coordinate design elements and review design comments.

1.2 – Gather Utility, Existing Plans and As-built Information.
R&M's sub-consultant, Kier & Wright, will gather all necessary utility information from as-builts maintained by the City and utility companies and incorporate this information into base mapping of the area.

1.3 – Obtain Property Information.
R&M's sub-consultant, Kier & Wright, will also obtain all necessary property information to define the City right of way accurately on base mapping and help with the preparation of right of entry documents for construction.

1.4 - Project Schedule and Budget.

R&M with input from ROMA will prepare a critical path schedule and final schedule of deliverables for the City. R&M will update the schedule for each submittal and meeting.

1.5 - Public Involvement.

The 12th Street Reconstruction Concept Plan will play an important role in realizing the expectations of the community and the goals of the Lake Merritt Master Plan. A number of stakeholders, including recreational users and environmental and business interests have expressed their desires through the earlier Master Plan process. The overall goal for the community participation effort during this phase is to ensure that the development and implementation of the final project design continues to reflect stakeholder needs and desires. Community participation objectives include the following:

- Inform interested parties, particularly those who participated in the Master Plan process, of the projects ongoing development
- Obtain feedback and input on key milestones in this phase of the project
- Demonstrate how input is being incorporated into the final project design
- Document community participation and input

Our approach will build on the success of the community participation activities conducted during the Master Plan process. We understand and are aware of key community goals outlined in the Plan including: providing safe bicycle and pedestrian access to and from the lake, removing visual impacts, enhancing water quality and wildlife habitat, and improving entry to surrounding businesses. Working closely with the City and technical team, outreach efforts will be conducted and input sought during key preliminary, schematic, and design development milestones. We will initiate these activities by reviewing input from advocate groups and early community engagement to ensure that the design team is fully aware of all issues. Subsequent engagements with the stakeholders will include clear information as to how community issues have been addressed in the design. We view the role of the community during this phase as a "watchdog" to ensure that community issues are appropriately integrated into the final project. Information and other presentation materials will clearly describe the design development process using straightforward language and effective graphics.

Our team member Public Affairs Management (PAM) recognizes the importance of engaging all stakeholders and will work closely with the City to effectively involve residents, property owners, businesses, park users, special interests, and elected officials. Actively including organizations like the Northlake Neighborhood Group, Oakland Museum of California, Lakeshore Business Association, and the Junior Center for Arts & Science, will ensure that the project addresses community desires. Our team is also conscious of the City's broader desire to implement beautification and sustainable development projects that simultaneously protect Oakland's unique character.

PAM has demonstrated an ability to effectively facilitate and involve community stakeholders in complex and controversial projects that yielded consensus outcomes. On this project we will work closely with the City to develop a community participation work plan that includes effective community meetings at key milestones, comprehensive and compelling information pieces, and documentation of the community participation process. We are prepared to support the effort with innovative facilitated and interactive workshops and sophisticated web-based information sites.

TASK 2 – SURVEY, INVESTIGATIONS, AND DESIGN DEVELOPMENT PLANS

2.1. – Ground Survey.

Kier & Wright, under subcontract to R&M, will compile topographic and planimetric aerial base mapping for each project location. The aerial mapping will be supplemented with cross-section ground shots every 20 feet. The limits of mapping and topographic surveying will include a strip approximately 200 feet wide, extending 200 ft. along the channel, and will include sections of shoulder area. Mapping will include planimetric features such as surface evidence of utilities, tree lines, miscellaneous surface features, curbs and pavement edges and striping, channel slope and bottom, and shoulder edges.

Control Survey. Kier & Wright will perform a control survey with semi-permanent points set in the field, tied to existing street monuments, to control the topographic base mapping and right of way surveys, and ultimately construction of the project. These points will be established outside of the projected limits of construction so that the points can be preserved throughout the design and construction phases.

Topographic & Utility Mapping. Kier & Wright will provide 20 scale aerial planimetric base mapping with one 1-foot contours and spot elevations within the project limits. Field measured locations of existing improvements will be added to the base mapping at all design conform locations including street cross sections along the existing and proposed street alignment at 20 foot intervals. Locations of all visible surface evident utility, and other topographic features such as trees, signs, fences, walls, channel vegetation and lakeside features will be added to the base mapping. Subsurface utilities will be plotted based on available record information and surface evidence. Rim and invert elevations will be provided for all accessible storm drain and sanitary sewer structures. Pipe sizes will be verified as best as possible.

Right of Way Surveys. Based on preliminary title reports to be obtained by Kier & Wright, existing record mapping, and field evidence, existing property lines and street right of way lines will be determined and added to the base mapping.

2.2 – Prepare Concept Development Plans.

Based on the two alternative concepts from the Master Plan, the R&M team landscape architect, ROMA will take the lead for all architectural development. ROMA will prepare Design Development drawings based on the Master Plan-alternatives and information provided by supplemental traffic analysis, additional civil and structural engineering, and field review refinement.

Site Walk. R&M and ROMA, with City staff, will conduct a site walk to verify the intent of all previous design documents and decisions. We would provide minutes of the site walk meeting.

Concept Development Plans. The R&M/ROMA Design Group team brings a tremendous amount of combined experience in the design and reconfiguration of infrastructure facilities to open up new opportunities for parks and promenades that increase recreational enjoyment and provide for environmental restoration of urban land. For the 12th Street Project, we propose to work closely as a team, integrating civil, architectural and landscape architectural services and taking a unified approach to design. We see the entire project as an effort of site and public space design, where all the elements will be brought into a larger landscape vision, consistent with the overall design direction and intent already set forth by the community. The challenge before us is to refine that vision and to create an implementable project that will gain in value and appeal over time.

Our approach will build on the efforts of the community and the city in defining the project. Our work will focus on carrying forward these concepts to successful completion. Although many of ROMA's projects begin as urban design plans, we also undertake specific projects that have had the benefit of a long history of careful thought by others. **As an example, ROMA recently won the competition (out of 1,000 national and international entries) for the design of the Martin Luther King Jr. National Memorial in Washington, DC, and we are now proceeding with detailed design and construction documents.** The project came out of long and dedicated activism to honor Dr. King, and our design responds to a set of carefully articulated values, an established site and design parameters that were put in place by our client, the MLK Memorial Foundation, as well as the National Park Service, the Commission of Fine Arts and the National Capital Planning Commission. The project involves the relocation of streets that now traverse the site, and the creation of a new open space for a five acre memorial, immediately on the Tidal Basin, adjacent to the FDR Memorial and with an axial relationship to the Lincoln and Jefferson Monuments. This will be the first memorial in Washington DC to integrate the Tidal Basin as a part of the experience of place.

Product Data. R&M and ROMA will coordinate with City staff to finalize the design development plans. During the meetings, ROMA would present at appropriate scale exhibits of the urban design alternatives including enlarged plans and renderings. These plans will illustrate all major features on the project for both alternatives. Base maps to be provided by R&M in digital format.

It will be important to assemble an 8½" x 11" booklet of catalog cuts for pre-manufactured products including all light fixtures, irrigation equipment, tree grates and guards. The booklet shall include an itemized list of proposed construction materials.

2.3 – Hydraulic and Drainage Concepts.

R&M, ROMA and PWA will work closely with the City engineers for development and approval of the project drainage scheme, analyze the tidal action and impact along the proposed shoreline and along the channel park.

Beach Enhancement. PWA's approach to developing and enhancing a sustainable and viable beach is based in the understanding of physical processes of the estuary, in particular tidal action and storm runoff. PWA will identify and determine appropriate issues and objectives to be considered regarding the beach development, including improved inter-tidal habitat, aesthetic and recreational constraints and opportunities, water quality and shoreline erosion and protection. Our approach for evaluating factors and developing plans for the beach in the estuary will be focused on a geomorphic assessment to help characterize and understand the physical processes supporting beach and inter-tidal habitats in the Lake Merritt's estuary. We will perform a geomorphic assessment to evaluate hydrologic and hydraulic elements and sediment transport regimes, which dictate potential

beach features, quality and persistence. Building on PWA's extensive experience and understanding of the San Francisco Bay and specifically shoreline conditions, we will determine and use analog sites to define potential approaches to and expectations for beach restoration. PWA will also use numerical hydrodynamic tools (model) to assess the physical/ hydraulic forces affecting potential beach features and sustainability. This assessment will help to determine an appropriate footprint as well as character and size of beach materials.

Permits. PWA will outline regulatory and permitting considerations associated with the restoration of the beach in the estuary specifically focusing on regional environmental protection priorities defined by Alameda County Flood Control Agency, the National Marine Fisheries Service, California Department of Fish and Game, US Army Corps of Engineers, US Fish and Wildlife Service and the Bay Conservation and Development Commission.

Bridge and Channel. PWA will define the appropriate study area/ area of influence for the proposed 12th Street Bridge and channel associated with the 12th Street Reconstruction Project at Lake Merritt. It will be critical to integrate a thorough understanding of tidal behavior and runoff conditions within the Lake Merritt estuary as well as the Lake Merritt channel west of the proposed project limits. Other existing conditions and features potentially outside the project limits may be critical to project planning, design and performance.

PWA will use numerical hydrodynamic modeling to assess change in channel conveyance associated with channel and bridge design alternatives. These assessments will be fed back into the planning and design process to inform such elements as bridge layout, channel dimensions and geometry. The hydrodynamic tools will also be used to understand tidal conditions and behavior in the Lake Merritt estuary in order to effectively consider biological and ecological implications and conditions of the bridge project. The expansion and restoration of a natural tidal regime will directly affect water quality and lead to the creation of new inter-tidal footprint in the estuary. Hydrodynamic models will assist the project team in describing the extents and character of this new inter-tidal zone. The models will also be used to properly predict and assess maintenance requirements associated with the new bridge including anticipated scour and armoring requirements. PWA will assess engineering feasibility associated with predicted scour and approaches for bridge armoring in order to make refinements to the design and minimize maintenance.

PWA will outline regulatory and permitting considerations associated with the new 12th Street Bridge at the estuary channel specifically focusing on regional environmental protection priorities defined by Alameda County Flood Control Agency, the National Marine Fisheries Service, California Department of Fish and Game, US Army Corps of Engineers and Bay Conservation and Development Commission.

We will look at 50 year overland flow pattern and the 50 year flood elevation in the adjacent building floors. In addition, we would shall prepare 10 year gutter flow calculations and weir flow calculations to determine impacts to pedestrians and vehicles. This task is not expected to include an area wide drainage study.

2.4 - Traffic and Pedestrian Improvement Concepts.

R&M will work closely with the City traffic engineers for development and approval of the project traffic flow, signalization and pedestrian/bicycle movement scheme, both interim and final. We will also look at traffic turning and pedestrian movements at intersections to determine potential operational and

safety issues. R&M's Traffic Subconsultant, TJKM Transportation Consultants, recently developed a detailed, calibrated model for downtown Oakland including I-880, I-980, I-580 and I-80 for development of a traffic management plan for future lane closures on I-880 when the viaduct over 5th Avenue is replaced for seismic safety. The model integrated the countywide Alameda County Congestion Management Agency model with a micro-simulation model that enables a more detailed look at arterial street operations. Once the model has been extended and calibrated for this area of Oakland, it will be used to evaluate travel demands for project alternatives so that a preferred design can be selected. TJKM will perform the analysis for all scenarios including No Build, and for each alternative to be considered for the year 2025 for both AM and PM peak hour conditions. If we find that a change in design or traffic operations will be beneficial, we will make this known prior to any final evaluation of project alternatives. TJKM's traffic report will include a description of the travel forecasting methodology, a description of existing conditions and forecasts of traffic levels of service for each of the alternatives studied. This effort will only be done as a review and/or supplement to the completed traffic report from the Master Plan to confirm the current design plan. Every effort will be made to avoid duplication, if already completed.

2.5 – Geotechnical Investigation.

Geo/ResourceConsultants, under subcontract with R&M, will perform the geotechnical investigations and prepare the geotechnical report The site soil conditions primarily consist of Bay Mud overlaid by Silty sands as fill. In general, ground water is anticipated within the upper 30 feet. The soil is competent with relatively high R-value (20-30) for pavement design. The underlying sands are medium dense to dense and should provide adequate support for the structure foundations or footings. Settlements caused by embankment construction should be elastic and reasonably quick (within 30 days). Detail scope for preparing this report is as follows:

- Permits/USA Clearances: We will comply with local permit requirements. We will obtain drilling permit from Alameda County Environmental Health Department. We will field locate the borings and call for USA clearance.

- Field Exploration: For the proposed structures we will drill four borings (2 per structure) to 80 feet depth and for roadway widening we will drill four borings to 5 feet depth. These explorations will provide an evaluation of subsurface conditions for the proposed roadway and structure crossings. The boring locations will depend upon the available access and any boring data from previous studies. We anticipate using a truck mounted mud rotary drill rig for our work. No traffic control is assumed at this time since most of the site is in the fields or in the court area. The drill cuttings will be dispersed on the site unless otherwise requested.

- Prepare Draft Geotechnical Report: Geo/Resourcewill prepare preliminary recommendations for structure foundations, culverts, embankments, retaining walls, and pavement design.

- Prepare Final Geotechnical Report: Geo/Resource will prepare detail report including design recommendations for structures, embankment foundation, retaining walls, and pavement sections. Also specified in the report will be information on recommended slopes, groundwater conditions, corrosion evaluations, etc. For the structures, prepare detail design recommendations for foundation types and footing elevations, lateral design capacities, pile foundation recommendations or spread footings. Discuss seismic considerations, evaluate the liquefaction potential and comment on the site soil conditions from this standpoint. Information related to Caltrans Seismic design criteria (SDC v 1.2) such as depth to rock like

material, etc. shall be provided. Using the general plan as a base map, we will provide boring logs. Unless otherwise specified standard LOTB will be provided.

2.6 - Bridge Type Selection.

Special attention will be paid to developing the two bridges for the project, the pedestrian bridge and the 12th Street Bridge. General Plans, preliminary architectural elements and renderings will be prepared for each bridge for review by the City.

2.7 - Drainage Study and Storm Water Design.

R&M will prepare a drainage analysis of all new roadway alignments to establish peak flow rates, inlet locations and drainage improvements required. 3 copies of the drainage report will be prepared and submitted to the City. We will look at 50 year overland flow pattern and the 50 year flood elevation in the adjacent building floors. In addition, we would shall prepare 10 year gutter flow calculations and weir flow calculations to determine impacts to pedestrians and vehicles. This task is not expected to include an area wide drainage study.

2.8 - Environmental Coordination

CEQA review was conducted for the Lake Merritt Master Plan in 2002. The City of Oakland prepared and approved an Addendum in accordance with CEQA Guidelines Section 15164, to several previous environmental documents including:

- The General Plan Land Use and Transportation Element EIR, June 1998
- The Estuary Policy Plan EIR, June 1998
- The Opens Space Conservation and Recreation Element Mitigated Negative Declaration, October 1995

Further CEQA review for the 12th Street Reconstruction Project would only be necessary if substantial changes to the project or circumstances were to occur during the preliminary and schematic design phase (CEQA Section 15162).

The CEQA Documentation and Permitting tasks will focus on ensuring that project design plans and specifications incorporate all applicable environmental mitigation measures identified in the previous EIR's and MND, and obtaining regulatory permits from the US Army Corps of Engineers, CDFG, Regional Water Quality Control Board, National Marine Fisheries Service, BCDC, and Alameda County Flood Control District. A coordinated and integrated engineering and environmental design process is critical to avoid significant design and construction delays and allow streamlined permit review and approval. Our team member Public Affairs Management has over 16 years of experience integrating the environmental mitigation and construction permits with the engineering and construction phases of numerous large public works projects in the Bay Area.

Another key component of this work will be coordination with other projects being designed in the same area (7th Street Pump Station, 10th Street Bridge). Environmental mitigation such as dust control, noise reduction and traffic handling, should be coordinated between the projects to reduce implementation costs and allow streamlined monitoring. Regulatory permitting will also need to be coordinated with the goal of having a single permit from each agency that would cover all projects.

2.9 - CEQA Documentation/Permit Applications

During the Conceptual Design Phase, tasks will focus on identifying mitigation measures from the previous EIRs, ND and Addendum that are applicable to the project and ensuring they are incorporated

into the design plans. In addition, detailed biological, water quality, and hydrology studies will be conducted to support the design process as well as permit applications.

During this phase, detailed mitigation plans will be developed for inclusion in the construction plans and specifications. Again, coordination between the other projects in the area will be critical to develop, to the extent possible, a standard set of environmental mitigation/specifications for all projects.

During this phase engineering plans will be detailed enough to allow regulatory applications to be completed and submitted. Engineering plans will also be necessary from the other projects (7th Street Pump Station, and 10th Street Bridge) so that one set of applications can be prepared for all the projects and that a coordinated approach to water quality and other mitigation measures can be effectively developed.

2.10 - Cost Estimates.
R&M will prepare conceptual construction cost estimates for the civil elements for each alternative for each project segment. ROMA will prepare conceptual construction cost estimates for the urban design elements of each alternative for each project segment. This will be an important component in the final construction selection. Each subconsultant will provide the necessary items and costs for this.

2. 11 - Preferred Project. After review of material from the Design Development Plans, a working meeting will be held with the City to recommend the package to move forward to public awareness, plans and estimates, and final design and construction. Once this is achieved, R&M team will begin work on the 30% design package.

2.12 - Public Involvement. At this point, the R&M team will prepare exhibits for public presentation and meetings with the adjacent business owners in each segment. This would be expected to be "open house" format to inform businesses of scope and schedule for each project. The City would make arrangements for the meeting attendees and location. Up to two public meetings are proposed for this project.

TASK 3 - PRELIMINARY ENGINEERING - 30% PS&E SUBMITTAL

3.1 - Plats and Description for TCE's.
Based on the proposed right of way lines required to construct each project, plats and descriptions will be prepared for any temporary easements required to construct the project. Kier & Wright will prepare these.

3.2 - Utility Company Orientation.
We would assist the City in organizing an overall utility company orientation meeting. In preparation for the meeting Kier & Wright will make inventory of all the existing utilities within the project limits. R&M will indicate the action necessary for each utility during construction.

3.3 - 30% Plans In-house Quality Control Review.
We will review plans and specifications for conformance to all applicable standards and codes.

3.4 - 30% Submittal.
R&M will prepare 30% design drawings for the approved concept plan. 30% design plans will be prepared in AutoCAD Release 2000, in English units, and will include:

1. Title Sheet – 1 Sheet
2. Layout Plan/Details – 4 Sheets
3. Typical Sections – 2 Sheets
4. Drainage – 4 Sheets
5. Traffic Handling/ Stage Construction Plan – 4 Sheets
6. Pavement Delineation and Sign Plan – 4 Sheets
7. Structural plans – 8 Sheets
8. Civil Construction Details – 4 Sheets
9. Landscape Plans – 8 sheets
10 Architectural Plans – 4 sheets
11. Channel Grading – 4 sheets
12. Signals– 4 sheets

3.5 – Construction Documents for Inteim Bicycle Route.
R&M will also prepare the construction document for the interim bicycle route based on input from the City, the traffic analysis, and completions of the bicycle movement scheme. Draft and Final documents will be prepared.

3.7 – Permitting.
R&M, with input from PWA and PAM, will prepare regulatory permits associated with the new 12th Street Bridge at the estuary channel, as well as the three related projects along the Lake Merritt Channel (culverts at 10th Street to be replaced with a clear-spanning bridge, 7th Street Pump Station to be moved to 12th Street, and the park and pathways along the Lake Merritt Channel to be improved). Permits applications will be submitted to the Alameda County Flood Control Agency, the National Marine Fisheries Service, California Department of Fish and Game, US Army Corps of Engineers and the Bay Conservation and Development Commission.

TASK 4 – 90% PS&E SUBMITTAL

4.1 - 90% PS&E Submittal.
The next submittal would be a 65% submittal with specifications and estimates.

City Comments. R&M will address all City comments received on the 30% plans submittal and prepare 90% complete project plans and specifications.

Project Calculations. R&M will prepare all necessary structural calculations, site soil characteristics, and current design criteria.

Bid Items & Specifications. R&M will prepare a draft contract specifications book, using City of Oakland standard boilerplate. R&M will develop specifications for each item of work. R&M will deliver 10 sets of the draft plans and specifications to the City for review and approval.

Construction Cost Estimates. R&M will prepare the preliminary list of quantities and provide and a construction cost estimate for all elements of the project.

90% Plans In-house Quality Control Review. R&M will review plans and specifications for conformance to all applicable standards and codes. The plans will also be reviewed for

constructability and cost saving measures.

90% Submittal. R&M will prepare 90% design drawings, specifications, and engineer's estimate from the comments made by the City on the 30% plans. Sheets anticipated for each project will include:

1.	Title Sheet	1 Sheets
2.	Standard Details	2 Sheets
3.	Typical Sections	4 Sheets
4.	Demolition Plan	4 Sheets
5.	Layout and Grading Sheets	4 Sheets
6.	Curb Profiles	4 Sheets
7.	Drainage Plan and Profiles	8 Sheets
8.	Utility Plan	4 Sheets
9.	Pavement Delineation	4 Sheets
10.	Sign Plans	4 Sheets
11.	Bridge Plans	16 sheets
12.	Wall Plans	4 sheets
13.	Construction Details	12 Sheets
14.	Landscape and Irrigation Plans	8 sheets
15.	Architectural Plans	8 sheets
16.	Architectural Details	8 sheets
17.	Creek and Shore Plans	10 sheets
18.	Signal Plans	4 Sheets
19.	Lighting Plans	4 Sheets
20.	Log of Test Borings	1 sheet
Total		114 Sheets

TASK 5 - FINAL DESIGN - 100% PS&E SUBMITTAL

5.1 - 100% PS&E Submittal.

Due to the expedited nature of the project, the next submittal would be a 100% submittal with specifications and estimates.

City Comments. R&M will address all City comments received on the 90% plans submittal and prepare 100% complete project plans and specifications.

Project Calculations. R&M will prepare all necessary structural calculations, site soil characteristics, and current design criteria.

Bid Items & Specifications. R&M will prepare a draft contract specifications book, using City of Oakland standard boilerplate and Caltrans Supplemental Specifications, as appropriate. R&M will develop specifications for each item of work. R&M will deliver 10 sets of the draft plans and specifications to Caltrans for review and approval.

Construction Cost Estimates. R&M will prepare the final list of quantities and provide a construction cost estimate for all elements of the project.

100% Plans In-house Quality Control Review. R&M will review plans and specifications for conformance to all applicable standards and codes. The plans will also be reviewed for constructability and cost saving measures.

- 100% Submittal. R&M will prepare 100% design drawings, specifications, and engineer's estimate from the comments made by the City on the 90% plans.

5.2 - Bid Submittal.

City Comments. R&M will address all CITY comments received on the 100% plans submittal and prepare bid set plans, specifications and estimate.

Project Package. R&M will prepare and sign a final PS&E package and submit to the City which will be used in solicitation of construction bids.

TASK 6 – CONSTRUCTION SUPPORT SERVICES

6.1 – Bid and Construction Support. R&M would provide construction bid support services to the City during the advertising and bidding process. We would expect to address and respond to all information requests from the City, Contractors, Utility Companies or other interested parties during the bidding process. This task will also include preparation of information clarification letters to bidders and contract addenda, and attending the pre-bid conference.

R&M and its team of subconsultants will continue to provide construction support services after the award of the project. Tasks in this phase include supporting the City's Construction Management Division, reviewing contactor RFI and submittals, providing clarifications, attending bi-weekly site meetings and making periodic site observations.

6.2 – As-Built Drawing Preparation. R&M would prepare As-Built drawings based on redlines provided to the City by the Contractor. As-Built drawings will be prepared in conformance with standard engineering practice.

QUALITY ASSURANCE/QUALITY CONTROL

Quality Assurance Process. R&M maintains a Quality Assurance / Quality Control Plan (QA/QCP) for general application and are specifically prepared for large projects to ensure adherence to the highest standards of quality assurance throughout the life of the project work. The control procedures are applicable equally to all participating members of the consultant team, subject to approval by the Project Manager of alternate quality control plans as may be proposed for use by the individual team members. In addition to normal checking procedures of drawings, reports and specifications, a number of project team "workshops" are typically held to review and resolve design details at interdisciplinary and contractual interfaces. The QA/QCP process also addresses consistency in format and presentation. Formal reviews will be conducted prior to the 30%, 90%, and 100% submittal milestones. Each design consultant is responsible for performing their work in accordance with the QA/QCP. R&M's QA/QC Manager performs Quality Assurance Audits on each consultant team. Follow-up audits are scheduled as required to verify implementation of any corrective actions.

Quality Control Process. The purpose of the Quality Control process is to ensure that:

- The designs conform to accepted design criteria and standards for the area.
- The designs satisfy performance requirements.
- The designs conform to regulatory standards for public safety and service.
- The proposed facilities are economically constructible.
- All discipline interfaces identified and effectively coordinated.

PROJECT DELIVERY SCHEDULE

We have reviewed the City's proposed schedule and feel that several years can be shaved off the proposed schedule. In developing the detailed schedule, we have savedabout two and one half years from the proposed master plan completion date of March 2010 for construction of the 12th Street and associated adjacent street improvements, 12th Street park with associated turf areas, promenade, restrooms and multi-use paths, Lake Merritt Channel Park, Shoreline area with beach and pier, pedestrian crossing structure over channel and the 12th street vehicular bridge over channel. The City would save about 3 - 5% of project inflation costs per year, a total of 7.5 - 12% of project cost, just from project scheduling. In order to achieve this schedule, all decisions regarding scope, limits, elements and funding will need to be made in Task 3 - Preliminary Engineering, so that subsequent tasks are merely production phases. One year for permitting is considered more than adequate, and would occur simultaneously with final design.

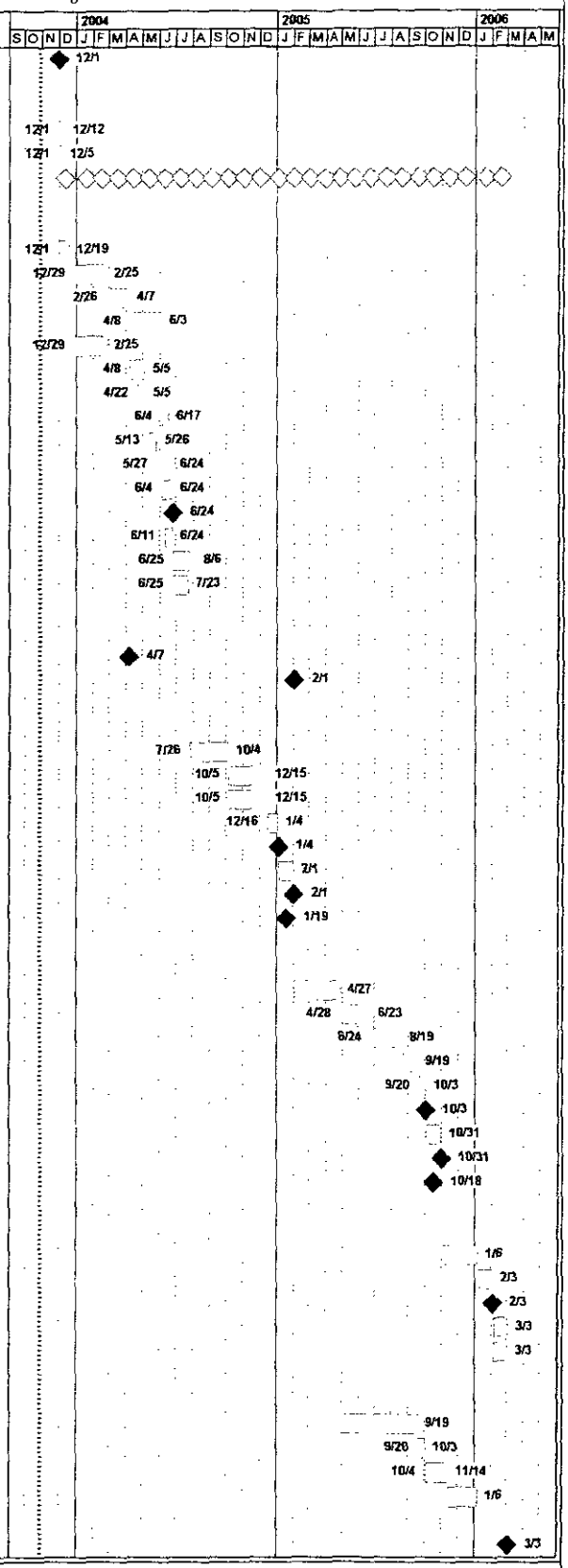
Our anticipated milestone schedule, assuming a start date in December 2003, would be as follows:

TASK	BEGIN DATE	END DATE
Project Start	Dec 2003	
Surveys	Jan. 2004	Mar 2004
12th Steet Preliminary Plans	Feb 2004	June 2004
Channel Studies and Preliminary Plans	Feb 2004	June 2004
Community Meetings	Apr 2004	Feb 2005
30% Plans	Jul 2004	Dec 2004
Permits	Jan 2005	Dec 2005
90% Plans	Feb 2005	Oct 2005
100% Plans	Nov 2005	Mar 2006
Utility Relocations (By others)	Mar 2006	Jul 2006
Bid and Award Project	Mar 2006	May 2006
Construction of 12th Street, Creek and Park	June 2006	Dec 2007
Construction Completion		Dec 2007

A preliminary CPM schedule is provided on the following page.

12th Street Reconstruction Project
Preliminary and Final Design Schedule

ID	Task Name	Time	Start	Finish
1	NOTICE TO PROCEED	0 days	12/1/03	12/1/03
2				
3	Task 1 - Coordination and Meetings	550 days	12/1/03	2/17/06
4	Project Management Plan	2 wks	12/1/03	12/12/03
5	Project Schedule	1 wk	12/1/03	12/5/03
6	Invoices and Progress Reports	540 days	12/12/03	2/17/06
35				
36	Task 2- Preliminary Engineering	170 days	12/1/03	8/6/04
37	Data Collection	3 wks	12/1/03	12/19/03
38	Mapping and Utilities	8 wks	12/29/03	2/25/04
39	Design Refinement	6 wks	2/26/04	4/7/04
40	Preliminary Drainage Plan	8 wks	4/8/04	6/3/04
41	Traffic Impact Study	8 wks	12/29/03	2/25/04
42	Preliminary Foundation Reports	4 wks	4/8/04	5/5/04
43	Structure Type Selection	2 wks	4/22/04	5/5/04
44	Cost Estimates	2 wks	6/4/04	6/17/04
45	Construction Phasing Plans	2 wks	5/13/04	5/26/04
46	Revised R/W Estimates and Data Shee	4 wks	5/27/04	6/24/04
47	Concept Plan Preparation	3 wks	6/4/04	6/24/04
48	Submit Concept Plans	0 days	6/24/04	6/24/04
49	Design Report	2 wks	6/11/04	6/24/04
50	Right of Way Plats and Easement Ma	6 wks	6/25/04	8/6/04
51	City Reviews Concept Plans	4 wks	6/25/04	7/23/04
52				
53	Public Outreach	285 days	4/7/04	2/1/05
54	Community Open House 1	0 days	4/7/04	4/7/04
55	Open House 2	0 days	2/1/05	2/1/05
56				
57	Task 3 - 30% PS&E Preparation	130 days	7/26/04	2/1/05
58	Roadway Civil Plans	10 wks	7/26/04	10/4/04
59	Bridge Plans	10 wks	10/5/04	12/15/04
60	Architectural Landscape Plans	10 wks	10/5/04	12/15/04
61	Package and Submit 30% PS&E	2 wks	12/16/04	1/4/05
62	Submit 30% PS&E	0 days	1/4/05	1/4/05
63	City Review of PS&E	4 wks	1/5/05	2/1/05
64	Comment and Constructability Review	0 days	2/1/05	2/1/05
65	Permit Applications	0 days	1/19/05	1/19/05
66				
67	Task 4 - 90% PS&E Preparation	190 days	2/2/05	10/31/05
68	Roadway Civil Plans	12 wks	2/2/05	4/27/05
69	Bridge Plans	8 wks	4/28/05	6/23/05
70	Architectural Landscape Plans	8 wks	6/24/05	8/19/05
71	Specifications + Estimates	4 wks	8/22/05	9/19/05
72	Package and Submit 90% PS&E	2 wks	9/20/05	10/3/05
73	Submit 90% PS&E	0 days	10/3/05	10/3/05
74	City Review of PS&E	4 wks	10/4/05	10/31/05
75	Comment and Constructability Review	0 days	10/31/05	10/31/05
76	Permit Refinements	0 days	10/18/05	10/18/05
77				
78	Task 5 - 100% Submittal	80 days	11/1/05	3/3/06
79	100% PS&E by R&M	8 wks	11/1/05	1/6/06
80	City Review	4 wks	1/9/06	2/3/06
81	Review Meeting	0 days	2/3/06	2/3/06
82	Bid Documents	4 wks	2/6/06	3/3/06
83	RE File	4 wks	2/6/06	3/3/06
84				
85	RIGHT OF WAY ACQUISTION	170 days	4/28/05	1/6/06
86	Appraisals	20 wks	4/28/05	9/19/05
87	Offers	2 wks	9/20/05	10/3/05
88	Negotiations	6 wks	10/4/05	11/14/05
89	Legal	6 wks	11/15/05	1/6/06
90				
91	ADVERTISE	0 days	3/3/06	3/3/06



10/26/03 Rajappan & Meyer Consulting Engineers, Inc.

Attachment B

Parsons Brinckerhoff

Relevant Experience

Project Approach and Organization

3

RELEVANT EXPERIENCE

Similar Projects

Ralston Avenue/Harbor Boulevard Grade Separations & Belmont Creek Hydraulics Investigations (PB)

Belmont, California

Relevance to the 12th Street Reconstruction Project

- Improve Safety and Mobility
- Increase Pedestrian Access
- Public Space Improvements

The grade separation involves lowering Ralston Avenue by approximately nine feet between Old County Road and El Camino Real (both of which are graded to meet the depression) and raising the tracks with a bridge structure over Ralston Avenue by approximately 12 feet above existing grade. A new 25 x 600 foot center platform Caltrain Station with provision to lengthen it to 1,000 feet was constructed with access at the center of the station and south end of the station from both sides of Ralston Avenue.

The Harbor Boulevard grade separation involved lowering Harbor Boulevard by approximately eight feet between Old County Road and El Camino Real, and raising the tracks with a bridge structure over Harbor Boulevard by approximately 13 feet. Mechanically stabilized earth (MSE) retaining walls were used to elevate the tracks between the Ralston Avenue and Harbor Boulevard grade separations.

The project includes the following major improvements:

- Improved pedestrian access to the station platform via an elevator for the disabled in the center of the concourse and via stairs at the south end of the concourse and at both sides of Ralston Avenue.
- Attractive landscaping around the station and parking area using drought-tolerant native plants, and landscaping and safety improvements to the El Camino Real median.
- A four-span bridge structure at Ralston Avenue and a two-span structure at Harbor Boulevard that allow for improved pedestrian and vehicular circulation along both thoroughfares.

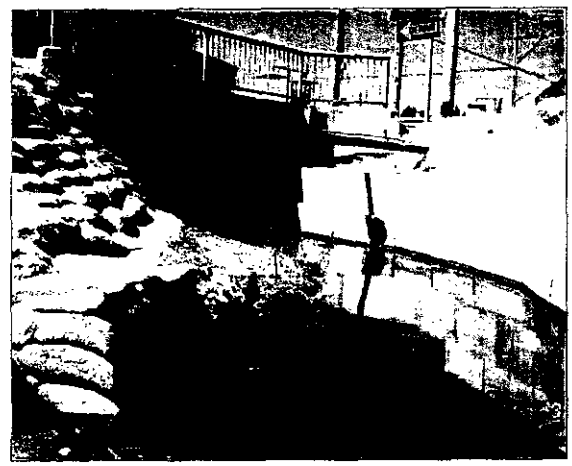
PB provided the following services for the project:

- Project Management and Agency Coordination
- Schematic Design
- Design Development (Preliminary Design)
- Final Design
- Preparation of Contract Drawings, Specifications and Cost Estimate

Project elements included:

- Geotechnical
- Environmental Services as related to contaminated materials
- Roadway Design
- Railroad Design
- Structural Design
- Station Architecture

- Traffic Engineering
- Mechanical and Electrical Engineering
- Cost Estimating
- Specifications
- Value Engineering
- Constructibility
- Construction Staging



In conjunction with performing the design services for the Ralston Avenue/Harbor Boulevard Grade Separations, PB conducted a hydraulic study of a 1400-foot-long reach of Belmont Creek under existing and planned conditions between 6th and O'Neil and Old County Road. The purpose of the hydraulic study was to determine and document how this reach of Belmont Creek behaves during a 25-year storm event so that the City of Belmont could better understand the impact of Belmont Creek on raising the PCJPB tracks and depressing Harbor Boulevard. Simultaneously with the hydraulic analysis, PB proceeded with the preparation of plans and specifications for elevating the PCJPB tracks and depressing Harbor Boulevard adjacent to Belmont Creek.

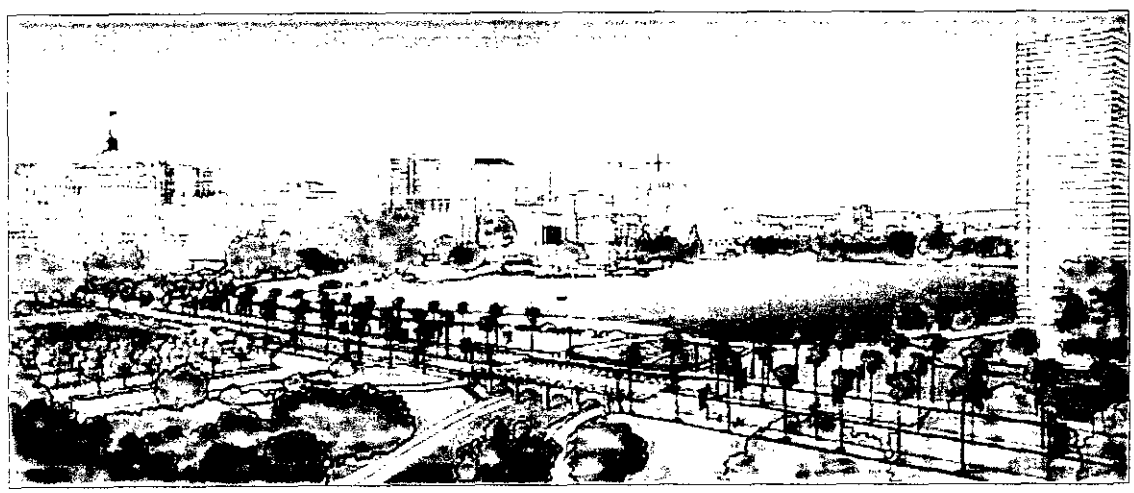
Lake Merritt Boulevard Plan (PGA)

Oakland, California

Relevance to the 12th Street Reconstruction Project

- Lake Merritt Improvements
- Urban Design
- Community Involvement
- Consensus Building

PGAdesign was one of five firms that responded to the community's desire to explore alternatives to the proposed construction of a cathedral on the shore of Lake Merritt. This group of designers conceived the Lake Merritt Boulevard Plan which proposed reconfiguration of the maze of streets at the south end of Lake Merritt, opening the channel, providing for a safe pedestrian connection between the lake and Kaiser Auditorium, and making the channel navigable for small boats, among other improvements. This proposed plan was enthusiastically received by the community, which has continued to advocate for the implementation of the plan.



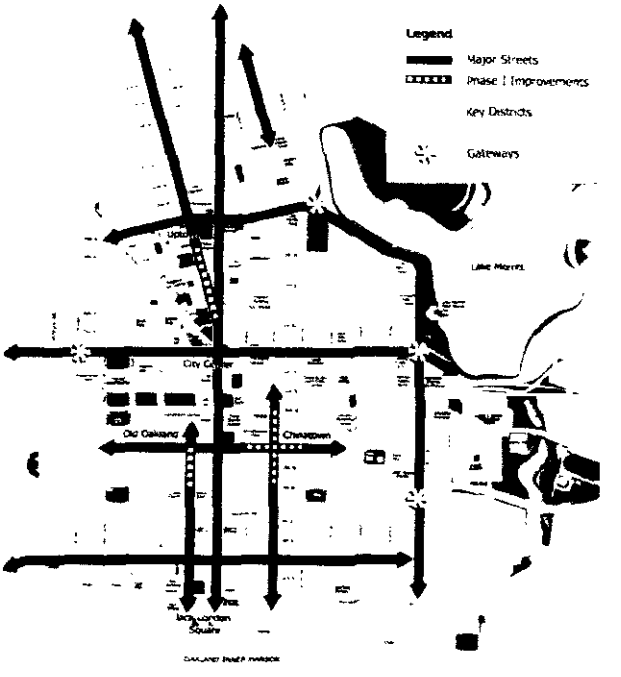
Downtown Oakland Streetscape Master Plan (BDP)

Oakland, California

Relevance to the 12th Street Reconstruction Project

- Streetscape Design
- Incorporation of Public and City "Visions"
- Improved Pedestrian and Bicycle Access

Bottomley Design & Planning conducted the context assessment and design recommendation for four major downtown streets, Telegraph Avenue, San Pablo Avenue, 20th Street, and 14th Street. Also included were detailed design recommendations for special sub-district streets and



public spaces, including Latham Square, 9th Street in Chinatown, the 3rd Street loft district, and the Fox Theater/Uptown area. Recommendations addressed district gateways and district revitalization goals; transit networks and vehicle, bicycle, and pedestrian circulation; materials palettes for street trees, furnishings, and paving; and costs and funding approaches. The project required coordination with the City of Oakland, AC Transit, BART, and other agencies, and ongoing steering committee meetings. The project goal was a vision to guide public- and private-sector sponsored capital improvements throughout the greater downtown Oakland area. The final product is a booklet containing schematic design-level illustrations, photographs, and text to guide the subsequent design efforts.

Full Service Project Experience

I-238 Widening Project (PB)

Hayward, California

Relevance to the 12th Street Reconstruction Project

- Improved Safety and Mobility
- Roadway Improvements

I-238 serves as an important commercial and commuter connector link between I-880 and I-580, and also provides access from many areas of Alameda County to the San Mateo-Hayward Bridge from the I-580 corridor via I-880.

The existing I-238 freeway was constructed in the late 1950's and consisted of four lanes (two lanes in each direction) between the I-580 and I-880 freeways. In addition, there are auxiliary lanes on northbound I-238 between I-580 and East 14th Street/Mission Boulevard Interchange (Route 185) and on southbound I-238 between I-880 and East 14th Street/Mission Boulevard Interchange. BART occupies the existing median for more than half of the length of I-238. Union Pacific Railroad crosses under I-238 at Clark Avenue Overhead and Kent Avenue Overhead.

PB is producing final plans, specifications/Special Provisions, construction quantities and cost estimates acceptable to Caltrans, in accordance with the detailed scope of services. The design effort includes roadway and bridge design generally consisting of earthwork, drainage, utility verification and relocation, paving, structural (bridges, retaining walls, sound walls, and others), electrical systems (traffic signals, lighting, ramp metering, Transportation Operations System (TOS) and others), signing, pavement delineation, stage construction/traffic handling, material/foundation investigations, surveys, right-of-way engineering, right-of-way acquisition document preparation, permit preparation and other design features required by environmental studies.

Sonoma Creek Bridge Seismic Retrofit and Barrier Placement Project (PB)

Caltrans District 4, Solano/Sonoma/Marin/Napa Counties

This project has won the "Excellence in Transportation for Rural Highways" for Caltrans in its statewide competition.

Relevance to the 12th Street Reconstruction Project

- Bridge Improvements
- Improved Public Safety
- Environmental Sensitivity

The Sonoma Creek Bridge sits in an extremely sensitive tidal marsh environment providing habitat to endangered species including the salt marsh harvest mouse and two birds, the California clapper rail and California black rail. It is an 1800-foot long bridge on Highway 37 that links Sonoma and Solano Counties by crossing the north end of the San Francisco Bay in the estuary at Sonoma Creek. This bridge was built in the early 1960's and was deemed inadequate to meet current seismic safety standards. In addition the roadway width did not meet current desirable safety standards.

The Sonoma Creek Bridge was the last remaining segment of Highway 37 to remain a narrow, two-lane roadway. Referred to by the community and local elected officials as "blood alley," Caltrans was mandated by California Senate Concurrent Resolution 35 to construct a continuous concrete barrier on Route 37 to guard against head-on collisions on the highly traveled two-lane connection Highway 101 and Interstate 80.

Thus the Sonoma Creek Bridge Seismic Retrofit and Widening Project combines two State-mandated improvements to an 1,800-foot long two-lane bridge over navigable waters on Route 37 at the mouth of Sonoma Creek into San Pablo Bay:

- Seismic retrofit under the State Phase II seismic retrofit program, and
- Widening of the existing bridge deck to accommodate a center barrier and standard shoulders.

PB prepared an Environmental Document and a complete PS&E package for the project.

San Ramon Valley Boulevard Widening (PB)

San Ramon, California

Relevance to the 12th Street Reconstruction Project

- Civic Upgrades
- Increased Mobility
- Safety Improvements

San Ramon Valley Boulevard (SRVB) serves as a major collector road within the City of San Ramon for traffic generated from developments along the west side and portions of the east side of the I-680 freeway. SRVB runs parallel to and west of I-680. Various portions have been widened to four lanes and have been nicely landscaped to provide visual buffers to the road and to enhance the visual experience for drivers.

The proposed roadway was constructed in two stages, and consists of a four-lane roadway with shoulders and landscaping. Stage I, completed in October 1997, built the full width of the roadway in those areas where right-of-way is secured, and a two-lane interim road where right-of-way would be acquired at a later date. Stage II completed the four-lane section by widening.

PB, as prime engineering consultant, was responsible for project management of engineering tasks including:

- Preliminary engineering
- Development of design alternatives
- Drainage design
- Utility relocation
- Signal and lighting details
- Design of retaining walls
- Traffic engineering
- Environmental compliance and permitting
- PS&E preparation
- Roadway design (realignment, widening and overlay)
- Geotechnical engineering
- Construction Support

Posey and Webster Street Tubes Seismic Retrofit (PB)

Oakland and Alameda, California

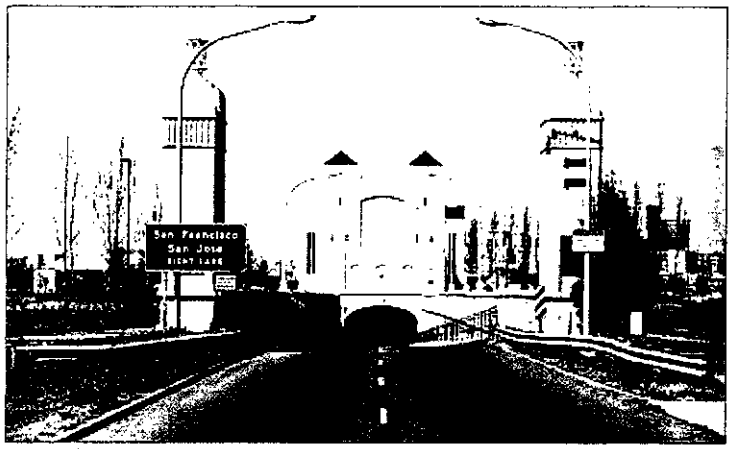
Relevance to the 12th Street Reconstruction Project

- Increased Public Safety
- Hydrology and Flood Control
- Coordination with Local Regulatory Agencies

This project is the first seismic retrofit of immersed tube tunnels undertaken in the world. The Posey and Webster Street Tubes are the only concrete immersed tube tunnels without outside steel shells constructed to date in the U.S. The Posey Tube, built in 1927, and its portal buildings, are historic structures eligible for listing on the National Register of Historic Places.

PB was retained as prime consultant by Caltrans to provide recommendations and prepare design plans, specifications and estimates (PS&E) for the seismic retrofit of the Posey and Webster Street Tubes. These immersed tube tunnels each carry two lanes of vehicular traffic under an estuary of San Francisco Bay and are located in a seismically active zone dominated by the Hayward and San Andreas Faults. PB reviewed as-built drawings of the tubes and portal buildings, conducted field inspections of the structures, performed a geotechnical analysis to determine seismic characteristics of the project site, and developed several retrofit schemes to meet the established

performance criteria of being able to withstand a 7.25 magnitude seismic event without structural collapse or loss of life. PB prepared structural/ geotechnical analyses, structural designs, construction specifications, cost estimates and construction sequencing for the Caltrans preferred alternative which consists of treatments to prevent liquefaction of backfill materials surrounding the immersed tube sections, replacement of existing fixed joints between tube sections with concrete slip rings to allow for limited longitudinal expansion while maintaining water tightness and shear force capacity, removal of ceiling tiles and installation of ceiling slab hangers, electrical utilities and lighting retrofits, and installation of a seismic warning system.



Successful Projects with Diverse Stakeholders

Airport Gateway Urban Design Plan & Doolittle Bridge/98th Avenue Design Improvements

Oakland, California

Relevance to the 12th Street Reconstruction Project

- Coordination with City of Oakland Staff
- Urban & Streetscape Design
- Signature Architectural Features

BDP detailed design recommendations and guidelines for the three major roadways linking Oakland International Airport to I-880—Hegenberger Road, 98th Avenue, and Doolittle Drive—as part of Airport Expansion and Roadways projects. Design includes landmark banners, sign panels, palm trees, and Doolittle Bridge design treatment, as well as traditional street tree and lighting improvements. Ornamental lights are the common thematic element, with streetscape approaches varying with role of streets; e.g. Hegenberger high amenity for visitor facilities; 98th linear bee-line with new underpass; Doolittle open space link. Project included a series of public workshops in Oakland and San Leandro, and presentation meetings with the Airport Area Business Association. Construction plans were prepared Spring, 1999.

Eastmont Town Center Transit Center

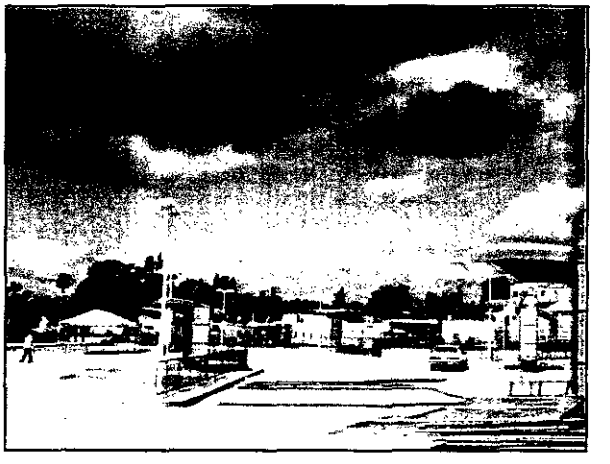
Oakland, California

The Eastmont Town Center Transit Center is a project that has not only increased transit availability but added to the revitalization and redevelopment of the existing mall and surrounding neighborhood. The transit center includes bus bays and passenger staging areas for up to nine vehicles; a small retail building; a three-story clock tower and installation of a new traffic signal at Foothill Boulevard.

Relevance to the 12th Street Reconstruction Project

- Coordination with City of Oakland Staff
- Improve Public Mobility
- Urban Design

PB was responsible for the planning, development, design and construction management of the transit center. PB's project duties also included coordination during planning and design; assistance with the contractor bidding process; permit coordination with various agencies; and construction management and oversight. The project required frequent coordination with the contractor, mall owner, client (AC Transit), the City of Oakland, and various utility agencies.



Oakland Army Base Area Redevelopment Project EIR

Oakland, California

Relevance to the 12th Street Reconstruction Project

- Coordination with City of Oakland Staff
- Coordination with Regulatory Agencies
- Technical Studies Preparation

Scott Gregory, Principal of Lamphier-Gregory served as Environmental Coordinator assisting the City of Oakland and the Oakland Base Reuse Authority in the preparation of the Oakland Army Base (OARB) Reuse Plan, OARB Area Redevelopment Plan and OARB Area Redevelopment Plan EIR. In this capacity Mr. Gregory served as project manager, essentially serving as an extension of City staff to oversee a multidisciplinary team of technical consultants toward the preparation of these entitlement and environmental review documents. Completion of this planning process prior to 2003 was necessary to meet federal base closure requirements, to secure title to the land from the US Army, to receive allocated federal funding for hazardous materials remediation, and to implement a full range of redevelopment activities at the former Army base. Specifically, Mr. Gregory represented the City of Oakland and the Oakland Base Reuse Authority during a cooperative planning process with the Port of Oakland. Through this planning process, Mr. Gregory worked in a collaborative manner to seek resolution to a number of substantial and complex planning and environmental issues.

Key among these issues was the development of a land use and circulation plan for the OARB that was integrated with the Port of Oakland's long-term plans for meeting its cargo throughput operation requirements, while also providing the City of Oakland with sites suitable for future economic development opportunities. Mr. Gregory also assisted in the creation of a mitigation plan to address the anticipated loss of historic structures throughout the Base that was acceptable to the historic

resource preservation community. Mr. Gregory's additional roles included reviewing and assisting in the writing of the Draft and Final EIR and Reuse Plan, including development of potential Base reuse alternatives.

Relevant Project Illustrations

Sonoma Creek Bridge Seismic Retrofit and Barrier Placement Project

Caltrans District 4, Solano/Sonoma/Marin/Napa Counties

Scope Seismic retrofit under the State Phase II seismic retrofit program, and widening of the existing bridge deck to accommodate a center barrier and standard shoulders.

Construction Schedule July 2000—July 2002

Construction Cost $14 million

Responsibility Under Project Manager Tom Dougherty, PE, PB prepared an Environmental Document and a complete PS&E package for the project. John Komaru, PB was the traffic engineering task leader.

Client Reference
Mark McGowan
Project Engineer
Caltrans District 4
111 Grand Avenue
Oakland, CA 94623
510-286-4761

San Ramon Valley Boulevard Widening

San Ramon, California

Scope The City of San Ramon required engineering services for the preparation of plans, specifications and estimates (PS&E) for the widening of two miles of San Ramon Valley Boulevard between Alcosta Boulevard and Montevideo Drive.

Construction Schedule Phase 1: 1997, Phase 2: 2001

Construction Cost Phase 1: $5 million, Phase 2: $3.5 million

Responsibility PB, as prime engineering consultant, was responsible for project management of all engineering tasks. Tim Dougherty, PE, was the Engineering Manager.

Client References

John Harper (Stage I)
Project Manager
City of San Ramon
3180 Crow Canyon Pl.
San Ramon, CA 94583
(925) 973-2619

Moustefa Kendroud (Stage II)
Project Manager
City of San Ramon
3180 Crow Canyon Pl.
San Ramon, CA 94583
(925) 973-2621

Eastmont Town Center Transit Center

Oakland, California

Scope PB led the planning, project development, design and construction management for this transit center.

Construction Schedule Spring 1999—Spring 2001

Construction Cost $8 million

Client Reference
Craig Michels, C.P.E.
Facilities Manager
AC Transit
10626 International Boulevard
Oakland, CA 94603
510/577-8806

Responsibility John Komaru managed the project from contract document phase and bidding process through the construction and final construction close out.

Alameda Point Golf Links, Bay Trail & Parks Master Plan (BDP)

Alameda, California

Scope Prepare visual/alignment analysis and design recommendations for 2.5 mile pedestrian and bike trail at the former Alameda Naval Air Station.

Construction Schedule Anticipated to begin 2006

Construction Cost $3.25M (parks and trails only)

Client Reference
Ed Levine
Facility Manager
Alameda Reuse and Redevelopment Authority
City of Alameda
950 West Mall Square
Building One, Suite 215
Alameda, CA 94501
510-749-5905

Responsibility BDP prepared trail alignment and park master plan design alternatives; assisted with visual studies; coordinated w/golf course design team; presented plans at community meetings/City hearings/BCDC hearings.

Oakland Army Base Area Redevelopment Project EIR

Scope Assist the City of Oakland and the Oakland Base Reuse Authority in the preparation of the Oakland Army Base (OARB) Reuse Plan, OARB Area Redevelopment Plan and OARB Area Redevelopment Plan EIR.

Construction Schedule Lamphier-Gregory's participation in the project started in September 1999 and concluded with certification of the EIR and approval of the Redevelopment Plan and Reuse Plan in October of 2002. Mr. Gregory continues to assist the City of Oakland with on-going environmental services related to implementation of the Redevelopment Plan.

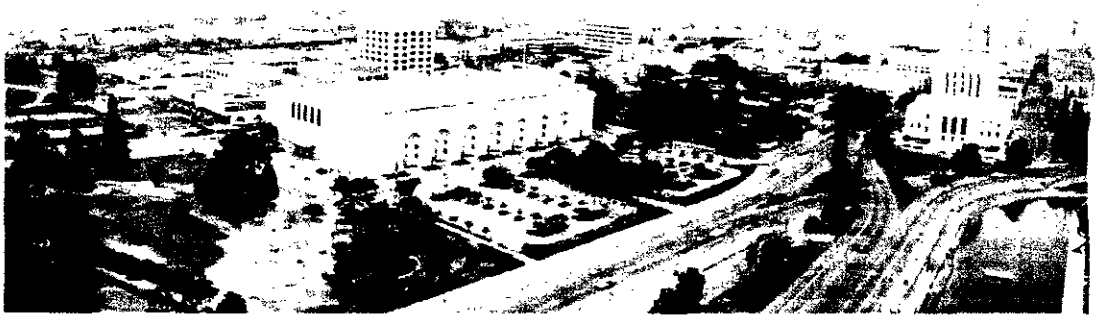
Construction Cost Unknown

Client Reference
Elois A. Thornton
Oakland Redevelopment
Project Supervisor
City of Oakland and the
Oakland Base Reuse Authority
250 Frank Ogawa Plaza,
Suite 3315
Oakland, CA 94612
510/238-6284

Responsibility Scott Gregory, Principal of Lamphier-Gregory served as Environmental Coordinator

PROJECT APPROACH AND ORGANIZATION

Located in the cultural center of Oakland, 12th Street Reconstruction Project will direct essential east-west access between neighborhoods, into and out of downtown and Chinatown, and to the freeways that link the rest of the Bay Area to Oakland. Lake Merritt's central location in the city offers a visual centerpiece and creates a physical barrier that concentrates traffic, bicyclists and pedestrians around the perimeter. This assembly of Measure DD projects will result in a balanced solution to enhance the transportation and recreation experiences and provide an outcome that contributes to the quality of life for the citizens of Oakland.



The team that Parsons Brinckerhoff (PB) has assembled for this Project is composed entirely of Oakland firms and individuals who bring a thorough understanding of the issues, challenges, and history of the Project. Oakland has successfully completed a robust planning and visioning process in the course of developing and approving the Lake Merritt Master Plan. We share the vision of creative possibilities that will shape a visible element of the vibrant and diverse community that is Oakland, and will provide the experience and focus to move the Project to completion.

We Will Know We Have Succeeded When...

Every successfully project has one common element - a plan for success. Establishing a goals-oriented approach to planning and testing progress against those goals has been a proven method for success. We have established the following goals that outline our fundamental approach:

- Honor the Intent of the Lake Merritt Master Plan
- Comply with the Spirit of Measure DD
- Provide Ideas/ Build Consensus / Test the Cost
- Show the Community/ Listen to the Concerns
- Design and Bid the Work
- Provide Engineering Support During Construction

As the Project takes shape, success will be gained when the estuary link to Lake Merritt transforms to a shoreline park and joins other notable Oakland outdoor community experiences like Frank Ogawa Plaza, Jack London Waterfront, and the north side of Lake Merritt. This Project will provide a delightful and durable stitch that binds together the urban fabric of Oakland.

We've Done The Homework

Key members of the PB Team have been involved with Lake Merritt planning for many years by staying active through citizen groups such as the Coalition of Advocates for Lake Merritt (CALM). From our team, principals at the well-known local landscape architecture firm, PGA Design, worked pro bono with community members and other volunteer professionals—including James Vann,

AIA—to help develop the original concept for the redesign of 12th Street, with the purpose of developing and advocating the vision of a community. Our team is strengthened with valuable insights into the issues of the community, the Lake Merritt Master Plan, and the formation of Measure DD ballot measure.

Since early Spring our whole team has taken shape as the right people with the right skills to do the work. We have learned what we could about the Project by interviewing key stakeholders and reading the printed reports and documents developed to date.

Because the PB Team ...

- Has been involved in the development of the Lake Merritt Master Plan
- Is made up exclusively of Oakland firms and residents
- Has performed key interviews
- Has studied the history and the relevant documents
- Has formed a team and a plan of action tailored to the issues and achieving success

...we are the best choice for the City of Oakland to work through the issues and progress without delay to a successful project completion.

Documents and Research:

- *Lake Merritt Master Plan*, July 2002
- *Addendum for Oakland Clean Water, Safe Waterfront Parks and Recreation Trust Fund Ballot Measure* (Addenda to the General Plan Land Use and Transportation Element EIR, the Estuary Policy Plan EIR, the Coliseum Area Redevelopment Plan EIR, and the Open Space, Conservation and Recreation Element Mitigated Negative Declaration) June 2002
- *Measure DD*, November 2002
- *Lake Merritt Boulevard Plan*, Coalition of Advocates for Lake Merritt (CALM) February 2002
- *Resolution No. 2018 – Selecting Bus Rapid Transit as the Locally Preferred Alternative for the Berkeley-Oakland-San Leandro Corridor*, AC Transit, August 2001
- *Oakland Clean Water, Safe Waterfront Parks, and Recreation Trust Fund Ballot Measure Initial Study and Environmental Review Checklist*, June 2002
- *Merritt Channel Feasibility Report*, June 2002
- *Oakland General Plan Land Use and Transportation Element (LUTE)*, 1998
- The Lake Merritt Institute Website http://www.Lakemerrittinstitute.org/
- *Estuary Policy Plan*, Port of Oakland and the City of Oakland, November 1998

Interviews:

- Jose Martinez, CIP Coordinator, 12th Street Reconstruction Project Manager
- Claudia Cappio, Director City Planning
- Kerry Ricketts-Ferris, Project Manager Waterfront Open Space
- Joel Peter, Measure DD Program Manager
- Dennis Power, Executive Director

Concept of the Approach

Step 1—Honor the Intent of the Lake Merritt Master Plan

Just as this Project needs goals to achieve and measure success, the Lake Merritt Master Plan (LMMP) also has goals that address:

- Urban Context, Access, and Design (travel modes & operations, parking, access, safety, visual character, unifying themes, landscaping, culture, and education)
- Recreation and Parks (bicycle and pedestrian uses, jogging trails, signage, amenities, venues, pets, and open spaces)
- Maintenance and Technical (resources, durability, vandal resistance, and preservation of plantings)
- Funding of Operations and Park Management
- Marketing (preservation history, civic pride)

The LMMP contains a basic plan layout for 12th Street that shows the extents of the elements that will define this Project. The PB Team has studied the concept and believes it is fundamentally sound. We do not propose to deviate substantially from the LMMP for two reasons; 1) risk of loss of consensus, and 2) resultant delay to Project completion and increased Project costs.

A number of concerns will have to be studied for the concept to advance to design while honoring the goals of the LMMP. The Project should not move forward until the risks posed by these concerns are addressed. The issues are:

- **Environmental.** Permit applications will require additional field work and analysis. The analysis will enable the team to develop the limits of environmentally sensitive areas that will need to be avoided or mitigated to obtain the required permits. We will conduct a public presentation to present the findings of any environmental reevaluations.

- **Traffic Operations.** The existing roadway has much greater capacity than the demand and should be able to be scaled back to the limits of the LMMP. This assumption needs to be tested with traffic modeling and operations studies. The studies will lead to the definition of level of delay, designs of signal-controlled and non-signal intersections, and points of access. The inclusion of the planned AC Transit Bus Rapid Transit on 12th Street and the coordination of parking hours will be assessed and included in all traffic operations analysis.

- **Channel Water Elevations.** To the Alameda County Flood Control District, Lake Merritt is a major flood control collection basin that needs to have capacity during storm events to handle and manage runoff flood potential. Lake Merritt Channel (formerly San Antonio Creek) outlet to the Oakland Estuary is a central feature for this Project that has great potential for incorporating most of the LMMP goals. The channel has controls and obstructions that impede free flow and affect the water level; in free flow, San Francisco Bay has tides of 6 feet whereas the Lake rises up to 2 feet. The estimated water elevations will in turn set the elevations of the bridges and pathways along Peralta Park, and influence the park layout.

- **Utility Conflicts.** Lake Merritt provides a barrier for utilities (and roadways) which directs them in concentration around the Lake and through this Project. The utilities are owned by the City of Oakland (street lighting & storm drains), Alameda County Flood Control District (8 box culverts under 12th Street), Pacific Gas and Electric (high pressure gas, underground electric), and SBC Pacific Bell (communications). Costly relocations need to be avoided where practical. Future conduit and duct capacity could also be added to the new 12th Street limits to avoid future intrusions in the Park Area.

- **Pedestrian and Bicycle Circulation.** The connectivity of planned pedestrian and bicycle access should be established relative to most current plans. Pedestrian crossings at intersections need to be the safest possible and be coordinated with signal timing and intersection performance.

- **Adoptions of Design Standards.** Safety will always be the most important consideration in establishing standards. In the context of the new park setting, the design speed, geometric and level-of-service standards used to design the roadway and connections should be evaluated and agreed to before the Project proceeds with preliminary design. This will have

an effect on lane widths, left-turn storage, grades, and curvature. In general, reducing the design speed will enhance park opportunities without jeopardizing safety.

Once we have addressed and understand the concerns listed we are ready to create a preliminary design, but not until *Step 2 – Comply with Spirit of Measure DD.*

Step 2—Comply with the Spirit of Measure DD

The Oakland City Council placed a $198,250,000 bond measure, entitled the Oakland Clean Water, Safe Waterfront Parks and Recreation Trust Fund, on the November, 2002 municipal ballot. The purpose of the bond is to improve parks, creeks and recreation facilities. The measure was listed on the ballot as "Measure DD" and passed by a 4:1 margin!

Measure DD defines this Project as "12th Street Boulevard, new 5-acre park and connection to Lake Merritt Channel". The measure defines the major Project elements as needing to include:

- New six-lane major arterial boulevard connection to 11th and 12th Street with 1st Avenue, between Oak Street and International Boulevard
- New intersections at 13th/14th Streets, 12th Street with 14th Street, 12th Street with the Kaiser Convention Center, 12th Street with East 12th Street
- Approximately 5 acres of land to be developed into the Lake Merritt Park
- A connection to Lake Merritt Channel
- A new roadway bridge with clearance for pedestrians and bicyclists to pass under the street adjacent to the channel
- Where feasible, on-street parking and new bicycle lanes
- Transit accommodations

The LMMP concepts from *Step 1 – Honor the Intent of the Lake Merritt Master Plan* that are influenced by the input from the critical concerns (i.e. environmental, traffic operations, channel elevations, etc.) will be verified for compliance with the voter approved Measure DD. This could advance concurrently with Step 1 on most issues.

Throughout Steps 1 and 2 the PB Team will work closely with Oakland staff on policy issues regarding CEQA and legal compliance, to build a consensus on the concept design. Both Steps 1 and 2 must be concluded before the Project advances to *Step 3 - Provide Ideas/ Build Consensus / Test the Cost.*

Step 3—Provide Ideas / Build Consensus / Test the Cost

Step 3 is where the process gets introduced to the creative strengths of the PB Team that will result in the Project's urban design, visual character, and sustainability. Building from the concepts developed in Steps 1 and 2, Step 3 produces a preliminary design that defines the limits of the Project, geometry of the paths and roadways; presents urban designs; introduces the art and amenities; and explores materials, textures and treatments. City agencies and selected outside agencies and groups will be provided with review and input opportunities, to ensure that the Project remains consistent with public expectations. A preliminary design cost estimate will be prepared to confirm that the Project cost remains within funding limitations.

Design Inputs Related to Seven Core Design Features

The PB Team has identified seven core elements or features that define the 12th Street Reconstruction Project. Based on the concepts agreed to in Steps 1 and 2 we will move the design development forward. The elements defined are centers of design focus.

- **Element 1: The "Cultural Center of the City".** This element is the context of the Project, and arguably, what is missing from the south end of Lake Merritt. 12th Street aligns through the cultural center of the City. This Project is an opportunity to highlight the City's cultural center to drivers, transit riders, bicyclists, and pedestrians.

Under the existing condition, the connection from the Lake to the Oakland Museum, to Laney College, and to the Kaiser Convention Center requires the use of pedestrian tunnels – an often daunting prospect due to safety and sanitary concerns. It is also extremely difficult to access the nearby Oakland Main Library and Alameda County Courthouse from the Lake.

Our designs will create stronger connectivity – both physical and contextual – between the Lake and the nearby cultural resources. Regardless of their mode of transportation, users will gain a strong sense of where they are. This area will have a clear identity as the "Cultural Center of Oakland", which will be accomplished through design of the streetscape, park landscaping, art, and bridge.

Shoreline/Lakefront Park Design Input

- What should the character/image of the park be – romantic, beaux arts, contemporary, etc?
- Should the park defer to its surroundings or be its own element (i.e. current sketch plans with tree-lined walkways, etc)?
- Should the park be designed as a forecourt to adjacent public buildings, or should it be a more informal extension of the Lake/park?
- What is the anticipated use/program – informal recreation, special events, small boat tie-ups? Is additional parking needed?
- What should be the size, configuration and grading for the beach? Should the sand extend directly into the Lake or have an edge? How do these considerations impact water quality, public safety, etc.? What will effect of tidal action be on algae, lake currents, and maintenance?

- **Element 2: The Park.** Oakland's locale, on the edge of the San Francisco Bay, is one of the features that make it unique. Lake Merritt, with its tidal influence and connection to the estuary, is part of that waterfront identity. Its central downtown location gives the Lake visibility and significance that further contribute to the value of this unmatched resource.

A number of popular and well-used public spaces already exist around the Lake, but they are more concentrated on the north end of the Lake. With the exception of Peralta Park, there is little sense of waterfront accessibility at the Lake's south end. The opportunity to create a new 5-acre park on this side of the Lake is exciting and will be a major focus of our efforts.

The park should be well laid-out and linked to the surrounding context. This is the largest piece of real estate bordering the Lake that is currently slated to be reclaimed for parkland – those entrusted with the task will work hard to maximize its beauty and utility for the broadest variety of users.

Channel Bridge Design Input

- What should the architectural style/aesthetic of the bridge be?
- How will bridge aesthetics influence structure type selection and contribute to the character of the bicycle/pedestrian undercrossings? Arched/truss "basket handle" and extradosed designs look modern; concrete girders can look modern or traditional.
- Should the bridge be a stand-alone engineering/architectural "statement" or a landmark element within a larger overall ensemble?
- What are the cost/design tradeoffs between various bridge design types and other Project elements?

- **Element 3: The Bridge.** Replacing the existing 12th Street dam with a bridge is the first step in making the channel navigable and more accessible, as well as increasing the tidal influence in the Lake. The decision to replace the dam with a new bridge also presents an extraordinary opportunity to construct a signature bridge. The relatively short span of the bridge allows for design flexibility; this, combined with its

location and surroundings, gives the bridge tremendous potential to become a new landmark – a symbol that will add to the identity of Oakland. With the addition of channel-side pedestrian walkways, one can also create an environment that is perceived as safer and more appealing than the existing pedestrian tunnels in the area.

- **Element 4: The Roadway.** The redesign of 12th Street must be consistent with the Lake Merritt Master Plan's stated objective of traffic calming around the Lake. The new design must also accommodate traffic needs in the corridor; including private automobiles, bicycles and transit.

There are currently multiple AC Transit bus lines that use 12th Street, including the No. 82. AC Transit has plans to establish a Bus Rapid Transit (BRT) line that will align within 12th Street. The BRT will provide 24-hour service, although the high-frequency period is from 6am to 8pm. An Environmental Document has already been started to examine the feasibility of the BRT project, which would potentially include a light-rail-type station on either 10th Street or 12th Street. The BRT will work most effectively in dedicated bus lanes.

12th Street and Roadway Design Inputs

- Is transit usage and on-street parking an either/or proposition?
- How do the priorities of north-south pedestrian movement versus east-west traffic influence the configuration of medians, pedestrian/traffic control signalization, and refuges?
- Should the design have flexibility for expansion of capacity and/or additional transit modes?
- Should the connection to 14th Street be restricted to buses?
- What are the advantages and disadvantages of opening Fallon Street to vehicular traffic?
- When we reconfigure the street immediately adjacent to the Lake on the southeast side, how narrow can this street be since it will be serving only a few apartments? How much street parking does the Project need to provide at this location?
- What future plans exist to improve the connection of the Oakland Museum and the Lake?

It may be possible to provide parking in the dedicated bus lanes during the off-peak period, since the LMMP also describes the need to provide parking on the new 12th Street to help mitigate for parking that may be taken as part of other elements of the plan.

- **Element 5: Bicycle and Pedestrian Access**

Interim Bicycle Solution. In addition to providing improved bicycle safety under the current roadway condition, an interim bicycle solution must be designed to work during the construction phase of the Project. A safer bicycle route is long overdue in this corridor, and with the grant for an interim solution already approved, it will be important to design a seamless and safe plan as quickly as possible.

Bicycle Facilities. The LMMP and the Oakland Bicycle Master Plan describe the long-term plan of having a Class II bicycle path virtually all around the Lake; establishing the route on the redesigned 12th Street will be an important step in achieving this goal. While an interim solution will help improve safety in the near term, designing the new roadway with bicycles in mind will be a tremendous improvement over the existing condition.

Bicycle Ways Design Input

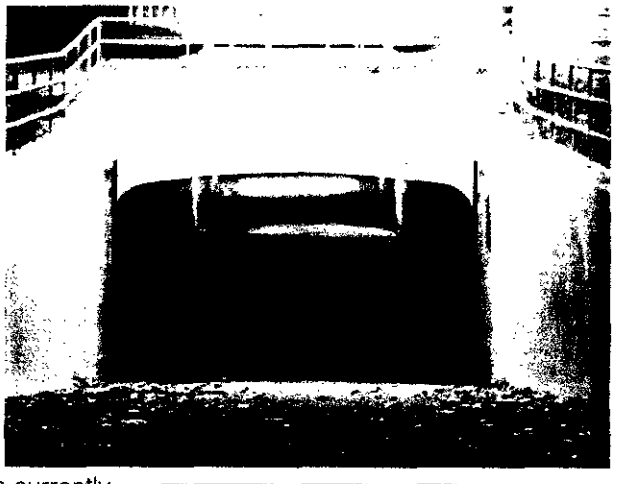
- Should the bicycle facility be an on-street lane or a grade-separated path?
- Should the bicycle ways be multi-use or separated bike/pedestrian waterfront paths (like Vancouver)?
- How will the development of an interim bicycle solution address bicycle access during construction?
- Should a shared bicycle/bus lane be considered?
- While the 11th Street tunnel alignment is a logical bicycle route, should alternatives be considered given concerns about the safety of the environment?

Pedestrian Facilities—paths and sidewalks. The new facility will be a vast improvement for pedestrian accessibility in the area, with sidewalks on both sides of the street and new, signalized at-grade crossings at 14th Street, at the Kaiser Convention Center, at East 12th Street, and at the corner of 13th and 14th Streets. This will help connect the Lake to the Museum, the Library, the Kaiser Center, Laney College, and the County Building.

Pedestrian Design Input

- What should be the timing of the removal of pedestrian tunnels?
- Should 12th Street include signalized crossings? Currently, the tunnels are closed at night, so many pedestrians simply dash across the many lanes of the roadway.
- What traffic calming elements should be introduced? If pedestrians will be crossing this roadway in the future, even with signalized crossings, how can traffic be slowed to make the environment sufficiently friendly to pedestrians?

In addition to the sidewalks along the boulevard, new pedestrian paths along the Lake and through the park will provide improved opportunities for public use and enjoyment of the Lake itself. Walkways along the channel will provide an immediate experience of the waterfront not currently available.



- **Element 6: The Channel.** The channel work -- specifically obtaining consensus on the high water elevation -- is a critical-path issue for this Project; the bridge profile cannot be set until the high water elevation is determined. With the extensive work that is planned on the channel in the near future – reconstructing the pump station that is currently located on 7th Street, and replacing the culverts at 10th Street with a clear span bridge, in addition to replacing the 12th Street dam with a bridge in this Project – it makes sense to coordinate with the resource agencies and obtain the permits for all the work during this Project. Removal of the dam will be an important first step in increasing access to and navigability of the channel.

Public Art / Landmarks / Special Design Elements

- Should the artwork be stand-alone and/or artisan-crafted functional elements (such as railings, reliefs, lighting, etc)?
- What is the plan for location(s) of artwork relative to surroundings --formal/axial, informal?
- What should be the character and function of the trees and plant materials (e.g. corridor framed by formal planting, informal with views to and from Kaiser Auditorium Lake Merritt, etc.)?
- What is the role of artwork – abstract, commemorative, crafts?

- **Element 7: Artwork.** A key element of this Project is culture and, thereby, art. The City's commitment of matching 1 ½ % of project budgets with funding for civic art provides an additional opportunity to make an aesthetic contribution. One consideration is to add the public art budget to the bridge construction budget in order to provide a more artistic landmark bridge; the PB Team is interested in pursuing this possibility and will work with the City to investigate its feasibility should there be sufficient support for the idea.

Preliminary Design Drawings

The PB Team will compile the ideas developed from the design inputs above into the preliminary design drawings. The drawings will graphically display results of the roadway, urban, and landscape design with the purpose of checking for conflicts and preparing the preliminary cost estimate.

Preliminary Cost Estimate

We will prepare a preliminary cost estimate upon completion of the preliminary design drawings. The estimate will be a "35% Design" level estimate and will contain a contingency of 25%. The estimate will focus on major new construction and demolition items, staging related costs, schedule costs, and construction administration. The cost for design will be added as the cost of the design contract amount.

Once the cost estimate is complete and reviewed by the City, the Project will assess the need for cost-cutting measures, base bid and additive alternate construction contracting, and the need for other funding to pay for shortfalls.

At the conclusion of this Step, the Project will have progressed to where:

- Project elements are consistent with The Lake Merritt Master Plan
- The Project is compliant with Measure DD
- A preliminary design has been developed and drawn
- The City of Oakland is in agreement with the design concepts
- The Project has a funding and construction schedule strategy

The next step will be to show the Project design results to the public to prove that it is (a) consistent with the LMMP, (b) consistent with voters' wishes, and (c) both affordable and *inspired*.

Step 4—Show the Community/ Listen to the Concerns

The public has indicated support for this Project in the Lake Merritt Master Plan by voting 4:1 in favor of Measure DD. The Project owes the public an opportunity to examine the preliminary design and to be convinced that the Project meets the requirements and will result in a great community enhancement. This format and forum can be achieved through a wide variety of techniques that can be decided on in collaboration with Project personnel.

The Project will collect and catalogue comments from the public for review. If the Project receives comments from the public that suggest that the Project is not in compliance with the LMMP or Measure DD, the PB Team will reevaluate the Project and propose changes or provide evidence that the Project is compliant relative to the concern(s) raised. Once this process is complete the Project will be able to move ahead to *Step 5 – Design and Bid the Work.*

Step 5—Design and Bid the Work

This step in the Project development will include the final design, review, approval; cost estimating, plan preparation, specifications, project delivery, and bidding. The design will follow the concepts and commitments made during Steps 1 through 4.

- **Design and Bid Documents.** The design documents are the plans and specifications that illustrate and define the location, type, and quality of construction and materials. The bid documents are the final sealed drawings and specifications combined with the instructions to bidders that are used by contractors to prepare bids.

  The PB Team proposes follow development phases:

  - Preliminary. This design phase (undertaken in Step 3) will contain plans and a list of construction bid items. The plans will be accurately scaled and show every feature to be demolished, relocated, protected, or constructed. Sufficient detail will be

included for reviewers to evaluate every item to be constructed and the relationship to other features. Materials will be identified but not "cast-in-stone".

The purpose of this phase is to build consensus with the City's architecture and engineering oversight reviewers prior to moving forward to greater detail. This level of design is ideal for presentations to City officials.

Comments will be collected and evaluated with the City's staff to determine if and where changes to the preliminary design are needed to be made for the next review submittal.

- In-Progress. This phase will present the design documents with greater detail and will provide item and location call-outs on the drawings. Catalogue cuts and physical samples defining materials will be available for review. Draft technical specifications will be produced and edited.

  The purpose of this phase is to create the first assembly of the contract bid documents for review and comments. Comments will be collected and evaluated with City staff to determine if and where changes to the design documents need to be incorporated into the final review submittal.

- Final. This phase will be the draft Bid Documents for review for adequacy to bid. Final technical specifications will be combined with general conditions and instructions to bidders. The plans will be prepared with the level of accuracy and quality to go to bid if no comments are received.

  The purpose of this phase is to prepare a full mock-up of the Bid Ready construction documents. Comments will be collected and evaluated with City staff to determine if and where changes to the documents are needed to be true "Bid-Ready" documents.

- Bid Ready. This is the final submittal to be used as the actual bid documents prepared to be consistent with City requirements.

- **Cost Estimate.** A cost estimate will be prepared with each design phase and progress to the bid phase as the "Engineer's Estimate" for bid evaluation. The cost estimate will be prepared with bid and construction contingency to provide the City with the flexibility to award the contract and address construction uncertainty. The results of the cost estimate at each phase could be a factor in design changes and the development of a base bid with additive alternatives.

- **Base Bid and Additive/Deductive Alternates.** Most large public works projects are delivered using a base bid with alternates. The need for this method can be attributed to many factors that create uncertainty on the actual bid amounts. When the Project is packaged as one large project, the bid opening becomes a pass-fail result that is often not in the best interest of the Project.

  Working closely with City staff, the PB Team will prepare the design documents to recognize a base bid and select an alternative that, when added together, comprise the total Project. The base bid will include 12th Street Improvements, drainage, park grading, pedestrian pathway, and other Project fundamental requirements. The additive/deductive alternates could include a range of material types, fountains, park and trail appurtenances, and kiosks/interpretive centers.

- **Quality Control.** The PB Team will establish and adhere to strict quality control procedures that will be audited for compliance during the development of the designs. PB has a well developed quality system and has maintained ISO 9000 certification since 1996. Our basic PB quality goals are to:

  - satisfy all project requirements in a cost effective manner

- continually improve the methods used to deliver our professional services
- seek ways to increase our clients' satisfaction with our performance

The entire PB Team will be required to comply with established quality control procedures by producing evidence that:

- reports, specifications, calculations and drawings are prepared according to the design and are reviewed, checked, and back-checked
- information received from third parties is sufficient to satisfy Project requirements
- field data is collected and retained in an organized manner

- **Bidding Phase.** The Project enters the bidding phase when the bid documents are advertised and contractors are preparing bids. As is normally the case, there will be bidder meetings, possibly addenda to bid documents, bidder inquiries, the bid opening, and bid evaluations. During this phase the PB Team will remain active assisting the City with the bidding process.

The PB Team will design the Project with requirements for vital services to be functional during the construction. We anticipate those to be:

- Access to the Library, Court Building, Kaiser Convention Center and other key locations.
- No constriction to the Lake Merritt Channel
- AC Transit bus service will have daily access through the Work
- The pedestrian pathway link around the Lake should remain open and safe for users
- Weekends with major events should be given access through the work

Step 6— Provide Engineering Support During Construction

After the award of the construction contract, the PB Team will remain involved through construction. On this Project, where the installed quality and tolerances of the features and visual elements are so critical, design continuity during construction is a must. We anticipate the following activities will require input and documentation from the PB Team:

- Prepare conformed contract documents
- Respond to contractor Requests for Information and Claims of Changes
- Process submittals for compliance with material and product requirements
- Monitor construction for compliance with design intent and quality
- Review contractor shop drawings for compliance with the design
- Prepare As-Constructed documents

Critical Issues

- **Project Management**. The 12th Street Reconstruction (and recreation) Project is a very complex combination of urban designs, architecture, and civil engineering that needs to be both enthusiastically inspired and painstakingly delivered in contract documents. The work necessarily unites -- talented people that employ enormous creativity, artistic vision and flare, and highly spirited determination -- with other equally talented people who are very pragmatic and focused on order and technical quality. The Project will not achieve the highest levels of success unless both talents are allowed to apply their best efforts.

  Experience has shown us that we do not want to limit the boundaries of early artistic possibilities, but we must limit the time and budget available to reach the concepts. Two concepts, when coupled with the proper guidelines and influences, will be as valuable to the Project as creating a large number of concepts and will lead to more rapid project

completion. We propose to work with the City to develop the fewest number of alternative concepts needed to satisfy the Project requirements.

Experience has also shown us that the engineering members of the team may try to alter artistic designs to fit standard convention and reduce costs. We propose to require the design engineering members of our team to be informed of the artistic intent of the design details during our Step 3 when the ideas are being developed and agreed to. When we inform the engineers of the reasons behind the designs, they will gain increased understanding and ownership of the ideas.

Our Project Manager, Tim Dougherty P.E., has extensive hands-on experience in managing complex projects comprised of greatly diverse individuals and project disciplines. He understands and appreciates the need for both talents to flourish on this Project. Tim is also very cognizant of the need for team focus on progress and finishing each step of the Project on schedule and for the established budget. He has a 20-year record of managing projects to a successful completion.

- **Traffic Studies**. One of the key steps in implementing this plan is to perform a detailed traffic study.

  Some traffic studies of the proposed configuration were performed as part of the LMMP. Traffic counts were conducted, future traffic volumes were estimated, level of service was calculated at key intersections, etc. In order to implement the proposed plan, more detailed studies using more sophisticated tools are necessary.

  To be cost-effective, the detailed traffic studies will build on the studies already completed. The traffic counts conducted for the LMMP are likely to still be valid, and the basic configuration of the roadway network is probably the most efficient that would be possible in the given environment. However, many refinements should be considered, such as the number of turn lanes at intersections, operational strategies to minimize queuing, and creative engineering to address difficult challenges.

  Among the Project challenges is the sight distance for traffic exiting the tunnel under the Oakland Museum arriving at a proposed new signalized intersection. Another challenge is finding a way to improve conditions for pedestrian and bicyclist circulation immediately and in such a way that minimizes throwaway costs for when the ultimate plan is constructed. We already know that there may not be sufficient sight distance for approaching traffic to see the back of a queue in time to stop, so it may be worth considering if we could reduce the queue there to just a few vehicles.

  Our approach to the vehicular traffic issues will be to develop a microsimulation model that encompasses the study area. Microsimulation uses actual characteristics of drivers and vehicles to test different traffic situations. In this case, we would use the model to quantify anticipated queuing and delay far beyond the capability of static methods like the Highway Capacity Manual (which is perfectly appropriate during the planning stages of a project).

  The model will be easy to customize and modify to try alternative roadway network components, such as the addition

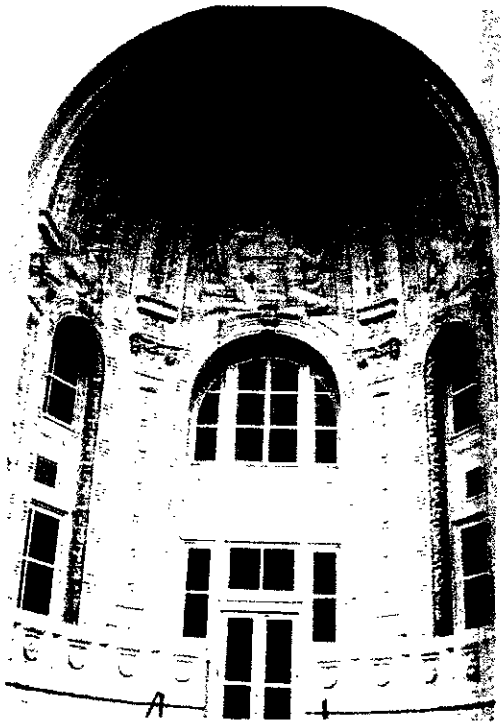
or removal of a left-turn lane or different signal coordination patterns. The model could also be modified to substitute a modern roundabout for a traffic signal if there were an appropriate situation to test such a control device. Since modern roundabouts sometimes cause significant reductions in queues (depending on traffic turning patterns), a logical place to consider one might be for the intersection where traffic accesses the Oakland Museum tunnel traffic.

One of the best features of microsimulation tools is that the models translate the technical simulation data into an animation of vehicles (and bicycles and pedestrians) that visually depict the engineering data like a movie. Any project that will have significant public interest can benefit from these animations. The tool that we would recommend is VISSIM because it has the most realistic animation feature of the available software packages, including cars that look like actual current models, buses, trucks, and realistic-looking pedestrians and bicycles.

For travel modes other than passenger vehicles, we plan to utilize both our technical expertise and personal experience. Gail Payne, AICP, who will lead the effort for bicycle/pedestrian/transit issues, lives only a few blocks from the Project area, and several of our staff frequently ride, walk, or take transit through the area.

A critical feature of the Project must be studied immediately upon starting the Project. First is the direct connection to 14th Street, which was determined to be needed by the LMMP studies. It is reasonable to revisit this issue with a more sophisticated analysis at this time. The result of eliminating this connection would be very valuable to Park advocates, so the issue should be framed in a way that describes what would be necessary to reclaim this roadway to use for parkland, rather than whether it is "needed" or not. The answer could certainly be unworkable, but there may be a tradeoff the community is willing to live with.

Another critical feature will be to determine the location and operations of the access points to the Kaiser Center and whether this will extend to Laney College. Will a new traffic signal be required, or can the non-signalized access operate adequately?



- **Urban Design.** The PB Team will work with City staff and the community to finalize the look and feel of the Project when it is completed. Our primary concern will be to integrate the Project into its greater context in the environment, thereby enhancing the appearance and functionality of the new facilities. Emphasis will be on creating an appealing lakeside boulevard that is safe and inviting for drivers, pedestrians, bicyclists and transit riders. Corollary to this will be to design a new 5-acre park that effectively ties together the elements of the setting. The implementation of the vision must be guided by an understanding of the cultural context and the circulation requirements. The Project elements must fit into its environment and enhance the cultural setting, rather than just "impact" it.

- **Hydraulics/Hydrology.** One of the most important aspects of the 12th Street Reconstruction Project is to restore the channel leading to Lake Merritt and open it up for

recreational and educational use. Upon receiving Notice to Proceed, we will review the technical studies and data that are being prepared for the Lake Merritt channel modifications. We have reviewed the hydraulic studies provided in the 2002 Feasibility Study but understand that further studies are being conducted regarding the Pump Station relocations as well as the removal of the box culverts located at 10th Street. We understand that the relocation of the 7th Street Pump Station and the replacement of the 10th Street culverts with a clear-span bridge will be performed as part of another project. However, since both of these projects will have a very large impact on the hydraulic operation of removing the culverts at 12th Street and replacing them with a channel, it is imperative that we design the channel improvements at 12th Street in close coordination with these other planned improvements.

Since the future hydrologic characteristics of the channel will be driven by the operational characteristics of the pump relocation, we assume that the hydrologic design parameters will be set by the proposed improvements of the Pump Station relocation project. We will work closely with the Pump Station Relocation designer to coordinate the design of the new channel at 12th Street with the future pump station relocation. We will likewise coordinate the 12th Street channel design with the replacement of the box culverts at 10th Street with a clear-span bridge. Of particular importance will be to keep in mind that Lake Merritt is an important regional flood control element; maintaining the channel's flood mitigation function while providing for a wide range of recreational uses will be a primary goal for the 12th Street design.

In addition to the focused study for the effects of the 12th Street drainage improvements, we will design modifications to the existing roadway and surface drainage systems. We will prepare a drainage report that will contain the calculated existing runoff and a hydraulic analysis of the operation of the proposed system so that the pre- and post-project conditions can be compared. We will coordinate with the City engineering staff as well as the Alameda County Flood Control, Zone 12, to gain consensus that the effects of the proposed drainage improvements will not have an adverse effect on downstream systems.

- **Utility Relocation and Coordination.** Utility companies invariably have the potential for significant impacts to Project schedule. Past project experience has shown that early and continual coordination with utility companies is critical to both schedule and project costs; therefore, the utility coordination process will start early in the Project. A Notice to Owner must be issued in sufficient time for the utility owner to design and relocate their facilities prior to Project construction, to avoid costly coordination with the construction contractor. Our direct experience coordinating with a multitude of utility owners will prove invaluable for this Project. Separate coordination meetings will be held at necessary intervals with the various utility companies during the design stage.

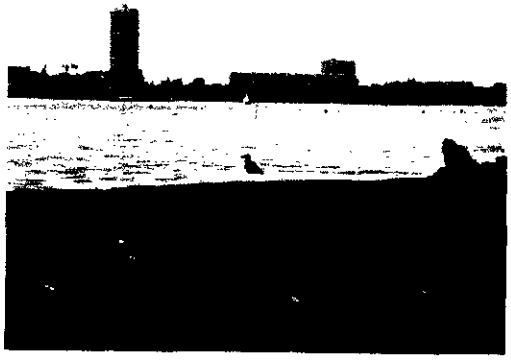
  The existing utilities that are currently within the 12th Street corridor will be located, and impacts from the proposed roadway and park will be determined. Locating the existing utilities will include conducting a record search of previous studies and obtaining as-built drawings from the City and private utility companies. The utility locations will be verified by potholing and field surveys. Once the utility locations have been positively identified, the true extent of the utility relocations can be assessed.

  After briefly researching previous studies that were conducted within in this area, it does not appear that 12th Street is a major utility corridor as compared to 10th Street. Nevertheless, a number of utilities exist along 12th Street, and it is likely that more utilities will be found during the design process. Since the existing roadway is made up of such a wide swath of pavement, it is possible that the existing utilities located beneath the roadway could be spread out over a wide area. We would therefore explore the option of relocating the utilities to the proposed roadway and out of the area of the proposed park. Since any existing utilities located within the existing structures will need to be relocated and it is likely that the

new structure will be required to carry utilities, close coordination with the structural designers will be important part of our work effort.

The utility coordinator will be responsible for private and public utilities including but not limited to gas, electrical, water, sewer, telephone, fiber optics, and television. An electrical engineer will handle City lighting relocation and design, and the drainage designer will handle the storm drain design.

- **Storm Water Pollution Control.** The requirements that need to be met to comply with the terms of the NPDES permit, issued to State and local agencies by the Regional and State Water Quality Control Boards, are changing and becoming more stringent. As a result, the process of developing a storm water pollution control plan must start during the planning phases of a project and continue right through construction. The storm water pollution prevention plan must be developed concurrently with the overall design of the Project, and permanent design elements like biofiltration swales need to be integrated into the overall design of the Project. Since the Project is adjacent to Lake Merritt, storm water pollution control, during construction and for the finished permanent facility, is an important element of the Project that needs to be constantly revisited during the design process.



The PB Team has vast experience in developing storm water pollution control plans for Caltrans projects, including projects located within the city limits of Oakland. Our services have included producing a Storm Water Data Report that catalogues and analyzes all the storm water pollution issues and advances Best Management Practices (BMP) to be used for the Project. We propose to produce an equivalent report for the City of Oakland for the 12th Street Reconstruction Project, for use in developing a project that takes into account storm water pollution control elements. This report will also identify various temporary water pollution control elements that could form the basis for the contractor's storm water pollution prevention plan during construction. We will work in conjunction with the various City programs and ordinances (e.g., Creek Protection Ordinance, the Clean Creek Campaign, Watershed Awareness Programs, and the Collaborative Creek Improvement Program) whose mission is to create and maintain clear waterways within the City.

Interface with City Staff and the Community

Every member of the PB Team will adopt a philosophy of open communication and transparency with City staff as the Project progresses from the early development through construction. A project that is well managed and encourages every voice to contribute has no secrets. We proposed to open our concept development and design meetings --large and small -- to City staff.

We also propose to inform the community and project stakeholders of the progress and provide opportunities for comments. At every opportunity we will encourage elected officials and City Staff provide judgments and decisions on behalf of the citizens of Oakland.

City Staff Interaction

The following is a summary of the nature of the person-to-person contact that we envision with the city of Oakland.

- **Key Contact.** Our Project Manager, Tim Dougherty, will communicate directly to Jose Martinez in a one-n-one and in group meetings. Joel Peter is encouraged to communicate with Randy Altshuler, our Principal-in-Charge.
- **Assigned Contacts.** On many project working groups are formed to address specific issues that do not require the participation by the full team. This Project could benefit by assigning one-on-one contacts as listed:
  - Environmental resources
  - Project administration and invoicing
  - Architecture and Urban Design
  - Transportation and Traffic Operations
  - Roadway and Structures
  - Utilities and Storm Drainage
  - Specifications and Instructions to Bidders
  - Public Information
- **Monthly Meetings.** We propose to meet as a team at least once monthly with the key design team and City Staff to discuss:
  - Action Items
  - Issues
  - Schedule
  - Conflicts
  - Present Results of Studies
- **Monthly Progress Reporting.** We will document progress every four weeks in a written and standardized Progress Report. The Report will address:
  - Status Summary
  - Work Performed in Period
  - Work Anticipated in Next period
  - Input Required From City
  - Potential Contract Issues
    - Scope
    - Schedule
    - Budget
    - Changes

Stakeholder and Community Involvement

The PB Team has already met or talked with nearly all of the stakeholders so we have a good understanding of the issues before even beginning the project. We will continue to keep these channels of communication open as the project progresses, and we will work with City staff to satisfy stakeholders within the context of the Project goals. With respect to the public, our approach will be to capitalize on the extensive public review and comment process that the Lake Merritt Master Plan has already gone through.

- **Stakeholder Periodic Meetings**. An effective way to keep agencies and stakeholders involved and informed is through the use of quarterly meetings, usually following the multi-disciplinary meetings by a week or so. This does not preclude individual meetings with representatives from each agency, which are important in coming to understand the specific concerns that each may have about the Project.
- **Newsletters**. Project newsletters are a proven technique to inform the public of progress and upcoming events. It is important to remember that this is a project that originated with the public – there will certainly be some significant public outreach; while we anticipate significant public support, it is prudent to maintain communications. Since the LMMP

document is dated July 2002, the mailing lists and resources for the public involvement element are probably fairly current and accurate.

- **Public Displays**. At the conclusion of Step 3 the PB Team is proposing to provide public displays to solicit feedback. We are very comfortable with the process and are confident that we can lead it with participation from team members James Vann, PGA Design and Bottomley Design. The displays can then be displayed semi-permanently in the offices of City planning.

CEQA and Design Coordination with Other Projects in the Area

Our overall approach to the preparation of the environmental technical studies is to identify all potentially significant environmental effects and impacts and feasible mitigations associated with the demolition of the existing improvements and construction of the 12th Street Reconstruction Project, as outlined in the Lake Merritt Master Plan. These environmental tasks will be a direct association of the existing CEQA document for the Measure DD projects with all technical studies, assuring adequacy and consistency of the CEQA requirements. Scott Gregory of Lamphier-Gregory will lead the environmental work including field investigations, assessments, evaluations, development of recommended mitigations, and conclusions.

On the basis of the City's Initial Study prepared for the Oakland Clean Water Safe Waterfront Parks and Recreation Trust Fund Ballot Measure and our familiarity with the Project site, we understand that the following key issues will need to be addressed in the environmental technical studies for the existing CEQA document:

- Biological Resources - How would the proposed 12th Street Reconstruction Project affect any existing special status plant and animal species such as birds and fishes?
- Aesthetics - How would the visual character or quality of the site and its surroundings be improved or modified with the proposed 12th Street Reconstruction Project?
- Air Quality - To what extent would the proposed changes in traffic circulation affect air quality during both construction and after the completion of the 12th Street Reconstruction Project?
- Geology and Soils - What soil remediation, foundation and seismic requirements would be needed for the proposed 12th Street Reconstruction Project?
- Hydrology and Water Quality - How would the proposed 12th Street Reconstruction Project affect Lake Merritt's Hydrology, Water Quality, and Flood Control?
- Land Use and Planning - Is the proposed project consistent with the Lake Merritt Master Plan?
- Noise - What adverse noise/vibration effects might be associated with the proposed improvements?
- Community Impacts - How would the proposed project affect the local agencies, neighborhoods and communities?
- Recreation - What environmental effects would be associated with the expansion of open space adjacent to Lake Merritt?
- Traffic Circulation and Parking - To what extent would the proposed project affect local traffic circulation including pedestrian and bike access? How will the parking demands be satisfied?

From the initiation of the environmental tasks, the PB Team will interact with City staff to ensure that the scope and schedule of each project task is fully known and that technical efforts are coordinated with other projects and improvements within the Project area. Coordination between each project within the 12th Street area will provide comprehensive evaluations, consistency between environmental assessments, higher mitigation benefits and ultimately cost-effectiveness with the environmental analysis, design, and construction activities. Potential schedule impacts may also be avoided or schedule benefits gained by effective coordination with other projects in the area. Some of these projects include the relocation of the Alameda County Flood Control

pump station currently located at 7th Street, restoration of the Municipal Boathouse, renovations planned for the Oak Street side of the Museum, construction of a clear-span bridge over the channel at 10th Street, widening and improving pedestrian/bicycle paths and lanes, and the proposed AC Transit BRT corridor service upgrade. It will also be useful to consider some of the nearby future projects such as the improvements scheduled for the channel path and nearby wetlands.

We plan to coordinate with other projects in close proximity of the Project through effective and frequent communication and correspondence with City staff, regulatory agencies, decision-makers, stakeholders, and other consultants. A significant component of these efforts will be to exchange information with other agencies and consultants conducting these projects adjacent to the 12th Street Reconstruction Project. Several approaches will be implemented to foster these coordination efforts such as inviting other project staff to the Project team meetings and potentially the implementation of a project website for coordination and to promote public awareness. This dissemination of information will assist in the regulatory approval process, gaining public acceptance, coordination of final design to avoid conflicts; and provide savings in both resources and schedule.

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PUBLIC WORKS CMTE.

MAR 9 2004