The funding package that will pay for the new eastern span bridge as well as the other seismic retrofit work on the Bay Area’s state-owned toll bridges is still the subject of intense negotiations in Sacramento and no deal has yet been struck. The shape of this package directly affects the Commission’s deliberations on bridge design and planning issues. Faced with funding uncertainty, one option would be to defer not only the bridge type selection decision as recommended by the Engineering and Design Advisory Panel (EDAP), but other recommendations related to funding until the toll bridge financing deal is finalized. Another option is to make a limited number of provisional recommendations that may need to be revisited when a funding agreement is reached.

The Caltrans Director in a letter (Attachment 1) to the Commission’s Bay Bridge Task Force Chair Mary King urges the Task Force to “select an alignment, bridge type and amenities such as bike paths” this month. We believe that you can make the alignment recommendation now. The bridge type and amenities issues can be finally resolved only when two outstanding conditions are met. First, the legislature must pass legislation fixing the cost sharing for the bridge, including an authorization for MTC to levy tolls to finance the so called amenities. Second, Caltrans and its consultants must produce a design — not just a design concept — to a sufficient degree of detail to support reliable judgments concerning seismic performance, cost and visual appearance. We have drafted a response (Attachment 2) to Caltrans outlining the basis for the Task Force decisions.

If you concur with the approach outlined in our letter, we are prepared to make the following recommendations. The recommendations assume legislative authorization for MTC to extend that toll surcharge for another two years (thus yielding approximately $230 million) to pay for one or more of the following eligible additional features: a cable-supported main span, replacement of the Transbay Transit Terminal and a pedestrian/bicycle lane.

These key recommendations are necessarily driven by budget considerations. Thus, we are recommending that the Task Force support a two year extension of tolls and
establish priorities for the approximately $230 million dollars as shown in Recommendation 1 below.

Following is a summary listing of the recommendations which in turn is followed by a brief discussion of the recommendations.

SUMMARY OF RECOMMENDATIONS

Finance Recommendation (1)

Recommendation 1: The Commission should support a two year extension of tolls and establish the priority for use of the estimated $230 million as follows: first, for the additional costs for a cable-supported structure; second, for a portion of the cost of the Transbay Terminal; and third, for support of pedestrian/bicycle access.

Design Process (2 - 3)

Recommendation 2: Caltrans should select two design teams to develop the two cable-supported alternatives to approximately the 30% design stage so that reliable information as to seismic performance, cost, visual design, and other issues can be obtained before a final recommendation is made.

Recommendation 3: The EDAP and Bay Bridge Design Task Force should remain in place through the 30% design stage of the project to make a final recommendation on bridge design type and thereafter to provide continuous review of final design and engineering details.

Planning Recommendations (4 - 9)

Recommendation 4: The existing eastern span of the Bay Bridge should not be retrofitted, but replaced with a new structure.

Recommendation 5: The new eastern span and existing western span retrofit should be designed to provide post-earthquake "lifeline" service.

Recommendation 6: The new eastern span should have 10 traffic lanes, five in each direction, with two standard 10' shoulders in each direction as part of its base cost.

Recommendation 7: The new eastern span does not require a dedicated bus/carpool lane. Caltrans' design should minimize weaving conflicts between high occupancy and other vehicles at the transition from the dedicated HOV approach lanes to the bridge itself.

Recommendation 8: The new eastern span does not need to be constructed to accommodate future rail service.

Recommendation 9: The Yerba Buena Island ramps are an inherent part of the bridge and Caltrans has the responsibility to replace the ramps in order to assure safe traffic flow on the bridge.

Bridge Design Recommendations (10 - 17)

Recommendation 10: The new eastern span should be built on the northern adjacent alignment.
Recommendation 11: The new eastern span should have a cable-supported main span with a single vertical tower with single or multiple legs in the transverse direction and single or multiple planes of supporting cables.

Recommendation 12: The new eastern span bridge should not be double decked. It should have two parallel separated decks on the causeway section and either parallel separated decks or a single deck on the cable-supported span.

Recommendation 13: The structural elements of the new eastern span should be visually consistent throughout.

Recommendation 14: The causeway section should have long, equal span lengths, although closer span lengths might be necessary just adjacent to the Oakland shore.

Recommendation 15: For the causeway section, particular attention should be paid to the design of the supporting pier as it enters the water, including the possibility of submerging the pile cap below water.

Recommendation 16: The cable or suspension tower on the eastern span should be no taller than the suspension towers on the existing western span.

Recommendation 17: The "diamond" shape for the tower base should not be employed in any cable or suspension tower on the eastern span.

DISCUSSION OF RECOMMENDATIONS

Finance Recommendation

Bridge Type

From a three-day workshop in May when it reviewed more than a dozen different design concepts for the new eastern span, EDAP has gradually narrowed the field of preferred bridge design types to two: a single tower cable stayed bridge or a single tower self-anchored suspension bridge (see renderings in Attachment 3). Thus, the new eastern span would have a "signature" cable-supported main span over deep water adjacent to Yerba Buena Island connected via a long causeway to the Oakland shore. The viaduct option over the entire length of the structure would be rejected. The single tower is necessitated by the unique geography of the Bay bottom at this site, although the phrase "single tower" could encompass twin towers at the same site, one to support each span of the bridge. We concur with EDAP's recommendation. Additional discussion and recommendations regarding the development of a particular type of cable supported bridge is included under the discussion regarding design process.

Transbay Transit Terminal

The Transbay Transit Terminal is legally and physically part of the San Francisco-Oakland Bay Bridge. It was built with toll revenue and served as the terminal for the Key system trains from 1939 until they were replaced by buses in 1958. It currently serves as a bus terminal for AC Transit, San Francisco Muni, SamTrans, Golden Gate Transit, and Greyhound, with an average daily business of 50 bus lines and 24,000 daily transit passengers. Like the eastern span of the bridge, the Transbay Terminal needs seismic retrofitting and plans have been developed to replace and relocate the terminal rather than retrofit the current facility (see diagrams in Attachment 4). The estimated
cost to replace and relocate the terminal is $125 million. Since the terminal is an integral part of the Bay Bridge and serves a valuable purpose for bus users in the corridor, we recommend that the toll surcharge extension contribute to the terminal replacement project.

Pedestrian/Bicycle Lane

Caltrans has estimated that it would cost $90-95 million to add a pedestrian/bicycle lane to a cable-supported new eastern span bridge. If, as most public commenters proposed, the bicycle lane were extended through Yerba Buena Island to an additional structure attached to the existing western span, the cost would increase to $155-160 million. It is difficult to project future patronage for such a facility. For comparison purposes, the most heavily "biked" toll bridge in our region is the Golden Gate Bridge, which recently counted roughly 500 weekday and 1,200 weekend day users. Although vehicular traffic on the Bay Bridge is about double that of the Golden Gate Bridge (which might lead one to project higher bicycle usage), the Bay Bridge is almost three times as long and involves much steeper grades than the Golden Gate. If the Golden Gate patronage figure were used as a benchmark for the Bay Bridge, the cost of building the shore-to-shore bike lane would be almost $50 per trip.

Public support for pedestrian and bicycle access has been strong, EDAP recommends a lane and access is important to BCDC. A pedestrian/bicycle lane on the new span would be desirable if cost and budget were not a consideration. However, cyclists already have access in the Bay Bridge corridor through a number of means. Caltrans operates a weekday bike shuttle across the bridge, BART allows bikes during off-peak weekday hours and on weekends, both the Oakland/Alameda and Vallejo ferries allow bikes on board and AC Transit is currently purchasing 130 new buses with bicycle racks. These services can be expanded at less cost than a new bicycle lane. Given these facts we recommend Caltrans to examine further the potential for providing a pedestrian/bicycle lane on the eastern span at a more reasonable cost.

Toll Surcharge Priority

As noted in the introduction to these recommendations the nature of the funding package for the replacement span is uncertain. A possible outcome is that MTC will be authorized to extend the toll surcharge for two years beyond the eight required for the base line costs. This would yield approximately $230 million for the costs associated with one or more of the following eligible additional features: a cable supported bridge, the Transbay Terminal or a pedestrian/bicycle lane. We recommend that the tolls be extended for these purposes. The recommended priority for use of funds is based on the desire to develop a bridge of high aesthetic quality with a “signature” span. This bridge will be part of the Bay Area landscape for many years and will be visible to hundreds of thousands of users and non-users alike. Caltrans' preliminary estimates indicate the extra costs for a cable supported bridge to range from $82 to $218 million. San Francisco is seeking $80 million for the Transbay Terminal project which supports several thousands of transbay trips daily and was part of the original bridge project (see letter from Mayor Brown in Attachment 5). Finally, pedestrians and bicyclists also seek transbay access.

Recommendation 1: The Bay Bridge Design Task Force should support a two year extension of tolls and establish the priority for use of the estimated $230 million as follows: first, for the extra costs for a cable supported structure; second, for a portion of the cost of the Transbay Terminal replacement project; and third, for support of pedestrian/bicycle access.
Design Process

EDAP has concluded, and we concur, that there is not sufficient seismic, cost, and other information to make a final recommendation on bridge type at this time. Accordingly, we have developed a process and timetable (see Attachment 6) over the next nine months that would generate the information necessary for EDAP and the Task Force to make such a recommendation. One of the critical unanswered questions is the cost difference between the ‘baseline’ viaduct and the two cable-supported alternatives. As noted, preliminary estimates from Caltrans indicate that the cable stayed bridge would cost $82 million more than the viaduct, while the self-anchored suspension bridge would cost $218 million more. One of the engineering firms that developed the suspension bridge concept asserts that its proposal would cost $100 million more than the viaduct. The following staff recommendations lay out a course of action for developing further information on the two bridge types.

We concur that the design process should not be delayed. Thus, the selection of two design teams — one for cable stay and one for suspension — should proceed in parallel until sufficient data is generated to make an informed choice. Further, at the 30% milestone, the most economical design should be allowed to proceed to final design and construction unless MTC selects the more costly option and commits to finance its net additional cost from the extended toll surcharge within 30 days.

Recommendation 2: Caltrans should select two design teams to develop the two cable-supported alternatives to approximately the 30% design stage so that reliable information as to seismic performance, cost, visual design, and other issues can be obtained before a final recommendation is made.

Recommendation 3: The EDAP and Bay Bridge Design Task Force should remain in place through the 30% design stage of the project to make a final recommendation on bridge design type and thereafter to provide continuous review of final design and engineering details.

Planning Recommendations

Retrofit or Replace?

Although the premise of the Task Force’s work to date has been that the eastern span of the Bay Bridge should be replaced and not retrofitted, Caltrans has requested that we formally recommend such a course of action. We do so here, because a new eastern span will be seismically stronger, less costly to maintain, less disruptive to construct, and potentially more protective of the environment than retrofit of the existing cantilever structure.

Recommendation 4: The existing eastern span of the Bay Bridge should not be retrofitted, but replaced with a new structure.

Lifeline Bridge

In the interests of seismic safety, we recommend that the eastern span replacement project and existing western span retrofit project be designed to provide emergency as well as normal traffic service (“lifeline” service) after an earthquake on either the
Hayward or San Andreas fault systems.

**Recommendation 5:** The new eastern span and existing western span retrofit should be designed to provide post-earthquake "lifeline" service.

**Traffic Capacity**

A few members of the public have proposed that the new eastern span should have more than the current 10 lanes of traffic (five each way) on the existing bridge. We believe the response to this and many other planning questions is dictated by the fact that Caltrans is only replacing half of the entire San Francisco-Oakland Bay Bridge. The existing western suspension span will be retrofitted in place, and it will not acquire any new traffic capacity, or carpool lane capacity or rail line capacity. However, in accordance with Caltrans standards and responsibility for both safety and operations, we do recommend that for the new eastern span Caltrans include two standard 10' shoulders in each direction as part of the base cost of the bridge. This will improve the performance of the bridge by allowing stalls and accidents to be removed from the traffic lanes.

**Recommendation 6:** The new eastern span should have 10 traffic lanes, five in each direction, with two standard 10' shoulders in each direction as part of the base cost.

**High Occupancy Vehicle (HOV) Lane**

Several commenters, including AC Transit, have proposed that the new eastern span include a dedicated bus or carpool lane. We do not believe such a dedicated HOV lane is warranted for the following reasons:

- Because of the operation of the metering lights at the toll plaza and the metering effect of limited approach capacity at the western end, traffic generally flows smoothly on the bridge, particularly on the eastern span, barring accidents or stalls. Congestion occurs at the east and west approaches where bus bypass lanes are provided.
- Buses and carpools already have a significant time savings through the dedicated carpool approach lanes at the Oakland toll plaza. This time advantage will be further enhanced when the I-80 HOV lane and flyover facility is fully operational.
- A dedicated HOV lane on the eastern span would have to terminate at the Yerba Buena Island tunnel unless a mixed flow lane were converted on the western span.

**Recommendation 7:** The new eastern span does not require a dedicated bus/carpool lane. However, Caltrans' design should minimize weaving conflicts between high occupancy and other vehicles at the transition from the dedicated HOV approach lanes to the bridge itself.

**Rail Capacity**

Numerous commenters suggested that the new eastern span should be constructed to be able to accommodate rail service at some future date; a smaller number suggested that rail service be incorporated at the time the new span is built. Both the new Carquinez and Benicia-Martinez bridges that will be constructed as part of the Regional Measure 1 program have been designed, at some added cost, to accommodate rail service at a future date. Unlike those two bridge corridors, however, the Bay Bridge corridor already is served by a commuter rail transit system, with the BART transbay tube carrying approximately 126,000 passenger trips each weekday. The transbay tube also

July 23, 1997
Eastern Span Bridge Design and Planning Recommendations
would be able to carry additional passengers during the peak period with improvements to BART's train control system. Further, as was the case for the HOV lane, there would be no way to accommodate rail service on either deck of the existing western span without taking mixed flow lanes away from vehicular traffic. Finally, we do not expect that any extra costs associated with the provision of rail will be an authorized claim on the assumed $230 million budget.

Recommendation 8: The new eastern span does not need to be constructed to accommodate future rail service.

Yerba Buena Island Ramps

Caltrans has estimated that it would cost $25 million to replace the existing on and off ramps at Yerba Buena Island. The current ramps are configured in such a way (see Attachment 7) that they are sub-standard both for motorists using the ramps and other vehicular traffic on the bridge. The cost for replacing these sub-standard ramps should have been included in the "baseline" cost of the viaduct bridge, but it was not. It also does not appear that the ramps will be eligible for the revenue generated by an extension of the toll surcharge. Nonetheless, Caltrans has a responsibility for designing a safe facility both seismically and operationally and, thus, should be responsible for the provision of safe ramp access to the bridge on Yerba Buena Island.

Recommendation 9: The Yerba Buena Island ramps are an inherent part of the bridge and Caltrans has the responsibility to replace the ramps in order to assure a safe design for the traffic flow on the bridge.

Bridge Design Recommendations

Alignment

EDAP recommended that the new eastern span should be built in close proximity to the existing bridge in the area between the southern alignment and the northern adjacent alignment (see map in Attachment 8). Based on Caltrans' assurance that a lifeline bridge can be built north of the current structure, we recommend that the new bridge be built on the northern adjacent alignment for the following reasons:

- There is more flexibility to design and build a cable-supported main span on the northern alignment.
- There are fewer land use conflicts on the northern alignment. The southern alignment could interfere with future Port operations on the Oakland shore and existing US Coast Guard operations on Yerba Buena Island. The City and County of San Francisco has expressed concerns about the effect of the northern alignment on future city development plans for the island, but we believe such effects (if any) can be successfully mitigated.
- The northern alignment offers enhanced vistas for bridge users and provides a "gateway to Oakland" proposed by many members of EDAP and the public.

Recommendation 10: The new eastern span should be built on the northern adjacent alignment.
Other Design Issues

In addition to its work on alignment issues, EDAP reached consensus on seven additional bridge design recommendations which we endorse.

Recommendation 11: The new eastern span should have a cable-supported main span with a single vertical tower with single or multiple legs in the transverse direction and single or multiple planes of supporting cables.

Recommendation 12: The new eastern span bridge should not be double decked. It should have two parallel separated decks on the causeway section and either parallel separated decks or a single deck on the cable-supported span.

Recommendation 13: The structural elements of the new eastern span should be visually consistent throughout.

Recommendation 14: The causeway section should have long, equal span lengths, although closer span lengths might be necessary just adjacent to the Oakland shore.

Recommendation 15: For the causeway section, particular attention should be paid to the design of the supporting pier as it enters the water, including the possibility of submerging the pile cap below water.

Recommendation 16: The cable or suspension tower on the eastern span should be no taller than the suspension towers on the existing western span.

Recommendation 17: The “diamond” shape for the tower base should not be employed in any cable or suspension tower on the eastern span.

Lawrence D. Dahms

July 23, 1997
Eastern Span Bridge Design and Planning Recommendations
Ms. Mary King  
Bay Bridge Design Task Force  
Joseph P. Bort Metro Center  
101 Eighth Street  
Oakland, CA 946007  

July 18, 1997  

Dear Ms. King:  

Caltrans has been working closely with the Metropolitan Transportation Commission's (MTC) Bay Bridge Design Task Force since its inception approximately five months ago. At the first Bay Bridge Design Task Force meeting, MTC outlined a schedule for the Task Force's efforts. As this schedule draws to a close, I wish to reinforce the extreme importance of your task. The MTC has this historic opportunity to literally shape the landscape of the Bay Area through its recommendations. However, every day of delay increases the risk of a temblor striking. It is imperative that the Task Force conclude its deliberations and forward recommendations on the schedule it established at the beginning of the process.

During these past five months MTC has solicited and received public input through an aggressive outreach program. The Bay Area has had ample opportunity to share its views with the Task Force, and the Task Force has received thousands of comments.

Additionally, the Task Force created an Engineering and Design Advisory Panel (EDAP) which is comprised of esteemed experts from structural engineering, earthquake engineering, seismology, geology, architecture and urban planning disciplines. This panel developed criteria, solicited ideas and concepts, and then reviewed these concepts against the criteria. EDAP is of the opinion that the replacement of the east span of this bridge is clearly preferred in lieu of the seismic retrofit of the existing structure. As a result of their efforts EDAP has determined that only three bridge concepts are acceptable at this project site. These concepts are: the skyway; a cable-stayed bridge with a single vertical tower as viewed in elevation; and a self-anchored suspension bridge with a single tower as viewed in elevation. Further, their preference was for one of the cable supported options, along with additional studies. The EDAP reviewed potential alignments and discarded the northern extended alignment. Only the southern and northern adjacent alignments remain. EDAP also proposed that the new span have a dedicated bicycle/pedestrian facility. Per MTC's instructions, EDAP's mission was not to consider costs. MTC clearly informed EDAP that cost data would enter the political decision making process when EDAP's recommendations were forwarded to the Task Force along with the summary of public comment.
Caltrans has developed cost data to assist in decision making. We have developed detailed quantities and unit costs for one variation of each concept. We worked with the individuals and firms who submitted concepts to EDAP to develop a common understanding of span lengths and transitions to ensure that the concept being estimated is consistent with the originator's vision. We have also hired a consultant to develop independent cost estimates. After reviewing the consultant's work we have revised some of our unit costs. Our updated estimates, reflecting input from the concept originator and the cost estimating consultant, are shown in the table below. We are confident in this data. Please note that there is not unanimous agreement as to the costs between the State, the cost estimating consultant and the concept originators. This is the nature of experts.

<table>
<thead>
<tr>
<th>Bridge</th>
<th>Base Cost 4'-left shldrs &amp; 10'-right shldrs (in billions)</th>
<th>Base Cost Plus 10'-left shldrs (in billions)</th>
<th>Base Cost Plus 10'-left shldrs &amp; bike/pedestrian lane (in billions)</th>
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</thead>
<tbody>
<tr>
<td>Skyway, Northern Adjacent Alignment</td>
<td>$1.000</td>
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<td>$1.156</td>
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<td>$1.244</td>
</tr>
<tr>
<td>Self-Anchored Suspension Bridge, Northern Adjacent Alignment</td>
<td>$1.210</td>
<td>$1.290</td>
<td>$1.385</td>
</tr>
</tbody>
</table>

* Estimates assume that the City of S.F. will transfer to the State at no cost the necessary land for the new bridge on Yerba Buena Island which S.F. receives at no cost from the Military Base Closure.

During the past five months Caltrans has been responsive to the requests of the Task Force and EDAP for any additional studies or information. A substantial amount of information has been developed to assist decision makers. Sufficient information is available to make decisions regarding the bridge type, the bridge alignment, and the issue of a dedicated bicycle/pedestrian facility.

While we appreciate EDAP's efforts, we disagree with the EDAP recommendation for additional study of the three concepts. It is always possible to gather one more piece of information or to conduct one more study. However, Caltrans is of the opinion that information exists to clearly differentiate among the various choices associated with the new Bay Bridge.

Caltrans supports the recommendation that the Bay Bridge Design Task Force and EDAP remain in place throughout the design process. This will ensure that the Bay Area's recommendations to the Legislature and Governor later this month are implemented as envisioned.
In summary, I urge the Task Force to select an alignment, a bridge type, and amenities such as bike paths on the schedule developed at the beginning of the process. A design competition, as recommended by EDAP, is unneeded. In light of the urgent public safety issue with which we are dealing, it is also unwise to postpone a bridge-type decision which will cost time and money, both we can ill afford. A forthright decision is needed.

Sincerely,

[Signature]

JAMES W. VAN LOBEN SELS
Director

c: Members, Bay Bridge Design Task Force
Attachment 2
Mr. James W. van Loben Sels  
Caltrans Director  
1120 N Street  
P. O. Box 942873  
Sacramento, CA  94273-0001

Dear Mr. van Loben Sels:

Your July 18 letter to me, urges the Metropolitan Transportation Commission’s (MTC) Bay Bridge Design Task Force to select an alignment, a bridge type and amenities such as bike paths this month.

I believe the Task Force is prepared to make these selections, but with the exception of the alignment, not until two outstanding conditions are satisfied. First, the State Legislature must pass legislation fixing the cost sharing for the bridge, including an authorization for MTC to levy tolls to finance the so called amenities. Second, Caltrans and its consultants must produce a design (not just a design concept as your letter accurately describes the current design alternatives) to a sufficient degree of detail to support reliable judgements concerning seismic performance, cost and visual appearance.

We note, for example, your acknowledgment that there is not agreement as to the cost estimates between the State, your cost estimating consultant and the designers of the alternative bridge concepts. We are not surprised given the conceptual stage of design. We continue to support the Engineering and Design Advisory Panel (EDAP) recommendation that an approximate 30' X, design is required.

We share your concern that the design process is not to be delayed. To meet this objective, selection of two design teams (one for cable stay and one for suspension) must proceed in parallel. Further, at the 30% milestone, the most economical design should be allowed to proceed to final design and construction unless MTC selects the more costly option and commits to finance its net additional cost from discretionary toll revenues within 30 days.

There will be an extra cost to design competing structures to the 30% design stage. The extra cost will be well spent to assure we will build the bridge that meets the full range of objectives.
If Caltrans can agree to this procedure, you will be positioned to move as expeditiously as possible with bridge design and construction as soon as the financing is approved.

I look forward to working out details of this proposal with you.

Sincerely,

Mary King
Chair
Bay Bridge Design Task Force
Attachment 3
Single tower cable stayed bridge
Single tower self-anchored suspension bridge
**CONCEPTUAL DESIGN**

**Option 1**
(Recommended Option)
Main/Beale South

Muni
- Muni buses travel in dedicated contra-flow lanes on Main and Beale streets.
- Passengers use curbside and island stops for loading and unloading.
- Buses layover in a facility in the block south of Howard Street.
- Layover facility capacity: 22 articulated buses on 11 independent lanes wired for trolley coaches.

Golden Gate Transit
- Civic Center and Financial District service could be revised to include stops south of Howard Street on Main and Beale streets.
- All day service will be routed to stops south of Howard Street on Main and Beale, adjacent to the new terminal.

SamTrans
- SamTrans buses will continue their present operation along Mission Street with stops and layover at designated curbside stops between Main, Mission, and Howard streets adjacent to the new terminal.
- Transfer between Muni routes and SamTrans will occur at Main Street between Howard and Mission streets.
CONCEPTUAL DESIGN
Option 1
(Recommended Option)
Main/Beale South

AC Transit
- Buses have direct Bay Bridge access.
- Phase One provides bays for 13 articulated and 4 standard buses.
- Bus circulation is one way.
-Exiting buses yield to entering buses on the access ramp.

Greyhound
- Greyhound buses will access the second level via the direct access aerial ramp following the same circulation pattern as AC buses to reach the far (easternmost) aisle.
- Eleven 30-degree bus bays are provided for exclusive Greyhound use.
- Buses will exit the facility following the same circulation pattern as AC Transit buses, directly accessing the ramp, freeway, and Bay Bridge.
Attachment 5
July 21, 1997

The Honorable Mary V. King  
Chair, MTC Bay Bridge Design Task Force  
101 Eighth Street  
Oakland, CA 94607-4700

Dear Supervisor King:

Thank you for allowing me this opportunity to provide additional information to the Task Force as it completes its deliberative process to develop the region’s recommendation to the State Legislature on the future of the Bay Bridge.

The proposed replacement of the Transbay Terminal at the west end for the Bay Bridge is, in my judgment, a critical and integral element of the future of the Bay Bridge since it will insure that future AC Transit transbay service can be sustained and expanded, thus diminishing the level of automobile trips on the Bridge. San Francisco is at this time advancing the new terminal project to the engineering and design phase, based on a preliminary concept for the new terminal which has been accepted by all parties involved in the planning.

The current cost estimate for the new regional transit terminal is $125 million, a figure which is exclusive of the ramp work which will link the terminal to the Bridge. In order to meet this financial requirement, San Francisco and its funding partners will examine a wide range of funding sources, but it is very apparent that the most important potential source is the Bridge toll increase revenues. I believe that we need a minimum of $80 million from this source in order to assure a viable financing package for the new terminal.

Beyond this principal funding source, we will examine a variety of federal, state and local resources to meet the total funding needed. Sources we are currently examining include Caltrans seismic funds (for demolition), NEXTEA and STIP financing, as well as San Francisco Redevelopment tax increment funds. We will be working with Caltrans and the MTC in developing this financing package, but it is apparent that a modern new regional terminal must secure substantial Bridge toll revenues if it is to be realized without significant disruptions to the capital financing plans of regional transit operators.

I also believe that the concept of building a new span and retrofitting the Bridge will be totally lost if we do not improve the safety situation leading to and from Treasure and Yerba Buena Islands. These ramps have to be considered an operational safety hazard and we would be remiss in our duties as elected, or appointed, officials if we allowed the
Bridge to be improved, but did nothing to improve the access. If you do not want to use the toll increase to pay for the improved ramp system, it is incumbent upon the MTC to develop an acceptable solution prior to submitting the region’s preference to Sacramento.

As for the alignment and design of the Bridge, I feel that we have an incredible opportunity to make a defining statement with the eastern span. The arguments of a southern alignment versus a northern alignment have to be weighed with the impact each alignment has on either Yerba Buena Island or the Port of Oakland. It is my feeling that the economic development opportunities to the Port of Oakland outweigh the economic opportunities to San Francisco at Yerba Buena Island. Even though it will cost more money to build a signature Bridge, I am willing to support the efforts of the majority of this task force to support the northern alignment.

I hope that you take this all under careful consideration as you advance your recommendation to MTC and to Sacramento.

Thank you for allowing me another opportunity to comment.

Sincerely,

Willie L. Brown, Jr.
Mayor

WLB#2
Attachment 6
Mr. James W. van Loben Sels  
Director  
Caltrans  
PO Box 942873  
Sacramento, CA 94273-0001

Dear Mr. van Loben Sels:

Attached is a schedule designed to reach a firm and reasoned decision on the Bay Bridge east span design. It is the product of our discussion of June 25 and a meeting held here yesterday with the Chair and Vice-Chair of the Engineering and Design Advisory Panel (EDAP), as well as staff from Caltrans, Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC). The schedule assumes the Commission will select the near northern alignment this month and that Caltrans would proceed to develop, in parallel, designs of a cable-stay span and a self-anchored suspension span to the approximate 30% design stage recommended by EDAP. We acknowledge that some additional design cost will be required.

EDAP has recommended, and there appears to be widespread sentiment, that a cable span (stay or suspension) should be selected. That would be the likely choice if the cost difference is in the range of $70 to $100 million, as has been suggested by Caltrans. Thus, we need not proceed with further design of the viaduct for the section of the bridge to be spanned by the tower and cable design, unless Caltrans chooses to do so to refine its own estimate of the cost of the viaduct.

The process we have outlined is intended to give confidence to the public and its political leaders that when $70 to $100 million more is spent for a signature bridge that the design process will result in a bridge worthy of the site. By engaging BCDC and its design review advisors, we believe we have expedited the schedule to the benefit of Caltrans and the public.

The design process outlined balances Caltrans’ needs with those of public review. We look forward to working out any details with you.

Sincerely,

[signature]

Lawrence D. Dahms  
Executive Director
<table>
<thead>
<tr>
<th>Organization</th>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
</table>
| MTC                           | July 30, 1997 (Wednesday) | 1. Endorses Engineering and Design Advisory Panel (EDAP) recommendations  
                              |                       | 2. Selects northern adjacent alignment                                |
| Caltrans                      | August-October 1997   | Design teams contract selection process                                |
| Caltrans                      | November 1997         | Selection of design teams                                              |
| Caltrans and Design Teams      | December-March 1998   | 1. 30% design of a cable-stay/viaduct bridge                         
                              |                       | 2. 30% design of a self-anchored suspension/viaduct bridge           
                              |                       | 3. Cost estimates for 1 and 2                                       |
| EDAP Chair and Vice-Chair     | December 15, 1997 (Monday) | Explanation of EDAP recommendations to design teams                   |
| Caltrans and Design Teams      | February 2, 1998 (Monday) | Review of alternative design approaches with EDAP                     |
| Caltrans and Design Teams      | March 30, 1998 (Monday) | Presentation of designs and cost estimates to EDAP                    |
| EDAP                          | April 10, 1998 (Friday) | Formulate recommendation for BBDTF                                     |
| Bay Bridge Design Task Force (BBDTF) | April 15, 1998 (Wednesday) | Public Hearing to review design alternatives and EDAP recommendation |
| Bay Conservation and Development Commission (BCDC) | April 16, 1998 (Thursday) | Hearing and vote on policy issues of concern to BCDC                |
| BBDTF                         | April 22, 1998 (Wednesday) | 1. Review design, cost and EDAP recommendation                         
                              |                       | 2. Prepare recommendation to MTC                                     |
| MTC                           | April 29, 1998 (Wednesday, special meeting) | Adopt recommendation to Caltrans and Legislature regarding design and cost and financing |

See footnotes attached.

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Footnotes

1 Based on Caltrans assurance that a lifeline bridge can be constructed on the northern adjacent alignment, that fewer land use conflicts exist on the northern alignment, that vistas and “gateway to Oakland” are enhanced on the northern alignment and that more flexibility is available to design and build a cable supported span in the northern rather than the southern alignment.

2 Based on Caltrans estimate that a design team selection process can be completed in three months including a review of consultant selection criteria and scope of work by staff of MTC, BCDC and the Chair and Vice Chair of EDAP.

3 Based on the following assumptions:
   a) two design teams will be selected, one to design the best cable stay/viaduct combined structure, the other the best self-anchored suspension/viaduct combination
   b) all designs will be carried to an approximate 30% level with early reviews by a reconstituted EDAP
   c) Caltrans is responsible for the “base case” viaduct.

4 At this stage EDAP will have been restructured to eliminate members of the selected design teams and be augmented as necessary by bridge design experts. The standing of the restructured EDAP as advisor to Caltrans, BCDC and MTC is to be reinforced in this early dialogue between the chair and vice-chair and the design teams. The chair and vice-chair will represent EDAP in the early development of design options by the design teams.

5 This is intended to be the milestone where design alternatives are presented by the design team and where there remains sufficient flexibility for substantial revision if EDAP is not satisfied with the design direction.

6 The approximate 30% designs together with baseline and signature bridge estimates are to be presented for final review by EDAP.
Attachment 7
Conceptual Design
For Design Study Only

SFOBB New East Span-Northern Alignment Alternative
New Ramp Access

5/8/97
Attachment 8
Box 6, Folder 5

Item 26

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