



Agenda Item No. 1

To: Building and Operating Committee/Committee of the Whole
Meeting of March 27, 2008

From: Kary H. Witt, Deputy General Manager, Bridge Division
Denis J. Mulligan, District Engineer
Celia G. Kupersmith, General Manager

Subject: **APPROVE ACTIONS RELATIVE TO THE EAST AND WEST
SIDEWALKS REGARDING CONTRACT NO. 2006-B-1, GOLDEN GATE
BRIDGE SEISMIC RETROFIT PHASE IIIA, NORTH ANCHORAGE
HOUSING/NORTH PYLON**

Recommendation

The Building and Operating Committee recommends that the Board of Directors approve the following actions relative to the east and west sidewalks as part of the Board's continuing effort to make the Bridge as safe as possible for all users, including pedestrians and bicyclists, while balancing the costs and benefits of any potential improvements:

1. Approve maintaining the east and west sidewalk's current physical configurations; that is, that no physical structures be moved and no widening of the sidewalk or relocation of light poles or relocations of railings occur, as part of the *Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon*;
2. Retain the existing hours and operational aspects of the east and west sidewalks for pedestrians and bicyclists;
3. Direct staff to study the issue of a bicycle speed limit, other rules governing the use of bicycles on the Bridge sidewalks, and related enforcement issues and instruct the Bridge Manager to report back to this Committee with the results of this study and any recommendations; and,
4. Direct staff to inventory and review existing signage at either end of the Bridge sidewalks as well as along their length to determine whether safety might be enhanced with additional signage, and delegate to the Bridge Manager the authority to add additional signage or change existing signage if the Bridge Manager determines that such a course is advisable. The Bridge Manager is directed to report back to this Committee.

Summary

The Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon Project (Phase IIIA Project) will involve the removal and replacement of the North Anchorage Housing roof, which is an approximately 300-foot long segment of the Bridge Roadway, and the adjacent sidewalk areas on the east and west sides of the Roadway. This provides an opportunity to again consider potential changes to the current design of the sidewalks both in a physical and operational sense. The District's last major safety initiative was the addition of the public safety railing that runs the length of both the east and west sidewalks. It is appropriate for the Board to consider a preferred design for the east and west sidewalks of the Golden Gate Bridge in light of the onset of Phase IIIA Project.

As noted and explained below, maintaining the current design and operation for both the east and west sidewalks makes the most sense in light of the totality of the circumstances. Thus, staff recommends that the District retain the current physical and operational design of the pedestrian and bicycle path on the east sidewalk, and the bicycle path on the west sidewalk. In our continuing effort to make the Bridge as safe as possible for all users, however, we do recommend that the Board assign to staff the tasks of further studying whether there should be additional signage on or leading to the east and west sidewalks, as well as whether there should be a bicycle speed limit or other regulations governing the operation of bicycles on either or both of the sidewalks. Staff further recommends that the full Board delegate to the Bridge Manager decisions on additional signage.

Background

A. Phase IIIA Seismic Retrofit

The Phase IIIA Project will involve a complete seismic retrofit of the North Anchorage Housing and North Pylon. The project includes: strengthening foundations, installing micropiles and rock bolts, constructing reinforced concrete shearwalls, removing and replacing the Anchorage Housing roof/roadway deck with a pre-cast concrete slab-on-steel-stringers deck system, removing and replacing bridge sidewalks at the North Pylon and at the North Anchorage Housing, installing an isolation deck joint assembly, installing a maintenance access traveler system inside the Anchorage Housing, and installing steel plating with a concrete cover system, as well as other structural modifications. Related work will include: the removal, handling, and disposal of lead contaminated soil; cleanup of lead contaminated non-soil surfaces inside the North Anchorage Housing and North Pylon; utility modifications throughout the North Anchorage Housing and North Pylon; and, communication cable modifications on the Suspension Bridge.

This project provides an opportunity to revisit both design and operational aspects of the Bridge's east and west sidewalks. Below, we provide some background on the current design and operations, and recommend that these be retained with further study on discreet signage and speed limit issues.

B. Operational Aspects of the East and West Sidewalks

The east and west sidewalks of the Bridge have been incorporated into and are integral parts of established recreational trails such as the California Coastal Trail and Bay Area Ridge Trail. There are trail markers for each of these trails on the south and north approaches to the west sidewalk. The north end of both sidewalks leads cyclists and pedestrians to unimproved property in the Golden Gate National Recreation Area (GGNRA) and in the Marin Headlands. At the south end, the east and west sidewalks also connect to GGNRA land, including Crissy Field. The Bridge's sidewalks, therefore, provide access to scenic lookout points and recreational activities, such as hiking, biking, and walking. The east and west sidewalks do not generate revenue as neither bicyclists nor pedestrians pay to use them.

Warning signs on the chain link fence facing bicyclists as they enter the southern and northern entrances to the west sidewalk of the Bridge state that "bicyclists should walk bicycles on bridge sidewalks." Both sidewalks have clear sightlines; there is a 1000-foot radius horizontal curve at both ends of the Bridge which do not in any way obstruct pedestrian or bicyclists' views of oncoming sidewalk traffic. There are no other obstructions that would prevent oncoming cyclists and/or pedestrians from seeing one another apart from the Bridge towers themselves. The angles around the towers, however, mandate that, as signs posted at these locations suggest, bicyclists proceed very slowly; some choose to walk their bikes around the towers. There is currently no bicycle speed limit on either of the Bridge's sidewalks.

The Bridge sidewalks attract a wide variety of users. There are pedestrians and there are hikers. There are casual tourist bicycle riders, as well as more serious cyclists. At this time, the Bridge accommodates all.

1. East Sidewalk. From mid-March through November, the east sidewalk of the Bridge is open to pedestrians from 5:00 a.m. through 9:00 p.m. every day. From November to mid-March, it is open from 5:00 a.m. to 6:30 p.m. In addition to pedestrians, it is also open to bicyclists on weekdays from 5:00 a.m. to 3:30 p.m. The East sidewalk is available overnight (from 9:00 p.m. or 6:30 p.m. to 5:00 a.m.) to bicyclists who enter through a closed gate after a check-in with Bridge Security. During overnight hours, bicyclists are required to proceed directly across the Bridge. On weekends and holidays, when there are the most pedestrian users and the heaviest demand from cyclists, cyclists are directed to use the west sidewalk, which is available exclusively to bicyclists. Whenever feasible, it has been deemed desirable to separate bicyclists from pedestrians especially during peak usage periods. The west sidewalk is available exclusively to bicyclists during these times. This schedule has been in place for several years.
2. West Sidewalk. The bicycle path on the west sidewalk is an established paved bicycle path across the Bridge. Signs on the west sidewalk clearly designate the hours during which bicycles are permitted. From mid-March through November, it is open to cyclists on weekends and holidays from 5:00 a.m. until 9:00 p.m. and on weekdays from 3:30 p.m. until 9:00 p.m. From November through mid-March, it is open from 5:00 a.m. until 6:30 p.m. on weekends and 3:30 p.m. until 6:30 p.m. on weekdays. This schedule has

been in place for several years. No pedestrians are allowed on the west sidewalk at any time.

C. The Current Physical Design of the East and West Sidewalks

From 1982-1985, the District implemented the Deck Replacement Project (Deck Project) to widen the roadway. Prior to this Project, the west sidewalk of the Bridge had stopped at Pylon N2, which is on the northwest side of the Bridge at the beginning of the area referred to as the "North Approach Viaduct." Also prior to the Project, the east sidewalk extended at a reduced width along the North Approach Viaduct. The Deck Project extended the west sidewalk beyond Pylon N2 to the Marin Abutment, and the Project widened the east sidewalk to a width of ten feet along the North Approach Viaduct. Thus, bicyclists could traverse the Bridge on the path on the west sidewalk along the full length of the Bridge, exiting at the Marin Abutment. The District considered widening the sidewalks beyond a width of ten feet, but it was found to be infeasible in light of the physical constraints of the Bridge structure itself and the more compelling need to widen the roadway. The District considered other measures to address the narrow nature of the sidewalks, including striping. These measures were rejected as they would not enhance, and indeed might compromise safety.

By the early 1990s, use of the Bridge sidewalks by bicyclists and pedestrians was on the rise. The Board was concerned that the increased sidewalk usage might result in bicyclists and pedestrians inadvertently falling into live traffic lanes due to the paths' proximity to the Bridge roadway and the then existing low curb rail which separated sidewalk users from motorized traffic; thus, the Board decided to erect a public safety railing on both the east and west sidewalks. In 1997, the Board passed Resolution No. 97-304, which authorized the award of a professional services agreement to design a public safety railing. The District engaged Korve Engineers, Inc. (Korve), as traffic engineering subconsultants, and formed an Advisory Committee to work with the District Engineer and the Bridge Manager. Korve prepared a Traffic Safety Study and developed three alternative design proposals for the public safety railing. Korve concluded that a railing could be installed along the entire east sidewalk and along the majority of the length of the west sidewalk. Korve recommended that one area of the west sidewalk not have the railing.

Because such a railing on the northwest part of the Bridge might obstruct the sightlines of southbound motorists, Korve included in its recommendation "Design Alternative C," which provided that no railing would be installed in the area of the west sidewalk that runs along the northwest approach curve on the North Approach Viaduct. With no railing at that location, Korve recommended that there be no bicyclists on the North Approach Viaduct west sidewalk. Instead, bicyclists on the path on the west sidewalk would be redirected at Pylon N1 to the concrete bicycle bridge, which connects to Conzelman Road, an access road that parallels the Bridge on the northwest side.

In October 1998, the Board passed Resolution No. 98-269, which authorized Korve's Design Alternative C. When this proposal was presented at a public meeting on February 23, 1999, the bicycle community vigorously opposed the closure of the North Approach Viaduct area of the west sidewalk to bicycle traffic. The Marin County Bicycle Coalition presented an alternative; to have one-way traffic on the northwest approach. Korve re-evaluated and

submitted a draft technical memorandum in April 1999, with three alternatives: (1) one-way traffic on the northwest section of the west sidewalk, using the concrete bridge; (2) two-way traffic with a new bicycle bridge; or, (3) widening the existing concrete bicycle bridge for two-way traffic.

On May 7, 1999, the Building and Operating Committee reported to the Board that it accepted the final design concept of amended "Design Alternative C." The public safety railing would not be installed on the west sidewalk of the North Approach Viaduct. Instead, it would terminate at a point adjacent to Pylon N2 where the north viaduct adjoins the anchorage housing. The sidewalk beyond that point would be delineated and signed to allow one-way northbound bicycle traffic only, with southbound bicycle traffic diverted to the north anchorage housing via Conzelman Road and the existing bicycle bridge.

In making this recommendation, staff considered and rejected the option of widening the west sidewalk of the North Approach Viaduct to allow continued two-way use of the sidewalk by bicycle traffic. This approach would have involved work well beyond the scope of the public safety railing project. Staff concluded that "in view of other demands for capital expenditures related to the bridge, such as the Seismic Retrofit, it is unlikely that a source for such additional funding could be found in the foreseeable future. Further, such improvements could trigger architectural/historical issues." Staff also concluded that striping the remainder of the west sidewalk for two-way traffic would not enhance, and might compromise, bicyclist safety.

On May 14, 1999, Board Resolution No. 99-111, authorized the final design concept of amended "Design Alternative C." On August 10, 2001, the Board authorized the award of a construction contract for the public safety railing. Construction, however, did not begin at that time. One month later, the tragic events of September 11, 2001, occurred. These events greatly heightened security awareness. Due to immediate security concerns, the District temporarily closed the east and west sidewalks to the public.

In addition, the District and the National Park Service also reassessed access issues from a security perspective. The District thereafter closed access to Bridge Road, which connects to the concrete bicycle bridge and to Conzelman Road on the northwest side of the Bridge. The District also restricted access to Conzelman Road. When the Board later reopened the sidewalks for public use, Bridge Road remained closed and access to Conzelman Road remained restricted. Thus, access to the west sidewalk for bicyclists across the concrete bicycle bridge was effectively terminated. Southbound bicyclists had to use the west sidewalk along with northbound bicyclists where there was no railing planned. In a May 29, 2003, memorandum to the Committee, staff explained that "the events of September 11, 2001, have precluded utilization of the current design."

Because of this change in conditions, the District considered an array of new alternatives including: (1) restricting southbound bicyclists to the east sidewalk; (2) requiring bicyclists to walk their bikes in the area between the Marin Abutment and Pylon N2; and, (3) installing a signal system that would control bicycle traffic in the area without a public safety railing by allowing one-way bicycle traffic, alternating between the northbound and southbound direction.

Staff found that all three of these alternatives would require significant enforcement efforts by the District's Bridge Patrol and would take Patrol members away from other security duties. As a result, Staff then re-examined the effects and impacts of installing the railing on the west sidewalk from Pylon N2 to the Marin Abutment. The original Traffic Safety Study had concluded that there be no safety railing in this area due to the theoretical assumption that the railing posts would obstruct car driver's views. However, since those studies were done, the public safety railing had actually been installed on the east sidewalk at the south approach to the Bridge where the horizontal curve is similar to the curve on the north approach. Experience had shown that there were no obstructions as the railing is not a solid feature and drivers could easily see cars ahead and around the curve.

Based on these observations, staff determined that the installation of the railing on the west sidewalk at the north end of the Bridge was acceptable and represented the best trade-off to balance the interests of providing bicycle recreation and transportation opportunities along the west sidewalk with public safety and essential security concerns. Thus, staff proposed that two-way bicycle traffic be accommodated along the entire length of the west sidewalk with the added protection of the public safety railing along the entirety of its length. On May 30, 2003, the Board accepted that design and noted that extending the public safety railing along the west sidewalk best balanced the safety considerations for motorists and bicyclists, in light of the District's very serious security concerns and the prohibitive cost of widening the sidewalks, which already had been rejected by the Board.

Because of the physical, architectural and historical constraints of the structure itself, however, the determination was made that it was not feasible to widen or stripe the lanes of bicycle traffic on the west sidewalk. First, the structure cannot be widened without damaging the architectural and historical aspects of the Bridge structure. Second, because there are points along the west sidewalk where the pathway narrows to under eight feet in width, adding a stripe to the lanes would make the individual lanes too narrow, creating a hazard for cyclists.

Moreover, as staff recommended and the Board approved, it was found to be undesirable to close the west sidewalk to bicycle traffic completely, thereby forcing all bicycle traffic to the east sidewalk where pedestrians are also permitted. Due to the heavy use of the east sidewalk by pedestrians, especially in the late afternoon and on weekends and holidays, adding additional bicyclists to the east sidewalk was not desirable. Whenever possible, staff believes that it is advantageous to separate bicyclists from pedestrians. Adding additional bicyclists on the east sidewalk when the west sidewalk is not needed for Bridge maintenance activities might lessen the accessibility and desirability of cyclists and pedestrians' use of the Bridge sidewalks.

Construction of the public safety railing along the North Approach Viaduct commenced in January of 2003. The entire project was completed in November of 2003.

D. Accident Data

The District maintains data on all bicycle accidents reported on the Bridge. As a general matter, use of the Bridge by both bicyclists and pedestrians has risen dramatically since 2000. On a typical weekend or holiday, thousands of bicyclists ride across the Bridge on the west sidewalk. Similarly, on weekend days, the east sidewalk is crowded with pedestrians. During the week in daytime hours, the east sidewalk is often crowded with both bicyclists and pedestrians.

We are very pleased with the public safety railing's impact on safety since its completion in 2003. Severe accidents of the type the railing was meant to prevent have not occurred. No bicyclist or pedestrian has fallen into the roadway since the public safety railing was finished.

As to other types of bicycle incidents on the east and west sidewalks, we are encouraged.

1. West Sidewalk. Between the years, 2000 and 2007, 54 incidents involving bicycles were reported on the west sidewalk. While the average number per year has increased slightly over time (from 5 to 8 per year), this increase does not correspond with the dramatic increase in the number of bicyclists using the west sidewalk when it is open to the public. A vast majority of these incidents are due to equipment failures, loss of control, or improper operation of the bicycle, such as improper turns. The number of bicycle incidents on the west sidewalk is not increasing as quickly as the number of cyclists. Moreover, the vast majority of those incidents that do occur generally have not resulted in significant injuries.

As to accidents with the potential to cause more significant injuries, there were 13 head-on accidents on the west sidewalk during the same time period. The highest occurrence of head-on collisions was reported in 2002, when there were 5 separate incidents involving collisions where two or more bicyclists traveling in opposite directions made contact on the west sidewalk. In 2004, after the completion of the public safety railing in 2003, there was only one head-on bicycle accident on the west sidewalk. In 2005, there were three. In 2006 and 2007, only one head-on collision on the west sidewalk was reported each year. Apart from one 2005 head-on collision that did result in serious injuries, these other collisions resulted in only minor injuries.

Thus, even in light of increasing bicycle traffic on the Bridge's west sidewalk, it would appear that the public safety railing, since its 2003 completion, has prevented accidents between bicycles and automobiles, the type of accidents the railing was intended to address. Moreover, incident rates are not increasing as quickly as the level of bicycle traffic on the west sidewalk. In particular, the number of head-on accidents, a more serious concern than bicycle incidents generally, have remained constant or decreased even with increasing levels of bicycle traffic. It appears that the current design of the bicycle path is safe now, as safe if not safer than it ever has been.

2. East Sidewalk. The safety rail has prevented any pedestrian or bicyclist from falling into the roadway. Second, from 2000 to 2007, there have been 48 incidents involving contact

between bicyclists and/ or pedestrians on the east sidewalk. The rate of incidents per year has remained constant since the 2003 completion of the public safety railing, even in light of the dramatic increase in the numbers of pedestrians and bicyclists who use the east sidewalk. Again, it appears that the current design of the east sidewalk is as safe if not safer than it ever has been.

E. Speed Issues

In 2000 and again as recently as 2003, District staff considered whether to impose a speed limit for bicycles on the sidewalks of the Bridge. The idea was rejected at those times for a number of reasons. First, while excessive speed is an issue on occasion, it does not appear to be a dominant factor in the majority of bicycle incidents on either the east or west sidewalks. Our experience tells us that, for the most part, bicyclists respect the inherent conditions of Bridge sidewalks; they are narrow and shared by many disparate users. The towers, too, have an impact as one must go around them very slowly; the angles are very tight. In addition to the question as to the need for and efficacy of a speed limit, there were other issues to consider such as enforcement. While the California Highway Patrol (CHP) enforces the Vehicle Code on the Bridge roadway, it did not appear in the past that bicycle speed enforcement on Bridge sidewalks was something that the CHP was eager to undertake.

Thus, District staff determined at the time that the best course, given the above circumstances, was to address the speed issue, and rider and pedestrian safety issues in other ways. Working with the San Francisco and Marin bicycle coalitions, staff created a list of “rules of the road” for bicycling on Bridge sidewalks through a collaborative process. These rules were and have been posted on the District’s website since their creation. Moreover, the bicycle coalitions printed and disseminated the rules to their members and included them in their newsletters. We also reached out to a number of bicycle rental shops that cater to tourists, and provided pamphlets regarding the rules for distribution to their customers.

F. Design Options

In the context of Phase IIIA Project, Staff again has considered any number of potential design changes for the east and west sidewalks.

Sidewalk Hours. District staff believes that the current schedule for bicycle use best balances the District’s need to maintain the Bridge with the laudable goal of providing the public with access to recreational opportunities. Closing the Bridge’s west sidewalk to bicycles or further curtailing available hours would not serve these important purposes. Nor is it feasible to further expand bicycle access to the west sidewalk as this would compromise Bridge maintenance operations during weekday daytime hours. Similarly, staff believes the hours of operation for the east sidewalk are also appropriate both with regard to pedestrian and bicycle access. In summary, the east sidewalk is always open to pedestrians from 5:00 a.m. to 9:00 p.m. in summer and from 5:00 a.m. to 6:30 p.m. in winter. The east sidewalk is also available to bicycles during weekday daytime hours until 3:30 p.m. After 3:30 p.m. on weekdays and on weekends and holidays, bicyclists have exclusive use of the west sidewalk.

Thus, both pedestrians and bicyclists are accommodated at all times and, when feasible, bicyclists and pedestrians are kept separate, especially during peak usage hours.

Widening the East or West Sidewalk. District staff again has considered the possibility of widening the Bridge sidewalks. This option, which necessarily would include a complete redesign of the physical structure of the Bridge, would be expensive, time-consuming and with certainty implicate historical preservation concerns. It is simply not feasible.

The Adequacy of Sight Lines. District staff has re-examined the sight lines for bicyclists on both the east and west sidewalks and has found that they are more than adequate. Much of the route on either sidewalk is straight. Where the sidewalks curve at the north and south ends, the curvature is not sufficient to compromise bicyclists' or pedestrian's sight lines. The routes around the north and south towers are tight, but bicycle speeds at those locations are typically modest, and do not undermine safety. Weather factors such as fog and rain again do not compromise sightlines at the speeds at which bicycles or pedestrians travel on the Bridge.

Two-Way Traffic and Striping. District staff again has considered whether the west sidewalk should be only one-way for bicyclists. This would require that the east sidewalk accommodate additional bicyclists during times when it is most congested. Again, staff believes it is desirable to separate pedestrians and bikers when feasible, especially during peak usage times. Moreover, making the west sidewalk one-way would hinder both the recreational and transportation utility of keeping the west sidewalk open for bikes.

We again have considered striping to separate bike lanes on one or both sides of the Bridge sidewalks. We conclude that striping the pathway for two-way traffic is problematic and not advisable. The resulting lanes would be significantly less than 4 feet in width, and closer to 3 feet in width in some places as the District stages its maintenance operations along portions of the west sidewalk. Moreover, atop the North Anchorage Housing where there is more room, the positions of the light posts indicate the same concerns. The light posts are approximately 7 or in some cases 8 feet from the public safety rail. Striping in this area again would result in riders trying to stay too close to the light posts or the public safety rail, depending on their direction of travel. Striping on the west side of the light posts would also be problematic, as it would cause bicyclists to change direction in a very significant manner. Some bicyclists likely would be misdirected to the roadway side of the light posts, causing more confusion and potentially more accidents.

We also recommend against striping on the east sidewalk for the reasons noted above. In addition, the added feature of pedestrians on the east sidewalk makes striping even more problematic as any potential lanes will often be blocked by pedestrians.

Light Post Placement. The light posts atop the North Anchorage Housing and along the east and west sidewalks of the Bridge itself form an unbroken design line that is a part of the Bridge's distinctive aesthetic, and the spacing and location of the light posts is part of the historic fabric of the structure. While it might be possible to move these light posts, it would be expensive, especially in light of the many approvals that would be necessary and historical

preservation issues. This is true along the both the east and west sidewalks and atop the North Anchorage Housing. The sidewalk at this location is 29 feet wide - there is plenty of room and little concern over any channeling effects of the light posts themselves.

Maintenance Activities and Equipment Staging on the West Sidewalk. District staff has considered whether there are any other potential alternatives to staging equipment and conducting Bridge maintenance activities from the west sidewalk. The vast majority of maintenance activities are conducted from the west sidewalk. Public safety, employee safety, and efficiency of our maintenance operations require that maintenance crews retain exclusive use of the west sidewalk during working hours. Further, it is not feasible to move the equipment associated with these maintenance activities to any other location on the Bridge. There are no other reasonable options. Breaking down maintenance equipment to clear the sidewalk for bicycles on a daily basis would be extraordinarily and prohibitively expensive. This is not feasible as maintenance activities occur, equipment is used every day, and much of the equipment is very large and is connected to Bridge air, water, and electrical supplies. The efficiency of maintenance operations would be compromised severely and costs would rise dramatically. Complete closure of the west sidewalk to bicycles is preferable to this approach, although such closure is not recommended by staff.

Speed Limit. In our continuing effort to make the Bridge as safe as possible for all users, we suggest that we again consider imposing a bicycle speed limit and possibly other rules governing the operation of bicycles on either the east or west sidewalk, or both. With the dramatic increase in both bicyclists and pedestrians using the Bridge, we believe that we should, once again, study whether a speed limit would enhance safety on either sidewalk. We also recommend that we study enforcement options in that context. Therefore, we recommend that the Board instruct staff to study the bicycle speed limit, other rules governing the operation of bicycles, and related enforcement issues. The Bridge Manager should report back to this Committee with recommendations.

Signage. We recommend that the Board instruct staff to determine whether there might be any enhancement to safety on the Bridge sidewalks through possible improvements in signage at either end or along the length of either Bridge sidewalk. While District staff firmly believes that current signage is adequate, it is prudent to, once again, inventory and review existing signage. We therefore recommend that the Board instruct staff to inventory and review existing signage at either end of the Bridge sidewalks as well as along their length to determine whether safety might be enhanced with additional signage. We further recommend that the Board delegate to the Bridge Manager the authority to add additional signage or change existing signage if the Bridge Manager determines that such a course is advisable. The Bridge Manager should be directed to report back to this Committee on the results of the survey and any modifications that resulted.

Fiscal Impact

There is no fiscal impact associated with this report.