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Mr. Jeffrey Lee, PE, Project Manager
Golden Gate Bridge, Highway and Transportation District
Administration Building, Bridge Toll Plaza
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Via e-mail attachment (JYLee@goldengate.org)

RE: Comments on Draft Environmental Impact Report, Golden Gate Bridge Physical
Suicide Deterrent Project,

Dear Mr. Lee:

Thank you for the chance to review and comment on this draft environmental impact document. As my area of expertise is in social science statistics and research design, I will limit my comments to that topic, in particular the “purpose and need” section of the document.

Section S3 and pg. 1-5, Purpose and Need. The purpose of the proposed project as stated is ambiguous. For instance, Section S3 states “[t]he purpose of the proposed project is to consider a physical suicide deterrent system on the Bridge that reduces the number of injuries and deaths associated with individuals jumping off the Bridge.” As stated, the ultimate goal of the project is unclear – is it designed to save the lives of suicidal people, or simply to keep suicidal people off of the Golden Gate Bridge? There is a difference between preventing suicides at a particular location and saving lives, and this document should state explicitly which of these goals the project is intended to achieve.

A. One interpretation of the purpose of the project as stated is that it is meant to save the lives of suicidal individuals. If this is in fact the goal of the project, then it should be noted that to date no scientific study has been able to demonstrate that physical suicide deterrent systems save lives.

It is true that means restriction (limiting the availability of lethal means to suicidal individuals) has proven effective at reducing suicides by some methods. This evidence of the effectiveness of means restriction as a suicide prevention strategy comes from studies of lethal agents people keep in their homes and might use in an impulsive suicide, such as firearms and prescription medications.

While some have argued that the concept of means restriction might also extend to suicides by jumping from bridges, this is purely conjecture. To date every study on the effectiveness of physical suicide deterrent systems on bridges has been inconclusive – nobody knows whether such systems save lives, or just divert suicides to other locations.

The fact that means restriction works for some methods of suicide but is unproven in the case of bridges is well known among researchers and public health officials. For instance, after endorsing means restriction strategies for firearms, domestic gas, and toxic substances, on the topic of suicide barriers the World Health Organization states:

In addition to the measures described, whose efficacy is attested to by the scientific literature, it is thought that other measures, such as the use of fencing on high buildings and bridges, could also contribute to a reduction in suicide rates, although there is no definitive evidence to support this idea. (p. 87)

In more than 30 years of research, not one study has found evidence that suicide barriers save lives. For instance, in the most recent study on the topic (published in December 2007), Reisch et al. conclude “[b]arriers on bridges may prevent suicides but also may lead to a substitution of jumping site or method” (p.681). In sum, there is no scientific evidence that suicide barriers on bridges save lives. For more detailed information on this point see: <http://www.polsci.ucsb.edu/faculty/glasgow/Caltrans.pdf>

Thus, the ability of a physical suicide deterrent system to accomplish this interpretation of the project goal is unknown.

B. Another interpretation of the purpose of the project as stated is that it is meant to simply to keep suicidal people from using the Golden Gate Bridge as their means to suicide. A physical suicide deterrent system is likely to accomplish this goal – numerous studies have demonstrated that the suicide rate on bridges and other tall structures declines when suicide barriers are constructed. Again, this is not proof that lives have been saved – it could be that suicidal individuals simply go elsewhere to end their lives. However, if the goal of the project is narrowly defined as preventing suicide at a particular location (the Golden Gate Bridge), the physical suicide deterrent system is likely to work.

There are two caveats here. First, it should be noted that while physical deterrent systems are generally effective at reducing suicides from bridges, this is not always the case. For instance, the Colorado Street Bridge in Pasadena has seen four suicides in the last 2 years despite having suicide barriers in place (*Pasadena Star-News*, various dates). This is a higher rate of suicide than the average rate of suicide from this bridge in the period before the barrier was installed (based on newspaper reports, approximately 1.25 per year). In the event a physical deterrent system is installed on the Golden Gate Bridge this case should be studied to determine if the recent failure to reduce the suicide rate at this bridge is due to a design flaw or an unforeseen maintenance issue with the system.

However, this case may simply be an indication that physical deterrent systems are unable to prevent determined individuals from committing suicide.

Second, this narrow definition of the goal of the project is at odds with the public understanding of the goal of this project. Most existing public support for this project is based on the belief that the ultimate goal of the project is to save lives. If the actual goal of the project is simply to move suicidal behavior away from the bridge, without regard for the ultimate fate of the suicidal individuals, this must be made clear in the document.

C. In conclusion, this document is unclear about what the actual purpose of the project is (keeping suicidal people away from the bridge or saving lives). If the actual goal of the project is to save the lives of suicidal individuals, the document must note that there is no scientific evidence that a physical suicide deterrent system will accomplish this goal. If the actual goal of the project is simply to keep suicidal people away from the Golden Gate Bridge without regard for saving lives, this must be made clear in the document so the public can make an informed decision about whether to support what amounts to a \$50 million suicide diversion project.

Sincerely,
Garrett Glasgow

References:

Reisch, T, U Schuster, K Michel. 2007. "Suicide by Jumping and Accessibility of Bridges: Results from a National Survey in Switzerland." *Suicide and Life-Threatening Behavior*, 37:681-687.

World Health Organization. 1998. "Primary Prevention of Mental, Neurological, and Psychosocial Disorders." Accessed online at <http://whqlibdoc.who.int/publications/924154516X.pdf>.