

Ms. Elizabeth Russell

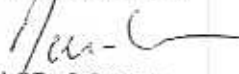
SUBJECT: REVISED DRAFT PRESERVATION PLAN FOR COUNTY OF MAUI BRIDGES
WITHIN THE HANA HIGHWAY HISTORIC DISTRICT

September 19, 2001

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Your interest and participation in the development of this Preservation Plan are appreciated.

Very truly yours,



DAVID GOODE
Director of Public Works
and Waste Management

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xc: Lloyd Lee, County of Maui, DPWWM
Earl Matsukawa, WOA

THE HANA BUSINESS COUNCIL
P.O. BOX 856
HANA, MAUI, HAWAII 96713

Mr. Earl Matsukawa
Wilson Okamoto & Associates, Inc.
1907 So. Beretania St., Suite 400
Honolulu, Hawaii 96826

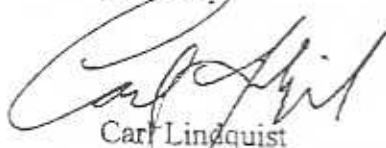
Aloha Mr. Matsukawa:

We appreciate the opportunity to review and respond to the draft of the Preservation Plan for the County of Maui bridges which lie within the Hana Highway Historic District. It is obvious that a great deal of thought and effort have gone into this work, and we are particularly pleased that you have pursued the one-lane designation, and that so much focus has gone into the retention of historically correct railing details.

At the last public meeting in Hana, it was mentioned that there was some possibility that reinforced concrete walls with simulated rock facings might be substituted for the metal guard railings needed to protect the bridge abutments, and it is our hope that this may come to fruition. From our perspective, the use of metal railings negates much of the effort to retain the historic features of the bridges, and should be avoided wherever possible.

In addition to the retention of the historic legacy of the Hana road, one of our great concerns continues to be the length of the predicted road closures, and we urge you and the County officials involved to make the most concerted effort possible to reduce these to an absolute minimum! The devastating economic effect that these extended closures will have on Hana businesses demands that emergency measures of the most extreme proportion be considered, including, as necessary, the exploration of Federal assistance in providing for additional funding and/or technical expertise in assuring that adequate bypasses are provided for during the construction period. In this regard, in order to document the gravity of our situation, we believe that a formal economic impact study is very much in order, and would gladly offer the support of the Hana Business Council to see that such a study is undertaken as soon as possible.

Sincerely,



Carl Lindquist
President

JAMES "KIMO" APANA
Mayor
DAVID C. GOODE
Director

MILTON M. ARAKAWA, A.I.C.P.
Deputy Director

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COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
ENGINEERING DIVISION
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

September 19, 2001

Mr. Carl Lindquist, President
The Hana Business Council
P. O. Box 856
Hana, Hawaii 96713

SUBJECT: REVISED DRAFT PRESERVATION PLAN FOR COUNTY OF MAUI BRIDGES
WITHIN THE HANA HIGHWAY HISTORIC DISTRICT

Dear Mr. Lindquist:

Thank you for your letter commenting on the subject Preservation Plan. We appreciate your recognition of the progress made to date and offer the following in response to your specific comments:

1. Due to concerns expressed about the use of steel guardrails, the Final Preservation Plan will recommend the use of rock wall guardrails along the approaches to the bridges instead of the steel w-beam and Thrie-beam. The rock wall guardrail would be a "crash-tested" design that may alternatively be constructed of lava rock with necessary reinforcement, a reinforced-concrete wall veneered with native lava rock or a reinforced-concrete wall finished appearing as lava rock. According to an official of the Federal Highway Administration (FHWA), the side of the wall facing the road may have a relief no greater than 3/4-inch, in order to prevent it from "snagging" vehicles and causing them to spin when struck. Therefore, the type of construction to be used may be dictated by the feasibility and cost of achieving the required relief and structural strength. The public will have the opportunities to review and comment on the alternative construction methods during the environmental assessment and SMA permit process.
2. The DPWWM is acutely aware of concerns expressed by the community regarding road closure during construction work on the bridges. You may recall that the initial Draft Preservation Plan proposed two-lane replacement bridges, which could be constructed one lane at a time to maintain traffic flow. By going to the single-lane alternative, the options for maintaining traffic flow during construction are limited. The DPWWM will seriously

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Land Use and Codes Administration

RONALD R. RISKA, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

Solid Waste Division

BRIAN HASHIRO, P.E.
Highways Division

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SEP. 25 2001

WILSON OKAMOTO & ASSOC., INC.

Mr. Carl Lindquist

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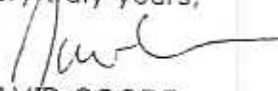
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investigate temporary spans along with other bypass options, but each situation is different and the level of investigation required to assess the feasibility of alternatives for each bridge is beyond the scope of the Preservation Plan. As the design for each bridge progresses, the public and CRC will be consulted in conjunction with the environmental assessment and Special Management Area (SMA) permit process regarding its design, as well as temporary bypass alternatives.

3. We anticipate that an economic impact assessment will be required in conjunction with environmental assessments for bridge projects that may require road closure during construction. The support of the Hana Business Council for such a study would be greatly appreciated.

Your interest and participation in the development of this Preservation Plan are appreciated.

Very truly yours,



DAVID GOODE
Director of Public Works
and Waste Management

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xc: Lloyd Lee, County of Maui, DPWWM
Earl Matsukawa, WOA

MEMO

Date: July 5, 2001

To: Maui County Cultural Resources Commission

From: Dawn Duensing

Subject: Comments on Preservation Plan for County of Maui Bridges within the Hana Highway Historic District

Having reviewed Wilson Okamoto's Preservation Plan (May 2001), I would like to add my comments for the record.

While this plan has made significant progress during the past two years of consultation with the community, it still has problems. First, the "preservation" plan still proposes to demolish half of the county's fourteen bridges. Only four bridges are proposed to be maintained as is. The plan continues to propose demolition over rehabilitation.

My concerns with this plan include:

1) The use of w-beam guardrail and thrie-beam transitions on the bridges remains unacceptable. Most of the CRC correspondence and comments over the past few years have objected to the overuse of guardrails on our historic road. The increased use of thrie-beam guardrails continues to be a problem that has not been addressed. Figure 6 in the preservation plan demonstrates why the guardrail use on the road is inappropriate. The photograph appears to be on the H-1 freeway in urban Honolulu: this is exactly where this application/end treatment belongs. It does not belong on the Hana Highway, a rural treasure that is now on the National Register of Historic Places.

As I indicated to the DOT in my recent report, a National Parks Service facilities advisor, Lou DeLorme, explained to me that the modern, massive "thrie-beam" guardrails are typically used on highways with heavy truck traffic. He advised me that there is no benefit to using these guardrails on a low-speed road that is primarily used by cars. I will re-emphasize that this guardrail is very intrusive to the character and aesthetics of the Hana Belt Road. This has been repeatedly emphasized in the years of consultation on this proposal.

2) Earlier consultations recommended the use of concrete barriers with lava rock veneer as guardwalls that would be a more appropriate historic treatment of the road. I have concerns, however, regarding how this will look. Figure 6 does not appear to be a rough-coursed, natural appearance of a lava rock wall. It appears that the rock is squarely cut, with a more "regular" appearance. Why does the wall have the raised piers? Historic lava rock walls do not appear this way. Please address this.

Earlier recommendations were that the reinforced concrete walls faced with lava rock be used rather than the w-beam/thrie beam end treatment. The proposed plan continues, however, to rely on the use of structural steel rather than the historic natural elements of our Hana Belt Road.

3) For the bridges that the county intends to "maintain as is", the DPWWM must address what the maintenance plan will be. We have heard how the County has no money for maintenance, so how will we preserve these bridges? This is why we have reached the stage of discussing demolition of half the County's historic bridges.

4) Could the consultants explain the "free standing" concrete support proposed for the end treatment? (I would like to be sure I completely understand this.) I am referring to the plans, as an example, for Waiohono, page 41 of the proposal.

5) I recommend that the CRC support the rehabilitation of 'Ala'alaula Bridge. On a site inspection with Peter Milligan of FyfeCo, we were informed that this bridge is a good candidate for the use of fiber wrap technology for rehabilitation. I would like the bridge to be rehabilitated with the deck to remain as is. In widening the deck on the mauka side, the bridge will lose its historic appearance, as this bridge and stream are accessible from the mauka side.

I also support the rehabilitation of Koukou'ai Bridge. Mr. Milligan also explained on our site visit that the bridge was a good candidate for rehab. He sent photographs that I brought to a CRC meeting, which demonstrate that his company has experience with this type of work. I do not support widening the deck on this bridge.

Finally, the same issue is of concern with the two masonry arch bridges on the road, Wai'eie and Hahalawe. As a preservationist, I object to the proposal to widen the bridge at Wai'eie, even though the masonry arch is left as is. I don't think that preserving one wall with a guardrail as crash protection is an acceptable aesthetic solution either. With Hahalawe, if the County is to build a bypass bridge, they must then address how they will preserve the historic bridge, otherwise we will continue on our course of "demolition by neglect."

6) The plan still has not addressed how the County will keep the Hana Belt Road open during any bridge construction. Numerous times the community and CRC have asked this question. This is Hana's lifeline and it must be considered. Community members have suggested that the County look into temporary spans and assistance from the Army Corps of Engineers or other agencies with experience in providing these structures. This must be addressed.

In summary, I would like to once again remind the County that the Hana Belt Road is an historic resource that must be looked at in its entirety. The road and its bridges exist together as a resource, not as a collection of individual, deficient bridges. The CRC and its corporation counsel must research how the County can protect itself from its perceived liability concerns by getting protection in our laws that would allow historic roads to be maintained by historic standards. I have great concerns that the road between Hana and Kipahulu, which now maintains a high level of historic integrity, will have that integrity chipped away by the replacement or significant alteration of more than half the bridges on the road.

Thank you for your consideration.

Dawn E. Duensing

JAMES "KIMO" APANA
Mayor
DAVID C. GOONE
Director

MILTON M. ARAKAWA, A.I.C.P.
Deputy Director



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September 19, 2001

Ms. Dawn Deusing
Cultural Resources Commission
County of Maui
250 S. High Street
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SEP 26 2001

WILSON DRAMOTO & ASSOCIATES, Inc.

SUBJECT: REVISED DRAFT PRESERVATION PLAN FOR COUNTY OF MAUI BRIDGES
WITHIN THE HANA HIGHWAY HISTORIC DISTRICT

Dear Ms. Deusing:

Thank you for your memo dated July 5, 2001 and e-mail of August 7, 2001
commenting on the subject Preservation Plan. We offer the following responses to your
comments:

Memo dated July 5, 2001

We appreciate your recognition of the progress made on the Preservation
Plan. You deserve much of the credit for this progress, which includes getting the
Hana Highway Historic District listed in the State and National Registers of Historic
Places.

1. Due to concerns expressed about the use of steel guardrails, the Final
Preservation Plan will recommend the use of rock wall guardrails along
the approaches to the bridges instead of the steel w-beam and Thrie-
beam. The rock wall guardrail would be a "crash-tested" design that
may alternatively be constructed of lava rock with necessary
reinforcement, a reinforced-concrete wall veneered with native lava
rock or a reinforced-concrete wall finished appearing as lava rock.
According to an official of the Federal Highway Administration
(FHWA), the side of the wall facing the road may have a relief no
greater than 3/4-inch, in order to prevent it from "snagging" vehicles
and causing them to spin when struck. Therefore, the type of
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While we would concur that the protection offered by a steel Thrie-beam guardrail is far greater than required for the normally low-speed traffic on the Hana Highway, the standards established by AASHTO account for the possibility of speeding vehicles that have a much higher risk for an accident. Notably, the tort liability issues discussed in the Preservation Plan involve judgements against the State in after-dark accidents involving speeding and alcohol.

2. Figure 5 is the only drawing of a rock wall guardrail design we could locate. As discussed above, the recommended rock wall guardrail will be a lava rock finish with no raised piers. The figure will be omitted in the Final Preservation Plan.
3. As discussed in our letter dated January 17, 2001 to the Cultural Resource Commission, the County's resources for bridge and road maintenance are extremely limited. The maintenance budget has remained unchanged for years, despite rising maintenance costs, construction of many miles of additional roads, and dedication to the County of many additional miles of roads in new subdivisions. In allocating scarce resources, critical public safety concerns have the highest priority. Preventive maintenance, though important and possibly cost-effective over the long-term, takes a lower priority. The deterioration of the County's bridges in Hana is reflective of this prioritization. Because they are so substandard, eventual replacement with standard designs when they become a public safety concern is the solution dictated by the chronic scarcity of maintenance resources. This solution is even more attractive since the Federal government offers generous grants-in-aid for such replacements, with its award priority targeting the most substandard and deteriorated bridges, but has no funding program for routine maintenance.
4. For bridges with solid concrete parapet railings, the Revised Draft Preservation Plan recommends replacing those railings with a solid concrete parapet design resembling the original railing and attaching the Thrie-beam guardrail directly to the replacement railing. For bridges with concrete open-balustrade railings, such as Waiohonu, it was felt that attaching the Thrie-beam guardrails to the railing end-posts would detract from their character. Moreover, the end-posts may not have the structural strength required for attaching the Thrie-beam. Therefore, we recommended that the Thrie-beam be attached to a free-standing concrete structure adjacent to the railing.

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The revised recommendation to use rock wall approach guardrails, however, renders the Thrie-beam attachment unnecessary, since the rock wall guardrails need not be attached at the railing ends. Instead, the rock wall guardrails would terminate as free-standing structures adjacent to the replacement bridge railing for both the solid concrete parapet railings and the open-balustrade railings.

5. Your preference for rehabilitating Alaalaula Bridge and maintaining its present width is acknowledged. We cannot recommend this, however, because it would not meet the minimum width of 16-feet. If the spatial relationship of the bridge to the stream on the mauka side is to be maintained, then the replacement bridge alternative, which is widened on the makai side, would be pursued.

Your preference for rehabilitating Koukou'ai bridge and maintaining its present width is acknowledged, although we cannot recommend this because it would not meet the minimum width of 16-feet.

Your objection to widening Wai'ele Bridge is acknowledged, as well as your comment regarding the use of a steel guardrail for crash-protection along the makai railing. Although we cannot recommend a width of less than 16-feet, we are open to alternative suggestions for providing crash protection along the makai railing. This could be determined during the SMA permit process for the bridge. This could be determined during the SMA permit process for the bridge. The Final Preservation Plan will state "steel guardrail or other suitable crash protection."

We acknowledge your concern regarding the maintenance of Hāhālawe Bridge if a new bypass bridge is constructed. As discussed in our letter dated January 17, 2001 to the Cultural Resource Commission, the DPWWM is not responsible for historic preservation and would be hard pressed to justify spending its scarce maintenance resources on a bridge that is not essential for public transportation. If such a bridge became a public safety concern, it would likely be closed to the public before funds were spent on repair and maintenance.

6. The DPWWM is acutely aware of concerns expressed by the community regarding road closure during construction work on the bridges. You may recall that the initial Draft Preservation Plan proposed two-lane replacement bridges, which could be constructed one lane at a time to maintain traffic flow. By going to the single-lane