

Montana Division
Federal Highway Administration
585 Shepard Way, Suite 2
Helena, MT 59601

January 30, 2017

Attention: Kevin McLaury, Division Administrator
Gene Kaufman, PE
Brian Hasselback, PE
Heidi Bruner, PE

Re: Inadequacy of Categorical Exclusion for South Avenue Bridge

Ladies & Gentlemen;

Missoula County has chosen a Categorical Exclusion to address NEPA requirements for an environmental review of South Avenue Bridge with concurrence by FHWA and MDT. I would like to bring to your attention the inadequacy of a CE review. I will point out some failings of this environmental overview that NEPA and MEPA processes are intended to identify and mitigate. As this letter is being written, draft reports and documents are being prepared for your review. We understand they will be delivered to your office this week.

Failed Impact Disclosures & Mitigations

Federal Funding for an off-system bridge is limited to the bridge and its approaches. Other mitigation expenses resulting from the project are left to the county and state, nevertheless, NEPA requires that they be identified and mitigated if necessary. The State of Montana has agreed to supplement these federal funds, thereby providing the full cost of the bridge and the approaches. Missoula County, as recipient of these funds, has no obligation under state policy to contribute to bridge and approach costs. Prior to last November, the county proclaimed that there would be no cost to Missoula County taxpayers. As a consequence, under the Local Area Guideline Agreement and the following Project Specific Agreement, the environmental review for South Avenue Bridge required by NEPA has been limited to the bridge, approaches and adjacent areas. That is a violation of both NEPA and MEPA. As the project manager, Missoula County Public Works requested and is being allowed to proceed with a Categorical Exclusion. This process is leading us into a forest of undisclosed hazards.

South Avenue West Upgrades

Members of Maclay Bridge Alliance have repeatedly voiced concern about South Avenue, more specifically, a lack of upgrade plans. Last November, one of the Commissioners finally acknowledged that South Avenue would require upgrades,

and she announced the county would pay for this work. However, since that time, the contractor has provided no design plans for these upgrades, no cost estimates, and not so much as a list of improvements to be made. The present situation requires that area residents including school children walk down the traveled way of South Avenue from its west end to Humble Road. This stretch of road is 24-feet wide with no shoulders. Irrigation ditches occupy an additional 10-feet on both sides. The daily traffic volume on this part of South Avenue is presently less than 200 vehicles per day and it is presently classified as a county rural road. Construction of a new bridge will introduce safety hazards to this street that have not been addressed by this environmental review and the CE.

Target Range School Crossing

Most students attending Target Range School come from neighborhoods north of South Avenue. They cross South Avenue at Clements directly into the school grounds. However, South Avenue will be classified as a collector west of Clements to the new South Avenue Bridge. The full volume of traffic that now uses Maclay Bridge will suddenly be routed through this intersection. In spite of the sudden change in traffic patterns, no study has been conducted and no plans have been prepared for improvements to this crossing. When asked to install a 3-way stop sign at this intersection, Missoula County Public Works says they do not have authority to do that.

Fort Missoula Sports Complex

Missoula County is building a new \$35 million sports complex on Historic Fort Missoula. They are constructing facilities for thousands of vehicles, all of which take ingress and egress via South Avenue at 35th Street, next to Big Sky High School. The only provision for this onslaught of traffic has been a round-about constructed on an off-set from the South Avenue centerline. Tracks in the snow reveal that many vehicles already are driving over the round-about rather than around it. There has been no study of this co-development and no determination of impact on transportation under this CE.

Missoula Community Hospital – Missoula Rural Fire Department

These facilities are located near the intersection of South Avenue and Reserve Street. Traffic control lights are set for 3-minute cycles, however it is not uncommon to find traffic backed up in front of both facilities. The intersection at South & Reserve is frequently so overwhelmed with traffic that it requires 2-3 cycles to simply cross Reserve Street. By facilitating a faster, straighter route to cross the river, this project will increase the traffic load even more with induced traffic. There has been no impact evaluation for this intersection or any other on Reserve Street, already called the most dangerous stretch of road in Montana.

Hydraulic Effects if Maclay Bridge is Removed

Part of the construction plan for South Avenue Bridge is the removal of Maclay Bridge. A review of this concept was shown to the Technical Design Committee on January 25. The plan consists of a narrative regarding a concept for removal of bridge abutments and piers to an elevation below the thalweg of the Bitterroot. The existing pinch point at the west abutment will be smoothed over to allow a greater flood volume, and the existing riprap along River Pines will be filled in with dirt and planted willows to naturalize the bank. The flow of the main channel of the river at this pinch point is presently directed northeasterly toward the most westerly bridge pier in the river. This pier deflects the flow back toward the north. When this pier is removed, the flow will be directed toward the right bank of the river which will be subjected to more erosion. This was confirmed by the draft Hydrology Report. If by removal of the west abutment, the pinch point is softened enough, the river may eventually straighten itself, but that could introduce more risk since there are homes within the floodplain immediately downstream from the bridge. The HDR hydrologist did say that if the piers for Maclay Bridge are removed, the upstream flood elevation will be lowered, but the downstream flood elevations will rise. Undoubtedly this will be a small amount, but it would seem a study should be conducted and potential hazards mitigated. Again, there are no hard plans or predictions for the area downstream from the bridge. HDR says this is beyond their scope of work, meaning Missoula County has not authorized the complete study under this Categorical Exclusion.

Traffic Calming for South Avenue Bridge

As a response to local area resident concern about speeding on the new, wider, straighter alignment for South Avenue Bridge, Missoula County and HDR have offered a plan for Center Island Narrowing at the west end of the new bridge. By narrowing the traffic lanes and posting signs, theoretically, traffic will slow to reasonable speed before entering the bridge. While the plan may be valid for well functioning, alert drivers, it does not work for drivers under the influence of drugs or alcohol, an extraordinarily common factor in crashes cited by HDR in their report. Further, given the driver activity at the round-about at 35th Avenue, there is nothing to slow west-bound traffic and that appears to be needed as badly as the east-bound traffic, particularly west of Humble. Furthermore, with the present circumstances for road-width, ditches, and pedestrian traffic on South Avenue this plan must be carefully considered and approved by those people that will be reliant upon it for their own safety.

It must be emphasized that the west end of South Avenue was developed around the fact that this is a dead-end road. Homes and outbuildings have been constructed very near the road to minimize snow removal. A drive along North Avenue, leading to Maclay Bridge reveals that most buildings on that street are relatively well set-back from the roadway because they understood the uses of

the bridge and the road. Homeowners along both routes have clearly relied upon the old bridge location for safe ingress and egress to their homes. Unfortunately, evaluation of this condition by Missoula County has been satisfied with an accident count that they use as a primary statistic to justify a new bridge. They do not talk about causes for these accidents and the high incidence of DUI. Nor do they talk about other mitigation measures that might be considered as alternatives.

Consideration for The Historic Maclay Bridge

The National Historic Places Act states in part: "It is the policy of the Federal Government..., to—

1) ...use measures, including financial and technical assistance, to foster conditions under which our modern society and our historic property can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations;..."

Involvement in the Maclay Bridge Study and subsequent design has demonstrated to Maclay Bridge Alliance how biased the evaluation process is toward new bridge standards on off-system roads. This bias easily shrugs off preservation of an historic bridge using the "Adopt a Bridge Program" that simply removes the historic bridge from further consideration. This program should not be a substitute for unbiased, good-faith evaluation.

During the course of the Maclay Bridge Study, MDT bridge engineers said that rehabilitation of the bridge would require its removal from the site, reconstruction, and replacement back at the site. The cost was estimated at \$8 million. Missoula County cited AASHTO recommendations for bridges with daily traffic in excess of 100 vehicles to justify replacement. Rehabilitation for Maclay Bridge was given no further thought by either agency.

Maclay Bridge Alliance hired a well known bridge engineer, Mr. Frank Muth, PE. Frank's experience includes highway bridges, and railroad bridges throughout Montana and Idaho. He also has experience on Maclay Bridge. Mr. Muth told us that Maclay Bridge could be rehabilitated on site, with an arch support attached to the Parker Truss. His plan would eliminate the "fracture critical" limitation and improve weight capacity to 36 tons. A multi-use path could be added with an out-of-truss cantilever design and all could be accomplished for under \$1 million. His letters, concept drawings, and estimates were added to the appendix of the study report without comment. We were assured that the Maclay Bridge Study was a "Pre-NEPA" report and would not be represent the final word. Nevertheless, Maclay Bridge Study has been accepted with minor updates as fulfillment of NEPA requirements leading to the Categorical Exclusion. This occurred even when the purpose and need did not demonstrate a neighborhood preference, nor an over-riding county-wide public need. It completely ignored the

intent of the Target Range Neighborhood Plan and that was publicly stated during one of the public meetings by the study manager.

To augment our contention that viable rehabilitation plans can be developed for Maclay Bridge, MBA invited a renowned historical bridge engineer to Missoula to inspect Maclay Bridge. Dr. Jai Kim, Professor Emeritus at Bucknell University came to Missoula along with his son, Robert Kim, also a professional engineer. They, together with Frank Muth, PE inspected the bridge and found it well suited for rehabilitation. The Kims developed five concept plans for historical preservation. The two locally preferred plans would leave the bridge a single-lane structure, but increase the capacity to 36 tons, more than enough for the largest emergency fire truck. The plans remove the fracture critical status, could raise the bridge elevation for additional free-board, and even remove up to two existing piers. These plans could be legitimately eligible for a Categorical Exclusion. Costs of the two favored plans ranged from \$1.5 million to \$3.5 million.

But Maclay Bridge Alliance did not stop there. We have used state statistics for traffic volume from 1992 to 2016 to produce a regression analysis of the volume. We have looked at land uses on both sides of the river predominately served by Maclay Bridge. We also pressed for the historic listing of Maclay Bridge on the National Register for Historic Places, and we asked Missoula County and MDT to reconsider rehabilitation for this important bridge.

Our regression analysis shows a slight downward trend in traffic volume from 1992 to 2016. Traffic volume peaked in 2010, and declined sharply afterward. Our analysis of land use indicates near capacity density, especially on the west side of the river. This area, bounded on the south and east by the Bitterroot and Clark Fork Rivers, and on the north and west by steep heavily timbered mountains, is zoned for large tracts with some small areas of 1-acre lots. This enclosed area is also served by two nearby modern bridges. Furthermore, the MDT analysis for need of a new replacement for Maclay Bridge was low to moderate on a state-wide comparison.

Finally, we have found that MDT has been inconsistent in treatment of historic bridges. The City of Big Fork has asked for replacement or rehabilitation of the old single-lane bridge across the Swan River. Though this bridge is in substantially worse condition than Maclay Bridge and it has carried more traffic than Maclay Bridge during at least one year before it was restricted, MDT has agreed and even advertised for a consultant to consider rehabilitation. At this point, even if replaced, it will continue to be a single-lane structure modeled after the old design. A little arithmetic shows that for the cost of the South Avenue Bridge and approaches, both Maclay Bridge and Big Fork Bridge could be put into reliable service for the next 40 years with money left over.

Conclusion

FHWA has the final administrative say regarding the determination of adequacy for a Categorical Exclusion to the NEPA process, short of judicial review. MBA has shown, at no small personal expense to its membership, that the process has indeed been biased, with a pre-determined outcome. Though the conclusions of this process could be considered prudent for a state or federal highway, they are totally inappropriate for an off-system bridge, with connecting segments that are classified as rural roads on both sides of the river. There has been no sensitivity to context and certainly not to the human environment. We have heard "Safety" emphasized as the underlying goal of a new bridge, but there has been no evaluation of hazards that will be introduced. Nor have there been any consideration for the safety elements already provided by the existing structure. We have been left to assume that wider and straighter is safer, but recent statistics are showing that theory is flawed. Further, there has been demonstrated, a willingness to sacrifice the natural environment for the sake of a bigger, faster bridge with no hydraulic evaluation given to removal of Maclay Bridge, also a significant part of the plan.

As residents being served by Maclay Bridge, we ask that FHWA find the Categorical Exclusion to NEPA inadequate. We ask that you require a full EIS if a new structure is to be built on the extension of South Avenue, and we ask that rehabilitation be given full, unbiased consideration as an option in accordance with NEPA and intent of NHPA. As an alternative to conducting an EIS, some well designed form of rehabilitation could be performed on Maclay Bridge, in which case the CE is sufficient.

Thank you,

Robert M Schweitzer,
Director, Maclay Bridge Alliance

XC: M. Tooley, Director, MDT
T. Voeller, PE
Missoula County Commissioners
E. Dickson, PE
D. Harmon, PE, HDR