



Montana Department of Transportation

Billings District Office
424 Morey Street
PO Box 20437
Billings MT 59104-0437

Steve Bullock, Governor
Michael T. Tooley, Director

02/28/2020

Subject: January 29, 2020 Letter

Dear RISC,

We are in receipt of your recent letter dated January 29, 2020 regarding previous and new requests by the Roberts Improvement and Safety Committee (RISC) for design changes to the Roberts project.

Ditches vs Veteran Memorial Crosses

As we committed to do, MDT has had some discussions about how to best accommodate the Roberts Veteran Memorials program while also keeping with the intent of the hydraulic design of the project, among other considerations. After much thought and analysis, MDT is proposing to modify the drainage ditch on the east side of the highway through the town of Roberts. The modification would consist of installing a pipe in the ditch between West Birch Street and Maple Street to create a closed system with inlets. The ditch would be regraded over the pipe to provide cover and create a relatively flat area for the memorials. A shallow roadside drainage ditch would remain to capture roadside drainage and convey it to the inlets.

In addition to the piped ditch on the east side of the highway, MDT is proposing to fill in the short ditch section at the southwest corner of the Birch Street intersection with the highway (near the church) and install an inlet structure in its place.

Speed Limit

It is noted that the RISC has officially requested the Carbon County Commissioner's (CCC's) initiate a speed study and the CCC's support for the request upon completion of the project. MDT concurs that this is the appropriate course of action. However, it would be premature to request a temporary special reduced speed zone since the project is still under construction.

Two-Way-Left-Turn-Lane

The two-way-left-turn-lane (TWLTL) has been designed into the project in accordance with best engineering practices. We respectfully disagree with RISC's discernment of the FHWA studies and white papers. MDT recommends a TWLTL be considered where access density is 50 approaches per mile or greater (Chapter 31.2.1.1.a of the Road Design Manual). From the southern beginning of the TWLTL at Sta 649+90 to Maple St. at 680+40, there are 35 approaches. That equates to a density of 60.6 approaches/mile, far exceeding the threshold of 50. Just on the west side there are 24 approaches, equating to 41.5 approaches/mile.

MDT further indicates that traffic volumes are a significant factor in the consideration of a TWLTL (Chapter 31.2.1.3 of the Road Design Manual). If mid-block access is significant, then a TWLTL will be advantageous under any traffic volume level. On existing 2-lane roadways, a TWLTL is desirable for AADT's greater than 5,000 per day (design year AADT). AADT is Average Annual Daily Traffic measured in vehicles per day.

Within the project limits, the projected AADT for 2035 was 4,470 vehicles per day (vpd). Given this project was constructed just last year, and MDT projects have a 20 year design life, the effective design year would be 2039, and therefore the projected traffic approximately 4,950 vpd. This volume is very close to the 5,000 vpd mentioned above, and with the density of accesses, it further substantiates the implementation of a TWLTL.

Crosswalks & Signage

The Manual on Uniform Traffic Devices, FHWA, and other federal guiding documents have similar requirements and guidance on where and when to install crosswalks. This study by FHWA <https://www.fhwa.dot.gov/publications/research/safety/04100/04100.pdf> [fhwa.dot.gov] found that there is essentially no difference in terms of safety between a marked or unmarked crosswalk on a 2-lane roadway when they are not at a signalized or stop-controlled intersection.

This project completed a pedestrian study in 2013 and found that the two locations in the plans are the most appropriate. Conversations with the Superintendent of Schools (at the time) also indicated these locations were appropriate. The Cedar Street location is approximately 350-feet from the one proposed at Oak Street. Also, during the original 2013 pedestrian study, no pedestrians were observed in the a.m. school crossing period and only five in the p.m. at Cedar Street. It is suggested that after construction is complete and during regular school session and favorable weather conditions, a new study be completed.

There are no specific MDT criteria for determining warrants for horse and buggy signs. However, given the recent influx of Amish families to the area we agree this could potentially improve safety on the highway near Roberts.

Water Drainage to Irrigation Ditches

The drainage through town and into irrigations ditches is simply perpetuation of pre-existing conditions. MDT has worked with ditch owners during the project to improve the pre-existing conditions by limiting the volume of flow into the ditches to prevent them from exceeding capacity and overtopping.

Y-Stop at Cooney Road

The Y-Stop intersection improvements recently constructed were evaluated carefully in the Environmental Assessment (EA), and removal of the old Cooney Dam Road approach with Hwy 212 and relocation of Cooney Dam Road north of the Y-Stop were the preferred treatment for a variety of reasons. As documented in the EA and the project's Traffic Report, the pre-construction configuration of Cooney Dam Road with Hwy 212 formed a very undesirable skewed alignment. The skewed approach limited sight distance for the motorist trying (very awkward turn of the neck required) to look to their left. The intersection was slightly offset from E Maple which is also undesirable for those that need to traverse across Hwy 212 to Maple to either go to the school or other destinations on Maple Street. Further, having the county road access so close to the Y-Stop access is also undesirable, as they affect each other's ability to see oncoming traffic prior to entering onto Hwy 212. Another issue was the higher speed left-turning vehicles onto Cooney Dam Road due to the slight angle adjustment needed to make the left-turn. All of these factors put children crossing the old Cooney Dam Road approach at a higher risk as they traverse to and from the crosswalk that provides safe access across Hwy 212 to and from school. The owner of the Y-Stop had indicated she issues haul permits and trucks come down Cooney Dam Road to her business to get their permits. This is why it was important to extend Cooney Dam Road to the current location, so trucks can park, go get their permits, and get onto Hwy 212 around the south end of the pumps.

As mentioned in our previous correspondence, there was general agreement at the December 3, 2019 meeting that the project had to be finished before further discussion about potential future changes could take place. We appreciate the communication and your patience as we work toward completion of this project and as we balance the needs and interests of all road users.

Sincerely,

A handwritten signature in dark ink, appearing to read "Ted Thronson", with a stylized flourish extending to the right.

Ted Thronson
District Construction Engineer
406-657-0210

copies: Project file