

## Annual CMR Roads update, Jan 2022

### Opening Remarks

Cedar Mesa Ranches (CMR) subdivision has 10 miles of roadway and the road committee works hard to keep all 10 miles in reasonable condition. For new members, let me explain that our roads are maintained 100% by the HOA, and 0% by the county. The County Commissioners and others with the county have made it very clear over the years that this is not going to change. Most of the work you see being done inside Cedar Mesa is done by volunteers, not contractors. Aside from the grader and water truck, all of the equipment you may see is provided by residents at no cost to the HOA. All residents are encouraged to reduce road maintenance requirements by obeying speed limits and driving with respect. During very wet or very dry conditions reducing speed to 20mph, or even 5mph will further reduce potholing and dusting.

### Volunteers and cost savings due to their efforts

I always try to keep track of volunteer hours going into road maintenance activities. CMR resident volunteers spent a total of 255 hours that I was able to track in 2021. 120 hours of this was running the water truck. The rest was grading, directing traffic, mowing, patching the entrance, fixing signs or culverts, filling potholes, etc. I and a few others likely spent an additional 50 hours for report writing, records keeping, researching, consulting with others outside CMR, etc.

I personally did 40 hours of actual grading with either CMR's grader or my dump truck this year. At a minimum of \$150 per hour for a hired grader, this saved the HOA \$6000. Because the grader is here and ready when we need it, I was able to do most all of that grading when the weather brought water, so we didn't have to pay for another contractor to bring in water for grading. That saved us another \$1-2000. Having a water truck come to water our roads would cost us about \$90/hour. That's \$10,800 that we didn't spend for the watering that we did with our own truck. We did 135 man-hours of "shovel work" of one kind or another. If you count this at \$25/hour, which is likely less than we would pay a contractor, this is nearly \$3400 in savings.

Adding those savings together shows that we saved over \$21,000 vs. having a contractor perform these activities. That is \$21,000 that we were able to use for direct road improvements like mag chloride or roadbase. With respect to these figures, both the water truck and the grader have paid for themselves each year we have owned them.

### Maintenance Update

Late in December we spread close to 700 tons of material over about  $\frac{3}{4}$  of a mile of J.7. For the most part, the distance that we covered had NEVER had any roadbase, and was in desperate need of a workable surface. Part of the reason for doing J.7 first was to try out material from a new pit. Though the sieve numbers for the material looked to match nicely with our requirements, it turned out that the material had no plasticity at all, which is to say no clay content. Without some clay as a binder, there would have been nothing to hold the road together during dry periods. After seeing two test loads, we

decided to use Four Corners Materials “State Spec” roadbase instead of the new material. Though its plasticity and fines content is less than we really want, this material does work acceptably for lower traffic roads. If we have areas that dry out and washboard next summer, we will add some clay fines to it as we have done in other places to create a more solid driving surface.

The work we have planned for J.8 and 35 did not get completed before the end of 2021. We want to use a better material than what is available at 4 Corners, and the new pit is looking into what it would take and cost to add clay to their roadbase so that it would meet our specifications. Their material is about 2/3 the cost of 4 Corners, so this is an attractive option if it works out. If it does not, we will likely have to fall back on using Four Corners material and possibly treating some of J.8 to hold it better. Either way, this work will have to wait until spring, as we need to be able to do roadwork along the ditches to improve drainage off the roadway.

Once all 2021 expenses have been paid by the HOA, all remaining money from the 2021 budget will be moved to the 2022 budget by the board, and it will very likely all go to the roads budget. The J.8 work will come from this carryover. CMR does not have a “use it or lose it” budget policy, and money budgeted for roadwork is always used for roadwork.

Our big project for next year is to test out a section of road with a hard surfacing process called “Otta Seal”. It is similar to chip sealing, but instead of ½” or so chip rock, it uses roadbase. The roadbase that we now know has no plasticity is actually perfect for this use!! At this time we are unsure how long a test section to do, or even where, but the entrance being in need of repair might be a good starting point. We may also get permission from the fire department to test it around the mailboxes, which should prevent that area from getting muddy in the winter months. Not only will we test the performance of the hard surfacing, but we will get a better idea of construction costs to use in long term financial feasibility studies.

### Looking Forward

Please understand that keeping gravel surface roads in good condition in a desert environment is a struggle for not only Cedar Mesa, but most subdivisions in our area, as well as for Montezuma County. Cedar Mesa has additional difficulty compared to others because of our single entrance, which funnels all traffic coming or going to one road. ALL passing traffic does some amount of damage, and as traffic volumes increase, our costs to maintain the roads also increase.

Unfortunately the dollar amount of our budget stays constant, while the cost of materials, contractors, treatments, etc. seems to go up every year. The effect is that our money buys less each year, while our maintenance requirements go up each year as new residents move in bringing increases in traffic volume. We apply expensive treatments like mag chloride help keep the road in better shape during the summer months, but it also makes them more muddy in the winter. Using the CMR water truck, we are able to make two mag applies work for most of the year. Those two applies, covering about 2.5 miles cost about \$20k annually. That is a very large portion of our CMR HOA roads budget!

In late 2020, we conducted a survey of roadbase depth on all of our roads. What we found is that most side roads have little to no roadbase over the sub base rock, which means it is almost impossible to grade without bringing up large rocks. Even our "best" section of 35 only had about 3" of roadbase, and there are still areas along that same section that have sub base showing through. A good target for our roads would be to have 4-6" of roadbase over the sub-base, so they could be graded to a sufficient depth to restore crown and cut out washboard when necessary. Bringing all 10 miles up to just 4" of roadbase would cost around \$200k just for the material. Given that we have about \$21k left after two mag applies in 2022, and that we lose at least \$5 worth of material off the roads each year just due to dusting, it's pretty easy to understand that we are likely never going to get to where we would like to be at the present budget level.

That said, the roads committee will continue to look for more cost-effective ways to maintain our roads. If any of you have questions or concerns with the roads, or our maintenance process or strategy, the committee welcomes residents to attend meetings and participate. We also have a goal to conduct a CMR HOA roads stakeholder meeting in 2022. Calling the committee chair or any member is also a good way to get information or be heard. Six roads meetings per year are open to all residents. These meetings are held at 6PM the second Wednesday of odd numbered months. Location will be announced prior to each month's meeting, but they are normally somewhere here in Cedar Mesa. Interim meetings are held by the committee as necessary to accomplish tasks, but are typically not broadcast to all residents.

The next scheduled roads meeting will be Wed Jan 12.

Thanks for your attention!

Cedar Mesa Roads Committee

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