

Spring 2018 Work Order

Authored by Kirk Johnson

On April 28, 2018 the Board approved a total of \$13,700.00 to be spent on critical watershed road maintenance for spring 2018. Tim's Enterprises (TRS) has agreed to perform the work listed below for 9MR in a timely and workmanlike manner, to be completed while road conditions are adequate (moist enough) for road compaction after raking. HOA members are welcome to review the specific Work Order contract with TRS; please contact Kirk Johnson at kirk@constructforyou.com or the BOD at P.O. Box 332, Oroville, WA 98844 to request a copy of the Work Order (please send your email address if you like). Also, see <http://assuredcomputer.com/kirk/roadreport4.2018.pdf> for a complete road assessment of all identified road issues, both short and long-term.

The goal of the work scheduled is focused on the priority of performing maintenance that sheds water off of and away from roads, using the following measures:

- Raking for watershed: adequate raking removes water channels (rutting) running down roads and it crowns roads, all of which allows water to run off quickly with minimal erosion. Our current ability to adequately rake is limited though; many or most roads do not have enough gravel thickness to rake to a good crown without ruining the base gravel, as HOA contractor and many qualified observers have repeatedly witnessed for many years. So many road sections will be chosen to be left unraked for these reasons, therefore causing some scheduled maintenance items to be spontaneously omitted.
- clearing of ditches and culverts, allowing water to flow away from roads with minimal threat to road damage.

The work ordered at this time does not include mechanical washing through of partially silted culverts but it does include identifying and marking them for later attention, budget allowing. Also, due to limited budget, no gravel placement is included at this time and will have to be considered by the newly-elected Board upon further scrutiny of funds.

Also, due to very limited maintenance funds, raking will not occur on road sections just to eliminate potholes and washboard, but rather raking will only occur where the road needs and can benefit from crowning and elimination of rutting. Because the largest current maintenance problem is lack of adequate road gravel, as much money as is prudent will be conserved in order to invest in gravel.

Currently-Scheduled work items (as of June 2018):

1. *General Items*

1. Road drive with 9MR and contractor to identify work items, as necessary. Scrutinize to omit performing raking on road sections where gravel is too thin to be able to make crowning from; this means certain raking items listed below may be modified.
2. Culvert cleaning/inspection, by-hand. Includes marking culverts/inlets/outlets with flagging or other clarity that are identified by TRS as needing other additional attention and/or machine work, including identifying and reporting culverts that are more than 30% obstructed throughout with siltation.
3. Culvert inlet/outlet clearing by machine, where necessary.
4. Follow-up check of culvert cleaning.
5. Power/phone line location where necessary. This is left up to TRS' discretion and responsibility.

Some of the items below may be labeled by a quoted alphabetic letter (eg. "A"), therefore corresponding to official marked

up copies of road drive maps (see maps at end of this report).

2. *Division 1*

1. "C" = North end of Point Drive, approximately 1600 feet from Nine Mile Road. The site of last year's wash-out repair. Ditches need attention, better road edge sloping, deeper shaping of large gravel in south ditch to receive and keep large volume run-off water, removal of high spots obstructing ditches from receiving water drainage from roads, remove pile of roadside rip-rap gravel. Crown raking addressed elsewhere.
2. Machine ditching, upside of north Point Drive/Sunset Ridge intersection. About 25'.
3. Raking mileage, approximately 1 mile. Rake for crowning from Sunset Ridge south to Canyon Old Tressle.
4. "D" = Clear about 40' of ditch on east side of Sunset Ridge at road low point, approximately .9 miles from Old Tressle (just north of Carol Sanderson's residence).

3. *Division 2*

1. Rake mileage; 1+ mile. Allen road, from Nine Mile road to the end of Allen 2 turn-around.

4. *Division 3*

1. All of Wagon Wheel currently sheds water properly; the road is crowned, all ditches are open for proper flow, and there is no rutting. The Spring 2018 Road Assessment suggested that about 80' of ditches needed to be cleared on the west side of the road just upstream of the Jordan residence rear driveway (47 Wagon Wheel), but upon further inspection it was determined that the ditches operate properly and is not worth disturbing the packed ditch strata.

5. *Division 4*

1. Rake mileage; approx. .6 miles. On Old Tressle, where the old railroad bed conflues with the sloped grade at Lot 47 (at the Thompson's corner) going down .6 miles to the cattle grate.
2. "E" = take down Nine Mile Ranch sign and posts falling over Pine Bluff. Cut posts 6' from ground, leaving that 6' connected to cattle grate and in the ground.
3. Rake mileage; 1 miles Pine Bluff from past the bottom cattle grate up to Old Tressle.
4. Raking mileage, approximately 1.25 miles. Rake for crowning from Point Drive south, at Nine Mile Road, to about Lot 7 Division 1 (Lloyd Showalter's hill crest).
5. "F" = Repair ditch wash-out on ravine-side edge of road, about .25 miles up Old Tressle from Chesaw road. This spot gets strong wash-out in the large ditch when heavy rains and run-off occurs, and it has narrowed and made the road edge dangerous: load large rocks from Circle City on Nine Mile Road and transport to site, stack on road edge, grab ditch dirt from opposite side of the road and fill the spot, also trim encroaching large bushes.
6. "B" = correct dysfunctional water flow/ditching on about a 500' stretch of Point Drive south, in the region where Eagle's Nest intersects, and both upstream and downstream from there. Starting upstream, establish north side ditch sloping, knock off berms that prevent road water from leaving the road, and shape all to deliver water to the culvert across from Eagle's Nest. Clear siltation from culvert inlet. Ditch downstream from there for about 400'.

6. *Division 5*

1. Remove large sloughage, re-ditch: on the part of the steep-embanked road edge on the south side of Mallard Drive where it traverses through the creek ravine, remove the mass sloughage from the ditch, moving it to a roadside pile further down Mallard about .25 miles, up on the flat near the old smashed cabin. Restore ditch where sloughage is.
2. Rake mileage; approx. .9 miles. Starting at the entrance to Mallard Drive from Nine Mile Road, go .9 miles to Blue Grouse intersection.
3. "D" = ditch Blue Grouse: on the steep road stretch immediately above the cattle grate .3 miles from the Mallard Drive intersection.
4. "E" = reshape road corner and ditch for erosion control: on Blue Grouse, about .45 miles west from Raven's Roost, that corner's watershed and ditching is dysfunctional, causing significant rutting and siltation in the road.
5. "K" = control hydrostatic spring water flow: approximately 1.2 miles west down Meadowlark from the Mallard intersection, in front of lot 32, there's a strong natural spring that spills out across the road because there's no existing adequate ditch delivering the water to the existing downstream culvert. The obvious simple fix is to install/restore a short ditch section, but it appears possible that both surfaced immovable rock face and shallow power/phone lines may exist there, so ditching may be impossible. Explore, and ditch if possible.
6. "L" = downhill embankment edge run-off erosion spot of Meadowlark needs rock fill, about 1000' from the end of

Meadowlark at Lot 26 (just below Hasting's pole barn); this erosion spot is where the local waterflow all channels off the road, and it is narrowing the road too much. This same spot has been maintained similarly in years past. Load roadside large discarded gravel about .25 miles back down Meadowlark and place it in the erosion edge.

7. Trim trees on both sides of the road in a 60' long stretch of Mallard drive about .5 miles from Nine Mile Road; this road stretch has narrowed car travel by about 7', and it presents winter safety hazards and narrow snow plowing.
8. **This item is needed but, because of its larger expense, will be put on hold until the new board determines that funds are allocated for it.** Approximately 200' from the culdesac at the end of Mallard Drive there is a 250' stretch of road that is extremely narrow and is a winter snow plowing and driving safety hazard. The uphill embankment side of the road is encroaching the road width with siltation, and the downhill embankment side is erosive; together these dynamics have narrowed the road significantly. Solution: excavate the uphill embankment 7' inward and transport the fill to a nearby roadside storage spot for future fill use (some of the fill can be brought and placed at the culdesac to increase its turning diameter, as it is currently narrow). For information-sake, the measured and calculated volume of dirt is (130) 10-yard dump truck loads, x 40 minutes to excavate and transport each load, x \$150.00 per hour = \$13,000. Then add another roughly \$1000 for machine time and gravel to get the road stabilized again.

7. *Division 6*

The roads in Division 6 currently shed water properly, so no raking/ditch clearing is necessary. There is however a narrow erosive spot about 1600' down Corral Drive from FS3525 on the north side of the road where a culvert outlet is; TRS will inspect this spot in the coming month and report back recommendations for potential repairs.

8. *Division 7, map 1 of 2*

1. **This item is needed but, because of its larger expense, will be put on hold until the new board determines that funds are allocated for it.** "A" = approximately .25 miles past Porky Pine road, at the narrow steep incline for about 350 long, this road stretch seriously lacks gravel and cannot therefore be raked effectively, and at the bottom of it where it narrows and crosses a large culvert there is significant roadside edge embankment erosion, and lack of ditching just upslope from there. Place (4) loads of McNall gray gravel on the road section, machine spread it, and perform some ditching.
2. "D" = reshape erosive road corner and ditch: on West Corral, approximately .5 miles past Porky Pine, a steep corner turn and its approach needs its slope reshaped to shed water off the sides instead of running down the road, plus reestablish the ditching. Aggressive raking through the region should take care of filling in existing erosion ruts.

9. *Division 7, map 2 of 2*

1. Rake mileage; 1.85 miles of West Corral, from ravine culvert crossing just below Vanover's place (.5 miles from Chesaw road) up to intersection of Gold Rush Ridge road, then from there to Big Rock intersection.
2. Rake Big Rock road up to Silver Spur, mileage; approximately .5
3. "G" = improve corner water roiling to prevent erosion and siltation: On the sharp corner turn and incline on West Corral immediately across the road from trailhead to the equestrian trail on lots 32/33, reshape the inside part of the turn, and the road crown up from it, to deliver road watershed off the side of the road and disallow water from running down the road and eroding and silting out across West Corral just below the turn. Most of this will be handled when raking the region. Improve associated ditching if necessary.
4. "I" = Ditch work: At the intersection of Outback road and Big Rock, particularly upslope on Big Rock, clear the ditch on the uphill embankment side of the road and make sure water flow gets delivered to the existing diversionary ditch and down to the culvert. Some of this affect will be handles when raking the road per ss. 9.2 above.
5. **This item is needed but, because of its larger expense, will be put on hold until the new board determines that funds are allocated for it.** "H" = place (3) loads 1 1/4"-minus crush gravel 8' wide down the middle of the road and let sit for a year to pack in from driving. This road section needs gravel for raking, needs crowing, and has significant rutting erosion. Pre-raking will happen in ss. 9.6 below.
6. Raking mileage; .6 miles, through "H" region and on up to just before Porky Pine.
7. "L" = clear encroaching brush on Outback road.
8. **This item is needed but, because of its larger expense, will be put on hold until the new board determines that funds are allocated for it.** "D" = place (3) loads 1 1/4"-minus crush gravel 8' wide down the middle of the road and let sit for a year to pack in from driving. This road section needs gravel for raking, needs crowing, and has significant rutting erosion.
9. "FA" = improve watershed roiling on the switchback corner where West Corral meets with Gold Rush Ridge road: lower

and more-extremely slope the inside turn of the road so water runs off the road into the culvert inlet before it flows onto and across the intersection, which is what its doing now, causing rutting and erosion through the intersection (the culvert is not functional because the current sloping is not making water get to it). This may need a load of gravel placed after after the re-sloping; TRS and 9MR will counsel as needed before gravel placement.

10. *Division 8, map 1 of 3*

1. "A" = ditch and culvert inlet work: Approximately .15 miles up Bighorn Drive from Chesaw road on the right side at a private driveway intersection, clear that culvert and clear upstream ditch.
2. Rake mileage, parts of Bighorn, approximately 1 miles. Rake the first .4 miles, then also in the region marked "F".
3. Rake mileage, all Pine Grove road, approximately .5.
4. Clear ditch: In the east side of the road ditch on Bighorn near the intersection of Canyon View, clear ditch.
5. "J" = (3) downside road embankment erosion spots need rock placement to limit erosion. This spot has been treated before. TRS load and transport rock from Circle City for this use. Place some left-over rip-rap on top of the big rock, at road level, to complete the durable filling.
6. "B" = down embankment erosion needs repair in two spots. Machine-place (1.5) loads of rip-rap to fill erosion narrowing and create durable water run-off. The other ½ load of rip-rap will be used at 10.5 "J" spot above.
7. "K" = ditch clearing, approximately 60'.

11. *Division 8, map 2 of 3*

1. Rake mileage on Gold Rush Ridge road; approximately .75 miles, from the road corner bythe equestrian trail easement to Lake View Spur.