2016-2017 Road repair Plans (Amended 4/24/17)(Amended 9/29/17)

(*NOTE:* The text in black font is the original road observation taken in 2016. The text in blue font was added in April 2017 after additional inspections. The text in purple font describes the road observations made on 9/28/2017 by Bill Shain and Ralph Santamaria.)

Road conditions observations July 2016 by Ralph Santamaria:

Revised 8/19/16 to modify dimensions to more accurate measurements. Sections of paved road were marked with black paint. Struck out sections of observations that were negligible and added SUMMARY and recommendations.

GRAVEL ROADS:

1) **Shipview** has a section of road that has lots of vegetation growth past the entrance to Lot 11, White Rock II. That part of the road is almost never used and it is not unusual that there is vegetation growing there. It is recommended that Shipview Ct have a small section of gravel and perhaps herbicide can be applied to kill the vegetation first. The road looks solid. Will continue to monitor. The road continues to look solid yet there is some vegetation popping up in the road towards the end of the road.

2) **Hoodsview** condition is looking good. Only the entrance requires some gravel and compacting that I noticed. The road looks solid. Will continue to monitor. On September 28, 2017 observations noted that the road has sustained wash-boarding for a section of the road, about 120 yards in length.

3) **Bridgeview** road condition is fair. It could use a layer of gravel. If funding is available after other higher priority tasks are resolved then it would be good to invest in additional gravel on Bridgeview. The entrance looks like the worst part and should probably be fixed as a minimum. There are some potholes near the mail boxes at the top of Bridgeview and additional potholes at the entry (where the gravel road meets the paved road). These potholes need repair before they get too big. It appears as someone has repaired the potholes noted last April. There is a small pothole starting at the entry of the road and Ralph will use some compaction soil to fill it in. The road is showing wash-boarding for about 120 yards in length.

4) **Alpine** is in need of gravel, especially at the entrance and towards the end of the road. There are some minor potholes behind the Glidewell's place and in front of the fire hydrant. This road has the worst condition of all the gravel roads. It is recommended that this road have the highest priority for repairs. In areas that have not had any repairs for many years the weather and traffic has taken its toll. That section of road that needs repair is between last years' two repairs at the ends of Alpine. The road looks great in the areas that were repaired last year. Ruts and numerous potholes have developed where the road "crown" no longer exists. The crown is needed for shedding water flow to the sides. The potholes were filled during the summer by Ralph Santamaria and Dale Glidewell. Yet the ruts still exist.

<u>PAVED ROADS</u>: (acronym "AG" means alligatoring condition). One main criteria used is if the damage is on the paved area that is frequently driven on. I did two surveys and took two different routes to obtain these observations.

(My route started at Alpine Ct, headed towards Hidden Springs, went down Hidden Springs, Left on Paradise, then left into the north end of Bywater and back to Alpine)

- 1) There is approximately 18'X3' section on Bywater N just north of the mailboxes in front of Mark and Helen's place, and a section about 15'X3' just in front of those mailboxes with AG. The AG is noticeable on both ends of the old patch on the road close to the mailboxes. The AG is on the driving surface. Whereas it is noticed that the AG is getting worse the road does not show any chipping away. This will be monitored for now.
- 2) At Hidden Springs where it merges onto Bywater there is an indentation about 4'X5', located on Hidden Springs road across from the blue water pipe. Another similar dip is located about 50 yards down from the first dip about 3'X7', about in the middle of the road. The dip located at the intersection of Hidden Springs and Bywater near the blue water pipe is getting deeper. This dip is also on the driving surface and may need repairs soon. Monitor for now. The dip across from the blue water pipe continues to noticeably deteriorate yet the asphalt is still intact. Pictures were taken. Continue to monitor.
- 3) About half way down Hidden Springs at the curve (headed towards Paradise Rd on left hand side) is about 24'X2' of AG nearer to the edge of the road. There is a right curve sign next to this AG. AG is noticeable yet holding out OK. Monitor.
- 3a) This is a new observation added in September 2017: On Hidden Springs about 200 yards from Bywater road headed towards Paradise road on the right hand side a new crack has developed. The crack is wide and about 20 inches long. This crack had not been noticed before (it was only 5 months since the last inspection) so it is fast developing. Pictures were taken. This will be closely monitored for progression of the crack. There is also a section of the road that looks like it was repaired before that is sinking and adjacent to the crack. Monitor.
- 4) About 100 yards from Paradise Rd on Bywater N, next to yellow "Left Hand Turn" sign there is about 32'X3' section of AG. Then again about 50 yards north of the Anderson place on Bywater N there is a 40' section of AG on both sides of the road.-(negligible) AG is noticeable both near the Anderson property entrance and by the left-hand turn sign yet holding out OK. The AG next to the sign is getting worse although and may need repairs soon. Monitor for now. The section, about 30 feet in length, next to the left-hand turn sign has gotten visibly worse. There are some deep cracks in the AG and it won't be long before this section of road needs repair. Pictures were taken. Other than the crack on Hidden Springs, this AG is the worst that we have seen so far. We'll continue to monitor until chunks start popping out.

(My next route took me from Hidden Springs at Bywater intersection, then towards Olympic, left on Olympic/Bywater intersection to Paradise Rd. Turned around at Paradise Rd and headed up to Olympic and through Fern Gully)

- 5) In front of vacant land with for sale sign there is a patch on the road. Adjacent to that patch there is a 3'X6' section of AG. Negligible. Monitor.
- 6) Bywater Way in front of Sekor place, #884 Bywater, there is a 17'X5' AG on the driving surface. This AG is noticeable and may need repair soon. Currently not bad enough to warrant repair. Still intact. Monitor for now. This AG appears to be worsening yet the asphalt is still intact. This AG is next to the "speed bump" sign. Will continue to monitor.

- 7) Bywater in front of #634 Bywater there is about 30'X2.5' of minor AG on driving surface in front of that property and another 16'X3' section south of that property address. Further south of that address about 40 yards down there is AG on right and left hand side of the road about 15' in length. (negligible). No noticeable degradation. Monitor.
- 8) About 100 yards south of the Peterson place the edge of the road is chipped for about 10' length and about 6" deep at the center. This should be measured and watched to see if it grows, as a minimum. The chipped edge of the road has not changed. It probably doesn't get much traffic because it is on the edge. Monitor for now. Yet a new crack in the pavement has been identified next to a patch nearby. This patch is on the edge of the road across from the Peterson driveway. And a new crack has developed next to the patch indicating further settling of the ground under the patch. This new crack appears to be a quickly developing issue. This will also be monitored for now.
- 9) About 200 yards from the south entry of Bywater (from Paradise Road) there is a patch that I believe was performed by Northern Asphalt. That patch has a piece of sealant (hot tar) missing at one end of the patch. That section may turn into a pothole. May need to ask for warranty repair. There is little change in the condition of the patch damage. Monitor for now. Yet a new discovery and few feet farther north of this patch by the fire hydrant there is a gouge with some AG next to it. And these are in the normal driving surface. This will be monitored for degradation.
- 10) About 120 yards from the south entry of Bywater (off of Paradise) there is edge damage on the road, plus a gouge on the road about 7'X2' just across from the 20mph sign. The gouge does not penetrate the asphalt but should be watched for consideration of future repair. Adjacent to that gouge is minor AG approximately 4'X1' in size. The gouge is somewhat deep yet it is towards the center of the road and not in typical driving path. There is little change in the AG and gouge. Monitor for now.
- 11) Towards the end of Fern Gully there is about 20' of AG (mostly next to a large tree) (negligible). Additional AG was noted closer to the intersection of Fern Gully and Oly Ridge about 100 feet from Oly Ridge. Both of these sections will continue to be monitored.
- 12) New: On Oly Ridge about 100 yards from Bywater intersection there is a pine tree being supported with a cable. There is an old patch on the road that is developing cracks There are also some dips in the road across from the patch. This damage may have been caused by the heavy equipment used for the logging that recently occurred. Tractor scrapes can be seen along the edge of the road where the patch and dips are located. This will be monitored.

SUMMARY:

On July 15, 2016 and 8/18/16 Bill Shain and Ralph Santamaria visited each of the noted affected areas. Bill recommended, and Ralph concurred, that the repair of paved areas should wait another year. During the meantime the areas that are noted on the paved roads will be marked with black paint, pictures and notes taken, and then monitored for continued degradation. If a repair requirement becomes apparent then the bids will be obtained. The reason that this decision was made was because the areas of paving that need attention are spotty and spaced far apart. The initial cost for companies to stage their equipment is a large part of the cost of the repair. So it is more cost effective to cover larger sections of road when the repairs are needed instead of smaller patches here and there. Also it is probably a good idea to observe the areas of concern to learn how quickly they deteriorate, as it may be years before they require patching. The lessons learned can be applied to future efforts.

The gravel roads exhibited issues with Alpine, Hoodsview and Bridgeview entrances as higher priority, followed by a small section at the end of Shipview and another section near the end of Alpine Ct.

New recommendations for road maintenance dated 4/24/17: New recommendations for road maintenance dated 9/28/17:

Brush clearing was deemed necessary on Fern Gully towards the top of the road at Oly Ridge intersection. There is about 60 to 100 feet length that needs clearing. This will be added to the usual brush clearing performed annually.

ALPINT CT:

The front of Alpine should get gravel and compacted 30' wide at the entry and narrowing to 10' for a length of 75'. Also the section of Alpine Ct starting where the McGillis property ends and Maxwell property starts should have gravel applied for the length of approximately 420'; covering the 360' length crossing the Maxwell property (WR II Lot 22) and approximately 60 feet of Alpine Ct crossing the Santamaria property (WR II lot 21). The road between the two sections that were repaired last year has deteriorated substantially over the last year. It is approximately 820 feet length. Alpine Ct should have gravel applied and compacted for approximately 820' length and 8' width on damaged section. The 8-foot width is less than the typical 10-foot width in order to help build the road crown back up. This will fill the tire ruts and potholes.

SHIPVIEW LN:

At the end of Shipview Lane has a section of about 10' wide and 160' long that should have gravel applied and compacted. This section of road is between WR II lots 8 and 11.

HOODSVIEW:

Starting at the entry of Hoodsview Rd and continuing up to address 124 Hoodsview driveway entry there is approximately 563 feet of gravel road that needs to be graded due to wash-boarding damage and some rutting due to runoff. No additional gravel is believed needed at this time. Wash-boarding has developed over the year. A separate quote for grading (no gravel) that section of the road will be obtained.

BRIDGEVIEW:

Starting at the entry of Bridgeview Rd and continuing up for approximately 273 feet the gravel road should be graded and a layer of gravel applied.

Repair the potholes at the entry of the road. Repair potholes and apply gravel/compact at top of the road starting at the "No Trespassing" sign post and then headed down towards the mail boxes past the mail boxes for about 80 feet in length and 10 feet in width. There is wash-boarding that has developed over the year. A separate quote for grading (no gravel) that section of road will be obtained for consideration of repair.

END.