

## **Minutes of the TOCI Road Plan Committee, Tuesday December 20, 2011 at 1:00 at the Town Office**

Present: Mark Dyer, Beth Howe

Absent: Wayne Dyer

Also present: Eric Dyer

Before the meeting Mark and Beth drove the island's roads with Edward Nason of Sunrise Materials in Orono to discuss pavement treatments other than hot-mix asphalt. He does a lot of work on roads in the northern and western parts of the State – he mentioned Fayette and Wayne. He said that he had seen many roads much worse than ours. He also did all the roads on North Haven and on Vinalhaven. The latter were done all at one time. Beth asked if the Town had worked on the drainage before the roads were paved. Nason said no. But he said it would be better to do this.

He talked about doing our roads with cold mix. This involves using the same material as hot mix asphalt except that instead of being melted and applied hot,  $\frac{3}{4}$ " aggregate is mixed with a liquid in a pug mill. When the pavement is laid down the liquid gradually evaporates. This means that the road remains softer longer than it would with hot mix, and it is better not to have heavy use of the road while the evaporation is taking place. But it is not as time-sensitive as hot mix so gaps in the transportation out to Chebeague would not be a problem. He said the mixing would be done on the mainland. This kind of surfacing is also best done in the summer because then the liquid takes the least time to evaporate.

He said that the same kinds of treatments can be done with cold mix as with hot mix. A road could be shimmed and have a 1 inch overlay. Or the old pavement could be reclaimed and a new surface applied. As we drove around, he said that in many cases he agreed with the State RSMS and Pike suggestions for the basic treatments, but he would give us the price for doing them with cold mix.

He said that chip sealing could be done, but it is only  $\frac{3}{8}$  inch deep and would not last as well as cold mix. It is really intended to seal an existing road, not to be used as a complete new surface.

Beth said that she understood that one of the problems we have with ditching is that the ROWs are not wide enough to have deep ditches with the recommended slope. Mark asked if, even if our ditches have steeper slopes, should we be using something to seed them? Nason said that jute mat works well and in many cases does not even have to be seeded. Also he said that when a road is reclaimed, he leaves some of the reclaim to be used to grade the shoulders of the road so that water runs off property into the ditch.

Mark asked if he would do the estimates that would reflect what he thinks the treatments of the various roads should be, and compare the cost of hot and cold mix as well as any other alternative treatments, such as chip seal or sand sealing, that he thought would be useful for us to consider.

**1. The meeting was called to order at 1:05.**

**2. Minutes**

Beth moved, seconded by Mark to approve the minutes of the meeting of November 29, 2011. Approved unanimously.

### **3. Advice on test borings and drainage.**

Beth said she had talked to Tom Greer of Pinkham and Greer about both test borings and drainage.

He said that core samples could be useful. The person he has do them is Roger Domingo of S.W. Cole in Gray. The normal procedure would be to bring out a drill rig – it would have to be barged. But he said that it may be possible to do it from a specially equipped pickup truck, and that they can be done with a hand auger.

Beth asked him what we should do about advice on drainage. He said that he does to that and he talked about the surface symptoms of water problems, which he was quite knowledgeable about. He said he could do an analysis of our drainage problems and suggest road design to deal with them. Beth explained that we were worried about getting too deep into engineering and that we weren't trying to have perfect roads. He seemed sympathetic to that.

He said that for some other small community he had done a study based on analyzing aerial photos rather than a more expensive field study – looking particularly at areas that should be ditched. For the island's whole, 12 miles of road, that would be about 21 photo sheets at a cost of about \$1500 per sheet, or \$31,500 for all the roads. But he said it might make more sense for us to identify 3 to 4 miles that are high priority for us and focus on them initially. Beth said that after she had talked to Greer she thought that with the RSMS data, our culvert survey and the topographic, wetland and drainage map, this might be quite a feasible thing to do. She emphasized that such a study might be done for a couple of roads at a time.

Greer also said that if we chose some subset of roads, he could come out and walk them and suggest areas where core samples would be useful. As far as timing goes, it would not be useful to do this if there is snow on the ground, since it obscures the drainage ditches. Frozen roads are ok. Bare trees are useful for seeing the lie of the land better. So either soon in an open winter, or in early spring would be the best times.

Mark said that we should ask Tom Greer to come out to the island, paid or unpaid, to look at Firehouse, John Small and Cottage Roads. Beth said she would arrange this.

### **4. Alternative road surfacing research**

Mark said that the meeting with Ed Nason (see notes on this above) had been useful and that he will give us estimates of the cost per mile of hot mix, cold mix and chip or sand sealing.

Mark said that on Monday he had driven around with Tom Gibson of Rampart Paving and had gotten similar information as from Nason.

### **5. Report on meeting with Jason Griffiths of Pike Industries**

Mark said that on November 29 he and Beth had also looked at some of the roads with Jason Griffiths of Pike Industries. We had particularly talked about the feasibility of doing North Road in two sections – from School House Road to in front of the Church (including the road up to the Transfer Station as well), and then from the Church to the Historical Society.

Beth said that the Committee is considering recommending doing the School House to Church segment this coming spring, on the 2011-2012 budget, and then setting aside the money for the 2012-2013 budget until the summer of 2013 and combining it with the 2013-2014 appropriation to do the Church to Museum segment in the summer or fall of 2013. The logic for this would be to do the part of the road that has the best base first. The western part of North Road does not have drainage issues and would only need to have a few culverts replaced and to be resurfaced. This would then prevent it from deteriorating to the point where it needs more expensive reclamation.

Griffiths later sent an estimate that this segment, including the Transfer Station road, would cost \$130,500 for a 1.5 inch hot-mix overlay.

The more expensive part of North Road, which probably does not have a good base, and does need reclamation and drainage work, would take two years to pay for, given the cost estimate from Pike. It also needs more analysis of the drainage problems, which can be done this fiscal year. Since our fiscal year ends at the end of June, two year's money could be available to do the work in the summer of 2013. Griffiths had said that doing this more expensive segment all at one time would save some money because the material and equipment for the job would only have to be brought out to the island once.

The Pike estimate for doing this part of North Road at one time would be \$311,200 for full depth reclamation and 2 inch compacted bituminous base course..

Eric suggested, using the logic of reducing the number of set-ups, doing all North Road at one time. Beth said that the set-up cost is not extremely high and that it might be useful to do some of the work sooner than 2013.

## **6. Budget**

Mark said that the Pike estimates will probably be the highest ones we will have. If we get cheaper estimates for doing North Road with cold mix, we might be able to think differently about how the work and the cost would be distributed. This is why the Committee does not want to make a specific recommendation for next year yet. We may not have the additional estimates by the January 25 capital budget meeting though we have asked for them as soon as possible. However, we would like to continue with the recommendation of the Road Plan to appropriate \$150,000 for the coming year.

Beth moved, seconded by Mark to ask for \$150,000 in the 2012-2013 capital budget. Approved unanimously.

Mark asked if there was any other business. Seeing none, the meeting was adjourned.

Respectfully submitted,

Beth Howe