

SCAPAG ISSUES

Shipley Area Committee Meeting with SCAPAG: 13 January 2010

Grit bins issue.

"In view of the recent icy conditions, some residents in Burley in Wharfedale - particularly those who live in Groves or Cul-de-sacs that have inclined access - are prepared to purchase grit bins.

Is there any protocol that would need to be followed (siting of bins etc) and would Bradford Council supply the grit on request?"

CLlr Keith Dale, Chair, Burley Parish Council, SCAPAG member

Information provided by Council Principal Highways Officer.

GRITTING

Gritting requests and complaints generally fall into one of the following categories.

1. Our road is never or rarely gritted – why?
2. Our road is usually gritted but wasn't this time.
3. Why didn't you grit before snow / ice that were forecast?
4. Can we have a grit bin?

It is important to understand some basic facts and dispel some of the unrealistic expectations / myths about 'gritting' of highways.

The Grit (Rock-Salt).

1. The grit is actually rock-salt. We use only the best quality materials sourced from deep mines in Cheshire. Most of our rock salt is also coated (at additional cost) with a molasses type substance to help it adhere to the road.
2. Rock-salt itself has little effect on ice or snow; it needs to be dissolved into brine (salty water) to become effective. Once in brine form it can help prevent ice forming at temperatures as low as minus 5degC but becomes increasingly less effective at temperatures lower than that, and has no effect at -10 degC. (Think of icebergs etc).
3. The process of dissolving into brine is described at the link here: http://www.saltinstitute.org/snowfighting/winop-resources/ia_dot_14.doc and as can be seen needs moisture, heat, and depends on not too much salt as well as not too little.
4. Rock salt is spread at between 10g/m² and 40 g/m². At the normal, (lower) rates, it is very hard to see on the road, and of course to be fully

effective it has to turn into solution as brine and is then invisible to the public.

5. Due to the above, it can take about 20 minutes before salt applied on a road has any significant effect. But after that is unlikely to be seen sometimes leading to accusations of 'no grit' – which are rarely accurate.
6. Once SNOW is more than 40mm (1.5") thick, rock salt has little effect, and ploughing becomes the only effective method of removing snow.

The Gritters

1. Bradford's winter gritter service is provided by Street Scene – the operational / manual arm of the council.
2. Street Scene operate a fleet of modern gritters fitted with GPS and other systems that report location, salt spread rates, speed etc 'live' to our offices.
3. The gritter's recording, GPS and mechanical systems are calibrated and serviced by the manufacturer or our fitters respectively before and during every winter.
4. The gritters are usually out treating roads either in the night or very early morning – when most people are safely at home or even in bed and therefore many people are not aware they have been out at all.

Contrary to popular belief, gritters have no instant effect on ice or snow and in particular;

1. As described above, the salt takes time to work, and so the passing of a gritter doesn't necessarily make a road safe – care should still be taken.
2. When ploughs are fitted to gritters they become especially difficult to manoeuvre, front heavy and require more road space. Hence many streets cannot be treated once ploughs are needed.
3. Nowadays, most gritters are 'single manned' and so reversing safely is difficult – especially when they are often being operated in poor weather and/or dark conditions. Hence treatment of roads requiring awkward reversing or turns becomes increasingly difficult / dangerous.
4. The gritting vehicles have little more 'grip' than any other similar vehicle, so if snow is falling or ice has formed, they have to take great care and in some circumstances may not be able to safely travel / treat sections of road. (Over the years several gritting vehicles have skidded off roads while attempting to treat a particularly difficult section).

Bradford Council's Winter Policy

1. Bradford adheres to (or exceeds) national recommendations and legislation for treatment of its network.
2. Local highway authorities have a duty to ensure, so far as is reasonably practicable, that safe passage on a highway is not endangered by snow or ice
3. No highway authority can routinely treat its entire network, and the legislation does not require this as it allows for 'reasonable' treatment.
4. The national guidelines issued by the Audit Commission recommend that Highway Authorities should routinely treat between 25% - 38% of

their network. Bradford routinely treats approx 69% of its network – roughly double the recommendation.

5. Treatment is carried out to ensure that the transport links which are essential to economic and social activity can continue safely throughout most of the winter. However, it is not possible to keep all roads or even the treated network free from ice and snow at all times.
6. Routes are prioritised and include: Classified roads, other heavily trafficked routes, bus routes, roads connecting isolated communities, accesses to hospitals fire stations etc exposed / high routes – and busy roads with steep hills / sharp bends.
7. All routes should be completed within 2.5 hours of starting (a callout /response time of 1 hour applies when the action is not pre-planned).
8. In extreme weather conditions – and especially snow, where salt becomes less effective (see above) and ploughing becomes the only effective treatment, we are forced to re-prioritise and direct resources to a reduced ‘strategic’ network regarded as the minimum essential to keep most traffic moving. Generally these routes (known as Ploughing Routes) cover main arterial roads, ring roads, and those linking communities.
9. Roads not on the treated network will only be treated in prolonged adverse weather / snow and only when the main routes / treated network are cleared. We do not treat unadopted / private roads.
10. In snow conditions resources from other council departments such as Parks and Waste Management are used to add to those from highways. These are mostly used to form gritting crews who manually treat footways and streets that gritters cannot easily access. This is however a difficult and laborious process so the rate of progress is slow.

Grit bins

Grit bins are a difficult issue as they appear to offer a potential solution to the problems encountered by residents of streets not on gritting routes, but they present considerable problems as well.

The advantages of grit bins include:

1. Residents can treat icy pavements / roads that gritters are unlikely to reach.
2. Can be targeted at localised ‘problem’ areas / sites.
3. Not ‘forecast dependent’ – salt can be spread if ice is present – not just if forecast.
4. Gives residents ownership of their street and provides a visible service.

The issues / problems include:

1. Many people want a grit bin on their street on the few days when they feel it’s needed, but for most of the year, they are thought of as ‘eyesores’, litter / wind blown debris / rubbish traps, a spot that attracts vermin, the local undesirable youth (as a seat etc), a target for vandals, graffiti etc etc.

2. The salt is spread when not needed. Often, when the television weather man warns of 'ground frost' salt is used by well meaning residents. But on most of these occasions the salt is wasted as the temperature that actually matters (the road surface temperature) remains well above freezing.
3. The salt is never used effectively – who can spread it at 10 - 20g/m² without a spreading machine? In reality shovels etc are used and so salt is spread at something more like 60 – 100 g/m². Very wasteful and environmentally unacceptable.
4. Salt bins have been blamed for dying hedges, verges, and even trees in some locations.
5. Many people who ask for a bin do not want one outside their own property, and on occasion when bins have been provided, other residents have then complained about them and requested removal /moving.
6. Sometimes the salt is used on private drives etc – strictly this is theft but is difficult to stop.
7. Organised theft is not uncommon – where an entire salt bin is stolen or more often its contents. (The thief's can return when we've refilled it).
8. We have roughly 600 grit bins out on the network (Nov 2008). A reasonable estimate is that it takes an average 20 minutes to refill each one (load at depot, travel to / between bins, manually shovel salt into bin etc). So it takes approx 600x20=12000minutes = 200 hours = 26 / 27 man days to refill the bins we have out. In fact there are usually 2 men sent with a pick-up so that equates to 52 man days. i.e. Roughly 10 - 12 men working all week.
9. When salt is really needed, it is often used up very quickly. This is inevitably at a time when our resources are stretched trying to keep the network clear and it would be difficult to justify sending out 5 or 6 drivers out to refill grit bins when the same operatives could drive a gritter along several thousand miles of streets (including some with bins).
10. Salt bins are often completely emptied by enthusiastic and well meaning residents shortly after bad weather starts – sometimes within hours. We are then inundated with demands that 'our' bin is refilled as well as accusations of incompetence and sloth for not doing so.
11. In snow, residents tend to spread salt by the shovel full – approx spread rate of 120g/m². They keep applying it on the assumption that to work, they must 'see' the grit. We rarely use grit, we use salt, which works as a saline solution - and is virtually invisible. The correct spread rate is 10 –40g/m². So between 3 and 10 times more salt is spread compared to that actually needed. Very wasteful and potentially environmentally damaging
12. The 600 bins we have out are at or beyond the sensible limit of what can realistically be serviced during severe conditions.
13. There may be potential liability problems if bins are not kept full. If a bin had been deemed necessary, and has no salt in it, the council may be sued should an accident occur on the basis that we have evidently agreed there is a need for the facility but then not 'maintained' it.
14. Grit bins can only ever be justified where a clear need exists and only when all the criteria have been met.

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