Stage 2 drainage report – questions
Oct 2024

A. Option 1 – Permeable surface (road)

1. How do you deal with the camber of the road? (80% of the water flows in a 1 foot band at the bottom of the road. How to get this to drain into the middle of the road? Won't the majority of this water just rush straight over the top and out the other side?) Need to have a capture system just uphill from the block paving to capture the river and channel it into the porous substrate (either a channel or piping).

2. Isn't this a very expensive option as it needs to deal with heavy lorries etc? Roughly what would 5m cost - £10-20K? Also vulnerable to subsidence? Yes, would need to be high quality but a paving company should be able to do this at say £5-10k per 5m

3. Could this also be a traffic calming feature ie have the pavers slightly below the surface or even "V" shaped? In theory yes, but any change in shape could make the block paving more vulnerable to subsidence.

4. Would this also work for steeper parts of the road? Yes, but would need to ensure capture system large enough to capture water before it flows past.

5. Would you need planning approval/highways agreement? No

6. No comment on maintenance requirements? Need to sweep regularly to keep clear. Every other year need to dig out silt and brush in sand in joints. Need to reseal joints as required to prevent water ingress.

7. Don't fully understand the diagram. Only middle section applicable to us. Depth 300-450mm typically.

B. Option 2 – Permeable surface (verges)

1. In diagram – final surface – won't this just get washed away (or is it also in a grid?) In a grid. Could be grass in grid rather than stones by then less effective. Needs to be 200mm in depth (total) to support construction type traffic.

2. Can we not use intermittent kerbing (as per photo of water garden) to deter traffic but allow water to penetrate and allow for careful parking of cars? No, would create a trip hazard. Rocks are generally fine because they are rounder and can be white.

3. No comment on maintenance requirements? Regularly sweep off leaves and silt etc. Replace lost stones if desired. Would only need to dig out and clean properly every 10-15 yrs.

4. Do we really need to spend £5k on detailed drawings or could a contractor not just work from your rough sketch (or something a little bigger and clearer)? No, just a more detailed drawing should be sufficient if no modelling etc is required. Chris will provide a quote for such a drawing. Also no need to do professional soakage testing if no modelling required. Recommended digging a 1ft hole, filling with water and seeing if it drains within 20-30mins. Repeat twice. If yes, 3 times in a row, should be ok.

5. Roughly what would a verge of say 20m by 1m cost - £5-10k? Chris' guess was £3-5k. Suggested we use a landscape gardening company rather than civil engineering company to get best value.

C. Option 3 – Filter drains

1. Presume this is just an option for the north verges? (as only they have 800mm width to services and would not have pedestrian or vehicle traffic) Yes

2. Don't understand diagram – what are the pipes for? Only required if piping to public drainage system. Therefore not relevant for us. Trench can be 250mm – 1.5m in depth depending on budget and tree roots etc.

3. What happens if vehicles or pedestrians enter this area – get stuck? Crush the pipes? Cars should be fine but lorries may get stuck/distribute stones onto carriageway. These trenches are used next to motorways and around car parks.

4. Is this the drainage channels with buried soakaways option mentioned in your emails?

5. Rough cost per 20m? Cheaper than other options and more effective but few areas available (if any).