

FOOTPATH PROJECT

FOOTPATH SURFACES

A COMPARISON OF OPTIONS



Background

- Project initially aimed to connect footpath from “Cricket Gates” to Pavilion along Southern boundary. Subsequent discussions led to the decision to extend this to encompass the whole perimeter with two main aims:
 1. To enable access to the whole field for all, including wheelchair users and, e.g., parents with baby buggies.
 2. To enable use in all weathers by, e.g., joggers and dog walkers.
 - The poor condition of the field led us to include drainage improvement in the overall project
 - Three surfacing experts were consulted regarding a tarmac surface, as used in Mayfield, but each had a different view on the construction
 - Two experts were consulted regarding alternative surfaces:
 - A retired Project Manager for a surfacing business, regarding plastic “Gravel Circles” as used in carparks
 - The owners of Mudcontrol regarding unsupported plastic panels as used in farmyards, etc.
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Option 1: Tarmac Path



- We have one leading from the Car Park to the Accessible Car Park.
 - It is 1.2m wide with concrete edging.
 - It is well-used and has greatly improved both safety and access to the Adult Exercise Equipment, Children's Playground and Picnic area.
 - Observation suggests that a 1.5m wide path would be better, to allow easy passing.
- This is a mock-up of the suggested no-edge path along the Southern Boundary.
 - The companies quoting for the work variously recommended no-edge, concrete-edge and timber-edge
 - Cost Estimates (path only): £42k-£88k



Option 2: Gravel Circles

This system uses the same aggregate base as tarmac surfaces but is topped with recycled plastic mouldings infilled with crushed gravel. It is a popular choice for car parking, providing drainage with a secure surface.



The plastic grid can be seen in this car park application using pea shingle not crushed gravel. An alternative infill with a different mesh is earth and grass.

This mock-up, based on the above picture, gives an idea of appearance (the slope is a visual trick!)

Cost Estimate: £38k



Option 3: Farmyard Panels



Recycled plastic Ground Stabilising Slabs are used extensively in farmyards and even military training areas. They require no aggregate base and grass is encouraged to grow through the holes

This mock-up shows the Southern boundary. The manufacturer states that they are suitable on slopes up to 25% (1 in 4).

They are also easily moved to new locations.

Cost Estimate: £33k



Option 4: Grass Mesh-Matting

This was considered in the early stages of the project and so is included here. It requires a well-drained surface, and that is not possible on the Playing Fields.

It has not been included in the further Assessment.



Costs

	Tarmac	Gravel Circles	Farmyard Panels
Prepare Base	£20k	£20K	£5k
<i>Edging</i>	<i>£25k</i>	-	-
Top Surface Material	£10k	£6k + £6k	£27k
Top Surface Labour	£12k	£6k	£1k
TOTAL	£67k/£42k	£38k	£33k

NOTES

1. The Tarmac Costs are calculated from the detailed estimate factored to the cheapest estimate. The cost in Italics is with Edging. For ongoing comparison, I have used the non-edged (as used at Mayfield) cost
 2. The Gravel Circle and Farmyard Panel costs are derived from the Tarmac estimates and quoted bulk prices for materials. The 'Base' for the Farmyard Panels is for levelling sections of the route. We do not yet have definitive costs for either system.
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Criteria and Weighting

The following Criteria and weightings were used to compare the systems:

1. Suitability for Wheelchair Users (5)
2. Suitability for All-Weather use (5)
3. Ecological Impact (3)
4. Visual Impact in AONB (3)
5. Long-Term Durability (3)
6. Maintenance Requirements - includes off-path areas (3)
7. Adaptability - can be moved or re-used (3)
8. Installation Cost (10)

We use these to compare the systems to the existing surface:

A system that was no better or worse than existing would score 0.

A system that looked OK but not as good as existing would score -1.

A system that was the best in all weathers would score +5

The choice and weighting of these criteria is of course debatable and we invite you to make your own judgements.

Comparison of Options

Criteria and Weighting	Existing	Tarmac	Gravel/Grass Circles	Farmyard Panels
Wheelchair 5	0	+5	+3	+3
Weather 5	0	+5	+4	+4
Ecological 3	0	-3	-2	-1
Visual 3	0	-1	-3	-2
Durability 3	0	+3	+2	+2
Maint'ce 3	0	+2	+1	+2
Adaptability 3	0	0	+1	+2
Cost 10	0	-7/-5	-4	-3
Total Score	0	+4/+6	+4	+7
Total Less Cost	0	+9/+11	+8	+10

The figure in italics for Tarmac is with timber edging
 The Total Less Cost Score is the “money no object” score.

Discussion and Conclusions

1. The cheap grass meshes and honeycomb systems are not suitable for our combination of soil type, rainfall and run-off from higher land.
2. The Gravel Rings system is not best suited to our application – ideal for a car park but examples we saw were not good for wheelchairs.
3. ‘Farmyard Panels’ have the advantages of low cost (half that of tarmac with timber edging) and easy relocation if the needs of the community change over time.

Whilst grass can be arranged to grow through, they are not very attractive. The manufacturers were unable to point us to a similar installation, though they are used in woodland walks.

The surface is rough, which could be useful in very bad weather but uncomfortable in normal use for runners, wheelchair users, etc.

4. The conventional Tarmac path, as used in other local recreation areas, is expensive but durable and very easy for wheelchair users. The aesthetics are a matter of opinion but suited to our situation. On balance, this is our preference.
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