# Highway Resurfacing Programmes

Resurfacing refers to the removal and replacement of the existing surface course. Resurfacing restores the road or pavement surface to a new condition, removing surface problems and most unevenness. To view Medway Councils current resurfacing programme please visit [Resurfacing Programme](https://www.medway.gov.uk/resurfacing)

Please note resurfacing differs from potholes. To report a pot hole issue please visit [Report a Pothole](https://www.medway.gov.uk/info/200225/report_a_road_problem/552/roads_and_potholes)

## Summary

The length of the Medway Council’s highway network consists of 827km of carriageways and 1,049km of footways, making it one of the largest assets owned by Medway Council. Medway Council as a Highway Authority has a statutory duty to maintain the public highway but fulfilling that duty with such an extensive network can be challenging. The process involved during scheme selection helps justify why it is important for there to be a sustainable assessment and prioritising process in place, to ensure that funding is spent responsibly by concentrating on the most deteriorated areas of the Highway Network. The information below is provided to assist in the understanding of how Medway Council prioritise and identify schemes within the annual resurfacing programme.

## How we Assess Resurfacing

Before considering a part of the highway for resurfacing, the site is scored using an assessment pro-forma matrix system. This matrix takes several influencing site factors into consideration with each providing individual scores. These scores are totalled together to provide and assessment priority rating for the scheme. This priority rating helps to identify the overall condition of the scheme when comparing it with the other areas of the network. Those schemes that have scored highest are automatically selected when putting together a programme of resurfacing schemes for the coming financial year. This system ensures that those parts of the highway in most need of maintenance are individually and fairly prioritised for resurfacing.

## Carriageway Assessment Matrix

The carriageway matrix consists of six major assessment categories, with each of these containing several minor assessment categories. A Highway Engineer will carry out an onsite inspection of the carriageway to assess each of the following categories accordingly.

* Condition – This information is obtained via two methods, one through the use of a Surface Condition Assessment for the National Network of Roads (SCANNER), which is obtained via a specialised vehicle which scans the road surface for defects, and this is for the classified network only. The second method for the unclassified network is via a Course Visual Inspection (CVI) carried out by qualified surveyors. This information then provides a traffic light assessment system. Green indicates that the road is in good condition, amber indicating that the road may require maintenance in the future, and red indicating the road requires maintenance.
* Safety – Carriageways that pose a potential skid risk or that contain difficult conditions such as bends or difficult gradients. Those that are located within the vicinity of schools, hospitals or residential care homes are also considered during this scoring criteria.
* Accessibility – It is important that the Highway serves its purpose by ensuring traffic flows freely and without unnecessary delay. This includes roads that fall within Medway’s resilient network, which are important for maintaining economic activity and access to key services during emergencies. This assessment criteria also considers public transport such as bus routes, or routes containing level crossings.
* Environmental – This consists of noise generated by the carriageway resulting from vehicles tyres passing over the road surface. This is only considered important in residential areas where the road surface might be deemed to cause inappropriate levels of noise by Environmental Health.
* Third Party Involvement – Those roads reported by third parties are recorded, and a response provided to the relevant stakeholder. Highway Inspectors also carry out routine inspections of the Highway Network and report any locations back to the Highway Engineers which are felt should be considered for future planned maintenance work.
* Visual Inspection – Visual site assessments are carried out on the Highway Network, by Highway Engineers. These assessments are completed to identify the presence of defects in the surface and underlying road structure such as cracking, potholes and rutting.

## Carriageway Assessment Score

**Table 1.0** below shows the maximum achievable scores for each carriageway assessment category, producing a grand total of 280 points. Those carriageways scoring closest to 280 are most likely to be considered for future resurfacing works.

|  |  |  |
| --- | --- | --- |
| Assessment Group | Description | Maximum Achievable Score |
| Condition | Highway SCANNER and CVI results | 60 |
| Safety | Existing site difficulties, schools, hospitals, or retirement homes | 35 |
| Accessibility | Forming part of the resilient network, or containing bus routes or level crossings | 40 |
| Environmental | Noise impacts | 5 |
| Third Party Involvement | Highway inspectors or other Highway departmental involvement | 15 |
| Visual Inspection | Visual assessment undertaken by Highway Engineer | 125 |
|  | **Total** | **280** |

**Table 1.0** – Carriageway Assessment Matrix

## Footway Assessment Matrix

As per carriageways, the footway matrix consists of six major assessment categories, with each of these containing several sub-categories. A Highway Engineer will undertake an onsite inspection of the footway to assess the following criteria;

* Condition – This information is obtained from a Footway Maintenance Survey (FMS) which indicates the condition of the footway by identifying major and minor defects. This enables the Highway Engineer to identify locations of footway which should be considered for future maintenance.
* Safety – Footways that contain difficult conditions such as gradients or those that carry a high footfall. Those that are located within the vicinity of schools, hospitals or residential care homes are also considered during this scoring criteria.
* Accessibility – This consists of footways that fall within Medway’s resilient network, which are important for maintaining economic activity and access to key services during emergencies. This assessment criteria also considers public transport such as bus routes, or routes leading to railway stations.
* Civil Rights – Medway is committed to providing a pedestrian environment which is freely accessible for all those using the footway. This includes overcoming physical highway features to make areas more freely accessible for residents with disabilities.
* Third Party Involvement – Those roads reported by third parties are recorded, and a response provided to the relevant stakeholder. Highway Inspectors carry out routine inspections of the Highway Network and report any locations back to the Highway Engineers which should be considered for future planned maintenance work.
* Visual Inspection – Visual site assessments are carried out on the highway network, by Highway Engineers. These assessments are completed to identify the presence of defects in the surface and underlying footway structure such as cracking, potholes and surface ravelling.

## Footway Assessment Score

**Table 1.1** below shows the maximum achievable scores for each footway assessment category, producing a grand total of 280 points. Those footways scoring closest to 280 are most likely to be considered for future resurfacing works.

|  |  |  |
| --- | --- | --- |
| Assessment Group | Description | Maximum Achievable Score |
| Condition | Footway Maintenance Survey | 60 |
| Safety | Existing site difficulties, schools, hospitals, or retirement homes | 30 |
| Accessibility | Forming part of the resilient network, or containing bus routes or level crossings | 40 |
| Civil Rights | Pedestrian Environment | 10 |
| Third Party Involvement | Highway inspectors or other Highway departmental involvement | 15 |
| Visual Inspection | Visual assessment undertaken by Highway Engineer | 125 |
|  | **Total** | **280** |

**Table 1.1** – Footway Assessment Matrix

## How Programme Selection is Undertaken

Those carriageways and footways that have scored the highest on the assessment matrix will be considered for future resurfacing works in order of scoring priority. When formulating a maintenance programme, the total number of schemes will be selected to suit the agreed annual resurfacing budget for that particular financial year. The agreed programme is then presented to the portfolio holder before finalising the works for the forthcoming financial year.

|  |  |  |
| --- | --- | --- |
| Rating | Assessment Matrix Score | Description |
| Priority 1 | From 135 to 280 | To be considered for future resurfacing |
| Priority 2 | From 90 to < 134 | Unlikely to be considered for resurfacing until the foreseeable future |
| Priority 3 | From 45 to < 89 | Unlikely to be considered for resurfacing until the foreseeable future |
| Priority 4 | From 0 to < 44 | Will not be considered for resurfacing |

**Table 1.2** – Carriageway Priority Rating

|  |  |  |
| --- | --- | --- |
| Rating | Assessment Matrix Score | Description |
| Priority 1 | From 100 to 280 | To be considered for future resurfacing |
| Priority 2 | From 77 to < 99 | Unlikely to be considered for resurfacing until the foreseeable future |
| Priority 3 | From 45 to < 76 | Unlikely to be considered for resurfacing until the foreseeable future |
| Priority 4 | From 0 to < 44 | Will not be considered for resurfacing |

**Table 1.3** – Footway Priority Rating

## Considerations on when Resurfacing works are undertaken

The Highways department liaises with our Term Maintenance Contractor and Medway Council’s Traffic Manager to create a suitable working resurfacing programme based on the schemes selected. The contractor will look at the extents of the resurfacing works and liaise with the Highway Engineer to confirm dates, durations and working hours. The programme will take into consideration the following factors to achieve a manageable programme of works.

* School Holidays – Resurfacing works that are within close proximity of a school will be programmed within the school holidays, where reasonably possible. Due to there being a limited number of school holidays however, programming all resurfacing works during the school holidays isn’t always achievable and restricted working hours are considered as an alternative.
* Time of year – Ideally most forms of resurfacing work should be carried out in the warmer, dryer months of the year. This is particularly important for night works, as temperatures are prone to drop during winter. Schemes that are completed during the day will also benefit from longer daylight hours during the spring/summer months.
* Planned Events – As resurfacing works are disruptive by nature; it is important that any planned events are carefully considered when programming schemes. This should consider events throughout the year such as festivals, marathons, sporting events or similar types of events.
* Planned works – Any works planned by utility companies, neighbouring highway authorities, developers, or the Rochester Bridge Trust must also be considered before agreeing a programme of works. Ideally any utility works should be completed prior to any resurfacing scheme, which can result in a resurfacing scheme being postponed until the following year to allow for any utility works to be completed.

The Highways department strive to achieve a well-planned resurfacing programme with its maintenance contractor, however due to the unpredictable nature of resurfacing projects there will remain instances where it is necessary to alter the schedule of the works programme. This can be caused by variations such as adverse weather conditions including flooding or prolonged freezing conditions, emergency utility works and repairs, or due to unforeseen complications experienced on a particular resurfacing scheme once works are underway.

## Which Materials do we use for Resurfacing

As part of formalising the programme the Highway Engineer will carefully consider the type of surfacing material required for each particular scheme, including the overall depth of the construction required to suitably maintain the highway to a high standard. The material selection will be based on considerations such as the makeup and structural condition of the existing road surface, the type of existing surfacing material, the road classification and the existing site layout and conditions.

There are a variety of materials that can be used on the highway, with each type providing different features and benefits. The selection of the material will depend greatly on the type of scheme and conditions of the existing site. Typically, a Highway Engineer determines the most suitable type of material as part of the onsite assessment process for each scheme.

## Carriageway Resurfacing Materials

There are a large variety of traditional surfacing materials that can be used for the carriageway, as well as newer innovative materials becoming available in the industry. Some of the specifications a carriageway surface material should include consist of the following;

* Having good skid resistance and be durable.
* To be even with good riding qualities.
* Resistant to wheel-tracking deformation and cracking.
* Easy to hand lay in small areas, especially after utility works.
* Generates very little road traffic noise or surface water spray.
* To provide good value for money.

## Typical Carriageway Resurfacing Materials used in Medway

Hot Rolled Asphalt (HRA) - HRA is one of the hardest wearing traditional asphalt surfaces and can have a lifespan of 20 years or more. HRA is almost impervious to water ingress, and resistant to surface cracking. HRA is an expensive form of surfacing material, and takes a longer period to cure, meaning that road closures have to remain in place for a longer duration before the road can be trafficked again.

Stone Mastic Asphalt (SMA) - SMA provides good texture and skid resistance properties, as well as surface water dispersion and spray reduction. SMA is fast curing and can be trafficked soon after laying, therefore saving time and inconvenience of lengthy road closures.

High Friction Surfacing (HFS) - HFS is typically applied on top of an existing surface to provide high levels of skid resistance in localised locations such as approaches to roundabouts, pedestrian crossing points and at certain junctions. This treatment is applied in high-risk areas to improve safety by reducing the likelihood of accidents caused by skidding. A range of coloured surfaces can be applied to help highlight areas to motorists or to enhance delineation.

## Footway Resurfacing Materials

Most surfacing materials used as part of planned footway schemes consist of conventional bituminous based materials. This is because it is one of the cheapest conventional surfacing materials, which is easily laid and easily sourced by contractors. Some of the specifications a footway surface material should include, consist of the following;

* Having a uniform surface and be durable.
* Resistant to deformation and cracking.
* Easy to hand lay in small areas, especially after utility works.
* To provide good value for money.

## Typical Footway Resurfacing Materials used in Medway

Asphalt Concrete (AC) - AC is commonly used as a conventional form of surfacing for footways. It provides a relatively quick and straightforward form of construction, which is usable soon after laying. The surface provides a durable, uniform appearance, which is easily sourced by contractors, and is easy to work with or patch in the future.

Block or Flagged Paving - Block or flagged paving is an alternative form of footway construction, typically used to make a particular area look more aesthetically pleasing. This form of construction is more frequently used in high streets and other main walkways.

## What should you do?

* Do not park your vehicle on that part of the road to be treated, during working hours. If you need advice, ask site staff, or alternatively call the Contact Centre on 01634 333333.
* During the planing process of resurfacing treatment, dust may be produced, particularly when windy. If possible, keep windows and doors closed.
* When the bitumen spray coat is applied, it is very sticky, therefore DO NOT drive or walk through it, as it may be carried on or into your property. If you need access seek advice from site staff.
* Avoid driving or walking through the new surfacing until it has been compacted and the road has been re-opened to general traffic.
* Restrict your speed to a maximum 5mph through the site during works and beware of ramps, raised manholes and gullies.
* Take note of the directional flow of traffic through the site when coming out of driveways or side roads.
* Some road surfacing involves the use of hot materials, and newly laid surfaces remain hot for some time. It is important that everybody, children, and pets in particular, be kept well away from the work, at the very least until the road is re-opened to traffic.