Essex County Council

Essex Highways

Local Highways Maintenance Transparency Report

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This report addresses the recent letter from the Department for Transport (DfT) to the Essex County Council (ECC) chief executive, dated March 2025, relating to Local Authority maintenance funding in 2025/26. This report specifically addresses the Annex A reporting requirements detailed in the letter. The DfT expects all local highways authorities to publish information about their highways maintenance activities to help local taxpayers see the difference that funding is making in their areas. A link to this report has been provided to the DfT in accordance with the reporting requirements referenced in the letter.

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1. Our Highway Network

The lengths of roads in Essex are among the largest for Local Authorities across the country. Essex also has extensive Footway (commonly referred to as 'pavements'), and Public Rights of Way. It has extensive Cycleways, too, but these are largely within the Road or are shared with Footways.

Table 1. below details the highway network lengths which ECC is responsible for maintaining. Note that ECC is not responsible for maintaining Motorways and Major A roads; these are the responsibility of National Highways which is the government company charged with operating, maintaining and improving England's motorways and major A roads. A link to the National Highways website is provided below:

https://nationalhighways.co.uk/our-roads/

If you wish to know which organisation is responsible for maintaining a specific road in the county – perhaps the road upon which you live - you may refer to the Essex Highways website for information:

https://www.essexhighways.org/roads-and-pavements

The table below shows the length of roads by Department for Transport (DfT) classification (A, B and C combined, and Unclassified).

Table 1. Roads, Footways, Public Rights of Way, and Cycleway lengths maintained by Essex County Council (ECC).

Lengths of highway, footways and cycleways (km)						
*A Roads (*excluding A130)*	*B and C Roads*	*U Roads*	*Total Roads*	*Footways*	*Other Public rights of way*	***Remote Cycleways*
km	*km*	*km*	*km*	*km*	*km*	*km*
609	2,383	4,540	7,532	6,000	6,409	1.4

**The A130 was built through a Private Finance Initiative (PFI) and is maintained by an organisation called County Route. The length of the A130 is approximately 30.1 km.*

***Few cycleway assets are remote, i.e. not within the road or shared use with footways.*

Table 2 below details Highway Asset Types, Extents and Quantities, and it also provides examples of the different types of funding and their related activities.

Table 2: Highway Asset Types, Extents and Quantities

Highway Network Asset Group	Asset Quantity	Examples of Revenue funded activities	Examples of Capital Funded activities
Roads, Footways, Cycleways, and Verges – see below for Public Rights of Way	Approximately 7,500 km of roads, 6,000 km of footways, and approximately 23 million square meters of verge.	Asset management software fees and routine condition surveys, routine safety inspections (including out of hours call outs), gully cleansing, grass cutting, weed spraying, repair of localised defects such as potholes, renewal of white lining, maintenance of trees and hedges and horticulture.	Extensive resurfacing treatments to replace deteriorated surfaces, programmed road marking replacements.
Bridges and other Structures (including subway underpasses, retaining walls, drainage culverts and sign gantries)	1,582 (number)	Asset management software fees, general inspections, urgent repairs for safety related defects, flooding defects, emergency call outs to pumps, structural reviews and specialist inspections, load bearing assessments, silt removal, minor mortar pointing, cleaning of trash screens, vegetation clearance.	Principle Inspections (detailed investigations), Bridge replacement. Refurbishment works such as renewal of parapets, bridge deck replacements, bridge bearing replacement.
Safety Barriers (vehicle restraints that prevent vehicles leaving the road), including pedestrian guard rail.	208 km	Detailed safety inspections, re-tensioning of tensioned assets, urgent repairs to safety related defects, vegetation clearance, small part asset replacement such as renewing tensioning bolts.	Whole asset replacement, component replacement such as replacement of corroded/damaged posts or barrier, replacement of terminals.
Highway Network Asset Group	**Asset Quantity**	**Examples of Revenue funded activities**	**Examples of Capital Funded activities**
Street Lights (lighting columns and subway units etc.)	131,548 (number)	Provision of street lighting central management system for controlling the lights), Electrical cable network tracing, Electrical and Structural Testing of columns, emergency attendance work and minor fault repairs.	Column replacement, bulk conversion of lamps to L.E.D.
Illuminated Highway Signs and Illuminated Bollards and Vehicle Activated Signs	13,742 (number)	Electrical and Structural Testing, of posts and signs, Ad hoc cleansing of sign faces.	Post, sign and bollard complete replacement.

Highway Network Asset Group	Asset Quantity	Examples of Revenue funded activities	Examples of Capital Funded activities
Traffic Signals Infrastructure (including School Crossing Flashing Warning Signs, Zebra Crossings, Bus Telematics, Traffic Count Sites, and Air Quality Sensors). It also includes Safety Cameras, which are managed and maintained by the Safer Essex Roads Partnership.	524 Signal Junctions and Crossings, 1,315 Zebra Crossings, 231 Traffic Count Sites and Air Quality Sensors, 460 Bus Telematic displays, 376 School Crossing Flashing Warning Signs/Lights	Asset management software fees, safety inspections, electrical inspections, electrical fault repairs, minor component repairs and replacement, support to Safer Essex Roads Partnership.	Traffic signal refurbishment and replacement, other asset and component replacement.
Non illuminated Highway Signs	80,287 (number)	Vegetation clearance, ad hoc cleansing of sign faces.	Signs and posts replacement.
Passenger Transport Infrastructure, such as bus shelters, bus sign poles, timetable cases and flags	502 bus shelters, 3,415 bus sign poles, 2,314 timetable cases, 6,336 flags	10-year bus shelter maintenance contract, software management systems, minor asset repairs and replacements for flags and poles.	Capital programme for flag and pole replacement.
Public Rights of Way Infrastructure (footbridges and signage)	6,400 km of Public Rights of Way. 36,000 inventory items, including 4,283 bridges, 24,000 sign-posts, plus Other Assets.	Routine safety inspections, grass cutting, ditching and vegetation clearance, localised defect repairs.	Asset replacement, such as renewal of foot bridges, and extensive asset resurfacing.
Winter Management Infrastructure (weather stations and salt bins)	10 weather stations, 922 salt bins	Winter standby service, winter decision making, precautionary salting, weather prediction software fees, snow ploughing, filling of salt bins and provision of salt bags.	Weather station asset replacement, salt bin replacement.

All assets are subject to routine safety inspections which identify the requirement for repairs to keep them safe. The Council also measures and monitors more detailed aspects of asset condition to identify where more substantive works or asset replacement is required. The corresponding maintenance works achieve value for money through sound data-evidence led asset management approach.

Asset condition data helps inform Council decisions on maintenance investment levels, which seek to ensure that highway asset condition is maintained in a manner that reflects the priorities of its residents and wider customers. The Council must also

ensure, however, that investment levels for maintenance not only balance competing demands across different highway asset groups but also balance competing demands across all Council services. Information on annual investment levels relating to capital and revenue funding is provided below.

2. Highways Maintenance Spending Figures

The information in Table 3 below, shows the annual investment levels relating to capital and revenue highway maintenance funding, respectively since 2020/21. It shows the split for capital funding in terms of the allocation provided by the DfT and the total Capital spend - the difference is the additional investment provided by ECC. It also shows the Revenue spend, as well as the estimated % of Total Capital that is spent on Preventative Maintenance, and the estimated % of Total Revenue that is spent on Reactive Maintenance.

Table 3. Annual Investment Levels, 2020/21 to 2025/26.

Highway maintenance spending					
Year	**Capital allocated by DfT (£,000s)**	**Capital spend (£,000s)**	**Revenue spend (£,000s)**	***Estimate of % of Total Capital spent on preventative maintenance**	***Estimate of % Total Revenue spent on reactive maintenance**
2025/26 (projected)	52,265	111,095	40,258	78%	40%
2024/25	41,022	109,579	33,352	78%	40%
2023/24	46,334	95,428	28,357	73%	47%
2022/23	37,259	81,851	26,365	64%	47%
2021/22	37,009	80,237	26,805	67%	41%
2020/21	48,147	75,525	34,060	70%	39%

*Calculated through detailed analysis of spend associated with each related highway maintenance activity. ‘Preventative’ maintenance is regarded as all capital funded maintenance that enhances asset life or replaces assets at end of life, with a view to making the network more resilient.

Table 4 below provides an indication of the many types of maintenance activities that are enabled through this funding.

Table 4. Types of Maintenance

Maintenance Type	Sub-Categories
Reactive Maintenance (requiring unplanned intervention at localised level, such as pothole filling)	All assets - sign and make safe for safety purposes
	All assets - provide permanent repair for safety purposes, as budgets permit
	All assets - provide initial temporary repair for safety purposes
Preventative/Routine Maintenance	Carriageways, footways and cycle routes - minor works and patching
	Drainage systems, cleansing and repair
	Embankments and Cuttings – stabilisation works
	Landscaped Areas and Trees – environmental management
	Verges - grass cutting
	Fences and Barriers - tensioning and repair
	Traffic Signals and Bollards - repair
	Road Markings and Studs – asset replacement
	Lighting installations - repair
	Bridges and other structures - minor works
Programmed Works (invariably extensive asset replacement works planned over time to achieve effective resource scheduling and economies of scale)	Roads - minor works, resurfacing or reconstruction
	Footways - minor works, resurfacing or reconstruction
	Cycleway Routes - minor works, resurfacing or reconstruction
	Bridges and other Structures – refurbishment works, principal inspections
Regulatory	Maintenance of Highway Register and Public Rights of Way Definitive Map
	Co-ordination of road and street works (Traffic Management)
	Charging schemes and permits for highway occupation (Traffic Management)
	Other regulatory functions - encroachment, illegal signs, parking
Winter Service	Pre-treatment (before ice forms)
	Post-treatment (after snow/ice event)
	Clearance of Ice and Snow
Responses to weather and other emergencies	Flooding
	High Winds
	High Temperatures
	Other Emergencies

2.1. Additional Information on Highway Maintenance Spending – works outputs

The annual capital works programmes funded through the investment detailed in Table 3. above, is summarised in Table 5. Below:

Table 5. Capital Programme Summary Information 2020/21 to 2025/26

		Number of Schemes Programmed					
Asset Group/Activity	**Work Type**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26**
Drainage	Total for Design, Investigation and Minor Works, Construction Works	70	52	62	62	66	48
Footway/Cycleway	Total Length of Treatments	113.4	102.0	94.9	84.5	43.3	64.8
Footway/Cycleway	Total Square Meters of Patching	16,367	17,790	7,361	19,533	11,360	11,560
Highway Lighting	Illuminated Sign Replacement	0	0	40	289	281	405
Highway Lighting	Total of replaced Lighting Columns and Lanterns and other assets	1133	995	153	1481	1404	1389
Roads	All Classes of Roads all Treatments	253.2	248.9	173.2	156.0	235.0	209.6
Roads	All Classes of Roads, square meters of patching	2,915.0	8,674.5	59,929.4	52,679.9	38,363.2	79,090.0
Structures, Bridges, Subways, Culverts etc.	Total for Design, Feasibility and Options Studies and Refurbishment Works	101	94	86	96	88	81
Intelligent Transport Systems (TS)	Total for Asset Refurbishments and Upgrades, conversions to Extra Low Voltage, replacement of Signalised Crossings, installation of Vehicle Activated Signs, renewal of CCTV	47	48	47	60	67	70
Vehicle Restraints (safety barriers)	Total for Design and Construction Works	22	19	21	15	19	6

Note 1: Schemes programmed, excludes final position in terms of scheme completion.

Note 2: Work types exclude some minor maintenance. In the case of Structures, excludes principal inspections, emergency works, structural reviews, reviews of sub-standard structures.

Note 3: Scheme quantity does not indicate extent or cost of scheme; some schemes are more complex or larger than others.

Note 4: Some activities and minor works are undertaken by maintenance teams in our Service Management Offices.

Note 5: In the case of Highways Lighting, some illuminated sign replacement included with other highway lighting asset replacement.

Note 6: Works for structures typically include:
Bridge Reconstruction
Cathodic Protection
Concrete Repairs
Footbridge Replacement
Measures to Prop re Arch and Beam support

Repair or replacement of vehicle restraints
Replacement or repair of
Bearings/Waterproofing/Joints
Repointing mortar joints
Scour protection works
Strengthening and Refurbishment Works
Strengthening or repairs to Parapets

Around 8% of the reactive maintenance funding is spent on filling road potholes. The number of potholes that have been filled annually since 2020/21 is shown in Table 6 below:

Table 6. Number of potholes filled annually since 2020/21

(source: Confirm asset management system in which pothole defects are recorded with date identified and date works completed)

Number of potholes filled				
2020/21	2021/22	2022/23	2023/24	2024/25
9293	6888	8221	13221	18636

2.2. Additional Information on Highway Maintenance Spending

2.2.1. Achieving the balance between Preventative Maintenance v Reactive Maintenance

Preventative maintenance includes extensive road resurfacing treatments to address a variety of condition decline characteristics. These treatments can vary between low-cost, such as Surface Dressing or Micro Surfacing, and higher cost strengthening treatments such as Machine Surfacing or Road Reconstruction. Low-cost treatments address minor road deterioration and seal the road surface to avoid damage from the penetration of water. This prevents the road deteriorating to the point where there is a need for higher cost strengthening treatments.

A strategy that is based around preferred use of low-cost treatments, supports best practice and provides the best value outcome. This is because it arrests initial stages of condition decline, whereas a ‘worst first’ approach fails to arrest initial stages of condition decline, with the eventual outcome that roads deteriorate to the point where more extensive strengthening treatments are required. The Essex treatment strategy includes a balance of low-cost road resurfacing treatments as well as higher cost, strengthening treatments.

Reactive maintenance refers to un-planned, localised repairs to keep assets safe. Around 8% of the reactive maintenance funding is spent on filling road potholes,

where ‘right first time’ to avoid repeat visits is the preferred approach, although sometimes a temporary repair is needed for urgent safety reasons.

To determine the balance between preventative and reactive maintenance a review of road condition data is undertaken each year, using this to model predicted impacts of various investment scenarios over a period of time (impacts include anticipated condition of roads, assumed numbers of customer requests and insurance claims). This information is used to support requests made for funding, giving visibility of the outcomes of these scenarios. This level of detail has enabled the Highways service to maintain and, in some years, increase available funding, particularly for preventative maintenance.

Essex Highways promotes the requirement for Preventative maintenance, to reduce the need for reactive maintenance funding, and this ‘modelling’ helps inform decisions on funding.

3. Condition of Roads

3.1. Road Condition Measurement and Monitoring

ECC recognises how important the condition of its road network is to its residents and wider customers. The road network is also one of the highest valued assets owned by the Council; it’s gross replacement cost value (GRC) in 2023/24 was calculated at £10 billion (including the A130 Private Finance Initiative but excluding land value).

The condition of roads is measured and monitored annually, not just through regular, routine highway safety inspections which identify localised defects but through industry standard “SCANNER” surveys which focus on the more structural aspects of road condition. The outcome of road condition surveys, together with reports from customers and Councillors regarding road condition concerns, informs the identification of sites requiring resurfacing treatments to enhance asset life as well as giving an indication of the treatment to rectify any issues.

Best practice within the industry shows that to achieve best value for money, it is better to focus more on the application of lower cost treatments to seal the road surface, therefore preventing further deterioration. Other than the traffic loading and traffic volume demands that create road network wear, there are two other factors which create road condition decline on bituminous roads: oxidisation, which causes bituminous roads to become brittle and crack; and subsequent water penetration, which causes delamination of road surface layers, creating potholes, which is especially prevalent during winter months through ‘freeze/thaw’ action. These factors are exacerbated through the effects of extreme weather, including the effects of high summer heat which can cause road aggregate to sink within bituminous binder, creating loss of skid resistance of the surface texture called ‘fatting up’.

The life of a road from new construction before it requires strengthening treatment will depend upon the nature of the construction and the type and volume of traffic

which use it. Our most strategic, high trafficked, modern routes may endure for around 15-20 years before substantive works are required, whereas Unclassified roads, such as those found on housing estates, would be expected to endure significantly longer. Many Unclassified roads, however, particularly rural roads, are not of modern construction, have evolved over time and have very little specifically engineered structure to them, and are not as resilient as modern roads and may therefore require strengthening treatments much sooner.

In recent years, Essex has also been exploring new, emerging technologies such as Artificial Intelligence (AI), which can identify defects on the road network through automated software interpretation of video or 'single frame' data capture of the road surface.

Road condition assessments on the local classified road network in England are currently made predominantly using Surface Condition Assessment for the National Network of Roads (SCANNER) laser-based technology.

A number of parameters measured in these surveys are used to produce a road condition indicator which is categorised into three condition categories:

- Green – No further investigation or treatment required
- Amber – Maintenance may be required soon
- Red – Should be considered for maintenance

SCANNER surveys provide road condition information on the ECC road network to help identify where maintenance works are needed as well as to provide an indication of the types of treatment required. This survey records structural issues such as cracking, rutting and profile of the road surface to provide condition scores indicating the severity of any issue along with assisting in identifying the possible treatment to rectify the issue. The output of this survey is then used to model the predicted condition of the road network as described in section 2.2.

From 2026/27 a new methodology will be used based on the BSI PAS2161 standard. Local Highway Authorities will be required to use a supplier that has been accredited against PAS2161. This new standard will categorise roads into five categories instead of three to help government gain a more detailed understanding of road condition in England.

Further details are available at https://www.gov.uk/government/statistical-data-sets/road-condition-statistics-data-tables-rdc#condition-of-local-authority-managed-roads-rdc01

The SCANNER Road condition outturns by DfT road class, for the condition categories referenced above, for the last five years are shown in the tables below. The data shows that road condition has remained relatively consistent. This is due to detailed data analysis and road condition prediction modelling, which help align investment decisions with required outcomes.

Table 7: Percentage of A Class Road Network in Red, Amber, and Green SCANNER condition categories.

Essex County Council Financial Year	Percentage of A roads in each condition category		
	Red (Should be considered for maintenance)	Amber (maintenance may be required soon)	Green (no further investigation or treatment required)
2020/21	3%	26%	71%
2021/22	3%	26%	71%
2022/23	3%	24%	73%
2023/24	3%	25%	72%
2024/25	3%	28%	69%

Our current annual SCANNER survey coverage for DfT A Class roads is 50% of overall length in both directions (100% over 2 years), in accordance with reporting requirements to the DfT.

Table 8: Percentage of B and C Class Road Network (combined) in Red, Amber, and Green SCANNER condition categories.

Essex County Council Financial Year	Percentage of B and C roads (combined) in each condition category		
	Red (Should be considered for maintenance)	Amber (maintenance may be required soon)	Green (no further investigation or treatment required)
2020/21	3%	25%	72%
2021/22	2%	23%	75%
2022/23	3%	24%	73%
2023/24	3%	24%	73%
2024/25	3%	25%	72%

Our current annual SCANNER survey coverage for DfT B Class roads is 50% of overall length both directions (100% over 2 years). For DfT C Class roads it is 50% of overall length in one direction, 100% of one direction over 2 years (Years 3 & 4, the reverse). Coverage of 100% in both directions is achieved over four years. This conforms with reporting requirements to the DfT.

Table 9: Percentage of Unclassified Road Network in Red, Amber, and Green SCANNER condition categories.

Essex County Council Financial Year	Percentage of U roads in each condition category		
	Red (Should be considered for maintenance)	Amber (maintenance may be required soon)	Green (no further investigation or treatment required)
2020/21	11%	22%	67%
2021/22	11%	23%	66%
2022/23	10%	22%	68%
2023/24	11%	23%	66%
2024/25	10%	22%	68%

Our current annual SCANNER survey coverage for DfT class 'U' road network (Unclassified Road network) is 25% of the overall network length in one direction, i.e. 100% in one direction over four years.

4. Plans

4.1. Overall strategy

(Note that Specific Plans for 2025/26 are detailed at the end of this section)

Maintenance treatment strategies are based on a value for money whole-life maintenance cost approach, while also fulfilling legal obligations to prioritise a safe environment for everyone travelling on or working on our network.

Our technical working group seeks to undertake continuous improvement through the identification and implementation of modern technologies, systems, processes, and materials. The Council strives to sustain a customer-focused, resilient network, where condition of highway assets mitigates the impacts of extreme weather and road user demand, while continuing to deliver value for money services.

Our asset management and maintenance strategy position ECC well to meet the future benefits of devolution and local government reorganisation, as well as the challenges of economic growth, population growth, traffic growth, and the impact all these will have on highway network demand.

4.2. Following Best Practice and Delivering Innovation and Efficiency

Essex Highways keeps up to date with 'best practice' by monitoring changes and innovations within the industry and through attendance and discussions at asset management forums, national conferences and user groups. It achieves this through subscriptions to industry publications, attendance at best practice webinars, and reviewing reports from government departments such as DfT.

Essex Highways also undertakes bench marking (data and service comparison) with other Local Authorities. For example, ECC has been collaborating with the Customer Quality Cost (CQC) Efficiency Network and the CQC organisers 'Measure 2 Improve' to submit annual benchmarking data since 2015 for an assessment of the efficiency of its operations as well as comparison of its efficiency with those of other Local Authorities.

The Highways Strategic Transformation contract incentivises the Provider (Ringway Jacobs), to work efficiently to reduce costs and to provide 'guaranteed' efficiencies through scaling targets, and to report other cashable and non-cashable efficiencies and savings.

For more information on Essex Highways' innovations, please refer to The Essex Highways Asset Management Strategic Approach to 'Reallocated HS2 Funding', available from the following link:

https://www.essexhighways.org/made-possible-by-reallocated-hs2-funding

Some of the innovations implemented by Essex Highways are:

- Use of AI for developing repair programmes for defective road lining and markings.
- Improved road condition data processing to identify prospective maintenance sites through advanced filtering, through development of the Expert Assets System (XA), provided by XAIS-PTS Ltd.
- Trial use of Gipave, an extremely tough new road resurfacing material containing graphene, which has the potential to enhance life far beyond capabilities of standard treatments and therefore reduce long term carbon emissions by reducing the number of required maintenance treatments.
- Trial use of 'fine milling' to improve the surface of concrete roads, as an alternative low-cost treatment to overlaying with bitumen.
- Implementation of efficient and low carbon emissions process for localised repairs, called 'Road Mender'.
- Use of 'Nu-Flex' an environmentally friendly footway resurfacing material made from recycled tyres.

- Use of drones for carrying out safety inspections on bridges, to facilitate ease of inspection of surfaces that are difficult to access or involve significant user risk to access.
- The creation of environmentally friendly, vegetated retaining walls.

4.3 Minimising Disruption Caused by Street Works, through efficient coordination and planning.

All parties undertaking works on the highway, co-ordinate short-term and long-term programmes of work for up to four years in advance, based on information sharing and good asset management practice. This prevents statutory undertakers from digging up the road for a maximum period of 3 years following full reconstruction of a road and 2 years following resurfacing of a road, unless the work is an emergency or is needed to provide a new customer service.

This collaborative approach to highways works is undertaken through meetings of the Highway Authorities and Utilities Committee (HAUC).

The HAUC meetings provide a regular forum for liaison between local authorities, utility companies and government, with the aim of working safely and in a co-ordinated manner to reduce the impact of road works on the travelling public. Short- and Long-Term planned utility works are held on record at Essex Highways Streetworks, for purpose of co-ordinating these activities with our own highway works. All planned utility works, with a minimum notice period of three months for works with a duration of more than ten working days, are held in our electronic asset management system called ‘Street Manager’ which is a Department for Transport (DfT) system used to coordinate permits.

Essex Highways liaises with neighbouring local authorities and London Boroughs, as well as National Highways (for Motorways and Major A Roads) and Transport for London (TFL), for cross boundary works or for those occasions where road closures and diversion routes have impact beyond Essex.

Essex Highways can also issue a Section 58 restriction under the New Roads and Street Works Act 1991 that prevents utility companies digging up the road for a pre-determined period once substantial roadworks, carried out by the highway authority, have been completed.

Essex operates a Permit scheme to provide better co-ordination of all works, and closer monitoring can be used to drive behavioural change and to ensure that disruption to local communities and road users is reduced. Permit schemes affect everyone who uses the highway network in that area, but they particularly affect those who are responsible for installing and maintaining highways' and utilities' infrastructure, and their contractors.

Permit schemes require applications from utility companies and other organisations to include a sufficiently detailed description of the proposed activities to allow the authority to assess the likely impact. Applicants are generally required to detail the

times of day or night the activity is to be carried out, including the traffic management proposals as well as any requirement for action by the Authority.

Permitting aims to control and monitor highway occupancy. To support this process, Essex Highways FPN's (fixed penalty notices) are issued for late start and stops, late registrations, breaching conditions of the permit or if they work without a permit. Charges can also be issued under Section 74 of 'New Roads and Street Works Act' (NRSWA) for prolonged overstay of the highway.

4.4 Environmental Resilience and Adaptation

Addressing the requirement for carbon emissions reduction in highway activities remains a priority issue for Essex Highways. An 'ECC Essex Highways Decarbonisation is published on the Essex Highways website.

Additionally, Ringway Jacobs have achieved PAS2080 compliance and measures such as carbon training, steering groups, implementation of a carbon calculation tool as part of work processes have been implemented across the contract to support this compliance.

Nature is viewed as key ally for carbon emissions sequestration, and accordingly addressing other environmental sustainability issues, such as the requirement for improvements to biodiversity, water management, assisting with green infrastructure growth targets and supporting Local Nature Recovery, also remain a priority. An 'ECC Essex Highways Strategy for Managing Green Estate' is published on the Essex Highways website along with an 'ECC Essex Highways Climate Adaptation Strategy'.

These strategies support asset management planning to promote the objectives in the Climate Adaptation Strategy, with a view to making the highway network more resilient.

4.5 Planning and Coordinating Works, Wellbeing of Operatives, Keeping Road Users Informed

Roadworks sometimes cause concern among local road users, and on occasions can lead to driver frustrations that result in unsociable behaviour directed at those carrying out essential maintenance works on the highway. Essex Highways takes steps to look after the wellbeing of those working on our networks, as well as planning and coordinating the works that are taking place and keeping road users informed.

4.5.1 Keeping Road Users Informed and How we Plan and Coordinate Works

Essex Highways keeps road users and residents informed about works being carried out on the highway network through various media channels, tailoring messages to ensure the reach and impact of the information is maximised. For instance, Essex

Highways publishes information across channels such as in a press release, social media content and blog post. This approach captures the attention of audiences consuming the information either via a newspaper, on social media or while visiting the Service Information Centre on the Essex Highways website.

Refer also '4.3 Minimising Disruption Caused by Street Works, through efficient coordination and planning', above.

4.5.2. Wellbeing of Operatives

Essex Highways has several systems that are used to support the works designers, supervisors and operatives in identifying higher risk areas on the network and reducing their risks.

- We use our health safety and environmental reporting system to gather past safety concerns, incidents and near misses across our network. One of the categories recorded are abusive and threatening behaviours. This information is used to plot every incident, especially past abusive or threatening behaviours, on a mapping system, allowing our teams to easily see higher risk 'hot spots' for a given area, thus we can take action to reduce the risk before incidents occur.
- Preconstruction construction information (PCI) is information collected regarding the site location and surrounding area. One of the many areas that is detailed is UK crime statistics gathered from the national crime database along with vehicle density and pedestrian volumes. This gives the designer/supervisor extra information on possible risks allowing preventative action to be taken, such as increasing staff numbers, deploying equipment such as closed-circuit television (CCTV), or working with other groups such as road safety to further reduce risks.
- We undertake training with our operational workforce and front facing staff in conflict resolution techniques. This is to upskill all staff that are at risk of abusive and threatening behaviour or worse. This training covers signs to watch out for and how to reduce threats and defuse difficult situations. For example, body language and body position all reducing risk levels. The training also includes some basic defensive techniques.
- We also employ CCTV body cameras, and we support the Essex police 'extra eye' campaign.
- Increased supervisor levels will also be used on higher risk areas.

5. Additional Information

5.1. The Essex Highways Service Information Centre

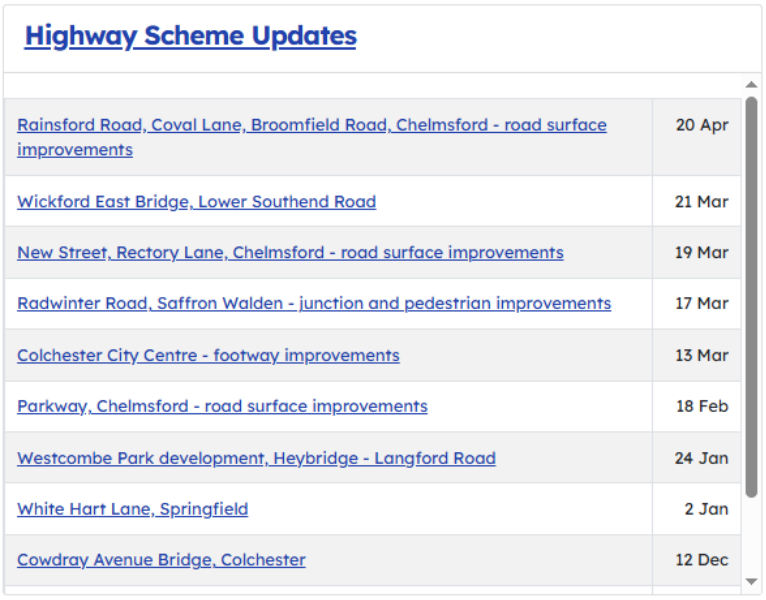
The Essex Highways Service Information Centre on the Essex Highways website (refer to screen image below), provides a wealth of additional information: https://www.essexhighways.org/

The Essex Highways Service Information Centre facilitates:

- Tell us online. *We carry out regular inspections of roads and pavements on our network, but we know that issues may come up between these inspections. These could be potholes or other road surface issues, damaged street lights, overgrown trees or missing lit bollards. You can tell us about maintenance issues online by using our highways reporting tool.*
- Track It. *If you've told us about something you can check for updates on Track it - or if you want to see if we already know about something, then you can use Track it to check.*
- Latest News. *News releases and highways newsletters.*
- Apply. *Here you will find the information you need to apply for a Blue Badge, vehicle crossing/dropped kerb or a street party. If you are a contractor, you will find information on applying for a licence for skips, scaffolding and more.*
- Safer, Greener, Healthier. *We want to give Essex residents a choice in how they travel. Whether it's walking, cycling or using public transport, we could all travel more sustainably, especially for shorter journeys which will free up the roads for those that really have to use them. If we travel more sustainably, our streets will become less busy and congested, leading to improved air quality. It will help us become healthier both physically and mentally.*
- Highway Maintenance. *In this section you can find information about road maintenance, street lighting, winter travel, bridges as well as who is responsible for your road. You can also access our strategies that explain our approach to maintenance, including safety inspections and their frequency together with the types of items investigated and a description of how their risk is evaluated and prioritised for repair.*
- Making Changes. *In this section you can find out about the changes and improvements to the Essex Highways network and how we manage change. Find information on highways schemes and developments taking place across the County. It includes a list of local panels responsible for making recommendations and setting priorities for highways schemes.*

- Getting around Essex. *Essex has a great wealth of transport links and public transport options. We have a vast network of Public Rights of Way ready to explore this great county. Depending on the length of your journey, walking or cycling could be a great alternative to travelling by car.*
- Interactive Maps. *In this section you will view our works programmes and highways asset information, check current road works or future road works information and view traffic cameras and car park capacities.*

The webpage includes updates for significant schemes being undertake across the county:



Highway Scheme Updates

Rainsford Road, Coval Lane, Broomfield Road, Chelmsford - road surface improvements	20 Apr
Wickford East Bridge, Lower Southend Road	21 Mar
New Street, Rectory Lane, Chelmsford - road surface improvements	19 Mar
Radwinter Road, Saffron Walden - junction and pedestrian improvements	17 Mar
Colchester City Centre - footway improvements	13 Mar
Parkway, Chelmsford - road surface improvements	18 Feb
Westcombe Park development, Heybridge - Langford Road	24 Jan
White Hart Lane, Springfield	2 Jan
Cowdray Avenue Bridge, Colchester	12 Dec

5.2. Member Led Highway Initiative

In the 2024/25 financial year, more than 15,000 extra road and pavement repairs were undertaken in Essex through the Members' Highways Initiative (MHI).

The MHI gives every Essex County Councillor a dedicated Essex Highways crew. Councillors can prioritise local highways issues that matter most to residents.

In the 2024 to 2025 financial year 15,104 repairs were completed through the programme. This is on top of regular maintenance repairs.

The works have included:

- 8,000 carriageway defect repairs, such as potholes and surface damage
- 6,000 footway repairs, including kerbs and paving issues
- Replacing or repairing bollards, signs, pedestrian guard rails and surface covers.

The initiative runs alongside other works, including Essex Highways core maintenance schedule, and last year's extra £25 million Priority One resurfacing programme.

The MHI is continuing into the 2025/26 financial year. Local councillors and Essex Highways teams are already working together on new rounds of repairs. These will improve the safety of roads and pavements and keep Essex moving.

Councillor Tom Cunningham, Cabinet Member for Highways, Infrastructure, and Sustainable Transport at Essex County Council said: "We launched the Member's Highways Initiative to give power to the people who know their communities best – our County Councillors.

The results speak for themselves, with over 15,000 extra repairs this year alone, tackling the issues that residents see and care about the most.

“This work is helping us build a safer, greener and healthier Essex. I’m proud to confirm the initiative will continue into the new financial year. Our teams are already out across the county delivering real results for residents.”

5.3. Specific plans for 2025/26

The information in Table 12. below shows an indication of the capital works programmed specifically for 2025/26 and in which District they are to be undertaken, at the time this report was produced. Please note that the schemes lists may be subject to change, where unforeseen circumstances preclude implementation.

Works Programmed for 2025/26

Asset Category	Treatment	Road or Scheme Name	District
Drainage	Construction Works	Winstree Rd, Colchester Phase 2	Colchester
Drainage	Construction Works	Watchouse Road, Galleywood Chelmsford	Chelmsford
Drainage	Construction Works	Downham Road, Ramsden Heath	Chelmsford
Drainage	Construction Works	Harwich Road, Wix	Tendring
Drainage	Construction Works	Sages End Road, Helions Bumpstead	Braintree
Drainage	Construction Works	Tiptree Road, Gt Braxted	Maldon
Drainage	Construction Works	Church Road, Wickham Bishops	Maldon
Drainage	Construction Works	Duck Street, Wendens Ambo, Uttlesford	Uttlesford
Drainage	Construction Works	North End Road, Gestingthorpe	Braintree
Drainage	Construction Works	A13 Kiln Road, Benfleet	Basildon
Drainage	Construction Works	A131 Pennypot Corner, Greenstead Green	Braintree
Drainage	Construction Works	Walton Road, Thorpe Le Soken, CO16 ONH.	Tendring
Drainage	Construction Works	Galley Hill Road/Parklands, Waltham Abbey	Epping Forest
Drainage	Construction Works	Clare Road, Juxta La Clare	Braintree
Drainage	Construction Works	Fish Street Goldhanger	Maldon
Drainage	Construction Works	Sporhams Lane Danbury	Chelmsford
Drainage	Construction Works	Lark hill Road, Canewdon	Rochford
Drainage	Construction Works	Coval Lane, Chelmsford	Chelmsford
Drainage	Construction Works	The Street, Manuden	Uttlesford
Drainage	Construction Works	Mill Green Road/Mill Lane	Brentwood
Drainage	Construction Works	Pitsea Hall Lane, Pitsea	Basildon
Drainage	Construction Works	Straight Road, Boxted	Colchester
Drainage	Construction Works	Upper Mayne Underpass	Basildon
Drainage	Construction Works	A134 Nayland Road, Gt Horkesley/Colchester	Colchester
Drainage	Construction Works	Edinburgh Way Under Pass	Harlow

Continued below

Asset Category	Treatment	Length of Schemes km or Square Meters of Patching	District
Footway/Cycleway	All Footway Treatments km	2.57	Basildon
Footway/Cycleway	All Footway Treatments km	3.88	Braintree
Footway/Cycleway	All Footway Treatments km	8.87	Brentwood
Footway/Cycleway	All Footway Treatments km	9.78	Castle Point
Footway/Cycleway	All Footway Treatments km	6.00	Chelmsford
Footway/Cycleway	All Footway Treatments km	3.02	Colchester
Footway/Cycleway	All Footway Treatments km	9.81	Harlow
Footway/Cycleway	All Footway Treatments km	4.42	Maldon
Footway/Cycleway	All Footway Treatments km	9.29	Rochford
Footway/Cycleway	All Footway Treatments km	2.97	Tendring
Footway/Cycleway	All Footway Treatments km	3.34	Uttlesford
Footway/Cycleway	All Cycleway Treatments km	0.63	Basildon
Footway/Cycleway	All Cycleway Treatments km	0.26	Chelmsford
Footway/Cycleway	Footway/Cycleway patching square meters	4,135	Basildon
Footway/Cycleway	Footway/Cycleway patching square meters	5,021	Braintree
Footway/Cycleway	Footway/Cycleway patching square meters	11,487	Brentwood
Footway/Cycleway	Footway/Cycleway patching square meters	12,672	Castle Point
Footway/Cycleway	Footway/Cycleway patching square meters	8,112	Chelmsford
Footway/Cycleway	Footway/Cycleway patching square meters	3,914	Colchester
Footway/Cycleway	Footway/Cycleway patching square meters	12,706	Harlow
Footway/Cycleway	Footway/Cycleway patching square meters	5,725	Maldon
Footway/Cycleway	Footway/Cycleway patching square meters	12,034	Rochford
Footway/Cycleway	Footway/Cycleway patching square meters	3,842	Tendring
Footway/Cycleway	Footway/Cycleway patching square meters	4,322	Uttlesford

Continued below

Asset Category	Treatment	Number of Assets Being Replaced	District
Highway Lighting	Lighting Column Replacement	152	Basildon
Highway Lighting	Lighting Column Replacement	56	Braintree
Highway Lighting	Lighting Column Replacement	61	Brentwood
Highway Lighting	Lighting Column Replacement	36	Castle Point
Highway Lighting	Lighting Column Replacement	124	Chelmsford
Highway Lighting	Lighting Column Replacement	112	Colchester
Highway Lighting	Lighting Column Replacement	121	Epping Forest
Highway Lighting	Lighting Column Replacement	54	Harlow
Highway Lighting	Lighting Column Replacement	41	Maldon
Highway Lighting	Lighting Column Replacement	130	Rochford
Highway Lighting	Lighting Column Replacement	84	Tendring
Highway Lighting	Lighting Column Replacement	13	Uttlesford
Highway Lighting	Replace Damaged Sign	20	Basildon
Highway Lighting	Replace Damaged Sign	9	Braintree
Highway Lighting	Replace Damaged Sign	6	Brentwood
Highway Lighting	Replace Damaged Sign	8	Castle Point
Highway Lighting	Replace Damaged Sign	14	Chelmsford
Highway Lighting	Replace Damaged Sign	10	Colchester
Highway Lighting	Replace Damaged Sign	25	Epping Forest
Highway Lighting	Replace Damaged Sign	4	Harlow
Highway Lighting	Replace Damaged Sign	4	Maldon
Highway Lighting	Replace Damaged Sign	5	Rochford
Highway Lighting	Replace Damaged Sign	21	Tendring
Highway Lighting	Replace Damaged Sign	1	Uttlesford
Highway Lighting	Replace Deteriorated Signpost	45	Basildon
Highway Lighting	Replace Deteriorated Signpost	26	Braintree
Highway Lighting	Replace Deteriorated Signpost	13	Brentwood
Highway Lighting	Replace Deteriorated Signpost	32	Castle Point
Highway Lighting	Replace Deteriorated Signpost	30	Chelmsford
Highway Lighting	Replace Deteriorated Signpost	28	Colchester
Highway Lighting	Replace Deteriorated Signpost	9	Epping Forest
Highway Lighting	Replace Deteriorated Signpost	9	Harlow
Highway Lighting	Replace Deteriorated Signpost	11	Maldon
Highway Lighting	Replace Deteriorated Signpost	13	Rochford
Highway Lighting	Replace Deteriorated Signpost	47	Tendring
Highway Lighting	Replace Deteriorated Signpost	12	Uttlesford

Continued below

Asset Category	Treatment	Length of Schemes km or Square Meters of Patching	District
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	1.1	A127
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	9.7	Basildon
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	22.5	Braintree
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	11.4	Brentwood
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	6.4	Castle Point
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	21.5	Chelmsford
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	34.9	Colchester
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	23.4	Epping Forest
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	5.2	Harlow
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	28.4	Maldon
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	5.6	Rochford
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	4.7	Tendring
Road Resurfacing All Treatments km	All Road Resurfacing Treatments km	34.8	Uttlesford
Road Patching Square Meters	Road Patching Square Meters	1,184	A127
Road Patching Square Meters	Road Patching Square Meters	18,522	Basildon
Road Patching Square Meters	Road Patching Square Meters	4,741	Braintree
Road Patching Square Meters	Road Patching Square Meters	5,919	Brentwood
Road Patching Square Meters	Road Patching Square Meters	125	Castle Point
Road Patching Square Meters	Road Patching Square Meters	11,206	Chelmsford
Road Patching Square Meters	Road Patching Square Meters	3,770	Colchester
Road Patching Square Meters	Road Patching Square Meters	10,924	Epping Forest
Road Patching Square Meters	Road Patching Square Meters	3,866	Harlow
Road Patching Square Meters	Road Patching Square Meters	8,676	Maldon
Road Patching Square Meters	Road Patching Square Meters	2,143	Rochford
Road Patching Square Meters	Road Patching Square Meters	5,107	Tendring
Road Patching Square Meters	Road Patching Square Meters	2,907	Uttlesford

Asset Category	Treatment	Road Name and Bridge Name	District
Structures, Bridges, Subways, Culverts etc.	Preventative maintenance	A132 East Mayne . Bridge Name: Archer Field	Basildon
Structures, Bridges, Subways, Culverts etc.	Reconstruction	A1017, Braintree Road . Bridge Name: Stone	Braintree
Structures, Bridges, Subways, Culverts etc.	Reconstruction	FP 7 27 . Bridge Name: Great Canfield F/B	Uttlesford
Structures, Bridges, Subways, Culverts etc.	Redecking	Stonehill Road . Bridge Name: Roxwell	Chelmsford
Structures, Bridges, Subways, Culverts etc.	Repairs	Queen Street . Bridge Name: Station Road	Braintree
Structures, Bridges, Subways, Culverts etc.	Repairs	A127 . Bridge Name: Little Warley	Brentwood
Structures, Bridges, Subways, Culverts etc.	Repairs	Little Braxted Lane . Bridge Name: Little Braxted	Braintree
Structures, Bridges, Subways, Culverts etc.	Strengthening	High Street . Bridge Name: Traps Culvert	Epping Forrest
Structures, Bridges, Subways, Culverts etc.	Strengthening	Tilbury Road . Bridge Name: Spencer Grange	Braintree
Structures, Bridges, Subways, Culverts etc.	Strengthening	B1053, Bardfield Road . Bridge Name: Finchingfield	Braintree
Structures, Bridges, Subways, Culverts etc.	Strengthening	A1017, Church Road . Bridge Name: Chain	Braintree
Structures, Bridges, Subways, Culverts etc.	Strengthening	off The Broadway . Bridge Name: Wickford East	Basildon
Structures, Bridges, Subways, Culverts etc.	Strengthening	Debden Road . Bridge Name: Hercules	Uttlesford

Continued below

Asset Category	Treatment	Number of schemes	District
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	4	Basildon
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	1	Braintree
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	1	Brentwood
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	2	Castle Point
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	1	Chelmsford
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	2	Epping Forest
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	1	Harlow
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	3	Rochford
Intelligent Transport Systems (TS)	Installation works, asset replacement or crossing conversion	1	Uttlesford
Intelligent Transport Systems (TS)	Loop Replacements	1	Colchester
Intelligent Transport Systems (TS)	Loop Replacements	2	Harlow
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	8	Basildon
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	1	Brentwood
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	2	Castle Point
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	6	Chelmsford
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	4	Colchester
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	11	Epping Forest
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	4	Harlow
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	1	Rochford
Intelligent Transport Systems (TS)	Extra Low Voltage-LED Upgrade	3	Tendring

Asset Category	Treatment	Road Name and Scheme Location	District
Vehicle Restraints (safety barriers)	Replacement of VRS	A127 Rayleigh, MP1216 to MP1234 - east of Rayleigh Weir to Southend Boundary	Rochford
Vehicle Restraints (safety barriers)	Replacement of VRS	A127 Warley, MP 984 to MP991 - Havering Boundary to approx 120m past Codham Hall Lane Accomodation Bridge	Brentwood
Vehicle Restraints (safety barriers)	Replacement of VRS	A1114 Essex Yeomanry Way - Approx 500m east of Army and Navy Roundabout to approx 100m north of jw A12 Howe Green Interchange	Chelmsford

Note: schemes may be subject to change where unforeseen circumstances preclude implementation