Essex Highways

Risk Based Principal Inspections

January 2024

RINGWAY JACOBS | Essex County Council

Document Control Sheet

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1Background

1.1 Risk Based Principal Inspection Planning

1.1.1 Up to 2018 the Code of Practice required a routine Principal inspection to be carried out every 6 years.

1.1.2 Well-managed Highway Infrastructure, the current Code of Practice (CoP), acknowledges that adopting a risk based approach to managing assets will enable highway authorities to prioritise allocation of resources and budget to the most high-risk assets.

1.1.3 In accordance with CS450 – Inspection of Highways Structures, this approach is applicable for Principal Inspections (PI). This allows Bridge Owners the flexibility to modify the frequency of PI's from six, to eight, ten, twelve and even four-year intervals.

2 Introduction to Risk based Principal Inspections

2.1 Principal Inspection

2.1.1 The purpose of a PI is to provide information on the physical condition of all accessible parts of a highway structure. A PI is comprehensive and provides more detailed information than a General Inspection (GI). A PI comprises a close examination, within touching distance of all accessible parts of a structure. A PI should utilise necessary suitable inspection techniques such as access and/or traffic management works, use of drones, closed circuit television. A PI may include suitable inspection techniques including hammer tapping to detect loose concrete and measurement of section sizes.

2.1.2 Up to 2018 the Code of practice required PIs to be routine and carried out every six years, but this was not fulfilled due to budgetary constraints and subsequently PI inspections were limited to critical assets. The requirement for this has now changed.

2.1.3 In accordance with CS 450 Inspection of Highway Structures, PIs are now required to be undertaken every six years unless an altered inspection interval has been agreed by the Highway Authority providing the proposal is supported by a risk assessment. Where a risk assessment has not been approved to increase the PI interval beyond six years, intervals shall remain at six years. PI intervals determined through risk assessment shall not exceed twelve years and can be below six years where there is a need.

2.2 Asset Information

2.2.1 Within Essex County Council there are 2501 registered structures assets. Of those assets, 1694 are owned and maintained by ECC of which 1611 come under the responsibility of Essex Highways. Ownership information of other assets is shown in Table 1 below.

Owners	Number of Assets
County Route	23
District or Parish Councils	23
ECC (Essex Highways)	1611
National Highways	374
Historic Railways Estate (HRE)	25
London Underground	11
Network Rail	172
Other (eg EA, Essex Waterways)	22
Private	162
Private (To Be Adopted)	32
ECC Other (Essex Property)	28
Hertfordshire or Suffolk Councils	18
Grand Total	**2501**

Table 1 : Structures Owners in Essex

2.2.2.Within the group of structures that are maintained by EH there are also assets that historically are included in the structures data base but do not meet the criteria to be a considered a structure in accordance with current and historic standards such as bridges of less than 0.9m span (These are recorded in the database as “non BCI/”), as well as assets that cannot be inspected such as buried sheet pile retaining walls and protection slabs.

2.3 Which Assets qualify for Principal Inspection

2.3.1 All assets maintained by Essex Highways as well as some private structures that are deemed to be owned and maintained by “non competent” owners have a general inspection every two years.

2.3.2 CS450 standard defines which assets qualify for PI and can be found in Table 2. Consequently, the number of assets that require a PI is less than those in the GI programme.

2.3.3 Structures that do not qualify for a PI are based on the information held in BridgeStation; it is known that not all this information is entirely accurate or complete and therefore it is being continuously updated.

2.3.4 Based on the PI definition this will automatically exclude all "non-BCI" and non-accessible assets unless they have been identified in exemptions sections below.

2.3.5 The structures list is live and is managed via BridgeStation. The current list of structures is Appendix 2. The list is updated throughout the year as an asset is built, reconstructed, or decommissioned, regardless of ownership.

2.4 Introducing a risk-based approach into programming the PI

2.4.1 Well Managed Highways Infrastructure: A Code of Practice 2016 allows all highway management activities to be delivered on a risk-based approach. The proposal allows authorities to develop their own service levels and provides guidance to consider when developing their approach in accordance with local needs, priorities and affordability.

2.4.2 It is required that the authority must fully document their practices and provide evidence and analysis to support them.

2.4.3 The following are recommended to be implemented as part of this Risk Based Inspection proposal:

a) Review assets requiring a PI, not exclusive to that recommended in the CS 450 Inspection of Highway Structures, but to local needs and risks.
b) Introduce a Risk-Based Interval Inspection programme

2.4.4. It must be noted that the proposal to move to risk based principal inspections of the whole bridge stock will require more work and cost. However, with the adoption of PI reporting in BridgeStation, by bringing the work in-house and by using drone technology, where suitable, EH are able to bring the cost of inspections down and that saving can be reinvested into further inspections, enabling more work to be completed for the current budgetary commitment. It is not yet known if the current level of budget will be sufficient to meet the level of inspection required by adoption of risk based inspecting, across the whole bridge stock.

2.4.5 It must be noted this proposal will not affect general inspections regime which will be carried at 24 months intervals as per the standard.

Table 2 (not recommended for ECC)

Structure type	**Definition**	**Extent of inspection** (All structure types include any adjacent or integral road restraint systems and any approach/departure transitions, connections and terminations.)	**PI**
Bridge, buried structure, subway underpass, culvert and any other similar	A structure with a clear span or internal diameter greater than 0.9 m supporting the highway as it crosses an obstacle (e.g. river, valley or flood plain) or a service (e.g. local road, railway or canal), or a structure with a clear span or internal diameter greater than 0.9 m supporting the passage of a service (e.g. local road, railway, canal) over the highway.	All structural elements and adjacent structural and non-structural elements relevant to the behaviour, stability and safety of the structure.	For spans between 0.9m and 1.8m, principal inspections are not required except for corrugated steel culverts
Earth retaining structure	A structure associated with the highway with an effective retained height of 1.5 m or greater, where the dominant function is to retain earth. (Retained height of earth retaining structures is the level of fill at the back of the structure above the finished ground level at the front of the structure.)	All structural elements and adjacent structural and non-structural elements relevant to the behaviour, stability and safety of the structure.	
Reinforced/ strengthened soil/fill structure with hard facings	A structure associated with the highway with an effective retained height of 1.5 m or greater where the dominant function is to stabilise the slope and/or retain earth.	All structural elements and adjacent structural and non-structural elements relevant to the behaviour, stability and safety of the structure.	

Structure type	**Definition**	**Extent of inspection**	**PI**
Sign gantry and signal gantry	Portal and cantilever gantries that support signs and/or signals.	Structural aspects of all sign/signal gantries.	
Mast	Cantilever mast for traffic signal	Structural aspects of all cantilever masts.	
	High mast for lighting	Structural aspects of all lighting masts of 20m or greater, i.e. the vertical distance from top of post to bottom of flange.	
	Masts for monitoring equipment. i.e., camera, radio, speed camera and telecommunication transmission equipment.	Structural aspects of all masts.	
	Catenary lighting support system	Structural aspects of all catenary support systems.	
	Highway signs on posts	Structural aspects of any signs defined as requiring technical approval in accordance with CG 300 [Ref17.N].	
Access gantry	A movable structure providing access to a highway asset, typically for bridge inspection and maintenance.	Structural aspects of all movable access gantries.	Inspection prior to use in accordance with the Institution of Structural Engineers publication 'The Operation and Maintenance of Bridge Access gantries and Runways' IStructE gantries & Runways

Structure type	**Definition**	**Extent of inspection**	**PI**
Road tunnel	A subsurface highway structure enclosed for a length of 150 m or more.	Structural aspects of all road tunnels.	
Other structures	Other structures that are within the footprint of the highway, e.g., service/utility crossings.	All structural elements and adjacent structural and non-structural elements relevant to the behaviour, stability and safety of the structure.	
	Any other structures not in above subgroup as agreed with Overseeing Organisation defined as requiring technical approval in accordance with CG 300 [Ref 17.N] or any agreed with the Overseeing Organisation.	All structural elements and adjacent structural and non-structural elements relevant to the behaviour, stability and safety of the structure.	None However w*here structures are close to the carriageway and/or pose a particular risk to users if failure were to occur then principal inspections can be appropriate.*
Third party structures	Any of the above categories but owned by others, e.g., private owners or utility companies.	As agreed with the Overseeing Organisation.	

2.5 Review of Assets requiring a PI

2.5.1 The number of EH assets requiring a PI in accordance with CS450 Table 2 is very high and would require a significant budget increase and additional resources to complete. The approach within the standard is not fully recommended in Essex but used as guidance.

2.5.2 The code however allows the HA to review the recommendations in the standard and risk assess them to suit its need to ensure the continuous safe use of its network. Therefore, a study was carried out to review the EH bridge stock to identify assets that need a PI in order to reduce the number inspections required to be undertaken without posing a risk to users. Subsequently the HA can include assets that it would consider a risk and require a detailed inspection to have PIs that the code does not allow for. More details in proposals below.

2.5.3 As mentioned above a PI comprises of a close examination, within touching distance of all accessible parts of a structure. For a number of assets under the maintenance of EH this is already achieved during the GI, thus it is proposed to not include these in the PI programme but to continue as per current inspection regime (GI every 2 years) based on the criteria in following section.

2.5.4 The following proposals are based on the information available on the database as transferred from the Confirm System. Accuracy of this information will be reviewed over the next two years as part of general inspection programme.

2.5.4.1 The code states that assets between 0.9m to 1.8m diameter or span do not require PI. However, EH have concerns of assets that have a width (parapet to parapet) greater than 12m as it would be difficult to identify issues during the GI. Therefore, it is recommended that anything over 12m width will have a PI irrespective of span and will be included in the 6-year CCTV inspection programme. This will add an additional 22 structures to the PI Programme.

2.5.4.2 Buried Confined Space assets of a span or diameter greater than 1.8m will have an inspection every 6 years unless frequency is increased to 4 years by risk assessment. Any further increase in inspection regime will be as result of a substandard asset review.

2.5.4.3 It is proposed at this stage for the following assets to be excluded from the PI programme based on the assumption that they can safely be carried out by one inspector and that the inspection will not vary from a GI.

2.5.4.3.1 Pedestrian Subways: Subways have an average height of 2.2m. Inspectors can get within a touching distance of elements and therefore at this stage all subways will be excluded from the PI programme with the exception of one asset which is a corrugated steel construction and the standard does not recommend a risk-based interval but a PI every 6 years. Each structure will be reviewed following the completion of the GI to ensure that all information is complete on the database and feedback from inspectors regarding inspectability. If the above assumptions are not achievable, then the individual structure will be added into the PI programme.

2.5.4.3.2 Bridges/culverts with a clear span of 5m or less and footbridges with a clear span less than 8m over watercourse. It assumed that inspections for these assets can safely be carried out by one inspector and that the PI can be carried out as part of the GI. The inspectors can access all visible elements within a touching distance **unless** they have previously been identified to require special platform for access, e.g., pontoon/boat irrespective of water levels or identified as a confined space or require CCTV surveys.

2.5.4.3.3 With regards to footbridges, it is assumed that anything less than 8m will not be over a road and/or of a simple construction and therefore highly likely that all elements will be able to be inspected during the GI.

2.5.4.3.4 Retaining Walls Due to limited as-built information available it was not possible at the time this report was being produced to confidently identify the number of retaining walls that will not require a PI. It was therefore agreed with the inspectors for the purposes of this report retaining walls over 4m will be included in the PI programme. The working part of a retaining wall is located at the rear of the wall and hidden from view by the backfill. Therefore, a retaining wall inspection is undertaken by observing defects that indicate failure; rotation of the wall, movement within the ground above or below which could indicate sliding, bulging, loose or missing brickwork and the like. Whilst the inspection of a retaining wall of up to 6m retained height could be undertaken with a high degree of confidence that rotation/sliding failure could be detected it is considered that defects within brickwork or cladding may well be difficult to observe and could be missed. Therefore, retaining walls with retained heights of up to 4m will be inspected under a General Inspection. In these cases, the entire front of the wall is visible and the majority is reachable by the inspector. Inspectors shall recommend a return visit with access equipment if deemed necessary.

2.5.4.3.5 The list will be revised over the next 2 years following a full cycle of GI inspections where data collection will be completed by inspectors and a review of access requirement, etc. will be carried out for each structure.

2.5.4.4 It should be emphasised that the number of assets requiring a PI may change every year due to possible changes to the structures as they are reconstructed, decommissioned and new assets are adopted as part of developments.

2.6 Introduce risk-based interval inspection programme

2.6.1 The standard CS 450 – Inspection of Highway Structures provides guidance on introducing risk based principal inspections.

2.6.2. The structures that fall in the categories below will have a 6-year inspection period unless risk assessment recommends an increase in frequency from 6 to 4 years.

1) special structures
2) complex structures, including retaining walls with a retained height greater than 7m.
3) structures adjacent to or over a waterway where there are known scour issues.
4) bridges with severe (marine environment) exposure.
5) structures which could affect an operational railway if a failure occurred
6) structures which have a current BCI condition very poor

2.6.3 Appendix 1 lists the assets that fall under the categories 1 to 5. Assets under category 6 are not included in Appendix 1 because the data is live and condition score will change as improvement works are completed to these assets.

2.6.4 Assets under category 6 are included in the risk analysis with an increased frequency. Currently the total number of assets in the PI programme which are in a very poor condition is 58 (as of June 2022)

2.6.5 The standard states that "inspection intervals determined through risk assessment shall not exceed twelve years and subject to the risk assessment and agreement by the Technical Approval Authority (TAA), principal inspections may be held at intervals of 6, 8, 10 or 12 years."

2.6.6 Inspection schedules should be updated to reflect any changes made to the frequency.

2.6.7 Where a structure has been subject to a risk assessment process resulting in an increased interval between principal inspections, a review of the factors determined during the risk assessment shall be carried out following each subsequent general inspection.

2.6.8 Consequently, the inspection schedule will need to be a live document and will need to be reviewed and updated on a yearly basis and shared with ECC.

2.7 Risk Rating procedure and rating

2.7.1 The code states that a risk score needs to be developed to determine risk rating and the inspection interval. The standard provides parameters and scoring procedures that the Overseeing Organisation (Essex Highways) can use to develop the risk assessment.

2.7.2 The codes states that the methodology in the code on which the analysis is based may be incorporated into other systems provided the following provisions are met:

1) the alternative system is certified by the provider for accuracy, such that the same results are achieved.

2) Asset Manager and Inspection Leader recommends relevant procedures have been followed and that the alternative system is suitable; and,

3) the alternative system is subject to overall agreement with the Technical Approval Authority

2.7.3 Essex Highways purchased BridgeStation, a bridge management system which includes a risk assessment for inspection intervals and is based on the risk assessment developed *by "LOBEG- Good Practice Guide- Risk-based Inspection of Highway Structures - Objective Risk-based Inspection Planning for the achievement of Effective Risk Management & Targeted Resourcing Version 1.0 December 2019.* The full document can be found below at https://www.lobeg.com/technical-advice

2.7.4 It is proposed to utilise the built-in risk assessment in BridgeStation as:

a) it meets requirements of the standard

b) information required to calculate risk and intervals is incorporated into the database and becomes "live" making it easy to produce an updated risk assessment with the latest scores/factor/ information.

c) If a bespoke risk assessment was developed, it will be very time consuming, and information would need to be exported from Bridgestation to calculate scores.

d) Holding this information in Bridgestation means we have one source of the truth.

e) It is utilised by many bridges' owners' not just members of LOBEG.

2.8 Risk Assessment parameter and scoring procedures.

2.8.1 Below are listed the parameters for calculating the risk score. Based on the calculated risk score a proposed interval is determined based on Table 3.

2.8.2 The risk assessment uses five categories to cover the parameters used to ascertain the risk score.

2.8.3 These categories are:

1) Structure type

2) Consequences of failure

3) Inspection/assessment

4) Condition

5) Environment

2.8.4 Within each category are the specific assessment criteria which vary depending on the structure type and situation.

Proposed Principal Inspection Interval, PPII (years)	Standard Interval (years)		RBI Interval, PII (years)		
	PI	GI	PI	GI	Regime Rationale
11 ≤ PPII	6	2	12	4	Very low-risk structures that permit the maximum proposed interval period, reflecting half the frequency of the standard regime. This typically reflects structures that are exposed to low consequences and are invery good condition that would not beexpected to deteriorate to any significant extent within the proposed interval period.
9 ≤ PPII < 11	6	2	10	4 then 3	Typically consist of structures in very good or good condition that may have elements or construction forms that carry higher inherent consequential risk(s). The initial 4-year interval for the GI reflects the period in which deterioration would be at its least within the 10 year PI schedule, followed by a reduced 3-year interval, to establish if deterioration has occurred or accelerated at an earlier stage.
7 ≤ PPII < 9	6	2	8	3	Reflects structures that are typically in good or fair condition that are not exposed to high inherent consequential risk(s), or very good to good condition structures with higher inherent risk(s).
5 ≤ PPII < 7	6	2	6	2	Framework risk assessment deems the standard regime is sufficient to manage the current status of the structure.

0 ≤ PPII < 5	6	2	4	2	Applicable to structures with critical risks, where the standard regime is deemed inadequate. Increased regime enables deterioration of elements to be more closely monitored and enhances the opportunities for defects to be identified at an optimum time. These defects may require further measures to then manage risk(s) at the discretion of the authority, such as further inspection, monitoring, assessment, etc. Any further interval reduction would require an asset to be considered for BD79 Interim Measures.

Table 3 Proposed Principal Inspection Intervals (PPII)

2.8.5 Below is an extract and part summary of: *LOBEG- Good Practice Guide- Risk-based Inspection of Highway Structures - Objective Risk-based Inspection Planning for the achievement of Effective Risk Management & Targeted Resourcing Version 1.0 December 2019.*

2.8.6 Figure one is a flow chart of process to determine the risk-based inspection intervals.

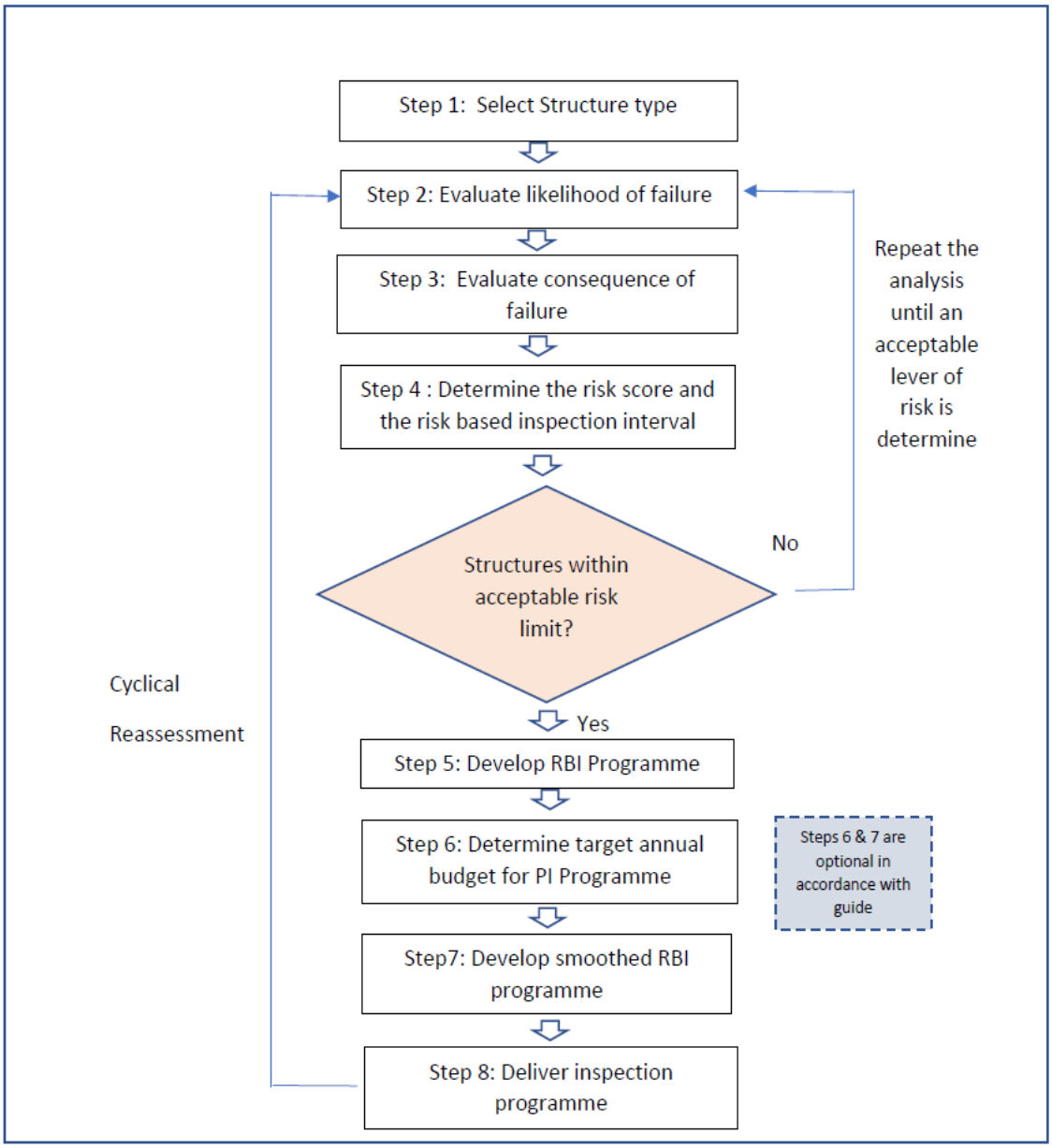

Figure 1: Flowchart for determining the Risk Based Inspection Intervals

2.8.7 Step 1 Structure type: parameters include structure type as per categories identified in Table 2, construction form and element dimensions.

2.8.8 Step 2 Evaluates the likelihood of failure: this takes into consideration the likelihood of rapid deterioration or failure as well as current condition of the structure and / or element of a structure, rate of deterioration, potential failure mode and inspectability. Example of parameters included in this calculation are latest BCI score, failure mode and construction form.

2.8.9 Step 3 Evaluates the consequence of failure: The consequence of failure is based on the magnitude of failure associated with the structure and the safety impact which considers the overall effects on the end user which include fatalities and injuries that would be caused, the functionality impact of a loss or reduction in service, the socio-economic impact to businesses and communities and environmental impacts, such as pollution caused through traffic delay, sensitivity of route, etc.

2.8.10 However, it must be highlighted that there is gap in the information needed to carry out a complete analysis, such as traffic delay or length of diversion route BridgeStation produces a gap analysis of the information. This gap analysis has been reviewed together with the proposed interval assessment. Some of the missing information was deemed not to be critical and results have been checked and interval recommendations are as expected. In addition, it must be highlighted that the standard does state that "*The risk assessment form has been developed to assist and inform engineering judgement".* In addition, for the purposes of the calculation, Bridgestation will assume worst case scenarios in analysis.

2.8.11 Accordingly, until all of the information is collected, and the database is updated the risk-based interval will be reviewed by the Asset Manager and lead officers of the Inspection team before it being presented to the TAA and ECC for acceptance.

2.8.12 Step 4 Determine the risk Score and the Risk Based Interval (RBI) The risk posed by a group of structures, an individual structure and / or an element of very high importance (as defined by the CSS inspection procedure) due to deterioration or damage is evaluated as a function of the likelihood and consequence of rapid deterioration, damage or failure.

2.8.13 It must be emphasised that the analysis will need to be run every year to take into consideration the latest condition score as well any other any other additional information that has been added to the software that may affect risk rating.

2.8.14 The programme then establishes the Proposed Principal Inspection Interval (PPII). Table 3 provides a programme plan of the regimes.

2.8.15 Step 5: Develop RBI Programme The inspection interval, derived from Step 4, is used in combination with the last known General and Principal inspection dates to produce an inspection programme. This requires adding the proposed inspection interval to the last inspection date to determine when the next PI and GI should be conducted.

2.8.16 As mentioned above there is no proposal to change the intervals of the GIs. These are to remain as per the code recommendation and be carried out every 2 years. BridgeStation has this option built in as part of its analysis.

2.8.17 However as there are a significant number of assets that require PI, the programme developed by the software cannot be delivered without unlimited budget and resources. Therefore, the Asset Manager together with the Inspection team have established a rolling 12 year programme based on the proposed intervals produced in the analysis. As more PIs are completed and missing data is added into the software, a more accurate and deliverable programme will be developed by the software.

2.8.18 Results of the analysis and proposed intervals can be found in Appendix 2.

2.8.19 Based on the current information, approximately 738 structures qualify for a PI, the majority of which are overdue. The proposal is to try and complete the PIs during a 12-year programme. To enable this approximately 100 PI inspections will per required to be undertaken each financial year. However, the number can vary on a yearly basis due to the varied sizes, types of bridges and inspection methodologies.

2.8.20 The programme will develop such as to also take into consideration costs for inspections. For example, the inspection of road and rail structures have additional costs associated with Network Rail and London Underground to obtaining agreement to access the railway, supervision, support, etc. Subsequently these inspections will be spread over the 6 year period and not carried out as a whole group.

2.8.21 Step 6: Determine the Target Annual Cost of Inspections Funding for PI will continue to be funded under the Capital works budget which current overall budget stands at £9.45m including £500k allocated for PIs and structural reviews (as of 2022/23). The resulting annual programme from Step 5 will be estimated for cost and assessed against target budgets which will lead to the next step.

2.8.22 Step 7: Develop a Smoothed RBI Programme A smoothed inspection programme is to be developed by comparing the cost of the programme and target budget in Step 6 and any significant resource fluctuation can be managed through risk assessed deferral or advancement of inspections.

2.8.23 Step 8: Deliver Inspection Programme Delivery of the inspections identified in the programme, including the completion of inspection data updates will be completed in accordance with the authority's inspection and reporting requirements. The updated inspection data is then reassessed in a cyclical manner in Steps 2 through to 5.

Appendix 1 List of assets which do not qualify for reduced interval

Data as of November 2021.

Bridge no	Structure Name	Structure Type	Category
19	DUTON HILL	Bridge	Cast Iron
23	CHURCH END	Bridge	Cast Iron
36	NUNNERY	Bridge	Cast Iron
56	WORMINGFORD	Bridge	Cast Iron
84	BURNT MILL	Bridge	Cast Iron
95	CRACKS	Bridge	Cast Iron
106	LOUGHTON ONE	Bridge	Post Tensioned
140	PARSONAGE	Bridge	Cast Iron
163	LONDON ROAD BRIDGE	Bridge	Cast Iron
171	SAULS	Bridge	Cast Iron
208	BATTLESBRIDGE	Bridge	Cast Iron
228	FULLBRIDGE	Bridge	Post Tensioned
245	WEELEY STATION	Bridge	Railway
251	WHITE	Bridge	severe marine expose
289	CANVEY ISLAND	Bridge	severe marine expose
328	ALRESFORD VIADUCT	Bridge	Railway
515	MALDON ROAD BADDOW	Bridge	Post Tensioned &Half Joint
517	LADYWELL	Bridge	Post Tensioned &Half Joint
568	BRICKSTABLES	Bridge	Railway
578	SPRINGFIELD LINK	Bridge	Post Tensioned
649	BOWERS HALL	Bridge	Railway
673	CHAMPIONS	Bridge	Railway
674	CLEMENTS	Bridge	Railway
716	PHOENIX	Bridge	Railway

Bridge no	Structure Name	Structure Type	Category
717	RAYLEIGH WEIR WEST OVERBRIDGE	Bridge	Post Tensioned
718	RAYLEIGH WEIR EAST OVERBRIDGE	Bridge	Post Tensioned
737	BILLERICAY STATION FOOTBRIDGE	Footbridge	Railway
761	PARNDON LOCK	Bridge	Cast Iron
763	THEYDON BOIS VIADUCT	Bridge	Railway
883	YARDLEYS	Footbridge	Half Joint
915	HAWK	Bridge	Railway
1016	LEE CHAPEL	Bridge	Railway
1030	CHERRY TREE FOOTBRIDGE	Footbridge	Railway
1050	PESTERFORD	Bridge	Railway
1067	LILLIE	Footbridge	Half Joint
1068	CRAYLANDS FOOTBRIDGE	Footbridge	Half Joint
1069	FREMNELLS FOOTBRIDGE	Footbridge	Half Joint
1070	CHURCH ROAD FOOTBRIDGE	Footbridge	Half Joint
1072	PITSEA FLYOVER	Bridge	Post Tensioned & Railway
1094	ROSETOWN	Footbridge	Half Joint
1095	ST.NICHOLAS	Footbridge	Half Joint
1344	MANNINGTREE LEVEL CROSSING RETAINING WALL	Retaining Wall	Railway
1379	COWDRAY AVENUE	Bridge	Railway
1380	NORTH (COLCHESTER)	Bridge	Cast Iron
1385	IPSWICH RD(COLCHESTER)	Bridge	Railway
1462	LANGFORD HALT	Bridge	Railway
1515	GUTTERIDGE HALL BRIDGE	Bridge	Railway
1533	BRAINTREE ROAD	Bridge	Railway
1560	LAINDON HIGH ROAD BRIDGE	Bridge	Post Tensioned
1561	LAINDON HIGH ROAD CYCLE	Footbridge	Railway

Bridge no	Structure Name	Structure Type	Category
1649	NEW WIDFORD RLY	Bridge	Railway
1664	WICKHAM BISHOPS	Bridge	Cast Iron
1762	BURNT MILL STATION	Bridge	Railway
1786	BRAINTREE FREEPORT STATION	Footbridge	Railway
1794	HARLOW STATION	Bridge	Post Tensioned & Railway
2006	ST.DOMINIC ROAD	Footbridge	Railway
2039	SUMPNERS	Bridge	Railway
2100	STATION WAY	Bridge	Railway
2101	LUXBOROUGH FOOTBRIDGE	Footbridge	Railway
2132	TIMBERLOG FOOTBRIDGE WEST	Footbridge	Railway
2293	BEAUMONT	Bridge	Cast Iron
2399	RIVER WAY	Bridge	Railway
4033	WICK LANE FOOTBRIDGE	Footbridge	Railway
4037	COLCHESTER LATHE	Bridge	Railway

Appendix 2 Current Assets in PI Programme with recent recommend intervals

Data as of June 2022.

Structure Name	Number	Risk Rating	Proposed RBI Regime
A127 BASILDON BROOK CULVERT	5000	Low	PI - 8
ABBEY FOOTBRIDGE	2838	Very Low	PI - 12
ABBEY LANE	1833	Very Low	PI - 12
ABBOTSFORD	3005	Very Low	PI - 12
ABERCROMBIE NORTH 'B'	2413	Low	PI - 10
ABRIDGE FLOOD OPENINGS	870	Very Low	PI - 12
ABRIDGE FOOTBRIDGE	2415	Very Low	PI - 12
ABSOL	134	Moderate	PI - 6
ABSOLS FOOTBRIDGE	1615	Moderate	PI - 6
ACORN FOOTBRIDGE	1454	Very Low	PI - 12
AINSFORD	1088	Low	PI - 12
ALDERFORD MILL	357	Moderate	PI - 6
ALFRED TERRACE	2122	Moderate	PI - 6
ANNWOOD	1590	Low	PI - 12
APPLEFORD	172	Moderate	PI - 6
APU NORTH FOOTBRIDGE	4106	Very Low	PI - 12
APU SOUTH FOOTBRIDGE	4107	Moderate	PI - 6
ARCADIA UNDERPASS	1584	Very Low	PI - 12
ARCHER FIELD	2066	Moderate	PI - 6
ARNOLD'S CULVERT	198	Very Low	PI - 12
ASHDALE	1581	Low	PI - 12
ASHDENE	195	Low	PI - 10
ASHDON	464	High	PI - 6
ASHMANS FARM FOOTBRIDGE	2764	Very Low	PI - 12
ASHTONS	197	Very Low	PI - 12
AVENUES PLAYPARK FOOTBRIDGE	1963	Moderate	PI - 6
AVONDALE	2109	High	PI - 6
AYTHORPE RODING	449	Low	PI - 12
BALKERNE HILL RETAINING WALL	1301	Low	PI - 12
BALLAST QUAY FARM	2305	Moderate	PI - 6
BANNISTER GREEN	1401	Moderate	PI - 6
BARDFIELD	45	Very Low	PI - 12
BARDFIELD MILL FOOTBRIDGE	1737	Moderate	PI - 6
BARLEY COMMON	1999	Very Low	PI - 12
BARLEYLANDS	896	Low	PI - 12
BARLEYLANDS FOOTBRIDGE	1713	Very Low	PI - 12
BARNES MILL RACE	2813	Moderate	PI - 6
BARNES MILL RACE (INLET)	839	Low	PI - 6
BARNSTON CHURCH FOOTBRIDGE	2820	Very Low	PI - 12

BARRACK SQUARE C	2850	Very Low	PI - 12
BARRACK SQUARE D	2851	Very Low	PI - 12
BATEMAN	2270	Very Low	PI - 12
BATHING POOL	888	Low	PI - 12
BEADLE	2025	Very Low	PI - 12
BELL	2340	Moderate	PI - 6
BELL GROVE	2341	Very Low	PI - 12
BIGOD	2742	Moderate	PI - 6
BILLERICAY STATION FOOTBRIDGE	737	Very Low	PI - 12
BLACK	406	Moderate	PI - 6
BLACK BRIDGE	2812	Very Low	PI - 12
BLACK NOTLEY	353	Very Low	PI - 12
BLACKLEY LANE NORTH NOISE BARRIER	1707	Very Low	PI - 12
BLACKLEY LANE SOUTH NOISE BARRIER	1706	High	PI - 6
BLACKLEY LANE UNDERPASS	1613	Low	PI - 12
BLACKWATER CANAL	941	Low	PI - 12
BLACKWATER MILL	2781	Very Low	PI - 12
BLASFORD	2703	Very Low	PI - 12
BLATCHES CORNER	2788	Moderate	PI - 6
BLOCK FARM CULVERT	2291	Moderate	PI - 6
BLOOM	2217	High	PI - 6
BLUE	49	Low	PI - 12
BLUE MILLS	224	High	PI - 6
BLYTHWOOD FARM FOOTBRIDGE	2708	Moderate	PI - 6
BOARS TYE	2154	Moderate	PI - 6
BOBLOW HILL	1716	Moderate	PI - 6
BOCKING (BRADFORD ST)	41	Moderate	PI - 6
BOREHAM MILL RACE	394	Very Low	PI - 12
BOREHAM MILL SLUICE	399	Moderate	PI - 6
BOSTON AVENUE	2969	Very Low	PI - 12
BOURNE	767	Low	PI - 12
BOURNE BROOK	42	Low	PI - 12
BOWER	2360	Very Low	PI - 12
BOX MILL LANE FOOTBRIDGE	1818	Moderate	PI - 6
BOXTED - STRAIGHT ROAD	2300	High	PI - 6
BOXTED MILL CULVERT	724	Very Low	PI - 12
BOYES	2275	Very Low	PI - 12
BRADWELL HALL	2713	Very Low	PI - 12
BRAINTREE FREEPORT STATION FOOTBRIDGE	1786	Moderate	PI - 6
BRAYSHOT A	2145	Very Low	PI - 12

BRICKSTABLES	568	Low	PI - 12
BRIDGE HOUSE	2005	Very Low	PI - 12
BRIDGE ROAD	104	Very Low	PI - 12
BROAD	2172	Very Low	PI - 12
BROADMAYNE UNDERPASS.	2950	Low	PI - 12
BROADWATER FOOTBRIDGE	1721	Moderate	PI - 6
BROOK	52	Very Low	PI - 12
BROOK FARM (RAILWAY)	1402	Low	PI - 8
BROOK FARM FOOTBRIDGE	1779	Very Low	PI - 12
BROOK HALL	355	Moderate	PI - 6
BROOK HALL	1555	Low	PI - 6
BROOK HOUSE FOOTBRIDGE	1975	Moderate	PI - 6
BROOK PARADE	2104	High	PI - 6
BROOK STREET	154	High	PI - 6
BROOKFIELD	4043	Very Low	PI - 12
BROOKLYN AVENUE CULVERT	2144	Very Low	PI - 12
BROOKSIDE	1474	Moderate	PI - 6
BROOM BRIDGE WEST	631	Low	PI - 12
BROXTED HALL	1870	Very Low	PI - 12
BUCKWYNS FARM FOOTBRIDGE	667	Moderate	PI - 6
BULFORD MILL SLUICE	276	Low	PI - 12
BUNDOCKS	304	High	PI - 6
BURNT DOWNS	1255	Very Low	PI - 12
BURNT MILL (CANAL)	83	Low	PI - 12
BURNT MILL CULVERT	493	Very Low	PI - 12
BURNT MILL FOOTBRIDGE	1798	Moderate	PI - 6
BURRS	2414	Very Low	PI - 12
BURTONS FARM	2199	Very Low	PI - 12
BURY FARM	699	Very Low	PI - 12
BUSHEY PIECE	2326	Very Low	PI - 12
BUTTERLEY BRIDGE	1577	Very Low	PI - 12
BUTTSBURY	326	High	PI - 6
BUTTSBURY FOOTBRIDGE	658	Very Low	PI - 12
BUTTSBURY FORD	188	Very Low	PI - 12
BUTTSBURY HALL FOOTBRIDGE	760	Very Low	PI - 12
CAN	662	Low	PI - 10
CAN FOOTBRIDGE KINGSHEAD MEADOW	4016	Very Low	PI - 12
CANON BARNS	1484	Very Low	PI - 12
CANONS (NEW)	752	Moderate	PI - 6
CANSDALE BRIDLEWAY	1644	Very Low	PI - 12
CARDFIELDS(BLACK BRIDGE)	2714	Very Low	PI - 12

CAREFORD BRIDGE	2339	Low	PI - 6
CART	249	Very Low	PI - 12
CASTLE FOOTBRIDGE	1842	Low	PI - 6
CASTLEDON	2061	Low	PI - 12
CATES CORNER/COMMON	1001	Low	PI - 12
CEMETERY	67	Moderate	PI - 6
CENTRAL WALL	2098	Very Low	PI - 12
CENTRAL WALL FOOTBRIDGE	593	Moderate	PI - 6
CHALK FARM	684	Low	PI - 12
CHALYBEATE	2308	Low	PI - 12
CHAMPIONS	673	Low	PI - 12
CHAPEL FOOTBRIDGE	2827	Low	PI - 6
CHAPPEL	421	Very Low	PI - 12
CHARFLEETS DYKE BRIDGE	1970	Very Low	PI - 12
CHASE	2127	Moderate	PI - 6
CHASESIDE FOOTBRIDGE	1611	Very Low	PI - 12
CHATHAM HALL	2003	Very Low	PI - 12
CHAURETH HALL FOOTBRIDGE	1723	Moderate	PI - 6
CHELMER ROAD CULVERT	1654	Moderate	PI - 6
CHERRY GARDEN	2721	Moderate	PI - 6
CHERRYDOWN	2070	Moderate	PI - 6
CHEST WOOD BRIDLEWAY	1689	Very Low	PI - 12
CHESTER	2106	Very Low	PI - 12
CHESTNUTS	672	Low	PI - 12
CHICHESTER HALL	722	Very Low	PI - 12
CHINA	2816	Moderate	PI - 6
CHIPPING FOOTBRIDGE	2828	Moderate	PI - 6
CHIPPING HILL FOOTBRIDGE	2750	Moderate	PI - 6
CHURCH END FOOTBRIDGE	1765	Very Low	PI - 12
CHURCH LANE	4176	Low	PI - 12
CHURCH LANE CULVERT	4070	Low	PI - 12
CHURCH ROAD	1077	Low	PI - 12
CHURCH ROAD	809	Moderate	PI - 6
CHURCH ROAD FOOTBRIDGE	1070	Very Low	PI - 12
CHURCH ROAD GANTRY 4	2861	Low	PI - 12
CHURCH ROAD GANTRY 5	2864	Low	PI - 12
CHURCH ROAD NORTH RETAINING WALL	2862	Very Low	PI - 12
CHURCH ROAD SOUTH RETAINING WALL	2863	Very Low	PI - 12
CHURCH STREET BRIDGE	861	Very Low	PI - 12
CHURCH-MISTLEY	150	Very Low	PI - 12
CLAPBRIDGE	1452	Very Low	PI - 12

CLAPBRIDGE FARM	1357	Moderate	PI - 6
CLAPGATE	1633	Very Low	PI - 12
CLARKS BRIDGE	317	Low	PI - 6
CLATTERFORD	2377	Very Low	PI - 12
CLAVERING (FOX & HOUNDS)	9	Moderate	PI - 6
CLAY	2727	Moderate	PI - 6
CLAY HILL FOOTBRIDGE	2095	Very Low	PI - 12
CLEMENTS	674	Low	PI - 12
CLOCKHOUSE	2334	Very Low	PI - 12
COALHILL	2807	Very Low	PI - 12
COBBINS BROOK	4099	Low	PI - 12
COBBS FENN	2247	Low	PI - 12
COCK GREEN	2410	Low	PI - 12
CODHAM HALL ACCOM	261	Very Low	PI - 12
COGGESHALL ABBEY	1832	Low	PI - 8
COLCHESTER LATHE	4037	Low	PI - 12
COLEBROOK	2111	Very Low	PI - 12
COLNE ACCOMMODATION	1617	Very Low	PI - 12
COLNE BANK	2020	Low	PI - 12
COLNE ENGAINE	374	Low	PI - 12
COLNE ENGAINE FOOTBRIDGE	1491	Moderate	PI - 6
COLNEFORD	51	Low	PI - 12
COLNESIDE WALK	889	Very Low	PI - 12
CORNER HOUSE	2802	Very Low	PI - 12
CORONATION	2769	Low	PI - 10
COURTAULDS	777	Very Low	PI - 12
COURTAULDS MILL	929	Low	PI - 10
COVEN	2246	Very Low	PI - 12
COW	294	Very Low	PI - 12
CRACKS	95	Moderate	PI - 6
CRADLE FOOTBRIDGE	2694	Very Low	PI - 12
CRANFIELD CULVERT	1046	Moderate	PI - 6
CRAYLANDS DITCH CULVERT	490	Low	PI - 12
CRAYLANDS FOOTBRIDGE	1068	Moderate	PI - 6
CRAYS HILL FOOTBRIDGE	1541	Very Low	PI - 12
CRESCENT FOOTBRIDGE	1837	Very Low	PI - 12
CRESSING TEMPLE FOOTBRIDGE	2818	Moderate	PI - 6
CRICKETERS (EAST)	635	Low	PI - 10
CRICKETERS (WEST)	634	Low	PI - 10
CROFTERS GANTRY 2	2859	Low	PI - 12
CROFTERS GANTRY 3	2860	Low	PI - 12

CROSS KEYS	744	High	PI - 6
CROW BRIDGE	780	Very Low	PI - 12
CURD HALL FOOTBRIDGE	2709	Low	PI - 6
CURRY HILL FOOTBRIDGE	1489	Very Low	PI - 12
DALLANCE FARM FOOTBRIDGE	2833	Very Low	PI - 12
DALWOOD	2090	Low	PI - 12
DAMS	2042	Very Low	PI - 12
DAWS FARM	467	Very Low	PI - 12
DAWS HEATH	2486	Low	PI - 12
DEDHAM SLUICE	356	Moderate	PI - 6
DENGIE	708	High	PI - 6
DERES	139	High	PI - 6
DIGGINS MOAT	2355	Very Low	PI - 12
DOBBS WEIR	81	High	PI - 6
DOG & PARTRIDGE NOISE BARRIER	1705	High	PI - 6
DOG AND PARTRIDGE UNDERPASS	1612	Very Low	PI - 12
DOUBLEGATE CULVERT	1587	Very Low	PI - 12
DOUBLEGATE LANE	207	Very Low	PI - 12
DOWNHALL	300	Moderate	PI - 6
DOWNHALL CULVERT	4031	Very Low	PI - 12
DOWNHOUSE	1481	Very Low	PI - 12
DUFFILL	1036	High	PI - 6
DUKES FARM	2982	Moderate	PI - 6
DUNMOW FOOTBRIDGE	1782	Moderate	PI - 6
DUNMOW FORD	64	Low	PI - 10
DUNMOW PARK	893	Low	PI - 12
DUNMOW ROAD	892	Moderate	PI - 6
DUNTON BRIDLEWAY	1458	Very Low	PI - 12
DUNTON WAYLETTS	332	Very Low	PI - 12
DUTCH VILLAGE	1953	Very Low	PI - 12
DUTON HILL	19	Moderate	PI - 6
EALING	89	High	PI - 6
EAST BOUND RETAINING WALL	2869	Very Low	PI - 12
EAST DONYLAND	2884	Very Low	PI - 12
EASTBOUND RETAINING WALL	2872	Very Low	PI - 12
ELD LANE	769	Very Low	PI - 12
ELM FARM	1058	Very Low	PI - 12
ELMDON LEE	436	Very Low	PI - 12
ELMS HALL	2201	Moderate	PI - 6
ELMSTEAD	243	Moderate	PI - 6
EWSONS	121	Very Low	PI - 12

EXCHANGE	1482	Low	PI - 12
EYOTTS S.C.SEA RETAINING WALL	1335	Very Low	PI - 12
FABIAN	2268	High	PI - 6
FAIRGLEN WEST (NORTH)	620	Low	PI - 10
FAN	282	Very Low	PI - 12
FANTON CULVERT	1475	Low	PI - 12
FEDSDEN	2348	Low	PI - 10
FELMORE UNDERPASS	2336	Very Low	PI - 12
FENN CREEK	675	Very Low	PI - 12
FENN CREEK FOOTBRIDGE	863	Very Low	PI - 12
FINCHINGFIELD BROOK FOOTBRIDGE	2887	Very Low	PI - 12
FINCHINGFIELD CULVERT	1936	Very Low	PI - 12
FINGRINGHOE	238	Low	PI - 12
FIRST - RIVER WID	790	Low	PI - 12
FISH AND EELS	1575	Low	PI - 12
FIVE BELLS	1472	Low	PI - 12
FLEMINGS FARM	2979	Very Low	PI - 12
FOLLY MILL	378	Low	PI - 12
FOOT	90	Very Low	PI - 12
FORD	1358	Very Low	PI - 12
FORD FARM CULVERT	1665	Very Low	PI - 12
FORD STREET	54	High	PI - 6
FORTUNE OF WAR FOOTBRIDGE	283	High	PI - 6
FOUR ACRE	799	Moderate	PI - 6
FOUR CHIMNEYS	2274	Very Low	PI - 12
FOXHOLES	1711	Low	PI - 10
FRATING GREEN	2292	Very Low	PI - 12
FRAYES FOOTBRIDGE	1965	Moderate	PI - 6
FREMNELLS FOOTBRIDGE	1069	Moderate	PI - 6
FRIDAY WOOD C	2558	Very Low	PI - 12
FRIDAY WOODS	2994	Very Low	PI - 12
FRIENDSHIP BRIDGE	4022	Low	PI - 10
FULLBRIDGE	228	Low	PI - 10
FULLER STREET CULVERT	1516	Moderate	PI - 6
FYFIELD	116	High	PI - 6
FYFIELD FOOTBRIDGE	2767	Very Low	PI - 12
FYFIELD HALL	185	Very Low	PI - 12
GABLEHAYS	557	Moderate	PI - 6
GALL END	2178	High	PI - 6
GANG	118	Low	PI - 12
GARAGE KELVEDON	75	Very Low	PI - 12

GARNISH (KNOWN AS DAWES)	2371	Very Low	PI - 12
GERMAINS	2837	Very Low	PI - 12
GESTINGTHORPE(TEVERSONS)	349	Moderate	PI - 6
GLASS AND BOTTLE	606	Very Low	PI - 12
GLEMSFORD	368	High	PI - 6
GOLDHANGER	2283	Very Low	PI - 12
GOLF	2118	Very Low	PI - 12
GOODMANS LANE NOISE BARRIER	1702	High	PI - 6
GOSFIELD LAKE DAM	1926	Very Low	PI - 12
GRANGE	2720	Moderate	PI - 6
GRANGE FARM	1557	Very Low	PI - 12
GRANGE FARM FOOTBRIDGE	1526	Moderate	PI - 6
GRAUNT COURTS CULVERT	1361	Moderate	PI - 6
GREAT BADDOW CULVERT	1701	Moderate	PI - 6
GREAT BARDFIELD	25	High	PI - 6
GREAT BRAXTED MILL FOOTBRIDGE	2323	Very Low	PI - 12
GREAT BURSTEAD FOOTBRIDGE	1931	Very Low	PI - 12
GREAT NOTLEY HUMP BACK	4055	Very Low	PI - 12
GREAT PORTERS FARM FOOTBRIDGE	696	Very Low	PI - 12
GREAT SAMPFORD	20	Low	PI - 12
GREAT STAMBRIDGE	666	High	PI - 6
GREATHOUSE	2191	Moderate	PI - 6
GREEN	2187	Moderate	PI - 6
GREEN FARM FOOTBRIDGE	1518	Very Low	PI - 12
GREENVIEW FOOTBRIDGE	1551	Moderate	PI - 6
GREY GOOSE PARK CULVERT	2205	Low	PI - 10
GRIGG'S FARM FOOTBRIDGE	2825	Moderate	PI - 6
GT EASTON CULVERT	1519	Moderate	PI - 6
GT NOTLEY PHASE 7 NOISE BARRIER WALL	4065	Moderate	PI - 6
GT. BARDFIELD FOOTBRIDGE	2725	Moderate	PI - 6
GT. HENNY	2732	High	PI - 6
GUITHAVON ROAD	1642	Low	PI - 12
GUN HILL RETAINING WALL	1859	Moderate	PI - 6
GURNHAMS	2297	High	PI - 6
HAINALT	2333	Moderate	PI - 6
HALF MILE	158	Low	PI - 12
HALL	74	Very Low	PI - 12
HALLINGBURY MILL	2798	Very Low	PI - 12
HALLSFORD	113	Moderate	PI - 6
HAMMONDS FOOTBRIDGE	2715	Very Low	PI - 12
HANAKIN	2058	Low	PI - 12

HANCOCKS FOOTBRIDGE	2784	Low	PI - 6
HANNAKINS	2741	Very Low	PI - 12
HARE	70	Low	PI - 12
HARLOW (STORT)	87	High	PI - 6
HARLOW BY PASS SECOND AVE	1742	Low	PI - 6
HARLOW CHURCHGATE ST. TWO	1773	Moderate	PI - 6
HARLOW MILL	86	Low	PI - 12
HARLOW ROAD CULVERT	4067	Very Low	PI - 12
HARLOW STATION	1794	Low	PI - 12
HARLOW/CHURGATE ST	88	High	PI - 6
HAROLDS	817	Low	PI - 8
HARROW ROAD	2026	Very Low	PI - 12
HARTFORD END	136	High	PI - 6
HARVEY	2253	Very Low	PI - 12
HARWICH ROAD	837	Low	PI - 8
HASLERS	891	Moderate	PI - 6
HATFIELD GREEN	2343	Very Low	PI - 12
HATFIELD MILL	167	Moderate	PI - 6
HAVEN	4038	Low	PI - 12
HAWK	915	Moderate	PI - 6
HECKFORD	233	Low	PI - 10
HELIONS	2185	Moderate	PI - 6
HEPWORTH HALL	44	Low	PI - 10
HERCULES	362	Moderate	PI - 6
HEY	227	Moderate	PI - 6
HIGH LAVER	98	Moderate	PI - 6
HIGH ONGAR	115	Very Low	PI - 12
HIGH STREET GT.BADDOW	1710	High	PI - 6
HILL BRIDGE	766	Low	PI - 10
HILL FARM	2151	Very Low	PI - 12
HILL FARM FOOTBRIDGE	1530	Very Low	PI - 12
HINDS	177	Moderate	PI - 6
HOBLONGS	130	Low	PI - 12
HOE	1487	Low	PI - 12
HOE LANE CULVERT	679	Moderate	PI - 6
HOLDEN END	413	Moderate	PI - 6
HOLE IN THE WALL	900	Very Low	PI - 12
HOLE IN THE WALL RETAINING WALL	911	Very Low	PI - 12
HOLEHAVEN A CULVERT	1973	Low	PI - 12
HOLEHAVEN B CULVERT	1974	Low	PI - 12
HOLEHAVEN PLANT CROSSING	1976	Low	PI - 12

HOLME'S POOL	685	Low	PI - 12
HOLT	1845	Very Low	PI - 12
HOMELEIGH	779	High	PI - 6
HOPES	2093	Very Low	PI - 12
HOPKINS FARM	728	Very Low	PI - 12
HOPPING	252	Very Low	PI - 12
HOPPITT	68	High	PI - 6
HORNBEAMS GABION WALL	2885	Very Low	PI - 12
HORNBEAMS GANTRY 9	2883	Very Low	PI - 12
HOUSE	369	Moderate	PI - 6
HOWARD WAY RIVER	2938	Very Low	PI - 12
HOWE GREEN BR RETAINING WALL SOUTH	1594	Very Low	PI - 12
HOWE GREEN RETAINING WALL NORTH	1593	Very Low	PI - 12
HUDSON	937	Very Low	PI - 12
HULL	2303	Moderate	PI - 6
HULLS MILL FOOTBRIDGE	1599	Very Low	PI - 12
HUNTS FARM	2073	Low	PI - 10
HYLANDS SUBWAY	793	Very Low	PI - 12
HYTHE	1381	Moderate	PI - 6
ICEANUM	479	Moderate	PI - 6
ILGAR'S MANOR	2380	Very Low	PI - 12
INNER LODGE CULVERT	4102	Very Low	PI - 12
IPSWICH RD(COLCHESTER)	1385	Low	PI - 12
IRON BRIDGE, SHALFORD	2811	High	PI - 6
IRONWORKS FOOTBRIDGE	2076	Very Low	PI - 12
ISLAND	372	Moderate	PI - 6
IVY ROAD GANTRY 7	2877	Low	PI - 12
IVYDENE	1586	Low	PI - 12
JAMES FARM	624	Low	PI - 12
JASMINE FOOTBRIDGE	2013	Very Low	PI - 12
JOHN DE BOIS	250	Moderate	PI - 6
JUBILEE	2756	Very Low	PI - 12
KELVEDON	176	High	PI - 6
KENILWORTH BRIDGE	1549	Low	PI - 12
KENTISH COTTAGES	2287	Moderate	PI - 6
KILLIGREWS(THREE MILE)	161	Moderate	PI - 6
KING WILLIAM LINK EMBANK	4111	Very Low	PI - 12
KINGS	396	Low	PI - 12
KINGS HEAD MEADOW	579	Very Low	PI - 12
KING'S WEIR	2804	Low	PI - 6
KINGSMERE	940	Very Low	PI - 12

KINGSWOOD	2069	Moderate	PI - 6
LACEY'S	1485	Low	PI - 12
LAINDON HIGH ROAD BRIDGE	1560	High	PI - 6
LAINDON HIGH ROAD CYCLE	1561	Low	PI - 12
LAKE	39	Moderate	PI - 6
LAKE OVERFLOW	2223	Very Low	PI - 12
LAMBOURNE PLACE FOOTBRIDGE	1693	Moderate	PI - 6
LANDWICK LANE FOOTBRIDGE	2698	Very Low	PI - 12
LANG (OR LONG)	92	Moderate	PI - 6
LANGFORD	226	Low	PI - 12
LANGFORD	112	Moderate	PI - 6
LANGFORD B DIVERSION EAST	993	Moderate	PI - 6
LANGFORD B DIVERSION WEST	994	Low	PI - 12
LANGFORD BROOK	4048	Very Low	PI - 12
LANGFORD COMPENSAT.FEEDER	1494	Very Low	PI - 12
LANGFORD HALT	1462	Low	PI - 12
LANGFORD LOCK	1958	Moderate	PI - 6
LANGFORD MILL RACE	1493	Moderate	PI - 6
LANGHAM MILL	454	Moderate	PI - 6
LANGLEY MILL	361	Moderate	PI - 6
LANGLEYS	660	Low	PI - 10
LAURENCE AVENUE FOOTBRIDGE	2842	Very Low	PI - 12
LAVENDER BRIDGE	138	Low	PI - 12
LAWFORD LANE BRIDLEWAY	1726	Very Low	PI - 12
LAWNESS	234	Moderate	PI - 6
LAYER BRETTON	1270	Very Low	PI - 12
LEADEN RODING (NEW)	364	Low	PI - 6
LEADEN RODING (OLD)	120	Moderate	PI - 6
LEE NAVIGATION	868	Moderate	PI - 6
LEEZ PRIORY FOOTBRIDGE	1727	Very Low	PI - 12
LEXDEN	2004	Low	PI - 12
LIGHTFOOT FOOTBRIDGE	1102	Very Low	PI - 12
LILLIE	1067	High	PI - 6
LIMBOURNE CREEK FOOTBRIDGE	2712	Very Low	PI - 12
LIME BROOK	2981	Very Low	PI - 12
LIMES FARM FOOTBRIDGE	2107	Moderate	PI - 6
LINK ROAD GANTRY 6	2865	Low	PI - 12
LISTON	48	Moderate	PI - 6
LITTLE BADDOW HALL	787	Very Low	PI - 12
LITTLE BADDOW LOCK	2766	Moderate	PI - 6
LITTLE BRAXTED	416	Moderate	PI - 6

LITTLE CHESTERFORD	329	High	PI - 6
LITTLE SAMPFORD	315	Moderate	PI - 6
LITTLE SLOUGH HOUSE	746	Very Low	PI - 12
LITTLE WEALD HALL	797	Very Low	PI - 12
LITTLEBURY	2	Low	PI - 12
LITTLEY FOOTBRIDGE	2819	Very Low	PI - 12
LOFTS	2271	High	PI - 6
LONDON RD WINTERSLEET	936	Low	PI - 10
LONDON ROAD BRIDGE	2871	Low	PI - 12
LONGMEAD	187	Very Low	PI - 12
LORDSHIP	2307	Very Low	PI - 12
LOUGHTON ONE	106	Low	PI - 8
LOUGHTON TWO	1806	Low	PI - 10
LOWER CASTLE PARK FOOTBRIDGE	2985	Very Low	PI - 12
LOWER MILL	458	Low	PI - 12
LOWLEYS FARM	729	Very Low	PI - 12
LT. WALTHAM HALL	2706	Very Low	PI - 12
LUNDS	2353	Moderate	PI - 6
LUXBOROUGH BRIDLEWAY	2081	Moderate	PI - 6
LUXBOROUGH FOOTBRIDGE	2101	High	PI - 6
LYONS HALL	398	Moderate	PI - 6
MAIN ROAD BRIDGE (HAWKWELL)	726	Very Low	PI - 12
MAINE CRESCENT CULVERT	2970	Very Low	PI - 12
MALDON ROAD	175	Moderate	PI - 6
MALDON SOUTHERN LINK	2984	Very Low	PI - 12
MALLARD	577	Very Low	PI - 12
MANDERLEY CULVERT	1483	Very Low	PI - 12
MANGAPPS	1781	Moderate	PI - 6
MANNINGTREE LEVEL CROSSING RETAINING WALL	1344	High	PI - 6
MANNOCK	2117	Very Low	PI - 12
MANOR	461	Very Low	PI - 12
MANSTON RD RETAINING WALL EAST	549	Very Low	PI - 12
MANWOOD	237	Low	PI - 12
MARDEN ASH	890	Very Low	PI - 12
MARGARETTING BRIDLEPATH	2836	Very Low	PI - 12
MARINE	914	Low	PI - 12
MARKET STREET	2050	Moderate	PI - 6
MARKS & SPENCERS	1075	Low	PI - 12
MARKS CULVERT	1486	Very Low	PI - 12
MARSHALL'S PARK CYCLEWAY	4119	Moderate	PI - 6

MARTELLO	2121	Low	PI - 12
MAYLAND	1556	Very Low	PI - 12
MAYLAND GREEN	1562	High	PI - 6
MAYNARDS	2346	Very Low	PI - 12
MAYROSE	1582	Low	PI - 12
MAYSLAND	2316	Very Low	PI - 12
MEADGATE	748	Very Low	PI - 12
MEADOWAY	272	Moderate	PI - 6
MEADOWSIDE	1467	Very Low	PI - 12
MERLE'S FOOTBRIDGE	4053	Very Low	PI - 12
MESOPOTAMIA	576	Low	PI - 12
MIDDLE MILL	2007	Moderate	PI - 6
MILL HILL	363	Very Low	PI - 12
MILL HOUSE	371	Moderate	PI - 6
MILL LANE	1388	Moderate	PI - 6
MILL LANE CULVERT	1563	Very Low	PI - 12
MILL LANE FOOTBRIDGE	2826	Moderate	PI - 6
MILL PIPE	2018	Very Low	PI - 12
MISTLEY ABANDONED RAILWAY	604	Very Low	PI - 12
MOAT	2705	Low	PI - 12
MONKS DOWN	2289	Moderate	PI - 6
MONUMENT	1589	Low	PI - 12
MOORFIELDS EAST SUBWAY	2989	Very Low	PI - 12
MOORFIELDS WEST SUBWAY	2990	Very Low	PI - 12
MORETON	99	Moderate	PI - 6
MORTIMER LODGE	2338	Moderate	PI - 6
MOULSHAMS SCHOOL FOOTBRIDGE	1056	Moderate	PI - 6
MULBERRY HOUSE	370	Low	PI - 12
MUNDON HALL A FOOTBRIDGE	1984	Very Low	PI - 12
MUNDON HALL B FOOTBRIDGE	1985	Very Low	PI - 12
MUNDON WASH	3003	Very Low	PI - 12
NASH HALL	103	Low	PI - 12
NASH HALL FOOTBRIDGE	2832	Moderate	PI - 6
NATIONAL GRID H.P. GAS PROTECTION SLAB	4236	Very Low	PI - 12
NAYLAND FOOTBRIDGE	2711	High	PI - 6
NAYLAND SLUICE	637	Low	PI - 10
NEVENDON	204	Low	PI - 12
NEVENDON CULVERT	489	Low	PI - 12
NEW	1413	Low	PI - 12
NEW CHELMER VIADUCT	3015	Moderate	PI - 6
NEW FOOT	1990	High	PI - 6

NEW HALL	2751	Very Low	PI - 12
NEW HALL EAST	1542	Very Low	PI - 12
NEW WIDFORD RLY	1649	Low	PI - 10
NEWBURY FOOTBRIDGE	1647	Low	PI - 6
NIGHTINGALE	105	Moderate	PI - 6
NIPSELLS CHASE	1564	High	PI - 6
NOAK HILL FISH FARM FOOTBRIDGE	1715	Very Low	PI - 12
NOBLES GREEN CULVERT	1576	Very Low	PI - 12
NORTH (COLCHESTER)	1380	Moderate	PI - 6
NORTH STATION ROAD	4069	Moderate	PI - 6
NORTHERN ACCESS	4049	Very Low	PI - 12
NORTHEY	2224	Moderate	PI - 6
NORTHLANDS PARK	1097	Moderate	PI - 6
NORTHLANDS PARK	1293	Very Low	PI - 12
NORWOOD LODGE	1548	Low	PI - 12
NOTLEY ROAD (RAILWAY)	1469	Very Low	PI - 12
NURSERIES	2152	Low	PI - 10
OAKER	33	Low	PI - 12
OASIS	556	Moderate	PI - 6
OLD CHELMSFORDIAN CYCLEWAY BRIDGE	1725	Moderate	PI - 6
OLD HALL	501	High	PI - 6
OLD HARE WOOD FOOTBRIDGE	1623	Very Low	PI - 12
OLD MEAD	2794	Very Low	PI - 12
OLD RIVER LEA BRIDGE	4100	Low	PI - 12
OLD SHIRE LANE CULVERT	4058	Very Low	PI - 12
OLDHALL WOOD	2306	High	PI - 6
ONE	124	Moderate	PI - 6
ORCHARD FARM FOOTBRIDGE	872	Very Low	PI - 12
ORMSBY A CULVERT	1971	Very Low	PI - 12
ORMSBY B CULVERT	1972	Very Low	PI - 12
OSIERS	1449	Moderate	PI - 6
OVERSHOT	2792	Low	PI - 6
PAN GROVE	2276	Moderate	PI - 6
PAPER MILL	303	High	PI - 6
PARK DRIVE FOOTBRIDGE	2019	Very Low	PI - 12
PARK FARM FOOTBRIDGE	1596	Low	PI - 10
PARKSIDE	146	Very Low	PI - 12
PARNDON	2409	Very Low	PI - 12
PARNDON LOCK	761	Moderate	PI - 6
PARNDON MEAD	2937	Very Low	PI - 12
PARSONAGE	140	High	PI - 6

PARSONAGE FARM FOOTBRIDGE	1757	Moderate	PI - 6
PARSONS	402	Low	PI - 10
PASSINGFORD	109	Low	PI - 8
PAYCOCKS	2411	Very Low	PI - 12
PEARSONS	2378	Moderate	PI - 6
PENNETTS	772	Moderate	PI - 6
PENTLOW	47	Low	PI - 12
PERRILLS	2370	Moderate	PI - 6
PESTERFORD	1050	Low	PI - 12
PESTERFORD RIVER	1011	Low	PI - 12
PETCHES	456	Low	PI - 12
PETE	236	Very Low	PI - 12
PICKERS	2120	Very Low	PI - 12
PICKERS DITCH	605	Low	PI - 12
PINCEY BROOK	62	Moderate	PI - 6
PINCH POOLS	325	Very Low	PI - 12
PITMIRE	2797	Very Low	PI - 12
PITSEA FLYOVER EASTBOUND OFF SLIPROAD	2560	High	PI - 6
PITSEA FLYOVER EASTBOUND ON SLIPROAD	2559	Moderate	PI - 6
PITSEA FLYOVER WESTBOUND ON SLIPROAD	2561	Moderate	PI - 6
PITSEA GANTRY 1	2855	Low	PI - 12
PLAINS ROAD CULVERT	1714	Very Low	PI - 12
PLUMPING	811	Moderate	PI - 6
POND	2939	Low	PI - 12
POND HALL CULVERT	2299	Very Low	PI - 12
POND R\B CULVERT	4047	Low	PI - 12
POOR	299	Moderate	PI - 6
POWDER MILL LANE	79	Low	PI - 10
PRENTICE	678	Very Low	PI - 12
PURLEIGH WASH	217	Low	PI - 12
PURLEIGH WASH-BARONS LANE	267	Very Low	PI - 12
PYES	459	Very Low	PI - 12
QUINTON FOOTBRIDGE	4101	Very Low	PI - 12
RADWINTER FOOTBRIDGE	688	Very Low	PI - 12
RAILWAY APPROACH	341	Very Low	PI - 12
RANKENS	96	Very Low	PI - 12
RATS HALL	2801	Moderate	PI - 6
RAVENS GREEN	838	Very Low	PI - 12
RAVENSCROFT	2065	Very Low	PI - 12

RAWLING'S FARM	2808	Low	PI - 6
RAWRETH BARN	1588	Very Low	PI - 12
RAWRETH SHOT	206	Low	PI - 12
RAWRETH WASH	807	Very Low	PI - 12
RAYLEIGH WEIR D'AGE SUMP	721	Very Low	PI - 12
RAYLEIGH WEIR EAST OVERBRIDGE	718	Low	PI - 10
RAYLEIGH WEIR RETAINING WALL NORTH	719	Low	PI - 12
RAYLEIGH WEIR RETAINING WALL NORTHEAST	1808	Moderate	PI - 6
RAYLEIGH WEIR RETAINING WALL NORTHWEST	1809	Very Low	PI - 12
RAYLEIGH WEIR RETAINING WALL SOUTH	720	Very Low	PI - 12
RAYLEIGH WEIR RETAINING WALL SOUTHEAST	1814	Low	PI - 12
RAYLEIGH WEIR RETAINING WALL SOUTHWEST	1815	Very Low	PI - 12
RAYLEIGH WEIR ROUNDABOUT WALL NORTH	1641	Moderate	PI - 6
RAYLEIGH WEIR ROUNDABOUT WALL SOUTH	1643	High	PI - 6
RAYLEIGH WEIR WEST OVERBRIDGE	717	Low	PI - 10
RAYNE	1421	Moderate	PI - 6
RAYNE RD- HIGH ST. LINK NOISE WALL	2978	Very Low	PI - 12
RAYS	671	High	PI - 6
RECTORY FARM	2315	Very Low	PI - 12
REFINERY	1732	Very Low	PI - 12
RENTERS	2262	Moderate	PI - 6
RING HILL	259	Very Low	PI - 12
RIVENHALL FOOTBRIDGE	1724	Very Low	PI - 12
RIVER TER	1607	Low	PI - 12
RIVER TER EAST NOISE BARRIER	1703	Very Low	PI - 12
RIVER TER WEST NOISE BARRIER	1704	Low	PI - 12
RIVER WID FOOTBRIDGE	791	Very Low	PI - 12
RIVERSIDE PARK FOOTBRIDGE	1523	Very Low	PI - 12
RIVERSIDE WALK	2233	Moderate	PI - 6
ROACH CULVERT	273	Low	PI - 12
ROCHELLES	686	Very Low	PI - 12
ROCHESTER FARM ACCOM	1614	Very Low	PI - 12
ROCHFORD (HALL ROAD)	209	Low	PI - 12
ROCKELLS	2169	High	PI - 6
ROCKHAVEN CULVERT	1583	Very Low	PI - 12
RODING	2748	Very Low	PI - 12
RODING LANE	302	Low	PI - 10

RODING LANE CENTRE	257	Low	PI - 10
RODING ROAD	2113	Moderate	PI - 6
RODINGS ROAD	4054	Very Low	PI - 12
ROM FOOTBRIDGE	2783	Moderate	PI - 6
ROMAINVILLE CULVERT	1967	Very Low	PI - 12
ROMAINVILLE PLANT CROSSING	1993	Low	PI - 12
ROOKTREE	2202	Very Low	PI - 12
ROSE HILL	395	Very Low	PI - 12
ROSEDALE	2330	Very Low	PI - 12
ROSETOWN	1094	Very Low	PI - 12
ROTTEN END DUTCH BRIDGE	189	High	PI - 6
ROUNDACRE NO4	2949	Low	PI - 10
ROYDON	82	Low	PI - 12
RUNNING WATERS	1092	Very Low	PI - 12
RUNWELL ROAD (WICKFORD)	1040	Low	PI - 12
RUSHBOTTOM CULVERT	2879	Very Low	PI - 12
RUSHBOTTOM LANE	636	Moderate	PI - 6
RUSHBOTTOM LANE GANTRY 8	2878	Low	PI - 12
RUSHBOTTOM LANE SUBWAY EAST RETAINING WALL	2881	Very Low	PI - 12
RUSHBOTTOM LANE SUBWAY WEST RETAINING WALL	2880	Very Low	PI - 12
RYLANDS FOOTBRIDGE	1856	Very Low	PI - 12
SADDLERS FARM BRIDGE	2866	Very Low	PI - 12
SADDLERS FARM BRIDGE SOUTH AND NORTH EAST RETAINING WALL	2868	Very Low	PI - 12
SADDLERS FARM BRIDGE SOUTH AND NORTH WEST RETAINING WALL	2867	Very Low	PI - 12
SADDLERS HALL BRIDGE	2874	Low	PI - 12
SADDLERS HALL BRIDGE NORTH RETAINING WALL	2875	Very Low	PI - 12
SADDLERS HALL BRIDGE SOUTH RETAINING WALL	2876	Very Low	PI - 12
SAFEWAY CULVERT NO 3	4085	Low	PI - 12
SALARY	1382	Very Low	PI - 12
SALARYBROOK	2011	Low	PI - 6
SALT	210	Low	PI - 10
SALTINGS EAST	263	Very Low	PI - 12
SALTWATER (BENTLEY)	240	Moderate	PI - 6
SANDFORD MILL 1	2776	Moderate	PI - 6
SANDFORD MILL 2	2789	High	PI - 6
SANDFORD MILL LOCK	305	Moderate	PI - 6
SANDHURST A CULVERT	1968	Very Low	PI - 12

SANDHURST B CULVERT	1969	Very Low	PI - 12
SANDON	215	Low	PI - 10
SANDON VILLAGE	214	Low	PI - 12
SANDY	2157	High	PI - 6
SAULS	171	High	PI - 6
SCARLETTS	2038	Moderate	PI - 6
SCRAPYARD	4162	Low	PI - 12
SECOND COLNE ACCOMM	1618	Very Low	PI - 12
SESAME	2203	Very Low	PI - 12
SEVERALLS CULVERT	4150	Very Low	PI - 12
SHEEPCOTES	683	Very Low	PI - 12
SHEEPEN	2021	Very Low	PI - 12
SHEERING LOCK	450	High	PI - 6
SHEERING LOCK FOOTBRIDGE	1760	Low	PI - 6
SHEERING MILL	451	High	PI - 6
SHEERING MILL FOOTBRIDGE 1	1761	Moderate	PI - 6
SHEERING MILL FOOTBRIDGE 2	1763	Very Low	PI - 12
SHELBOURNE	391	Moderate	PI - 6
SHELLEY	100	Low	PI - 12
SHELLOW	119	Moderate	PI - 6
SHIRE HALL	1437	High	PI - 6
SHONKS MILL	110	Low	PI - 12
SHOTGATE CULVERT	1585	Very Low	PI - 12
SHRUB HILL	2265	Very Low	PI - 12
SILVERTHORN	2254	Moderate	PI - 6
SIMMONDS	776	Very Low	PI - 12
SIR HUGHES	1480	Low	PI - 12
SIR HUGHES FOOTBRIDGE	1653	Very Low	PI - 12
SLICESGATE	2130	High	PI - 6
SLOUGH BRIDGE	727	Very Low	PI - 12
SLOUGH HOUSE	2269	Very Low	PI - 12
SLUICE FARM DYKE BRIDGE	1966	Very Low	PI - 12
SMALLGAINS LANE	1500	High	PI - 6
SMITHS GREEN	1507	Moderate	PI - 6
SORRELLS	1503	Moderate	PI - 6
SOUTHERN DRIVE	2114	Moderate	PI - 6
SOUTHMINSTER	2328	Very Low	PI - 12
SPARROWS END	6	Low	PI - 12
SPELLBROOK LOCK	448	High	PI - 6
SPELLBROOK LOCK CULVERT	1569	Very Low	PI - 12
SPIKES GROVE	2302	High	PI - 6

SPINNEY	532	Low	PI - 12
SPITAL ROAD TUNNEL	1520	High	PI - 6
SPRATTS WATER RETAINING WALL	1867	Moderate	PI - 6
SPRING	354	Low	PI - 12
SPRINGFIELD LINK	578	High	PI - 6
ST MARYS	2211	Very Low	PI - 12
ST PETERS WAY FOOTBRIDGE	1490	Very Low	PI - 12
ST.DOMINIC ROAD	2006	Moderate	PI - 6
ST.LEONARDS	755	Very Low	PI - 12
ST.NICHOLAS	1095	Moderate	PI - 6
STAMBRIDGE MILL NRA	709	Moderate	PI - 6
STAMBRIDGE MILLS	2809	Moderate	PI - 6
STANBROOK	2161	Moderate	PI - 6
STANSTED BROOK POND	1243	Very Low	PI - 12
STANTONS CULVERT	2012	Very Low	PI - 12
STAPLE	2115	Low	PI - 10
STATION ROAD	37	High	PI - 6
STATION ROAD	431	Very Low	PI - 12
STEBBING CULVERT	3037	Very Low	PI - 12
STEBBINGFORD	65	Low	PI - 12
STEEPLE	705	Very Low	PI - 12
STEEPLE VIEW	2068	Low	PI - 10
STISTED	390	Low	PI - 12
STOCK WASH	403	Moderate	PI - 6
STONE	164	Low	PI - 12
STONE (GT.YELDHAM)	291	Moderate	PI - 6
STOUR (OR STONE)	91	Very Low	PI - 12
STRATFORD(ST.MARY)MILL	2817	Moderate	PI - 6
STUBBERS	2261	Moderate	PI - 6
STURMER	2704	Low	PI - 6
SUMPNERS	2039	Moderate	PI - 6
SUNNY SIDE	2295	Moderate	PI - 6
SUTTON FORD	211	Moderate	PI - 6
SWAN'S LODGE	917	High	PI - 6
SYCAMORE FOOTBRIDGE	1012	Very Low	PI - 12
TABRUMS FARM	2840	Very Low	PI - 12
TAKELEY	1509	Moderate	PI - 6
TAKELEY STREET	1510	High	PI - 6
TALBOT CULVERT NO 2	2548	Very Low	PI - 12
TANYARD	2759	Very Low	PI - 12
TEMPLE SUBWAY	2030	High	PI - 6

THE FENS	2301	Moderate	PI - 6
THE MOORS	2266	Moderate	PI - 6
THE WILDERNESS FOOTBRIDGE	1858	Very Low	PI - 12
THIRD AVENUE RIVER	2943	Low	PI - 10
THORNWICK CULVERT	1044	Moderate	PI - 6
THORPE	247	Very Low	PI - 12
TILEKILN GREEN	1511	Moderate	PI - 6
TILTY	1570	Very Low	PI - 12
TINKETTLE	201	Low	PI - 12
TODD BROOK	2942	Moderate	PI - 6
TOPSAIL BRIDGE(ALSO KNOWN AS RIVER COLNE FOOTWAY/CYCLEWAY)	4183	Very Low	PI - 12
TOWN BRIDGE HALSTEAD	43	Low	PI - 10
TRAPS	2103	High	PI - 6
TRIPTON ROAD RIVER	2940	Very Low	PI - 12
TUN BRIDGE	1699	Very Low	PI - 12
TURNPIKE	1488	Low	PI - 12
TWO	125	Moderate	PI - 6
TYCEHURST HILL	2110	Moderate	PI - 6
TYE	2304	Moderate	PI - 6
TYE	2757	Moderate	PI - 6
UPPER MAYNE FOOTBRIDGE	1066	Moderate	PI - 6
UPPERWOOD	2408	Very Low	PI - 12
UTTLESFORD	5	Low	PI - 12
VELIZEY AVENUE	2388	Low	PI - 12
VERNONS	581	High	PI - 6
VIADUCT	2726	Very Low	PI - 12
VIADUCT FARM	2724	Very Low	PI - 12
VICARAGE	320	Moderate	PI - 6
VICTORIA ROAD	700	Low	PI - 8
WAKES COLNE FOOTBRIDGE	2683	Very Low	PI - 12
WAKES COLNE PLACE FOOTBRIDGE	1849	Very Low	PI - 12
WALCOTT'S	434	Very Low	PI - 12
WALNUT TREE	2165	Low	PI - 12
WARD	2252	Moderate	PI - 6
WARDENS FARM CULVERT	916	Very Low	PI - 12
WARREN	123	Moderate	PI - 6
WARREN FOOTBRIDGE	335	Very Low	PI - 12
WASH	111	Low	PI - 12
WASH ROAD	764	Low	PI - 12
WASHLANDS PHASE 2	642	Very Low	PI - 12

WATCH-HOUSE	2055	Low	PI - 10
WATER HOUSE LANE	661	Low	PI - 12
WATER LANE	862	Low	PI - 12
WATLING LANE FOOTBRIDGE	1981	Very Low	PI - 12
WATSOE	31	Low	PI - 10
WEALD	2753	Moderate	PI - 6
WEALD	97	Moderate	PI - 6
WEELEY STATION APPROACH E	1597	Low	PI - 12
WEELEY STATION APPROACH W	342	Moderate	PI - 6
WELLS ROAD FOOTBRIDGE	1496	Moderate	PI - 6
WEST BOUND RETAINING WALL	2870	Very Low	PI - 12
WEST PARK CYCLEWAY	1988	Moderate	PI - 6
WESTALL	2116	Moderate	PI - 6
WESTBOUND RETAINING WALL	2873	Very Low	PI - 12
WETHERSFIELD MILL	27	Low	PI - 12
WHITE BEAR	2814	Moderate	PI - 6
WHITE HORSE	664	Very Low	PI - 12
WHITE NOTLEY	360	Low	PI - 12
WHITELADIES CANAL	943	Low	PI - 12
WHITES	160	Moderate	PI - 6
WHITES	202	Moderate	PI - 6
WHITES	803	Very Low	PI - 12
WICK (WICKFORD)	1043	Low	PI - 12
WICK DRIVE CULVERT	1045	Low	PI - 12
WICK FOOTBRIDGE	153	High	PI - 6
WICK LANE FOOTBRIDGE	4033	Low	PI - 12
WICKFORD (EAST)	205	Moderate	PI - 6
WICKFORD (WEST)	203	Moderate	PI - 6
WICKHAM MILLS	225	Moderate	PI - 6
WICKHAM OLD CHURCH	1517	High	PI - 6
WINDMILL FARM	2354	Moderate	PI - 6
WISTON MILL	2729	Low	PI - 6
WITHAM (GAS WORKS)	170	Moderate	PI - 6
WITHAM ROAD	174	Moderate	PI - 6
WOODHAM FERRERS CULVERT	2997	Very Low	PI - 12
WOODHAM WALTER HALL	899	Moderate	PI - 6
WOODSIDE CULVERT	4045	Very Low	PI - 12
WOOLMERGREEN	2288	Very Low	PI - 12
WRITTLE	122	Low	PI - 12
YACHT	2256	Very Low	PI - 12
YARDLEYS	883	High	PI - 6

YEW TREE FARM	1108	Low	PI - 8
YORK ROAD (WEST)	1091	Very Low	PI - 12