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**County
Surveyors' Society
Wales**

Highway Asset Management Planning: Risk Based Approach: Method



Document Information

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| Title | Risk Based Approach: Method |
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| Description | This document is a detailed description of the method proposed by CSSW for a nationally consistent risk review method in response to the 2016 Code of Practice "Well Managed Highway Infrastructure" |

Document History

| Version | Status | Date | Author | Changes from Previous Version |
|----------------|---------------|-------------|---------------|--------------------------------------|
| 1 | draft | May 19 | exp | NA |
| 2 | draft | Oct 19 | exp | Formatting updated |
| 1 | Final | Oct 19 | exp | NA. |

Document Control

| Version | Status | Date | Authorised for Issue by CSSW |
|----------------|---------------|-------------|-------------------------------------|
| 1 | Final | Oct 19 | CSSW Main Group Meeting Sept 2019 |

1. Introduction

This document set out CSSW's recommended method of applying a risk-based approach to the management of highway assets. It has been developed under the CSSW highway asset management project and forms part of the HAMP recommended practices. This risk-based approach has been formally approved by CSSW with the expectation that it will be adopted by all Welsh local authorities.

CSSW's HAMP recommended practices have been updated to incorporate a requirement to carry out an annual highway asset risk review as Task 4a. This includes:

- 1) **RP1 –Highway Asset Risk Review:** A spreadsheet that authorities are recommended to use to record a regular risk review (Minimum 2 Yearly).
- 2) **Risk Based Approach: Method:** Document providing a description of the approach to accompany the spreadsheet RP1. (This Document)
- 3) **Risk Based Approach: Summary of Method:** Document providing a summary explanation of the method intended for use by authorities to brief managers and members
- 4) **Template Maintenance Manual/Policy Statement:** Template document that authorities can use to record their hierarchy, inspection and repair regimes
- 5) **Highway Inspection Defect Recording Manual:** A manual on what defects to record and what records should be taken about each. A reference document for inspector training
- 6) **Committee Paper Template/Report of Outcome of Highway Risk Review**
 - a) A template initial paper that advises the new method, references the CoP and recommends changes to hierarchy, inspection and repair regimes.
 - b) A template report paper for subsequent reviews that focuses on reporting changes to risk and resultant recommended changes to hierarchy, inspection and repair regimes
- 7) **National Minimum Standards:** A statement of minimum standards for investigatory level and associated response times for defects.
- 8) **Rationale Behind the Approach:** Sets out the rationale that was adopted in developing that approach.

2. Implementation

The method requires asset data to be used increasingly to support the risk assessment process. It will allow authorities to move away from a reliance on officer judgement to a process where decisions can be justified by reference to data. The data required to fully implement the risk assessment process may not be available initially. To accommodate this a staged implementation is proposed.

Initial Risk Based Regime

The initial regime should be based upon existing data. Upon implementing the initial regime, it is expected that authorities should instigate appropriate data collection procedures to ensure that the data required to implement the risk review using the risk-based method is available for future use. To deliver consistency regionally and nationally it is recommended that initial hierarchy and inspection and repair regimes are reviewed in consultation with neighbouring authorities.

It is recommended that authorities report an initial risk review to council along with any associated changes to current hierarchies and inspection and repair regimes.

Risk Based Regime (2 Yearly Review)

The method proposed is based upon 2 yearly reviews of risk. It is expected that improving data will enable the regime to be subject to ongoing refinement. Updates of relevant asset data should be used to update risk assessments (at least 2 yearly) and make adjustments to the regime where appropriate. It is recommended that the process of consultation with neighbouring authorities is repeated when any changes are made to the hierarchy category and /or inspection and repair regime applied on roads that cross boundaries.

It is expected that authorities will report the results of their risk review to council annually along with any proposed changes to hierarchies and inspection and repair regimes.

Data Improvement

A fully developed risk-based approach should be supported by analysis of asset data. This will enable the authority to review the efficacy of its operation and to direct resources to the areas of greatest risk. It is recommended that this data is collected electronically during inspection and repair. This removes manual data entry exercises, which can offset the cost of any new technology required.

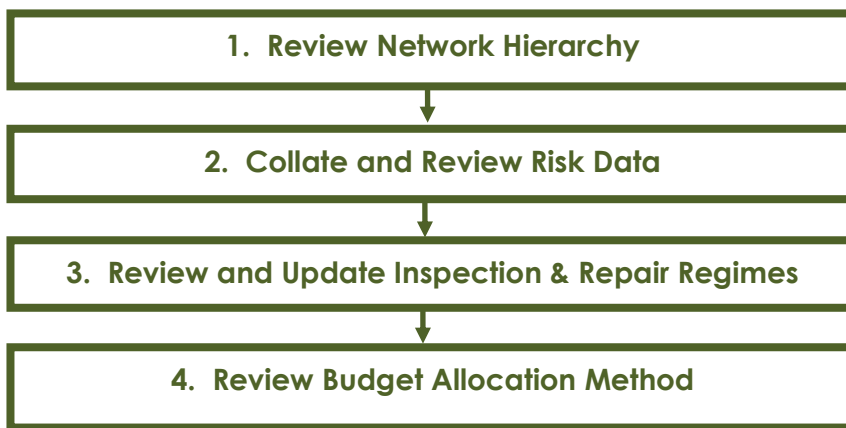
3. Method Overview

Highway Asset Risk Review (CSSW HAMP; RP1)

It is recommended that authorities a 2-yearly review of the risks associated with managing their highway assets using the method set out in this document. The results of the review should be reported to an appropriate management/member forum within the council. The purpose of the review is to ensure that those tasked with the establishment of standards and with allocation of budgets are able to undertake these tasks with appropriate information available to them about risk.

Risk Review Steps

The risk review should include completing the following steps:



Recording the Review

A spreadsheet tool “RP1- Highway Asset Risk Review” has been provided to enable authorities to record their risk reviews. The sheet comprises of sections matching the steps above. Within each step are a number of individual sheets that authorities are recommended to complete. Authorities should complete the sheet labelled “risk review record” to provide an audit trail that the review has been completed.

| Step | Description | Date Started | Date Completed | Comments |
|------|---|--------------|----------------|----------|
| 1 | Review Network Hierarchy | | | |
| 2 | Collate and Review Risk Data | | | |
| 3 | Review and Update Inspection & Repair Regimes | | | |
| 4 | Review Budget Allocation Method | | | |

Reporting the Results of the Review

It is recommended that the results of the review are reported to the appropriate management/member forum in the council in the form of a committee report. (A template report has been provided).

Risk Review Method

Step 1: Review and Update Network Hierarchy

Authorities should review and update their network hierarchy by completing the asset specific hierarchy worksheets provided in RP1

| | | |
|-----------------------------------|--|------------------------------------|
| Review Network Hierarchies | <i>The hierarchy should be reviewed and updated when there are changes to the asset (e.g. new or upgraded assets) or changes in its use (e.g. change in traffic volumes)</i> | Hierarchy |
| | | Carriageway |
| | | Footway |
| | | Structures |
| | | Street Lighting |
| | | Traffic Management |

The same generic steps are required for all asset groups:

1. Enter Network/Asset Details
2. Assess the use and Refine the Hierarchy (including making any local specific adjustments)
3. Check for Regional Consistency
4. Confirm and Record Final Hierarchy

Enter Network/Asset Details to Assign Initial Hierarchy Category

All assets are assigned an initial hierarchy category based upon a specified rule; e.g. initial carriageway hierarchy is based upon road class. This can be done automatically in the spreadsheet using data exported from a relevant asset inventory database.

Assess Use to Refine Hierarchy; Local Specific Adjustments

The hierarchy assigned to an asset can be adjusted following an assessment of local specific factors. This exercise should be undertaken in formal consultation with a group of local officers (and if appropriate members) that may include representatives of:

- Head of Service
- Highways Services Manager
- Operations Manager
- Planning division
- Highway Structures
- Street Lighting
- Streetworks Manager
- Network Management
- Asset Management
- Road Safety
- Passenger Transport Unit
- Transport Strategy

A record should be kept of all decisions made by this group that includes the reasons for the decisions/amendments made. This can be done using the spreadsheet and noting the reason for where sections of road have their hierarchy changed from the initial hierarchy as a result of the use assessment.

Check for Regional Consistency

Upon completion of a proposed hierarchy consultation with neighbouring authorities should take place to consider and review regional consistency.

Where there are differences the reason for these should be discussed and if possible, resolved to a standard that is regionally consistent. If this is not possible each authority should record the reason for the adoption of differential standards.

Confirm and Record the Hierarchy

The output from the above should be a record of the hierarchy in the form of a completed spreadsheet using the template provided with this guidance. The resulting hierarchy should be entered into any systems that rely upon it e.g. maintenance management system used for inspections and repairs. The maintenance manual and or data management plan should record where the definitive record of the hierarchy that applies to any highway asset can be found. The initial establishment of the hierarchy and any updates should be confirmed in a report to an appropriate council committee and formal acceptance/approval as council policy.

Record the Review and Update

It is recommended that the hierarchy is reviewed and updated regularly this can be done throughout the year or at a minimum 2 yearly interval. This should involve reporting to the stakeholder group shown above. The report should focus on providing details of:

- any assets that have substantially changed in character and
- any assets where the risk assessments undertaken in support of the inspection and repair regime indicate that the originally allocated hierarchy level may be inappropriate

A formal procedure should be developed and adhered to for recording the review and any changes made to the hierarchy. It should include recording the reasons for the changes made.

A detailed description of how to use the “RP1 Highway Asset Risk Review” to review and update the asset hierarchies is attached as appendix (i)

Step 2: Collate and Review Risk Data

In order to undertake a review of existing inspection and repair regimes it is necessary to first record the existing regimes and to record the performance as a consequence of those regimes. This information can be used to provide context when assessing the appropriateness of the current regimes.

Compile a Risk Data Summary

For each asset group annually complete a current performance return in relation to:

- Safety – Number of safety defects (Cat 1), No. or % of the asset in a poor condition, No. of Injury Incidents, etc.
- Maintenance – Number of maintenance defects (Cat 2), No. or % of asset to be considered for maintenance works, etc.
- Financial – No. of 3rd party claims, number of claims lost and the reason, and value of pay out.

| Asset | Category | Data | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Trend | Interpretation |
|---|---|--|--------|--------|--------|--------|--------|-------|----------------|
| Carriageways | Safety | Number of Cat 1 Defects identified by Routine Inspection | | | | | | | |
| | | Number of Cat 1 Defects identified by Reactive Inspection | | | | | | | |
| | | % Cat 1 Defects repaired / made safe within standard | | | | | | | |
| | | % of A Roads in poor condition (red, scanner) | | | | | | | |
| | | % of B Roads in poor condition (red, scanner) | | | | | | | |
| | | % of C Roads in poor condition (red, scanner) | | | | | | | |
| | | % of U Roads in poor condition (red, scanner) and/or visual | | | | | | | |
| | | KSI (where road condition was a contributory factor) | | | | | | | |
| | | Number of claims received relating to personal injury | | | | | | | |
| | | % of routine inspections completed to standard | | | | | | | |
| | % of reactive inspections completed within response time | | | | | | | | |
| | Maintenance Liability | Number of Cat 2 defects identified by routine inspections | | | | | | | |
| | | Number of Cat 2 defects identified by reactive inspection | | | | | | | |
| | | Number of Cat 2 defects not repaired (repair backlog) | | | | | | | |
| | | Number of Cat 2 defect that became Cat 1 defects before they were repaired | | | | | | | |
| | | % of roads to be considered for maintenance A roads (red and amber) | | | | | | | |
| | | % of roads to be considered for maintenance B roads (red and amber) | | | | | | | |
| | | % of roads to be considered for maintenance C roads (red and amber) | | | | | | | |
| | | % of roads to be considered for maintenance U roads (red and amber) | | | | | | | |
| | Financial Loss | % of the asset for which current condition surveys data is held (less than 1 year old) | | | | | | | |
| Value of payout of 3rd party claims | | | | | | | | | |
| Number of claims received relating to property damage | | | | | | | | | |
| Number of claims received | | | | | | | | | |
| | Number of claims lost due to not adhering to inspection and repair regime | | | | | | | | |
| | Number of claims lost for other reasons | | | | | | | | |

The risk data input should be reviewed in order to assess where problems are occurring such that the council's targets and standards for the management of the highway asset are not being met. Thus, prompting the adjustment of the management regimes to attempt to correct this.

This could take the form of an increasing level of safety defects leading to a reassessment of inspection regimes, or defect reaction times not being met leading to a reassessment of repair regimes etc.

Step 3: Review and Update Inspection and Repair Regimes

Record the Existing Inspection Regime

For each asset group identify your existing inspection regime.

| Asset Type | Category of Inspection | Road Class | Hierarchy | Type of Inspection | Coverage | Frequency | Walked or Driven | | | |
|--------------|------------------------|--------------------------|-------------------|--------------------|--|--------------------|----------------------|--|--------|--------|
| Carriageways | Routine Inspection | Complete relevant column | | | | | | | | |
| | | A | Strategic | Routine Inspection | 100% | Monthly | Both | | | |
| | | A | Main Distributor | | 100% | Monthly | Both | | | |
| | | B | Secondary Distrib | | 100% | Monthly | Walked | | | |
| | | C | Link Roads | | 100% | 3 Monthly | Walked | | | |
| | | U | Local Access Ro | | 100% | 6 Monthly | Walked | | | |
| | | | | | | | | | | |
| | Reactive Inspection | | | | Response to 3rd party notification of defect | Criteria | Response Time | | | |
| | | | | | | Emergency Response | 2 hours | | | |
| | | | | | | Cat 1 | 48 hours | | | |
| | | | | | | Cat 2Ha | 10 working days | | | |
| | | | | | | Cat 2Hb | 30 working days | | | |
| | Cat 2L | 12 months | | | | | | | | |
| | Condition Survey | | | | SCANNER Machine | 50% | Annually | | | |
| | | | | | | 50% | Annually | | | |
| | | | | | | 25% | Annually | | | |
| | | | | | | 0 | | | | |
| | | | | | Visual Condition Assessment (CSSW Method) | A | | | | ad hoc |
| B | | | | | | | | | ad hoc | |
| C | | | | | | | | | ad hoc | |
| U | | | | 100% | ad hoc | | | | | |

Compare Inspection Regime Against CSSW Minimum Standard

For each asset group compare your existing inspection regime against the CSSW recommended minimum standard.

| Comparison of Footway Routine Inspection Intervals between Authority and CSSW Minimum | | | | | | | | |
|---|--------------------------------------|---|-------------------|----------------------------|----------------------|-------------------------|--------------------------|--|
| Hierarchy | Authority Inspection Interval (days) | CSSW Minimum Inspection Interval (days) | Difference (days) | Comparison | Authority REI (k pa) | CSSW Minimum REI (k pa) | Difference in REI (k pa) | Insert reference to authority risk assessment undertaken where standard does not meet CSSW Minimum |
| FHVHU | 30 | 30 | 0 | Equals CSSW Minimum | 465 | 465 | 0 | |
| FH1 | 30 | 30 | 0 | Equals CSSW Minimum | 310 | 465 | 155 | |
| FH2 | 40 | 90 | 30 | Exceeds CSSW Minimum | 305 | 465 | 160 | |
| FH3 | 365 | 180 | -185 | Does not Meet CSSW Minimum | 366 | 465 | 99 | A risk assessment was undertaken on the 15 April 2019 using authority data collected over the past 5 years, full details of the RA can be found at |
| FH4 (Condition poor or unknown) | 365 | 365 | 0 | Equals CSSW Minimum | 183 | 465 | 282 | |
| FH4 (Good Condition) | 365 | 730 | 365 | Exceeds CSSW Minimum | 0 | 465 | 465 | |
| FH5 | 365 | Reactive | N/A | Exceeds CSSW Minimum | 37 | 465 | 428 | |

Identify any differences in the standards and record what they are. Where the authority standard does not meet the CSSW minimum detail the location of the risk assessment undertaken to confirm that the standard is appropriate.

Compare Repair Regime Against CSSW Minimum Standard

For each asset group identify your existing repair regime and compare this against the CSSW recommended minimum standard.

| CSSW National Minimum Standard | | | | | | | Authority Standard in Comparison to National Minimum | Difference from National Minimum Standard Insert Here the differences between the authority regime and the CSSW minimum standard | Reason for lower Standard and location of Authority Risk Assessment undertaken (Where applicable) |
|--------------------------------|--|---|--|--|-------------------|----------------------------|--|---|---|
| Asset/Defect Category | Description | Defect | Dimensional Criteria | | Hierarchy | Response Time | | | |
| | | | Depth/height | Extent | | | | | |
| All | | | | | | | | | |
| Critical Defect | Defect that poses an immediate or imminent risk of injury to road users, e.g. Collapsed ceiling, missing utility cover, fallen tree, unprotected opening | Examples: Major debris or spillage on the Highway; Carriageway / Footway / cycleway collapse with high risk of accidents / loss of control; critically unstable overhead wires, trees or structures; Exposed live wiring; Isolated standing water with high risk of loss of control; Missing or seriously defective ironwork with high probability of injury to highway users | Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size | Not Applicable. Critical defects are defined by their potential to cause immediate injury not by defect size | Any | 2 hours# | Adopted National Standard | | |
| Carriageways | | | | | | | | Insert Here the differences between the authority regime and the CSSW minimum standard | |
| Safety Defect | Service requests or defects requiring a response as soon as possible to remove a potential risk of injury to users | Pothole | > 50mm | Maximum horizontal dimension greater than 150mm | CHR, CH1 and CH2 | By end of next working day | Adopted National Standard | | |
| | | | >75mm | | CH3, CH4 and CH5* | Within 5 working days | Improved Standard | All hierarchies use the 50mm and next working day intervention criteria | |
| Maintenance Defects (High) | Other defects that warrant treatment in order to prevent them deteriorating into a safety defect prior to the next scheduled inspection | Pothole | > 40mm | Maximum horizontal dimension greater than 150mm | CHR, CH1 and CH2 | 1 month | Adopted National Standard | | |
| | | | > 50mm | | CH3, CH4 and CH5* | 3 months | Improved Standard | All hierarchies use the 40mm and 1 month intervention criteria | |
| | | Crowning / Depression | > 100mm | < 2M length | Any | 3 months | Adopted National Standard | | |

Identify any differences in the standards and record what they are. Where the authority standard does not meet the CSSW minimum state a reason for this and detail the location of the risk assessment undertaken to confirm that the standard is appropriate.

Step 4: Update Risk Review Record

After having undertaken each of the above stages the risk review record should be updated to record their completion.

| 0. Annual Highway Asset Risk Review: Record of Completion | | | | | | |
|---|---|--|--|---|---|---------------------------------------|
| <p>Complete this sheet to confirm that the review has been undertaken by completing the yellow cells. You can go to the relevant sheets by click on the cells in col. E</p> | | <p>Authority</p> <p>Authority Name</p> <p>Year 2019</p> | <p>Completed By</p> <p>Name</p> <p>Position</p> <p>Role/Title</p> | | | |
| 1 | <p>Review Network Hierarchies</p> <p>The hierarchy should be reviewed and updated when there are changes to the asset (e.g. new or upgraded assets) or changes in its use (e.g. change in traffic volumes)</p> | <p>Hierarchy</p> <p>Carriageway</p> <p>Footways</p> <p>Structures</p> <p>Street Lighting</p> <p>Traffic Management</p> | <p>Date Updated</p> <p>12/04/2019</p> <p>12/04/2019</p> <p>13/04/2019</p> <p>13/04/2019</p> <p>13/04/2019</p> | <p>Comment</p> | <p>Location of Definitive Hierarchy</p> <p>Symology</p> <p>Symology</p> <p>Bridgeman</p> <p>Symology</p> <p>Symology</p> | <p>Where is the Hierarchy stored?</p> |
| | | <p>Risk Data</p> <p>Risk Data Summary</p> <p>Existing Inspection Regime</p> <p>Existing Repair Regime</p> | <p>Date Updated</p> <p>12/04/2019</p> <p>12/04/2019</p> <p>12/04/2019</p> | <p>Comment</p> | | |
| | | <p>Risk Assessments</p> <p>Carry Inspection Regime</p> <p>Carry Repair Regime</p> <p>Structures Inspection Regime</p> <p>Carry Repair Regime</p> <p>Footway Repair Regime</p> | <p>Date Updated</p> <p>13/04/2019</p> <p>13/04/2019</p> <p>15/04/2019</p> <p>13/04/2019</p> <p>13/04/2019</p> | <p>Comment</p> <p>Confirm the sSR has been updated</p> | <p>Location of records or inspection and repair Regime</p> <p>Maintenance Manual</p> <p>Maintenance Manual</p> <p>Maintenance Manual</p> <p>Maintenance Manual</p> <p>Maintenance Manual</p> | |
| | | <p>Inspection Regime</p> | | | <p>Where is the inspection and repair regime recorded?</p> | |
| | | <p>Repair Regime</p> | | | | |
| 4 | <p>Reporting this Review</p> <p>Report the results of this review to Council</p> | <p>Action</p> <p>Record the Risk Review Results</p> <p>Report the outcome of the risk review to council using ASRs</p> | <p>Date</p> <p>15/04/2019</p> <p>25/05/2019</p> | <p>Comment</p> | | |

Step 5: Report Results of Risk Reviewed

Following the completion of the risk review the results of the review and any changes made should be reported to the appropriate council body for approval. This can be done within or as an appendix to the Annual Status Report (ASR) or using the template report document provided (Committee Paper Template/Report of Outcome of Highway Risk Review).

Appendix (i) – Detailed Description of Hierarchy Review using RP1

Carriageway Hierarchy

Use Network/Asset Details to Assign Initial Hierarchy

Import network details (USRN, Road Name, Road Number (A, B, C, U), Section Number and Existing Hierarchy) from the NSG. Enter the data into the spreadsheet provided:

| NETWORK/ASSET DETAILS | | | | | | | | |
|--|--------------|-----------------------|----------------|-------------------|-----------------------|------------------------------|--|--|
| a. Enter network data in here from the street gazeteer | | | | | | b. Identify strategic routes | | Initial Proposed Road Hierarchy will populate here based on road class |
| USRN | Road Name | Road Number (A,B,C,U) | Section Number | Speed Limit (mph) | Existing Hierarchy | Is Road a Strategic Route? | For strategic routes state the reason for considering it strategic | 1. Initial Proposed Road Hierarchy |
| 2500123 | London Road | A | 10 | 70 | Strategic Route | Yes | Route between cities | CHSR |
| 2500124 | High Street | A | 10 | 60 | Main Distributor | No | | CH1 |
| 2500125 | Main Street | B | 10 | 40 | Secondary Distributor | No | | CH2 |
| 2500126 | Broad Avenue | C | 10 | 30 | Link Road | No | | CH3 |
| 2500127 | Normal Close | U | 10 | 30 | Local Access Road | No | | CH4 |
| 2500128 | Narrow Lane | U | 10 | 30 | Back Lane | No | | CH4 |

All road sections will be assigned an initial category based as follows:

Identify Strategic Routes (CHSR); Identify routes that are of a regional importance as a strategic route. It is expected that these will be a small number of roads that provide the primary routes between towns and cities. It is anticipated that this will be a manual exercise undertaken by appropriate officers from within the authority. Appropriate reference should be made to other networks that are already defined for network management/traffic management, winter maintenance, local transport plans and the like.

Initial Hierarchy: An initial hierarchy based on road classification (A, B, C or U) will be automatically applied for all non-strategic roads the initial road hierarchy can be matched to the road classification as shown below:

- A roads → CH1
- B roads → CH2
- C roads → CH3
- U roads → CH4

(n.b. Speed limit is included for reference purposes only and does not feed into the initial hierarchy setting criteria)

It may be appropriate to add additional categories below local access roads to account for Minor Roads, Back Lanes, Green Lanes etc. as part of stage 2. The initial allocation is automated in the spreadsheet provided (it reads the road number and allocates an initial hierarchy for all roads except those identified as strategic).

Use Assessment to Refine Hierarchy: Local Specific Adjustments

It is expected that for many authorities there will be some roads within the network where the matching of road class to a hierarchy level is not appropriate. This may be due to reasons of local importance. Or, more likely, it will be due to the traffic volumes not being commensurate with the banding, invariably this will be able to be evidenced by reference to traffic volumes and/or composition. An arterial road from a town may be a B classification but carries the same level of traffic and local importance as a nearby A road. Such a road may need to be elevated in the hierarchy to the same level as the A road. The converse could equally apply where the use of a road is less than the banding. A fixed method of dealing with these exceptions is not suitable. It is appropriate that local knowledge is brought to bear upon this task but that the output and rationale for the decisions made are recorded.

The use assessment should consider where individual roads (or sections of roads) should be allocated a different hierarchy level based upon factors that may include:

| USE ASSESSMENT | | | | | | | | | | |
|--|-----|--|--|-------------------|--|---|---|--|---|--|
| c. Review assumed traffic flow band, does it appear a reasonable assumption? | | Insert traffic count figures used. These may be actual or extrapolated or estimated | | | | d. Does this road carry levels of HGV that warrant different inspection and repair? | A recommendation as to whether a review should be undertaken will populate here based on the primary considerations | e. Is this section of road part of a major designated diversion route (e.g. for pre-planned diversion for motorway or trunk road closures) such that it warrants different inspection and repair | A recommendation as to whether a review should be undertaken will populate here based on the secondary considerations | Insert the Road Hierarchy you have decided upon based on your review of secondary considerations |
| Primary Consideration: Traffic Volumes/Use | | | | | | | Secondary Considerations | | | |
| Is the assumed traffic flow within the band indicated below? | | AADT (Insert actual where known.) (Insert extrapolated / estimated where it is not within the assumed traffic flow band) | State the source of Traffic Data quoted in col M (actual count, extrapolated or estimated) | Basis of Estimate | Does the road have a large volume of HGVs? | Consider reviewing the Road Hierarchy? | Is this part of a major "designated" diversion route? (e.g. for pre-planned diversions for motorway or trunk road closures) | Does the Road Hierarchy need reviewing? | 2. Reviewed Road Hierarchy | |
| > 20,000 | Yes | | | | No | No | No | No | | |
| 10,000 - 20,000 | Yes | | | | No | No | No | No | | |
| 5,000 - 10,000 | No | 12000 | Traffic Count | N/A | No | Yes | Yes | Yes | CH1 | |
| 1,000 - 5,000 | Yes | | | | No | No | No | No | | |
| 200 - 1000 | Yes | | | | No | No | No | No | | |
| 200 - 1000 | No | 100 | Estimated | Local Knowledge | No | Yes | No | No | CH5 | |

It is expected that changes to hierarchy made during the use assessment will be justified by reference to one or all of the considerations below:

Primary Considerations:

- **Volume of traffic:** Increased traffic levels are the major contributor to an increased risk level for carriageway use. In order to assess this risk CSSW has adopted the following bandings of expected traffic volumes for each carriageway hierarchy. Where an initial hierarchy has been allotted to a road the amount of traffic using that road on a daily basis should be assessed against these traffic volumes.

| Hierarchy Level | Traffic Banding (AADT) |
|-----------------|------------------------|
| CHSR | >20,000 |
| CH1 | 10,000 - 20,000 |
| CH2 | 5,000 - 10,000 |
| CH3 | 1,000 - 5,000 |
| CH4 | 200 - 1000 |
| CH5 | < 200 |

It is expected that authorities will make adjustment to the allocated hierarchy level based upon where traffic volumes are known to not be in, or near to, the ranges used above. A road may move between categorisations due to having a higher or lower level of traffic volume than other roads in this category. An initial estimated traffic volume based on officer knowledge may prompt the changing of hierarchy for a particular road, but this should, where possible, be verified using actual traffic count data.

- **Traffic Composition:** the composition of the traffic may also be a driver to moving a road from one category to another. This may include:
 - HGV “routes” - roads with especially large volumes of HGVs, thus more rapid deterioration may also be moved for the same reason.
 - Bus Routes – although not explicitly assessed at this stage where roads that are bus routes experience a more rapid deterioration it may be appropriate to prompt their allocation to a higher hierarchy category to ensure a higher frequency of inspection or enhanced repair regime.

Secondary Considerations:

- **Major Designated Diversion Route:** It may be appropriate to adjust the hierarchy if the road is part of a pre-planned diversion for motorway or trunk road closures if that means that it warrants different inspection and repair regimes.

Tertiary Considerations:

The code of practice lists many factors that authorities may consider when establishing their hierarchy (ref). CSSW has decided that it is appropriate for the tertiary considerations listed below to be discounted from the risk review, for the reasons stated. It is recommended that where authorities have reinstated these considerations as part of a local risk assessment that they document these and explain why they have been reintroduced.

The following items from the CoP are considered to be unnecessary for inclusion in the CSSW recommended hierarchy review process.

- Adjacent Important Facilities: *it may be appropriate to move a road from one hierarchy category to another due to the presence of important adjacent facilities (Hospitals, schools, shopping centres, care homes, public building etc.) WHERE A RISK ASSESSMENT DEMONSTRATES A NEED TO GREATER /HIGHER HIERARCHY*. – This is considered to be something which may drive a higher level of use, and should be considered when estimating usage levels but will not automatically trigger any particular hierarchy level
- Adjacent Pedestrian Use – *roads where adjacent use means that the carriageways are frequently used by pedestrians (This may not result in a hierarchy change but may prompt consideration of making walked inspections in conjunction with footway inspections)*
- Accidents – *routes with greater than normal incidents of accidents. [Again, risk assessment will be required to show that inspection and repair regime adjustment are required rather than a change in hierarchy]*
- Proposed usage – *proposed usage is uncertain, and any forecast will contain many unknowns it has therefore been decided that review of hierarchy should be undertaken following any significant changes to usage rather than before.*
- Routes to important local facilities and to the strategic network – *it is believed that this aspect has been covered in the traffic volume and traffic make-up already considered in Step 2.*
- Designation as a traffic sensitive route – *this is considered to be a network management issue which is unlikely to affect the functional hierarchy of the carriageway.*
- Special characteristic of certain assets, e.g. historic structures – *it is not felt that this will have any bearing on changes to the functional hierarchy as they will already have been picked up by the items above.*
- Potential for use as a diversion route - *it is not considered possible to predict where a temporary diversion may be used as a result of an incident (rta, spillage, etc) and as such adjusting the hierarchy to take into account what may be a very short duration change is not considered appropriate. Where planned maintenance works (or other works) results in the use of a diversion for an extended period consideration will be given to changing the allocated functional hierarchy*

category of the diversion route to take account of its amended usage (i.e. increased traffic volumes and changed composition HGV increase etc.) during this period.

- Ceremonial routes and special events – any changes to the inspection or repair standards for these will be dealt with as a temporary exception and will not affect the ongoing functional hierarchy of the carriageway.

Consultation with Neighbouring Authorities

| REGIONAL CONSISTENCY CHECK | | |
|---|--|----------------------------|
| Is this section of road one that crosses into the neighbouring authority? | Is the hierarchy the same as in the neighbouring authority? | |
| Does this road cross a regional boundary? i.e. into the neighbouring authority? | Enter the hierarchy on the neighbouring authority road section | 3. Reviewed Road Hierarchy |
| No | | |
| Yes | CH1 | CH1 |
| No | | |
| Yes | CH3 | CH4 |
| No | | |

Upon completion of the Use Assessment a consultation should be undertaken with neighbouring authorities. A subset of the hierarchy data should be extracted for the roads that cross into adjacent authorities. Authorities should exchange this data and compare the level of hierarchy assigned to the roads that cross regional boundaries. Where there are differences the reasons for them should be determined. Each authority must then decide if any differences that exist are acceptable.

Where the hierarchy changes when it crosses a regional boundary, this should be noted by both authorities in their records and the rationale for accepting the difference clearly stated.

Confirm and Record the Hierarchy

Following completion of the consultation exercise the final hierarchy should be recorded. This can be done by formalising a final version of the spreadsheet with the reasons for the adjusted hierarchy clearly stated.

| CONFIRMATION OF FINAL HIERARCHY | | |
|--|--|---|
| Insert the reasons for the Hierarchy you have decided upon following your review/s | The Final Road Hierarchy will populate here based on initial road class and the reviews undertaken | Any additional comments that have a bearing on the Hierarchy or notes to carry through to the setting of inspection regime etc. |
| Enter in the Yellow cells the reasons for hierarchy chosen | 4. Final Road Hierarchy | Comments |
| Matches with Neighbour no reason to change | CH3R | |
| Upfied due to high traffic volume | CH1 | Increase in traffic volume due to new industrial estate |
| No change to Hierarchy as traffic volumes change of boundary | CH3 | Side road takes a significant proportion of traffic at the boundary |
| Lowered due to low traffic volumes | CH4 | Very quiet back lane |
| | CH3 | |

The final hierarchies decided should be council approved. It is likely to be appropriate to do this in conjunction with the formalising of inspection and repair regimes. (Template committee report provided)

Footway Hierarchy

Use Network/Asset Details to Assign Initial Hierarchy

Import network details (USRN, road name, section number, existing hierarchy and footway number) from the NSG. Enter the data into the spreadsheet provided:

All footway sections are to be assigned an initial hierarchy category. The category should be established by answering a series of questions in the RP1 spreadsheet that relate to its level of use as illustrated below.

| NETWORK/ASSET DETAILS | | | | | | | | | | |
|--|--------------|----------------------|--------------------|----------------|--|---|--|---|--|---|
| Enter network data in here from the street gazetteer, or another suitable database containing detail of all highways | | | | | Would the location / use of this footway lead to it having the highest level of inspection / repair | Would the location / use of this footway lead to it having the higher than normal levels of inspection / repair | Would the location / use of this footway lead to it having the a higher level of inspection / repair | | | Initial Proposed Footway Hierarchy will populate here based on location / use |
| USRN | Road Name | ESU (Section Number) | Existing Hierarchy | Footway Number | Is the footway in a very busy area of a major city (central business district or main shopping area) | Is the footway in a busy area of town (main shopping area, local authority premises etc.) | Is the footway outside busy public building such as train/bus stations, hospitals, schools and colleges or small parade of shops etc | Does the footway link housing estates and industrial estates to other centres /routes | Is the footway little used rural footway | 1. Initial Footway Hierarchy |
| 2500123 | London Road | 10 | N/A | N/A | No | No | No | No | No | FH4 |
| 2500124 | High Street | 10 | N/A | N/A | Yes | | | | | FH4VHU |
| 2500125 | Main Street | 10 | N/A | N/A | No | Yes | | | | FH1 |
| 2500126 | Broad Avenue | 10 | N/A | N/A | No | No | Yes | | | FH2 |
| 2500127 | Normal Close | 10 | N/A | N/A | No | No | No | Yes | | FH3 |
| 2500128 | Narrow Lane | 10 | N/A | N/A | No | No | No | No | | FH4 |
| 2500129 | Country Road | 10 | N/A | N/A | No | No | No | No | Yes | FH5 |

Use Assessment to Refine Hierarchy: Local Specific Adjustments

The use assessment should consider where individual footways (or sections of footway) should be allocated a different hierarchy level based upon the pedestrian usage:

Primary Considerations:

It is expected that most changes to hierarchy made during the use assessment will be justified by reference to the consideration below:

| CSSW Footway Hierarchy | Footfall Level (indicative) |
|------------------------|---|
| FH4VHU | > 10,000 (15,000 used for calculations) |
| FH1 | 5,000 - 10,000 |
| FH2 | 1,000 - 5,000 |
| FH3 | 500 - 1,000 |
| FH4 | < 500 |

| | |
|-----|-------|
| FH5 | < 100 |
|-----|-------|

- **Volume of pedestrian traffic:** a footway may move between categorisations due to having a higher or lower level of footfall than other footways in this category. An initial assessment based on officer knowledge may prompt the move, but this should be verified using actual pedestrian count data where possible.

| USE ASSESSMENT | | |
|--|---|---|
| Review assumed pedestrian traffic flow band, does it appear a reasonable assumption? | A recommendation as to whether a review should be undertaken will populate here based on the considerations | Insert the Footway Hierarchy you have decided upon based on your review of the considerations |
| Primary Consideration | Consider reviewing the Footway Hierarchy? | 2. Reviewed Footway Hierarchy |
| Is the assumed pedestrian daily traffic flow within the band indicated below? | | |
| < 500 | Yes | No |
| > 10,000 | Yes | No |
| 5,000 - 10,000 | Yes | No |
| 1,000 - 5,000 | Yes | No |
| 500 - 1,000 | No | Yes |
| < 500 | Yes | No |
| < 100 | Yes | No |

Tertiary Considerations

The code of practice lists many factors that authorities may consider when establishing their hierarchy (ref). CSSW has decided that it is appropriate for the tertiary considerations listed below to be discounted from the risk review, for the reasons stated in the rationale document. It is recommended that where authorities have reinstated these considerations as part of a local risk assessment that they document these and explain why they have been reintroduced.

The following items from the CoP are considered to be unnecessary for inclusion in the CSSW recommended hierarchy review process.

- Pedestrian Composition: the composition of the pedestrian traffic may also be a driver to moving a footway from one category to another. This may include:
 - *Use by the aged or infirm – authority workshop discussions indicate that areas of footway near facilities for the aged or infirm do not experience noticeably higher levels of defect related accidents or claims. As such they do not warrant the application of a different hierarchy to their surround footways. If during analysis of accident or claim data a trend of increased incidents near such a facility is identified, authorities should review the data to establish the significance of any issues and adjust their hierarchy accordingly*
- Current usage and proposed usage – *Current usage is reflected in the Primary and secondary considerations above; Proposed usage is uncertain and any forecast will contain many unknowns it has therefore been decided that review of hierarchy should be undertaken following any significant changes to usage rather than before.*
- Contribution to the quality of public space and streetscene – *this aspect is covered during the initial setting of hierarchy, within the identification of primary footways.*
- Designation as a traffic sensitive pedestrian route – *this is a network management issue which will be primarily based on level of use and is unlikely to affect the functional hierarchy of the footway .*

- Special characteristic of certain assets, e.g. historic structures – this is not considered to be an issue for footway hierarchy
- Accident and other risk assessment - *this item is appropriate for consideration when adjusting inspection and maintenance regimes rather than for setting footway hierarchy.*
- Character and traffic use of adjoining carriageway - *this item is not considered to be appropriate for setting **footway** hierarchy as a high use carriageway adjacent to a low use footway would not warrant increasing the hierarchy level of the footway and a high use footway next to a low use carriageway would have its hierarchy set based on its use.*

Consultation with Neighbouring Authorities

Upon completion of the use assessment a consultation should be undertaken with neighbouring authorities. A subset of the hierarchy data should be extracted for the footways that cross into adjacent authorities. Authorities should exchange this data and compare the level of hierarchy assigned to the footways that cross regional boundaries. Where there are differences the reasons for them should be determined. Each authority must then decide if the differences that exist are acceptable.

Where the hierarchy changes when it crosses a regional boundary, this should be noted by both authorities in their records and the rationale for accepting the difference should be clearly stated.

| REGIONAL CONSISTENCY CHECK | | | CONFIRMATION OF FINAL HIERARCHY | | |
|--|---|---|--|--|---|
| Is this section of footway one that crosses into the neighbouring authority? | Is the hierarchy the same as in the neighbouring authority | Insert the Footway Hierarchy you have decided upon based on your review of the considerations | Insert the reasons for the hierarchy you have decided upon following your review/s | The Final Footway Hierarchy will populate here based on initial hierarchy and the reviews undertaken | Any additional comments that have a bearing on the hierarchy or notes to carry through to the setting of inspection regime etc. |
| Does this footway cross a regional boundary? i.e. into the neighbouring authority? | Enter the hierarchy of the neighbouring authority footway section | 3. Reviewed Footway Hierarchy | Enter in the Yellow cells the reasons for hierarchy chosen | 4. Final Footway Hierarchy | Comments |
| Yes | FH2 | FH4 | Pedestrian traffic changes at boundary | FH4 | Moves from a built up area to a rural area |
| No | | | | FHVHU | |
| No | | | | FH1 | |
| No | | | | FH2 | |
| No | | | Pedestrian volumes are only slightly lower than the band | FH3 | The hierarchy is in keeping with the surrounding area |
| No | | | | FH4 | |
| No | | | | FH5 | |

Confirm and Record the Hierarchy

Following completion of the consultation the final hierarchy should be recorded along with the reasons for the chosen hierarchy. This can be done by formalising a final version of the spreadsheet.

The final agreed hierarchy should be council approved in conjunction with the formalising of inspection and repair regimes.

Structures Hierarchy

Structures hierarchy bands have been defined as below:

1. **Vital:** a structure that is vital to the network i.e. if restricted or out of service it would cause a very significant adverse effect such as major traffic delays with the potential to affect other important services or community severance
2. **Important:** a structure that is important to the functioning of the network, i.e. if restricted out of service would have an adverse effect on the operation of the network
3. **Standard:** all other structures

Use Network/Asset Details to Assign Initial Hierarchy

Import Structure Details (Structure Number, Name, Type, Existing Hierarchy [if known]) from the Structures database. Import network details (Road Name, Road Number, Road Hierarchy, Footway Number and Footway Hierarchy) from the NSG or another source. Enter the data into the spreadsheet provided:

All structures will automatically be assigned an initial hierarchy category based on the hierarchy of the road or footway that the structure carries or crosses. The initial structure hierarchy is based on the table below using the highest hierarchy for either carriageway or footway.

| Road Bridges, Culverts, Retaining Walls etc | |
|---|-----------------------------|
| Carriageway Hierarchy | Initial Structure Hierarchy |
| CHSR | Important Structure |
| CH1 | |
| CH2 | |
| CH3 | Standard Structure |
| CH4 | |
| CH5 | |

Footbridges

For footbridges and other structures that are solely associated with a footway or footpath the initial structure hierarchy is based on the table below by relating it to the footway hierarchy of the adjacent footway

| F-way Hierarchy | Structure Hierarchy |
|--------------------|-------------------------|
| FHVHU | 1. Important structures |
| FH1 | |
| FH2, FH3, FH4, FH5 | 2. Standard Structure |

n.b. At this stage the rating of a **Vital Structure** is not used and is only populated following the assessment of other relevant considerations. (Use Assessment)

| STRUCTURE DETAILS | | | NETWORK DETAILS | | | | | | |
|------------------------------|------------------------|-------------|--|--------------|----------------|---|-------------------|---|--|
| Enter Structure Details Here | | | Enter network data in here from the street gazetteer, or another suitable database containing detail of all highways | | | Enter footway network data for those structures that are associated with a footway only | | Enter the existing structure hierarchy if known | Initial Proposed Structure Hierarchy will populate here based on road or footway hierarchy |
| Structure Number | Structure Name | Asset Type | Road Number | Road Name | Road Hierarchy | Footway Number | Footway Hierarchy | Existing Structure Hierarchy (If known) | 1. Initial Structure Hierarchy |
| 654 | Big Bridge | Road Bridge | 2500123 | London Road | CHSR | | | | Important Structure |
| 655 | Old Bridge | Road Bridge | 2500124 | High Street | CH1 | | | | Important Structure |
| 656 | New Bridge | Road Bridge | 2500125 | Main Street | CH2 | | | | Important Structure |
| 657 | Small Bridge | Road Bridge | 2500126 | Broad Avenue | CH3 | | | | Standard Structure |
| 658 | Old Culvert | Culvert | 2500127 | Normal Close | CH4 | | | | Standard Structure |
| 659 | New Culvert | Culvert | 2500128 | Narrow Lane | CH5 | | | | Standard Structure |
| 660 | Shopping parade bridge | Footbridge | | | | 4400321 | FHVHU | | Important Structure |

It is expected that most authorities will need to adjust the hierarchy of some structures as part of the use assessment to adequately reflect the network importance of individual structures.

It is also probable that individual structures will need to be allocated hierarchies that may not fit the initial “rule” shown above.

Use Assessment to Refine Hierarchy: Local Specific Adjustments

The use assessment should consider where individual structures should be allocated a different hierarchy level based upon factors that may include:

Primary Considerations:

It is expected that most changes to hierarchy made during the use assessment will be justified by reference to the considerations below:

- **Major Traffic Disruption** – would closure or works on the structure be likely to cause major traffic disruption (e.g. city centre bridge)
- **Sole Access** - Is the structure a sole access route to a community or facility that would be cut off if the structure were closed.
- **Major Diversion Route** – would closure or works on the structure require a lengthy diversion route.

- **Other Reasons for Reviewing Hierarchy** – there may be other reasons for reviewing the hierarchy of the structure such as:
 - **Susceptible to Rapid Failure Mode** – could this structure fail in a rapid manner causing a significant safety risk? (based on structure type and material)
 - **Significant adverse social or economic impact** - Would restriction or closure of this structure have a significant adverse social or economic impact? (e.g. structure is on the route to a major industrial facility)
 - **Structure of Local Significance** - Is this structure of local significance? (e.g. an individual iconic local structure, scheduled monument)

Following completion of the use assessment the spreadsheet will prompt a review of the hierarchy and populate a suggested hierarchy based on the ruleset in the following table*.

| Rule | Suggested Hierarchy |
|---|---------------------|
| Sole Access to community | Vital Structure |
| Both major traffic disruption and lengthy diversion route | Vital Structure |
| Either major traffic disruption or lengthy diversion route | Important Structure |
| Susceptible to rapid failure | Important Structure |
| Significant social or economic impact | Important Structure |
| Structure of local significance | Important Structure |

*n.b. As approved by CSSW.

| USE ASSESSMENT | | | | | | |
|--|--|--|---|--|---|--|
| <i>Review if a closure or works on this structure would lead to major traffic disruption</i> | <i>Review if this structure serves as the only access to a community or facility</i> | <i>Review if a lengthy diversion route would be required if this structure were out of service</i> | <i>Is there a reason you would consider reviewing the hierarchy of this structure? (e.g. an individual iconic local structure, closure would have an adverse social or economic impact or the structure could fail without warning)</i> | <i>A recommendation as to whether a review should be undertaken will populate here based on the considerations</i> | <i>A recommendation as to what the hierarchy should be will populate here based on the considerations</i> | <i>Insert the Structure Hierarchy you have decided upon based on your review of the considerations</i> |
| Primary Considerations | | | | Consider reviewing the Structure Hierarchy? | Suggested Hierarchy | 2. Reviewed Structure Hierarchy |
| Is closure or works likely to cause Major Traffic Disruption (e.g. city centre bridge) | Is the structure a Sole Access to Community | Would closure or works require a Lengthy Diversion Route | Is there a reason you would consider reviewing the hierarchy of this structure? | | | |
| Yes | No | Yes | | Yes | Vital Structure | Vital Structure |
| No | Yes | No | | Yes | Vital Structure | Vital Structure |
| No | Yes | Yes | | Yes | Vital Structure | Vital Structure |
| No | No | Yes | | Yes | Important Structure | Important Structure |
| No | No | No | | No | | |
| No | No | No | | No | | |
| No | No | No | | No | | |

Tertiary Considerations

The code of practice lists many factors that authorities may consider when establishing their hierarchy (ref). It is recommended that where some of these have been discounted as not being appropriate that this is recorded. It is expected that this may be appropriate for many of the tertiary considerations listed below, for the reasons stated.

It is recommended that authorities document those items listed in the CoP that have been discounted and explain why they have been discounted: e.g. *The following items from the CoP have been considered but have not resulted in specific adjustment to the structures hierarchy*

- *type of asset, e.g. bridge, tunnel, retaining wall, earth structure, the relative importance of an asset in term of the impact of its potential failure is not a function of asset type*
- *obstacle crossed, bridge span, retained earth height; a bridge crossing another road presents the same risk as one crossing a river*
- *critical asset, historic structure, permanent weight, height, width or swept path restriction;*
- *construction material, e.g. concrete or steel bridge, arch, slab or beam/girder bridge, concrete or stone walls, etc.*

These factors are important considerations in establishing an inspection frequency but are not relevant in determining the hierarchy

Consultation and Other Considerations

Upon completion of the use assessment a consultation should be undertaken with neighbouring authorities. A subset of the hierarchy data should be extracted for the structures that are shared with adjacent authorities. Authorities should exchange this data and compare the level of hierarchy assigned to the structure that crosses regional boundaries. Where there are differences the reasons for them should be determined. Each authority must then decide if the differences that exist are acceptable.

Where the hierarchy changes when it crosses a regional boundary, this should be noted by both authorities in their records and the rationale for accepting the difference clearly stated.

Local authority officers may have an additional local reason for adjusting the hierarchy of a structure, where this is the case it should be noted on the sheet and the reason for changing the hierarchy documented.

| REGIONAL CONSISTENCY CHECK | | | | STAGE FOUR FINAL HIERARCHY | | |
|--|---|--|---|--|--|---|
| is this Structure shared with a the neighbouring authority? | is the hierarchy the same as in the neighbouring authority | | Insert the Structure Hierarchy you have decided upon based on your review of the considerations | Insert the reasons for the hierarchy you have decided upon following your review/s | The Final Structure Hierarchy will populate here based on initial hierarchy and the reviews undertaken | Any additional comments that have a bearing on the hierarchy or notes to carry through to the setting of inspection regime etc. |
| Secondary Considerations | | | | | | |
| Does this Structure cross a regional boundary? i.e. into the neighbouring authority? | Enter the hierarchy of the neighbouring authority structure | Are there any other reasons to change the structure hierarchy? | 3. Reviewed Structure Hierarchy | Enter in the Yellow cells the reasons for hierarchy chosen | 4. Final Structure Hierarchy | Comments |
| Yes | Vital Structure | No | Vital Structure | As recommended | Vital Structure | |
| | | | | As recommended | Vital Structure | |
| | | | | As recommended | Vital Structure | |
| | | | | As recommended | Important Structure | |
| | | | | | Standard Structure | |
| | | | | | Standard Structure | |
| Yes | Important Structure | No | Important Structure | As recommended | Important Structure | |

Confirm and Record the Hierarchy

Following completion of regional consistency check the final hierarchy should be recorded along with the reasons for the chosen hierarchy. This can be done by formalising a final version of the spreadsheet. **The final agreed hierarchy should be council approved, in conjunction with the formalising of inspection and repair regimes.**

Street Lighting Hierarchy

Street lighting hierarchies differentiate between primary and secondary lighting. It is expected that where an authority is adopting a part night lighting and/or dimming regime that such a hierarchy will be introduced as the means of deciding which lights can be turned off or dimmed. A sheet has been provided within RP1 Highway Asset Risk Review, where this information can be inserted. Inspection and repair regime may be dictated by the nature of the defect rather than by hierarchy considerations.

Traffic Management Systems Hierarchy

Use Network/Asset Details to Assign Initial Hierarchy

Import Traffic Management Systems details from the TM database and location details (Road Number, Name and Hierarchy) from the NSG or Carriageway hierarchy spreadsheet. Enter the data into the spreadsheet provided:

All traffic management assets will be assigned an initial category based on the hierarchy of the road where it is located as per the table below. For junctions that serve more than one road hierarchy the highest hierarchy should be used:

| Carriageway Hierarchy | Traffic Management Hierarchy (As per highest Carriageway hierarchy) |
|-----------------------|---|
| CHSR | Primary Junction |
| CH1 | |
| CH2 | Secondary Junction |
| CH3 | Local Junction |
| CH4 | |

All other traffic management assets (including pedestrian crossings) will initially be assigned the hierarchy of local.

| NETWORK/ASSET DETAILS | | | | | |
|---|---------------|--|--------------|----------------|--|
| Enter asset data in here from the Traffic Management database or other suitable records | | Enter network data in here from the street gazetteer, or another suitable database containing detail of all highways | | | Initial Proposed TM Hierarchy will populate here based on Road / Footway Hierarchy |
| Junction Number | Junction Name | Road Number | Road Name | Road Hierarchy | 1. Initial Traffic Management Hierarchy |
| 25 | London Road | 2500123 | London Road | CHSR | Primary Junction |
| 26 | High Street | 2500124 | High Street | CH1 | Primary Junction |
| 27 | Main Street | 2500125 | Main Street | CH1 | Primary Junction |
| 28 | Broad Avenue | 2500126 | Broad Avenue | CH3 | Local Junction |
| 29 | Normal Close | 2500127 | Normal Close | CH4 | Local Junction |
| 30 | Narrow Lane | 2500128 | Narrow Lane | CH5 | Local Junction |

Use Assessment to Refine Hierarchy: Local Specific Adjustments

The use assessment should consider where individual traffic management installation should be allocated a different hierarchy level based upon local factors e.g. size of junction, number of legs etc.

| USE ASSESSMENT | | |
|--|---|--|
| Are there any considerations you would take into account that might affect the inspection and or repair regime of the asset and which therefore might affect the hierarchy. If so insert them below. | Insert whether the considerations on the left have prompted a review of the hierarchy | Insert the TM Hierarchy you have decided upon based on your review of the considerations |
| Primary Considerations | Consider reviewing the Traffic Management Hierarchy? | 2. Reviewed Street Traffic Management Hierarchy |
| N/A | | |
| N/A | | |
| N/A | | |
| Four way junction with access to Station | Yes | Secondary Junction |
| N/A | | |
| N/A | | |

Consultation

Upon completion of the use assessment a consultation should be undertaken with neighbouring authorities. A subset of the hierarchy data should be extracted for the junctions that are shared with adjacent authorities. Authorities should exchange this data and compare the level of hierarchy assigned to the junction that crosses regional boundaries. Where there are differences the reasons for them should be determined. Each authority must then decide if the differences that exist are acceptable.

Where the hierarchy changes when it crosses a regional boundary, this should be noted by both authorities in their records and the rationale for accepting the difference clearly stated.

| REGIONAL CONSISTENCY CHECK | | | CONFIRMATION OF FINAL HIERARCHY | | |
|--|---|--|---|---|--|
| <i>Is this section of road one that crosses into the neighbouring authority?</i> | <i>Is the hierarchy the same as in the neighbouring authority</i> | <i>Insert the Footway Hierarchy you have decided upon based on your review of the considerations</i> | <i>Insert the reasons for the hierarchy you have decided upon following your review/s</i> | <i>The Final Footway Hierarchy will populate here based on initial hierarchy and the reviews undertaken</i> | <i>Any additional comments that have a bearing on the hierarchy or notes to carry through to the setting of inspection regime etc.</i> |
| Does this junction form a regional boundary? i.e. into the neighbouring authority? | Enter the hierarchy of the neighboring authority junction | 3. Reviewed Traffic Management Hierarchy | Enter in the Yellow cells the reasons for hierarchy chosen | 4. Final Traffic Management Hierarchy | Comments |
| No | | | | Primary Junction | |
| No | | | | Primary Junction | |
| No | | | | Primary Junction | |
| No | | | Upgrade to secondary junction due to size of junction | Secondary Junction | Access to station car park and 4 legs |
| No | | | | Local Junction | |
| No | | | | Local Junction | |

Confirm and Record the Hierarchy

Following completion of regional consistency check the final hierarchy should be recorded along with the reasons for the chosen hierarchy. This can be done by formalising a final version of the spreadsheet.

The final agreed hierarchy should be council approved, in conjunction with the formalising of inspection and repair regimes.

Two Yearly Review of Asset Hierarchies

A review date should be set following the formal approval of the asset hierarchies. The review should examine the risk review data and any changes made to the assets during the years, new assets added or major improvement schemes completed. The review should also take into account new data that has been collected during the year especially traffic or pedestrian count data that may indicate a need to change the level of hierarchy assigned to an asset (or section thereof).