Llywodraeth Cymru
Welsh Government

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# Roads and Bridges Suicide Prevention Guidance

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# Introduction to the guidance

## Purpose

This guidance supports the Design Manual for Roads and Bridges standard GG 920, Suicide Prevention Assessment and Review (hereafter referred to as GG 920), in its application on the Strategic Road Network in Wales. UKRLG have published guidance for local authorities[i].

Suicide prevention refers to measures aimed at reducing the risk of suicide. Many suicides can be prevented through co-ordinated strategies and actions at government, community, and individual levels.

Specifically, this guidance aims to:

- Provide contextual information for suicide prevention in Wales including references to the Welsh Government's Strategy.
- Clarify the role of the Welsh Government as highway authority for the Strategic Road Network in Wales, and the responsibilities of its supply chain (including Trunk Road Agents, consultants and contractors) in suicide prevention.
- Raise awareness of common risk factors associated with suicides on roads and bridges.
- Highlight measures that can help reduce the risk of suicide.

This guidance is intended to support designers and assessors in the application of GG 920 in Wales and offer advice for designers in subsequent project stages. It has been prepared by Welsh Government's Strategic Road Network Division, in consultation with advisors in NHS Wales Performance and Improvement.

*Sensitivity Statement*

This guidance contains sensitive content relating to deaths by suicide. While suicide and suicide prevention are legitimate topics of public interest, it is essential to recognize that discussing or reporting on suicide can have potentially harmful consequences. Communication around these topics should always be approached with caution, empathy, and sensitivity; guidance is provided in Section 2.

If you are struggling to cope, please refer to the support services listed in Section 6 of this guidance.

# 1 Background

## 1.1 Welsh Government's Strategy: Understanding

Suicide is a complex occurrence involving multiple risk factors and personal circumstances, leading to someone ending their own life. It is a serious public health concern that has lasting effects on individuals, families, and communities. With appropriate measures, suicides are preventable. The Welsh Government's Suicide Prevention and Self-harm Strategy for Wales: 'Understanding' sets a Vision for Wales: *The annual rates of suicide in Wales will continuously decrease. People who self-injure, self-poison, who have suicidal ideation or have attempted suicide will feel safe and understood. They will belong to informed and compassionate communities and will be able to access support and services which meet their needs when and where they need them.*

'Understanding' provides definitions of Suicide and Self-harm, information on data and at-risk groups in Wales, sets Objectives and is supported by a Delivery Plan. Welsh Government's Strategy 'Understanding' covers cross-government multi-sectoral actions, not just transport related actions. Application of GG 920 can help to deliver: Objective 2: "Preventing" which includes identifying and managing locations of concern.

The road sector plays an important role in a multi-sectoral approach to suicide prevention by promoting conditions which protect against suicide risk and raising awareness of suicide, risk factors and its prevention. Welsh Government's Strategic Road Network Division, hereafter referred to as the Overseeing Organisation, see value in the approach set out in GG 920 in supporting the Vision for Wales. This guidance provides relevant information for the application of GG 920 on the Strategic Road Network in Wales.

As professionals with a duty of care to the public, engineers are in a key position to make a lasting, life-saving impact through thoughtful, evidence-based design. Suicide prevention is part of designing for public safety. Just as engineers design to prevent crashes, collapses, or falls, they can also design to deter suicide attempts. Incorporating measures such as barriers, fencing, signage, and emergency call points can significantly reduce risk. Care should be taken at all stages of site assessment, design and implementation not to inadvertently publicise the frequently used site.

## 1.2 Suicide Prevention Assessments and Reviews for Welsh Government

Site assessments focus on opportunities to restrict access to means. These assessments should adopt a person-centred approach to identify risk-appropriate practical measures and reference, rather than repeat, the measures in this guidance. Keep reports proportionate in length and focused on practical, risk-based recommendations. The level of detail should reflect the assessed risk.

Assessments should:

- Identify any limitations or future work to support viability, ownership, technical approvals, and ongoing maintenance.
- Include indicative cost estimates for proposed measures.
- Align proposed measures to the site-specific risk level:
    - Use risk factors (Section 4) and available data to justify interventions.
    - Apply low-cost, quick-win solutions where feasible.
    - Implement more complex, multi-faceted measures only where warranted by risk.

    - If risk is evaluated as low and measures deemed disproportionate it is acceptable to recommend no intervention.
- Embed proportionality as a guiding principle:
    - Avoid over or under-reaction: Apply suitable measures that neither waste resources at low-risk locations nor ignore serious threats at high-risk locations.
    - Build public trust:  Use evidence based, non-intrusive measures that communities and stakeholders are more likely to support.
    - Balance safety with accessibility: Consider interventions that maintain aesthetics and openness of public spaces.
    - Prioritise sustainability: Direct limited resources –financial, material or staff – where they will have the most impact.

### 1.2.1 Assessor Team

Ideally the assessor team would be a combination of individuals with a civil engineering background, with those with expertise in human behaviour.

In addition to the competencies set out in GG 920, Assessors undertaking Suicide Prevention Assessment and Reviews on the Strategic Road Network in Wales are required to have appropriate training or suitable experience to evaluate the risks and recommend proportionate suicide prevention measures. This includes skills such as:

- Knowledge of environmental and situational risk assessment
- Familiarity with the national suicide prevention and self-harm strategy
- Ability to apply principles of proportionality and safeguarding
- Awareness of mental health, trauma-informed practice and crisis response
- Communication skills to engage sensitively with affected individuals or communities

A dedicated team would be beneficial to ensure consistency of assessment and measures recommended.

Understanding human behaviour and environmental psychology is essential in suicide prevention design. Assessors with expertise in human factors can bring valuable insight into how people respond to spaces, helping ensure interventions are psychologically informed, sensitive to risk, and tailored to community needs. The following competencies are advantageous:

- Understanding of how environmental design influences human behaviour, particularly in situations of stress or crisis.
- Ability to identify risk points arising from user movement, decision-making, impulsivity, and overlooked access routes.
- Awareness of psychological triggers in the built environment and their potential impact on vulnerable people.
- Skill in recommending design features that promote help-seeking behaviour or moments of reflection through layout, cues, or signage.
- Capacity to assess the potential unintended consequences of interventions, ensuring they do not cause distress, stigma, or further isolation.

- Proficiency in researching and analysing data to understand the needs, behaviours, and vulnerabilities of the local community.

## 1.3 Data and Evidence

Data on attempted suicides by vulnerable people and deaths by suicide is challenging. The Office of National Statistics record deaths by suicide confirmed by a Coroner. The Overseeing Organisation know through working with stakeholders such as the police and NHS Wales Performance and Improvement that there are many more vulnerable people who are helped, however, as noted in the Strategy: Understanding - data on self-harm and attempted suicides is currently under-reported. Cultural stigma makes reporting and recognising these issues as genuine road safety concerns even harder. Without reliable data, professionals struggle to develop effective policies or secure the resources needed to address them.

Improvements in data to inform an evidence-led approach are expected during the life of the Strategy: Understanding. As more data becomes available the Overseeing Organisation may adjust the criteria used to identify a Frequently Used Site on the Strategic Road Network (SRN) to ensure evidence -led assessments are targeted where they are needed most.

### 1.3.1 Nationally available data

The Office for National Statistics provides data on deaths by suicide; this is publicly available on its website: www.ons.gov.uk. Refer to the Strategy: Understanding for information on the link between suicide and self-harm, and data at an all-Wales level, not trunk road and motorway specific data.

In addition to data published by Office of National Statistics, Public Health Wales collects information on deaths by suspected suicide that occur in Wales, as well as deaths of Welsh residents that occur outside of Wales in the Real Time Suspected Suicide Surveillance (RTSSS)[ii]. The aim of the RTSSS is to act as a central national repository for deaths by suspected suicide to generate intelligence to inform suicide prevention activity across Wales. Suspected suicides are reported to the RTSSS before a Coroner's inquest; therefore, this data differs from that published by ONS.

The RTSSS acts as an early warning system for indications of changes in suicides to inform suicide prevention. The data outputs from the RTSSS work programme are primarily for national and local organisations working on suicide prevention, reporting information such as region of Wales, health board, area of deprivation, sex, age, mode of death and location type. However, specific location information is not reported due to the risk of contagion.

The designation 'suspected suicide' is provided by the police, and the term is used because the coroner's inquest has not yet confirmed the cause of death. Coroners will sometimes conclude death by misadventure as they are not able to establish clear intent; these are examples of spontaneous acts and can result in under-reporting of deaths by suicide.

### 1.3.2 Location specific data

The Overseeing Organisation holds data collected by the police where vulnerable people have presented on the trunk road or motorway roads and bridges for which they are the asset owner. This data includes data on vulnerable people who have been taken to hospital or returned home without injury, but where their mental health has been recorded as a concern. It also includes deaths where the police have recorded a health concern. Data is currently limited; however, work is underway to increase the amount of data, with regular transfers of consistent data to the Overseeing Organisation from all 4 police forces.

## 1.4 Risk factors

It is helpful to have a general awareness of factors and circumstances that increase the risk of suicide and to recognise the different demographic groups who may be more at risk. This awareness enables organisations to identify trends and at-risk populations. Welsh Government's Strategy: Understanding gives information on Risk Factors.

In the road sector, understanding the risk factors helps develop and target suicide prevention measures in areas where they can make the most significant impact, to ensure those measures to be proportionate to the level of risk.

There are a range of individual and societal circumstances that can increase suicide risk, and often it is a combination of different factors that cause suicidal behaviour.

The annual reports from the RTSSS gives the most current information for Wales on suicide risk factors, levels of deprivation and contact with health services among groups with increased risk.

# 2 Changing the way suicide is thought and spoken about

## 2.1 Common myths about suicide

This section aims to address some common misconceptions about suicide by presenting the facts that expose them. The initial step in suicide prevention involves breaking the associated stigma and dispelling myths. Challenging widely held misconceptions is essential for enhancing a deeper understanding of suicide and empowers individuals to take proactive measures and contribute to making a positive impact.

Below is a list of some commonly held misconceptions along with the facts.

| Myth | Fact |
|---|---|
| Talking about suicide is a bad idea as it may give someone the idea to try it | Suicide can be a taboo topic, but by asking someone directly about suicide you give them permission to tell you how they feel. Once someone starts talking, they've got a better chance to reconsider and look at other options to address their suicidal thoughts. |
| You must be mentally ill to think about suicide | 1 in 5 people have suicidal thoughts at some point in their life and not everyone who dies by suicide has mental health problems. However, many who take their own life do suffer with ill mental health. |
| People who are suicidal want to die | The majority of those who feel suicidal do not actually want to die; rather, they do not want to live the life they have. Talking through other options at the right time is also, therefore, important. |
| If we prevent suicides in one location, we'll only move them to another location | Evidence suggests that this isn't true. One study reported that only a third of those who would have taken their own life from a bridge said they would have chosen another location if it wasn't available. There is further evidence from other methods that restricting access achieved an overall reduction in suicides. |
| If a person is serious about taking their own life, then there is nothing you can do | Feeling suicidal is a temporary feeling that will pass, even though it might not feel like this at the time. Getting timely support can, therefore, be important. |
| We can't stop someone from taking their own life | The act of taking one's own life can be impulsive and the actual moment of intent may be short-lived – if you can interrupt someone's suicidal thoughts at that point, you can stop them from taking their own life. People who try to take their own lives often don't want to die, but they can't bear to carry on living – they want to find a way to stop the pain. Exploring other options can make suicide less attractive. |

## 2.2 How to report and talk about suicides sensitively

As the road sector's understanding of suicide grows, the sector needs to report and speak about it sensitively. Detailed information about the method and location should be avoided when not necessary. It is important to use respectful language that considers the affected individuals, their families, and their communities. Using appropriate language could also prevent further harm.

Below is a list of alternative phrases to use when reporting and talking about suicide.

| **Instead of…** | **Say this…** | **Why?** |
|---|---|---|
| Committed suicide | Died by suicide<br>Lost their life to suicide<br>Took their own life | The word "commit" implies that suicide is a sin or crime, reinforcing the stigma that it is a selfish act. Using neutral phrasing helps strip away the shame and blame element. (Suicide was decriminalised in the UK in 1961) |
| Successful or completed suicide | Died by suicide<br>Suicide fatality | The notion of a "successful" suicide is inappropriate as it frames a tragic outcome as an achievement or something positive. |
| Unsuccessful suicide | Made an attempt on his or her life or attempted suicide | Not to present suicide as a desired outcome or glamorising an attempt |
| Jumper | Vulnerable person<br>Person in crisis or person in distress<br>Person living with suicidal thoughts or behaviours | "Jumper' depersonalises or trivialises the person's feelings at the time. Alternative wording helps break the stigma around suicide. |
| Hotspot | Location of concern<br>Frequently used site<br>Suicide cluster | The term "hotspot" may perpetuate its reputation as a place where people die by suicide, which may encourage further suicides. It also trivialises and sensationalises suicides and suicide attempts. Some individuals feel uncomfortable with the term 'suicide cluster' because it may cause anxiety and could be perceived as insensitive to grieving families.[iii] Nevertheless, this term is primarily used by professionals in the suicide prevention field. |
| Epidemic or skyrocketing | Rising<br>Increasing | Using quantitative and less emotionally charged terms, avoids instilling a sense of doom or hopelessness, and avoids sensationalism or inaccuracy. |

Note: Different organisations have different definitions of Locations of Concern, Suicide Clusters or Frequently Used Sites. Care should be taken when using these terms in assessment or review reports to ensure clarity around explain which definition is being referenced.

# 3 Road and bridge related suicide

## 3.1 The road sector's responsibility

The road sector has a role to play in making the whole road network safer place for all. Those working in the road sector need to be aware of and understand the approach to suicide prevention, where we can deliver improvements and how we can work with others.

The Delivery Plan which accompanies the Welsh Government's Strategy: Understanding outlines the ongoing work on the Strategic Road Network undertaking assessments to identify opportunities and seek to implement measures where practicable to restrict access to means. GG 920 will see more assessments being commissioned, and this guidance shares the learnings from previous assessments undertaken in Wales.

A robust risk assessment process is essential, as it enables a highway authority to demonstrate that appropriate procedures were followed in the event of any civil claim. Similarly, in coroners' inquests, the authority can provide evidence that risks—such as those associated with potential suicides—were taken seriously and managed through a structured assessment and mitigation approach. This supports the authority's duty of care and commitment to preventing future incidents. Where available data should be used to inform the assessment of risk (see Section 1.2).

## 3.2 Suicidal intent for road and bridge related methods

Road and bridge related suicide refers to suicides that occur on the highway, including roads, bridges, footpaths, and non-motorised user routes.

Data from the RTSSS for the 24 months from April 2022 to March 2024 recorded 10 suspected suicides on the SRN in Wales. Due to the nature of this surveillance data, some suspected suicides that occur on these roads may be missing, and it is unclear from the data if the road was a factor in all these cases.

There are six methods of categorising road and bridge related suspected suicides in Wales:

- Jumping or falling off or onto road infrastructure with the intention of self-harm
- Stepping into the path of a moving vehicle with the intention of self-harm
- Driving a vehicle off road infrastructure with the intention of self-harm
- Driving a vehicle into road infrastructure with the intention of self-harm
- Driving a vehicle into another vehicle with the intention of self-harm
- Carrying out acts within a stationary or moving vehicle with the intention of self-harm.

Roads and bridges may be chosen due to the following reasons:

**Easy accessibility**: Roads and bridges can offer easy accessibility, requiring minimal preparation for people in distress to reach them. As pedestrians walk over bridges or alongside roads, the familiarity of these settings can trigger suicidal thoughts and impulses. This is different to intentional premeditation, making events potentially appear more of a spontaneous act and, in turn, possibly lessening the emotional impact on loved ones.

**Perceived quick and 'easy' lethality**: Jumping from height or being struck by a high-speed vehicle has a relatively high fatality rate. The rapid nature of such incidents allows for limited measure from others, contributing to the perception of quick and 'easy' lethality.

**Familiarity and personal connection**: Bridges and roads are often familiar to people on distress, holding personal meaning or carrying a reputation as a location of concern or

cluster. This can be from living near it. The emotional ties to these locations may intensify the attraction for those contemplating suicide.

**Less traumatic for loved ones**: Someone might choose a site for their suicide to prevent a loved one from being the person to discover them, sparing them the trauma and emotional burden of that experience. Conversely to the point above, public settings may feel more anonymous and less personally connected, which can be perceived as a way of trying to protect those closest to them from further pain.

Understanding these factors is crucial for developing measures to reduce suicides at roads and bridges.

## 3.3 Wider impact on road users and communities

Suicides have a profound impact on individuals, families, and communities—but they also affect the road network in significant ways. While the primary goal is always to preventing harm, reducing the wider impact on other road users and responders is also an important aspect of prevention.

Suicide incidents on roads can affect drivers, road workers, and emergency services alike. They often lead to traffic disruption and road closures, resulting in delays for motorists and potentially impacting emergency response times. On the SRN, such closures can last from a few minutes to several hours. The economic cost is substantial, with each fatality estimated to cost the UK economy around £1.46 million[iv].

Repeated suicide attempts or fatalities at a single location can draw media attention and cause ongoing disruption, especially in areas with limited diversion options. Over time, these incidents can foster fear, grief, and stigma within local communities, influencing how people perceive the safety and wellbeing of their surroundings.

# 4 Road and Bridges based suicide risk factors

## 4.1 GG 920 on the Strategic Road Network in Wales

For this guidance, any section of highway identified by Overseeing Organisation as a Frequently Used Site on the SRN is considered a ‘highway scheme’.

Various factors may influence suicide risk at a highway scheme increasing the chances of a new road or bridge becoming a Frequently Used Site after opening.

## 4.2 Suicide risk factors

Due to the scale and breadth of the road network, a risk-based approach to suicide prevention should be adopted. Applying a risk-based approach demonstrates a highway authority has acted responsibly and reasonably in carrying out a suicide assessment; showing why and how steps are being taken to manage risk and to prevent future suicides.

The following risk factors play a significant role:

- Proximity to high-risk populations
- Population context
- Accessibility of the highway scheme
- Lethality of the highway scheme
- Iconic value of the asset

Understanding and addressing these risk factors is crucial for developing effective suicide prevention strategies on the UK road network. These risk factors are explained in more detail below, along with some key data to consider and how to access this data.

> When conducting assessments and reviews, it is essential to evaluate all relevant risk factors collectively to determine the necessary suicide prevention measures. Professional judgment is expected in decision-making. Leverage your insights into human behaviour, the local environment, and physical design to identify risks that extend beyond the obvious.

### 4.2.1 Proximity to high-risk populations

High-risk populations are those who are more susceptible to engaging in suicidal behaviour. The closer the proximity of a scheme to high-risk populations, the higher the risk. Establishments used by high-risk populations are outlined below.

**1. Medical facilities:** Schemes near hospitals, psychiatric in-patient units, and accommodation for people with mental health or substance misuse problems pose a higher risk. The location’s proximity to a medical facility can be gathered using Google Maps and searching “hospital”. However, it’s important to note that not all relevant facilities – such as smaller clinics, supported housing, or specialised treatment centres – appear on mapping services. Therefore, engaging with local organisations and authorities is essential to identify any facilities in the vicinity that may not be publicly listed online.

**2. Pubs, bars and clubs, and shops that sell alcohol**: Intoxicated individuals are more susceptible to suicidal behaviours. The proximity of a scheme to pubs, bars and clubs, and shops that sell alcohol can be gathered using Google Maps and searching “pub”, “bar”, and “alcohol”.

**3. Higher and further education facilities**. Schemes near higher and further education facilities, i.e. universities and colleges, are at higher suicide risk due to the mental distress students face (difficulties with studies, financial problems, key transition points, and broader social and cultural pressures). The proximity to these education facilities can be obtained using Google Maps and searching either “higher education” or “further education”.

### 4.2.2 Population context

There are certain characteristics of an area that increase the likelihood of suicides. These are explained in more detail below:

**1. Welsh Index of multiple deprivation (WIMD)**: Areas of higher social deprivation may have an increased suicide risk. This data can be found using the interactive WIMD mapping tool in DataMapWales[v].

**2. Urban or rural location:** Urban areas may present a higher risk of suicide compared with rural areas. This information can be obtained from either the Rural-Urban Classification for LSOAs dataset in DataMapWales, or from a visual assessment of maps in satellite mode, or during a site assessment.

**3. Population density:** Higher population density areas may have an increased suicide risk. This data can be found in the population density dataset from the Office for National Statistics website[vi]. The lower tier local authority where a location is placed needs to be known.

**4. Local suicide rates:** Assessments of locations in local authority with higher suicide rates per 100,000 population are higher risk. This information can be sought from the Suicides in England and Wales by Local Authority dataset[vii].

### 4.2.3 Accessibility of the highway or highway scheme

An easily accessible highway or highway scheme can increase the risk of suicide. The more opportunity there is for people in crisis to act on their suicidal thoughts, the higher the risk of the scheme. Please use your professional judgement to interpret the below data.

**1. Presence of pedestrian access**, including slip roads, footpaths and junctions. This pedestrian access includes access to the wrong side of bridge barriers or parapets, or access onto a road that has fast flowing traffic. A thorough site assessment should identify all potential pedestrian access points, including those not officially recognised or maintained.

**2. Proximity to parking areas,** including car parks and lay-bys. People in crisis may make use of these areas to leave their cars and attempt to access the road network or the wrong side of bridge parapets or barriers.

**3. Proximity to residential areas,** such as housing developments or towns.

**4. Proximity to local amenities,** including shops and places of employment.

**5. Proximity to transport links,** such as public transport and car parks.

### 4.2.4 Lethality of the highway scheme

The lethality of a highway scheme is important to consider in the risk assessment as the more ‘lethal’ a scheme is, the higher the risk of suicides. Please use your professional judgement to interpret the below data.

Lethality should be assessed based on:

**1. Height of asset(s):** This is not only relevant to bridges. The higher the asset, the more lethal the location is. This data can be obtained during a site visit or during scheme design.

**2. Average speed of traffic**: The faster the average speed of the traffic, the more lethal the scheme is. This data can be gathered during a site visit or during scheme design.

**3. Average density of traffic**: The higher the density of traffic, the more lethal the scheme is. This data is subject to professional judgement based on a site visit or through scheme information.

**4. Access to hazards off the network**, such as railway lines and water courses. This data can be gathered during a site visit or via maps street view.

**5. Visibility and surveillance**: Locations with poor lighting, minimal CCTV coverage, or limited natural surveillance (e.g., isolated rural stretches) may allow people in distress more opportunity to act without intervention, increasing the lethality of the location.

**6. Response time for emergency services**: Remote or difficult-to-access areas may experience delays in emergency response, increasing the potential for a fatal outcome. This can be assessed based on local emergency service coverage and road access.

**7. Existing protective infrastructure**: The absence of barriers, fencing, or other physical deterrents (e.g., anti-climb measures or secured parapets) can raise the lethality of a site. The type and condition of existing infrastructure should be reviewed during a site visit.

**8. Historic incident data**: A site with a history of suicides or suicide attempts may suggest a higher inherent risk or perceived lethality. Historic data for the SPAR study area can be obtained from Overseeing Organisation, or the data sources listed in Section 1.3.

### 4.2.5 Iconic value of the asset

Some roads or bridges are regarded as landmarks and icons because of their historical and engineering significance, which is linked to a higher risk of suicide. Another aspect that is important to consider is whether a road or bridge is known for people attempting suicide, which can increase the likelihood of a **suicide contagion**.

> **Suicide contagion** refers to when an individual over-identifies with the person who took their own life. This may lead to that person engaging in suicidal behaviour. themselves.

The following aspects should be considered regarding a road or bridge's iconic value. Please use your professional judgement to interpret the below data.

**1. Whether the scheme is in an area of local interest**: This data can be obtained by using mapping software and local knowledge.

**2. Height of asset(s) over and adjacent to the road:** This is only relevant to bridges. The higher the asset, the more likely it is to attract the attention of people in crisis. This data can be obtained during a site visit or during scheme design.

**3. Length of structure(s) span:** Similarly, to the height of the asset, the length can increase attention from the public. This data can be obtained during a site visit or during scheme design.

**4. Current or potential for the scheme design to be a landmark:** This data can be gathered by enquiring with the local authority the scheme is located in, conducting an internet search or when reviewing design or scheme plans.

**5. Previous history of suicide attempts**: It is likely that these schemes will have a reputation for being a suicide location. Overseeing Organisation hold data on historic incidents with vulnerable people presenting on the SRN; this data can be obtained from the TRA/WG.

## 4.3 Liaison with stakeholders

As explained in the previous section, data related to risk factors can be obtained through publicly available sources, but some information can be gathered through stakeholder liaison.

It is important to liaise with stakeholders to understand:

- Their needs and concerns
- Relevant suicide incident data and suicide risk factor data
- Potential data or knowledge gaps
- Potential high-risk suicide groups
- Proximity to high-risk populations
- Opportunities for suicide prevention measures

Working with stakeholders encourages connectivity among organisations with a shared objective of preventing suicides on the road network. To help identify the most relevant stakeholders for the site assessment, the following questions should be considered:

- Who owns the site?
- Who does or will maintain or operate, if different from above?
- Who does or will work at the site?
- Who uses or will use the site and for what purpose? Is there an official organisation that protects their interests?
- Who else is likely to care about the site, design, and facilities?
- Who is likely to respond to incidents or provide support to people in distress at the site?
- Who else may possess relevant knowledge about the scheme and the behaviour of people in distress at it or at schemes that are of similar design in the area?
- In the event of a fatality, who is responsible for the safe and respectful recovery of the person involved?

This information may be captured in a Localised Plan (which will be outlined in the Wales Locations of Concern Guidance, to be published in 2026) which helps to inform location specific responses to vulnerable people by stakeholders such as Fire & Rescue, the Police or coastguard and therefore should form part of the site assessment. Road sector stakeholders are listed below.

### 4.3.1 Highway Authorities

Welsh Ministers are the highway authority for trunk roads and motorways in Wales. Welsh Government writes guidance, implements policy and plans maintenance and improvement works on Welsh Minister’s behalf. Two public sector organisations called Trunk Road Agents (TRAs) run and look after the roads on our behalf (North and Mid Wales Trunk Road Agent, and South Wales Trunk Road Agent). They are responsible for looking after verges

and green corridors, monitoring the network, maintaining roads, bridges, tunnels and transport technology, and deliver maintenance and improvement schemes to ensure safer and smoother journeys. Welsh Government also procure services of suppliers directly in delivering some larger road improvement and maintenance projects and are the Overseeing Organisation in GG 920.

Local authorities are responsible for the other 32,000km of local roads in Wales. They maintain existing and build new roads. Interfaces of different assets (bridges, roads, shared use paths, lighting, communications etc) owned and maintained by different organisations can blur responsibility for the safety of vulnerable people; refer to 5.4.1.

National Highways is responsible for the strategic road network in England. It delivers a range of technical and specialist road safety activities including suicide prevention.

### 4.3.2 The police

The police are trained in crisis management and have significant experience in dealing directly with suicide incidents and their effects. Police officers are often the first point of contact and may have the opportunity to intervene when someone is in a mental health crisis or distress. The police also have unique knowledge of the risk factors that can influence the risk of a location, along with potential hazards and specific challenges related to suicide at locations. It is crucial to work together with the police to ensure that knowledge is shared and measures and associated suicide prevention activities are coordinated.

### 4.3.3 NHS Wales Performance and Improvement – Regional Leads for Suicide and Self-harm

There are three Regional Leads for Suicide and Self-harm in Wales (North Wales, Mid and West Wales, and Southeast Wales). The roles are well connected locally in each region and can make connections with other stakeholders. They can also advise on local context and risks, and suicide prevention measures.

### 4.3.4 Local government

Local authorities are a key part of delivering the national strategy and will have information about local risk factors, suicide rates and methods. They work across multiple agencies at a local level to plan and deliver their suicide prevention actions. Their Social Care Department often lead this work. Local Authorities also co-ordinate Community Safety Partnerships, and the co-ordinators are well placed to make connections to local stakeholders.

### 4.3.5 Local Health Boards

Health Boards are also a key part of delivering the national strategy and will have information about local risk factors in particular relating to service-users and proximity to their facilities. Some Health Boards employ a Suicide Prevention co-ordinator, while others have a named lead within an existing role.

### 4.3.6 Network Rail

Network Rail has a world-leading and cross-industry suicide prevention programme and works closely with the Samaritans to deliver it[viii]. Activities within the programme include training railway employees to recognise and offer support to people in crisis, work to de-stigmatise suicide and promote help-seeking behaviour, develop new and innovative ways to meet the suicide challenge on the rail network, and commission bespoke research into rail suicide and vulnerable presentations. The Overseeing Organisation’s work with Network

Rail is important to identify any shared locations of concern, or opportunities to enhance each other's work across transport links.

### 4.3.7 Other organisations

As emergency responders, Fire and Rescue and Wales Ambulance Trust are key stakeholders who may hold information relevant to site assessments.

Other key stakeholders will vary depending on the specific location and are identified in the Wales Locations of Concern Guidance.

# 5 Opportunities to reduce risk – suicide prevention measures

## 5.1 When to consider suicide prevention measures

On the Welsh SRN the SPAR process set out in GG 920 shall be undertaken on highway schemes, including new roads, improvements and renewals. The Overseeing Organisation's expectation is that the SPAR process shall apply to:

- Construction of new roads,
- Maintenance and improvement schemes of existing infrastructure involving:
    - Bridge deck and parapet/edge beam rehabilitation,
    - CCTV and lighting
    - Boundary fencing
- Schemes which will increase the number of non-motorised users accessing the network.

Ahead of commissioning a SPAR on highway schemes which involve the above, WG encourage the Designer to undertake a screening step to ensure GG 920 is used on projects where it will add most value. The Overseeing Organisation request the Designer to consider two risk factors: Proximity to high-risk populations & Accessibility of the location to inform the need for a SPAR. Where a SPAR is screened out, the Designer shall record their decision-making process and submit to the Overseeing Organisation's Suicide Prevention specialist for monitoring. Screening is not required where the Overseeing Organisation have commissioned a SPAR at a Frequently Used Site.

Opportunities for new suicide prevention measures should be identified during the early stages of scheme development or at the assessment phase in line with GG 920.

Following an appropriately recorded decision-making process and having a documented process is important for implementing suicide prevention measures as it promotes clarity, accountability, transparency, learning, and compliance. It provides a structured framework for decision-making and action-taking, ultimately leading to more effective and impactful suicide prevention efforts.

Measures will need to be in line with the *Design Manual for Roads and Bridges (DMRB)*[ix], where appropriate.

The Overseeing Organisation considers every death on its network a tragedy and would consider a Suicide Prevention Assessment and Review where their definition of a Frequently Used Site on the SRN is met; this is an evidence-led improvement scheme as defined 1.2 of GG 920.

## 5.2 Suicide prevention measures

Suicide prevention measures are proactive steps aimed to improve safety and help reduce the risk of suicide. While these interventions contribute to creating safer environments, but they may not eliminate the possibility of suicide. The aim is to reduce opportunities for suicide through proportionate, evidence-informed improvements.

There are suicide prevention measures across the SRN. As part of the Assessment the condition, functionality and any limitations of measures within the SPAR study should be recorded.

Hard measures, such as those that restrict access to means, can be effective in preventing suicides on roads and bridges. Soft measures are those that increase the ability for others to intervene, encourage help seeking, and interrupt suicidal thoughts. Combining both approaches can strengthen the overall effectiveness of interventions by delaying or deterring action and increasing the opportunity for life-saving support.

The evidence base continues to grow as more measures are trialled on roads in the UK and internationally. As with all aspects of design, approaches should remain responsive to emerging research and innovation. Guidance will therefore evolve as further evidence becomes available and should be implemented in collaboration with appropriate specialists. Before adopting new interventions or measures lacking a proven evidence base, advice should always be sought from the Overseeing Organisation specialist and the Regional Lead for Suicide and Self-Harm Prevention at NHS Wales Performance and Improvement.

The risk of suicide is likely to be reduced when key environmental and behavioural themes are addressed. These are explored in the following sections, alongside examples of practical suicide prevention measures. Attention is drawn to 5.2.6 which includes measures the Overseeing Organisation does not support currently. Below is a summary of key findings from a rapid literature review conducted in 2022 by Public Health Scotland[x] that assessed the outcomes of measures to prevent suicides at locations of concern:

| **Category** | **Key points** |
|---|---|
| Most effective suicide prevention measures | - Physical barriers are the most effective methods.<br>- Barriers should be at least 2.3 metres high, inwardly curved, and cover the entire site.<br>- Restricting access to high-risk locations, such as road closures to cliffs, has been effective. |
| Multi-intervention approaches improve effectiveness | - Combining barriers, CCTV, emergency telephones, and trained staff increases early intervention.<br>- CCTV surveillance helps identify people in distress and alerts intervention teams.<br>- Help-seeking signage and crisis phones encourage support-seeking but their long-term effectiveness varies, and more evidence is needed to understand if this type of intervention is effective. |
| Design considerations for maximum impact | - Incomplete barriers reduce effectiveness; full-site coverage is essential.<br>- Barriers should be over 2.3 metres, prevent handholds and footholds, and allow easy return to safety.<br>- Partial coverage can lead to displacement to unprotected areas at the site. |
| Risk of displacement to other locations | - Minimal displacement to nearby sites is observed when barriers are installed.<br>- Iconic and culturally significant bridges attract people in distress, requiring robust interventions. |
| Cost-effectiveness and practical considerations | - Barriers at bridges are cost-effective, reducing emergency response costs and fatalities.<br>- Further research is needed on cost-effectiveness of cliff site barriers, but initial findings suggest benefits. |
| The role of responsible media reporting | - Avoiding detailed reporting of suicide methods and locations reduces imitation. |

| | |
|---|---|
| | - Memorials and suicide prevention messages on-site have uncertain effects and may increase visibility as a high-risk site. |
| Recommendations for engineers | - Prioritise full-site coverage barriers over partial installations.<br>- Integrate CCTV monitoring, emergency phones, and signage to support help-seeking behaviour.<br>- Modify designs to prevent climbing while avoiding increased site notoriety.<br>- Work with local authorities to monitor and assess nearby high-risk sites.<br>- Engage with suicide prevention specialists to ensure effective interventions. |

## 5.2.1 Reduce opportunities to attempt suicide

Evidence suggests that restricting access to means is the most effective intervention[xi]. Thirteen studies across 6 countries found that measures to restrict access to means of suicide by jumping saw a reduction in suicides by 91% at the study locations[xii].

Examples of measures which would be categorised under this theme include:

### 5.2.1.1 Closing all or part of a site

It may be appropriate to close all or part of a site to prevent access to the road network either permanently or at certain times of the day. Ensure the rights and enjoyment of other users are respected. To assess the disruption caused by restricting access, the following information may be necessary: alternative routes or schemes available and their capacity to handle displaced traffic, increases in journey time and costs, and potential revenue loss for local businesses.

### 5.2.1.2 Physical barriers

Barriers are an effective measure to reduce suicides. They can:

- Make it more difficult to act on intent
- Give people time to reconsider,
- Allow more time for support to reach them.

Examples include but are not limited to:

- Installing a new roadside barrier or bridge parapet with an increased height.
- Retain the existing bridge pedestrian parapet and extend its height by installing additional sections of parapet.

Further information for Designers is provided in Section 5.3.1

### 5.2.1.3 Install other deterrents

- Defensive planting can be used as physical and psychological deterrents. Planting can also break falls, which deters people. Examples of native plants that can be used include holly, blackberry, hawthorn, blackthorn, wild roses, and gorse. Dense planting of other native species maybe more appropriate adjacent to footways and Active Travel Routes. Maintenance of the plants will need to be considered, to ensure it doesn't restrict inspection of the asset or have impacts on other measures such as sightlines to CCTV.

- Boundary markings and deterrent paving act as psychological deterrents. They are designed to create a visible and tangible boundary between people in distress and the potential danger.

## 5.2.2 Encourage people to seek help

Help-seeking refers to when vulnerable people or people in distress reaches out for help. Behavioural nudges in a crisis may help shift someone's mental state towards seeking help.

Engagement with relevant stakeholders, such as the NHS Wales Performance and Improvement Regional Lead or Overseeing Organisation, is needed before implementing measures related to this theme to ensure the implementation of measures does not cause unintended and potentially harmful consequences.

### 5.2.2.1 Crisis signs

Crisis signs can be used as part of a range of measures but should not be used as a default at all sites to avoid unintended consequences. Signs aim to encourage people to seek help by providing information about support. Suicide prevention signs should be used cautiously, taking care to consider the number and location of signs. Where they are provided, they must be bilingual.

There are many support services which could be included on crisis signs; the message on crisis signs should be considered based on the needs of the location; advice should be sought from the Regional Lead for Suicide and Self-Harm Prevention. It is worth thinking about signs in the surrounding area e.g. placing helpline numbers on the back of car park tickets or public toilets in local communities.

### 5.2.2.2 Hello Lamp Post

Hello Lamp Post signage can be placed anywhere, providing an AI digital assistant to listen and share information. This engagement is enabled by scanning the QR code or texting the number on the poster. The primary goal is to enhance engagement and interaction within public spaces, and while the service can certainly provide support and information, it is not a substitute for professional mental health services. Hello Lamp Post Signs are printed and erected by the client.

For Crisis Signing and Hello Lamp Post the site assessment should consider mobile phone/3G signal at the location to ensure they are appropriate for the location. There is technology that can boost signal strength if needed which should be noted in the Assessment.

### 5.2.2.3 Emergency telephones

Emergency telephones can be installed to provide direct contact with emergency services or Samaritans 24-hour national helpline. Support provided by the Samaritans 24-hour national helpline is not guaranteed in Welsh unless a Welsh-speaking volunteer is available. Emergency telephones are beneficial in remote locations where the mobile phone signal is unreliable. Consider a text service for those deaf or hard of hearing, or for those who don't want to talk. For more information about using an emergency telephone, please contact the Samaritans.

### 5.2.2.4 Pause Points

Pause points, sometimes known as Refuges, are small shelters similar to bus shelters positioned at Frequently Used Sites. They are designed to provide a pleasant space for people in distress to use in the event they find themselves at the location during a period of

distress. Pause points contain signs encouraging a person in distress to seek help and aiming to give people an opportunity to interrupt their suicidal thoughts.

### 5.2.3 Improve the opportunity for intervention

The presence and reaction of other people play an important role in suicide prevention. Research suggests that people in crisis are reluctant to choose locations with good lighting, CCTV or where they could be easily seen by other road users, highlighting that a location that is conspicuous to others may reduce suicide attempts.

#### 5.2.3.1 Improve provision for all to increase users

A location may present more opportunity if there is a perception of remoteness and isolation. People are an important part of suicide prevention and are one of the most effective forms of crisis measures. Improving the quality of provision to be safe and attractive will increase the number of people who use the location and may raise the opportunity for someone to intervene. Future Active Travel routes are available on DataMapWales.

#### 5.2.3.2 Improve surveillance

**1. CCTV** can prompt intervention from network staff or the emergency services by helping identify people in crisis and reduce response time to intervene, as well as ensure the safety of the responder. CCTV can only help prevent suicides if it is permanently monitored by trained staff or video-analytic technology. It is important to consider who will monitor the CCTV and take action if necessary. Reviewing the vulnerable person data can help inform any additional technology requirements such as operational times, sensors or monitoring requirements. The Overseeing Organisation will not support the use of two-way intercoms with CCTV due to possible unintended consequences.

**2. Lighting** increases the chance of someone identifying a person in crisis and calling the emergency services or intervening. Lighting could illuminate dark areas 24/7 and may act as a deterrent for people in crisis, or motion-activated to give people in distress a sense that others are watching, which may reduce their perception of being alone.

**3. Patrols** by trained individuals enhance the likelihood of a suicide attempt being intervened with. Patrols could be conducted by the police, local suicide prevention groups, or traffic officers.

**4. Staff training** for car park and toll bridge attendants, highway maintenance patrols, and countryside rangers. Training[xiii] enables staff to look out for and offer support to people who may be in crisis or considering suicide on the road network. Trained staff could help keep a person in distress safe until emergency services arrive.

**5. Passive-infrared motion sensors** can act as a trespass sensor by triggering the sensor alarm (through sound or lighting) or alerting a security response team if a person in distress enters a Frequently Used Site on a bridge or on the side of the road. Like CCTV, it is important to consider who will monitor the sensors and take action if necessary. Sudden alarms or lighting may escalate a crisis situation. Sensitive implementation and response protocols should be considered to avoid causing harm or panic.

**6. Location ID** signing can help to improve response times where there are a number of bridges along a short length of road. This has been trialled in Staffordshire with road names being added on signs on bridges. However, this does add weight to the structure so technical approvals would be needed. An alternative could be to paint the parapets different colours to aid emergency response times.

#### 5.2.3.3 Impact on operators

Human-led measures such as CCTV monitoring, patrols and staff training, it is important to recognise that incidents can have a profound and multifaceted impact on the staff involved, affecting their mental, emotional, and physical well-being.

Beyond reducing the number of incidents overall, mitigation strategies include:

- **Mental health support programmes:** Access to counselling, peer support groups, professional debriefing sessions and self-help resources[xiv].
- **Crisis training:** Teaching staff how to recognise and intervene in high-risk situations.
- **Clear procedures and role definition:** To reduce uncertainty and stress, ensure staff know exactly what is expected in an incident.
- **Technology-assisted monitoring:** AI-driven surveillance or automated alerts to reduce direct exposure to traumatic scenes.

### 5.2.4 Change the public image of the highway scheme

Places that are known for past suicides can draw the attention of people who are in a state of crisis. Changing the public image of locations so that they are not synonymous with suicide is crucial. The road sector has limited direct control over this theme, but it is important to understand the significance of the perception of a location in relation to suicide risk and work with the organisations that do have more control.

Suicide prevention measures designed to change the perception of a location are outlined below.

#### 5.2.4.1 Responsible media reporting

Media reporting is one of the main ways in which the reputation of suicide locations is built. Reporting should always be responsible to ensure locations do not gain a negative reputation and becoming synonymous with suicide. Reporting that includes excessive details about the location or method and over-simplifies the person’s death can carry significant risk to others. This may lead to suicide contagion. For more information about responsible media reporting, the Samaritans offer media guidelines for reporting suicide.

#### 5.2.4.2 Discourage personal notes, memorials and floral tributes

Removing notes, memorials and floral tributes at locations sensitively and quickly will avoid them building up and the location gaining a reputation. Care will be needed to deal with removal, liaising with the family. There may be a need to work with local stakeholders to agree on an alternative location where bereaved individuals or communities can leave personal notes, memorials and floral tributes.

#### 5.2.4.3 Take positive action to improve the look and feel of a location

A combination of artwork, improved lighting, and re-naming can help transform the perception of a location by making it more attractive and enhancing the overall atmosphere. Community-driven artwork can foster local pride and increase community engagement, while the addition of plants, trees, or green spaces can create a more welcoming and calming environment. Regular maintenance and upkeep can reduce any sense of neglect and show that the area is cared for. Re-naming a location can also play a significant role in dispelling negative associations and reframing it in a more positive light, helping to shift public perception and promote a sense of renewal.

## 5.2.5 Interrupt suicidal thoughts

Recent research on understanding suicidal thought processes underscores the importance of measures designed to interrupt these thoughts. Interrupting suicidal thoughts and offering moments to pause and reflect can ultimately reduce risk.

Research suggests that the thoughts and behaviours of people in distress can be impulsive, and the actual moment of intent may be short-lived[xv]. Another study found that survivors of road-related suicide attempts were more likely to describe their thoughts and actions as impulsive, compared to people using other methods[xvi]. These findings highlight the potential significance of measures designed to interrupt suicidal thought processes.

The measures related to reducing opportunities to attempt suicide, such as installing physical barriers, can also help interrupt suicidal thoughts by causing delay and allowing the person in crisis to re-think their actions.

Below is a list of the suicide prevention measures that primarily aim to interrupt suicidal thoughts.

#### 5.2.5.1 **Crisis signs**

Although relevant to encouraging help-seeking, signs can also be used to interrupt suicidal thoughts. Signage aiming to interrupt suicidal thoughts can include messages of hope, support and resources, to challenge negative thoughts and prompt people in distress to reconsider their actions. See also Section 5.2.2.1.

#### 5.2.5.2 **Lighting**

Lighting not only improves perception of safety but also may create a more welcoming environment, potentially mitigating feelings of isolation and despair. Lighting may also create a calming effect on agitated and distressed people. Types of lighting can include artistic lighting, motion set or different colours and tones.

#### 5.2.5.3 **Sounds**

Calming sounds, music or voice messaging may help to interrupt someone's suicidal thoughts. Such a system may be used on manned bridges or locations where there is also a control room. Voice messaging would require having an obvious source otherwise this could perpetuate the symptoms of psychosis.

#### 5.2.5.4 **Artwork**

Artwork may be used to instil a sense of hope, inspiration, calmness, or positivity, which may interrupt suicidal thoughts.

#### 5.2.5.5 **Pause Points** (see Section 5.2.2.4)

#### 5.2.5.6 **Seating areas**

Benches and rest zones can play a valuable role in suicide prevention by encouraging people in distress to pause and reconsider. These quiet, reflective spaces may help to reduce impulsivity by introducing a moment of delay during a crisis. However, seating should not be installed in locations where it could inadvertently facilitate access to means, such as near parapets, ledges, or other high-risk features. Instead, benches should be in safe, visible, and supportive areas that promote calm and connection without increasing risk**.**

### 5.2.6 Suicide prevention measures not considered appropriate

There are several suicide prevention measures that are not currently considered suitable for use on the Welsh SRN:

- **Two-way intercom systems** are not deemed appropriate in this context due to potential for unintended consequences.
- **Safety nets** have been used successfully in some locations; however, their effectiveness depends heavily on site-specific factors. There are no bridges on the SRN in Wales with comparable conditions where similar outcomes could reasonably be expected. Nets also require continuous monitoring to ensure they perform should someone enter the netting, which introduces significant challenges around emergency response and ongoing operational costs.
- **Protective canopies** can initially appear to restrict access to means by restricting the ability to climb over parapets. However, they present several practical and safety concerns. The additional structure introduces new loading considerations (e.g. wind, snow, and weight), which may require substantial structural reinforcement. Furthermore, if someone were to access the top of a canopy, the increased height could worsen the risk of harm and complicate rescue efforts. These enclosed areas may also be vulnerable to vandalism or anti-social behaviour, which can reduce pedestrian use and community acceptance of the structure.
- **Spikes placed** at height to discourage climbing are not considered appropriate due to safety, ethical, and aesthetic concerns and potential unintended negative consequences.

## 5.3 Design considerations and principles

There is a risk that measures can impact negatively on the natural built environments, they can also introduce perceived or physical barriers for other users such as pedestrians, drivers, cyclists, and horse riders. Public spaces perform a large range of functions and consideration needs to be given to how measures are designed to avoid or minimise negative impacts while fitting within the local context as well as reducing the risk of suicide.

The GG 103 ‘Introduction and General Requirements for sustainable development and design’ standard within the Design Manual for Roads and Bridges (DMRB) outlines how sustainable development and good road design can be applied to the design of motorway and all-purpose trunk roads. It states that good road design aims to put people at its heart by designing an inclusive, resilient and sustainable road network; appreciated for its usefulness but also its elegance, reflecting in its design the beauty of the natural, built and historic environment through which it passes, and enhancing it where possible. In Wales this means progressing the Well-being and sustainable development goals contained in the Well-Being of Future Generations (Wales) Act 2015 by applying the 5 ways of working

Opportunities from the site assessments undertaken to GG 920 may conflict with Assessments to GG 142, Walking, Cycling and Horse Riding Assessments where improvements to Walking and cycling are proposed which could be on sections of the SRN where a GG 920 assessment recommends closing the site/providing fencing. In these cases, advice should be sought from Overseeing Organisation’s Active Travel Lead and Suicide Prevention specialist.

### 5.3.1 Physical Barriers: Design Considerations, Challenges & Constraints

The specification of an effective barrier should be site specific, and the appropriate barrier height will depend on the location and particular layout of the bridge. Physical barriers are an effective measure to restrict access to means, however the designer will need to consider the following in developing a preferred solution:

- Ensure:
    - there are no handrails, footholds or handholds, including street furniture adjacent to the parapet or barrier.
    - the design of the end of a barrier does not allow access to the other side of the barrier.
- Anti-suicide parapets on the *inside* of existing parapets may be preferential to cover footholds like top rails.
- Clear barriers between vertical posts may prevent climbing but may have unintended consequences on users' wellbeing.
- Anti-Climb Mesh can offer unobstructed views while deterring climbing. Aperture size should prevent hand/footholds.
- Inwardly curved tops to deter climbing but should allow emergency access and accommodate users like cyclists or horse riders.
- Sloped tops can reduce grip and climbing potential.
- The design should not impede individuals who change their minds and wish to return to safety.
- Barriers should avoid making spaces feel oppressive or enclosed, especially pedestrian walkways.
- Vehicle and pedestrian parapet height requirements on high-speed roads can be found in CD377 of the DMRB. To align with the findings of the literature review (refer to the table at 5.2), if the site allows barriers should be minimum of 2.3 metres high. This may be challenging especially when high-speed vehicle containment is required or when retro-fitting, however efforts should be made to raise the barrier to as high as reasonably practicable.

Where modifications are proposed to an existing structure, the designer will need to consider the structural and operational implications of the design, which will be subject to Technical Approval by the Overseeing Organisation and potentially planning permission or heritage consent.

It is important to apply innovative thinking when considering suicide prevention measures and not be reluctant to challenge conventional thinking, working with the Overseeing Organisation Suicide Prevention Specialist. In addition, it is important to fully consider any unintended consequences to ensure the proposed prevention measure does not inadvertently create another problem. During the design, consult with organisations involved in rescue efforts to ensure the design does not hinder their ability to respond effectively.

## 5.4 Role of WG in GG 920

### 5.4.1 Responsibility for the safety of vulnerable people

The Overseeing Organisation aims to do as much as we can to restrict access to means to manage the risks within budgets, collaborating with our neighbouring highway authorities and other stakeholders who may be better placed to deliver suicide prevention measures, particularly where interventions extend beyond WG owned assets.

The Strategic Road Network in Wales is made up of 980 miles of trunk roads and 84 miles of motorways, with approximately 1200 bridges owned and maintained by Welsh Government, 34 of these are classed as heritage bridges. Approximately 75 bridges carry local roads (maintained by the local authority), and there are 72 footbridges over the SRN. There are also bridges owned by other organisations which cross our network. Where a Frequently Used Site is identified which involves an asset owned and maintained by another organisation, Welsh Government would expect that organisation to be consulted as a Stakeholder in the SPAR process, and to understand any work planned by that organisation which could overlap with opportunities from the site assessment.

Where site assessments identify measures which would be implemented within the SRN highway land or a change to the existing WG owned asset, the Overseeing Organisation would seek to add that work to the scheme or future programme of work. Where measures are identified outside the SRN highway land and assets, the Overseeing Organisation will work with the relevant Stakeholders.

### 5.4.2 Role of the Overseeing Organisation in Decision Making

The SPAR assessment report will record Opportunities for proportionate risk-based suicide prevention measures both within the highway schemes, and outside of the highway scheme. On completion of the SPAR assessment report a copy of the report will be passed to the Welsh Government Programme Lead/Project Engineer who will discuss next steps with the Suicide Prevention specialist, and the Area Manager as required.

All future work would need to be prioritised and is subject to necessary funding and technical approvals. The Suicide Prevention specialist will review the SPAR recommendations and advise on which measures should be taken forward within the highway scheme, considering the site-specific risk, proportionality, and consistency across the SRN.

## 5.5 The importance of good monitoring and evaluation

There is a lack of robust evidence for the effectiveness of many measures aimed at reducing suicides and suicide attempts. When implementing any measure, it is important to understand how it is expected to achieve the desired outcomes, based on the themes outlined in Section 5.2. Some measures may have the potential to cause harm and make the situation worse, so it is critical to carefully monitor to ensure that no unintended harmful effects are caused. There is no ‘one size fits all’ approach and each location should be looked at individually.

As well as monitoring for unintended effects, it is important to monitor and evaluate any implemented measures to better understand what is effective and identify areas for continuous improvement. Suicide prevention initiatives can be difficult to evaluate formally using quantitative measures, especially if they are small-scale or site-specific. If robust data collection processes are in place and data is being analysed regularly this should help the process. In the case of a staged approach being used to implement measures, monitoring

will help inform if the next intervention should be undertaken. During this time, relevant data—such as incident reports or behavioural observations—are gathered and reviewed to assess whether the measures are proving effective.

If positive results are observed—such as reduced incidents or greater engagement with support services—then no further action may be necessary. However, if there is little or no improvement, the site may progress to the next phase by implementing harder measures, including physical barriers, restricted access, or enhanced surveillance.

This staged approach enables responses to be proportionate to the level of risk, minimises disruption, and ensures that resources are used appropriately and effectively. The Overseeing Organisation's Suicide Prevention specialist will provide advice on a staged approach through evaluation of measures implemented to determine if there has been a reduction in the number of suicides and attempts.

Where several measures have been introduced at a site, such as a combination of physical barriers, CCTV and Samaritans signs, their individual effects will be difficult to measure, and they are best treated as a single measure.

# 6 Support services

This section provides information on different available support services.

Suicide is a sensitive subject that you may find difficult. When engaging on this topic, it is important to look after your own wellbeing and that of colleagues.

Each organisation should have an internal employee assist programme, to support employees with their mental health.

Below are some available external support services.

| | | |
|---|---|---|
| Samaritans | If you need someone to talk to | 24/7 helpline: 116 123 (free from any phone)<br>Welsh language line 0808 1640123 (Open every day 7 pm – 11 pm)<br>email jo@samaritans.org or visit some branches in person |
| Shout | If you would prefer not to talk but want some mental health support | Text SHOUT to 85258 |
| C.A.L.L. | Emotional support and information on mental health to the people of Wales | Call 0800 132737 or Text the word HELP to 81066 |
| Hub of Hope | Mental health database, bringing help and support together in one place. | https://hubofhope.co.uk/ |
| NHS | To be placed in direct contact with a mental health professional in your area | Contact NHS 111 Option 2 |
| First Hand | A self-help website for anyone affected by witnessing a suicide, when they did not know the person who has died | https://first-hand.org.uk/ |
| National Advisory and Liaison Service (NALS Cymru) | A free and confidential service in Wales for anyone affected by a suicide death | 08000 487742 |

# 7 Further learning and resources

This section provides information about training and resources related to suicide prevention.

## 7.1 Further learning

There is a wide range of training that can be done to further understand suicide and how to recognise and mitigate against suicide.

There are some external courses and programmes available to enhance understanding of suicide:

- The Samaritans run training and engagement programmes to support organisations to train people and teams to spot and support anyone who is struggling. Courses include one day courses, half day courses, or masterclass courses.
- Zero suicide alliance training raises awareness of and promotes suicide prevention training.
- St John Ambulance run Mental Health First Aid training courses, which takes a uniquely practical approach to creating competent and confident workplace first aiders. Courses come in the form of two-day in person sessions to 30-minute online sessions.
- Mates in Mind offer company training sessions to create general awareness and understanding of mental health in the workplace, and e-learning courses for stress awareness and resilience training.
- Grassroots provides training to help promote mental health awareness, suicide alertness and positive wellbeing.
- Suicide and self-harm Prevention Cymru Training Hub includes information on training and development opportunities that can help individuals, communities, or workforces to develop awareness, understanding and skills in relation to the management and prevention of suicide and self-harm.
- 4mentalhealth.com supports a whole-community approach to mental wellbeing through training modules.
- The Integrated Motivational -Volitional Model of Suicidal Behaviour is a useful reference to understand the complex interplay of biology, psychology, environment, and culture.

## 7.2 Resources

There is a wealth of further information available to explore the topic area further. These resources are linked below.

**Suicide-related data sources**

- For information on the different sources of data available, including Office of National Statistics and Real Time Suspected Suicide Surveillance refer to the Data and Statistics page on the SSHP Cymru Training Hub
- For more information to understand how suicide data is collected and how to interpret the data, please visit the Samaritans website.
- For more information about at-risk populations, data and analysis and local suicide prevention resources, please visit the National Suicide Prevention Alliance (NSPA) resources hub.

**Reporting suicides**

- For more information about good practice for reporting suicides, please read Samaritans' media guidelines.

## Notes

[i] Roads and Bridges Suicide Prevention Guidance, UKRLG 2025 ukrlg-roads-and-bridges-suicide-prevention-guidance.pdf
[ii] Public Health Wales, Real Time Suspected Suicide Surveillance, (online) accessed 7/2/25 Real Time Suspected Suicide Surveillance - Public Health Wales
[iii] Public Heath England, Identifying and responding to suicide clusters accessed 24/7/2025
[iv] Samaritans, The economic cost of Suicide in the UK, March 2024, (online) accessed 11/06/2025
[v] Welsh Government, Welsh Index of Multiple Deprivation (WIMD) 2019 | DataMapWales (online) accessed: 10/06/2025
[vi] Office of National Statistics, Population density - Office for National Statistics, (online) accessed: 10/06/2025
[vii] Office of National Statistics, Suicides in England and Wales by local authority - Office for National Statistics, (online) accessed: 10/06/2025
[viii] Samaritans, Rail industry suicide prevention programme | Samaritans, (online) accessed 10/06/2025
[ix] Standards for Highways, Standards For Highways, (online) accessed 10/06/2025
[x] Public Health Scotland, Rapid literature review in reducing suicides at locations of concern, November 2022 (online) accessed 25/6/2025
[xi] Public Health England (2015). Preventing suicides in public places: A practical resource. Report dated November 2015.
[xii] Okolie, Chukwudi et al. (2020) “Means restriction for the prevention of suicide by jumping.” *The Cochrane database of systematic reviews* vol. 2,2 CD013543
[xiii] Suicide and Self Harm Prevention Cymru Training Hub, (online) accessed: 10/06/2025
[xiv] Grassroots suicide prevention, Home - First Hand, (online) accessed: 10/06/2025
[xv] Lim M, Lee S and Park JI (2016). Differences between impulsive and non-impulsive suicide attempts among individuals treated in emergency rooms of South Korea. Psychiatry Investigation, 13 (4), 389-396, 10.4306/pi.2016.13.4.389
[xvi] Norman, H., Marzano, L., Winter, R., Crivatu, I., Mackenzie, J. M., & Marsh, I. (2023). Factors prompting and deterring suicides on the roads. BJPsych open, 9(3), e81.