Bridges - Lookup Lists & Values

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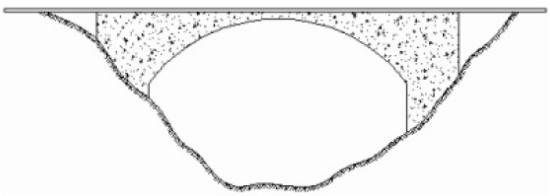
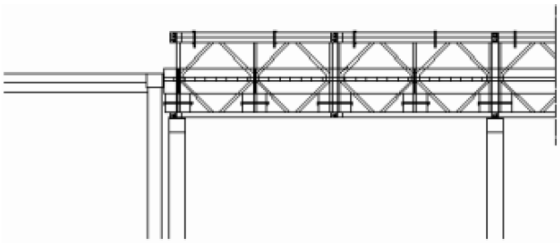
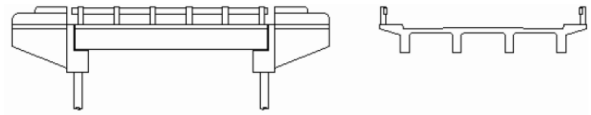
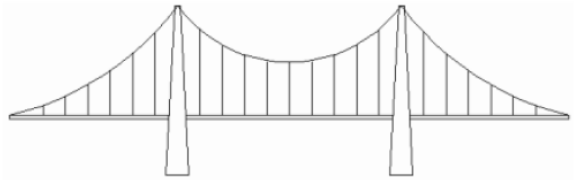
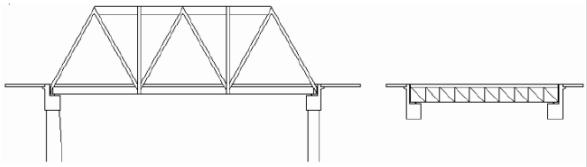
Bridge Type

AWM Table:	**Bridge**
Attribute:	Bridge Type
Purpose:	To provide bridge categorisation that differentiates the structure and support provided by the bridge.

Value	Description	Photo Example
Arch	An Arch Bridge is a curved structure that supports a vertical load mainly by axial compression.	 
Bailey	A bailey bridge consists of three main parts. There are side panels that are cross-braced panels, usually made of steel. The floor of the bridge is the second feature, which is made up of horizontal wooden beams. Then lastly, bailey bridges contain stringers (long steel slates) along the bottom.	 

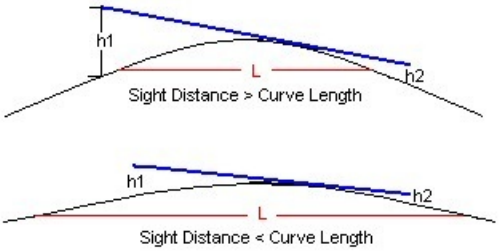
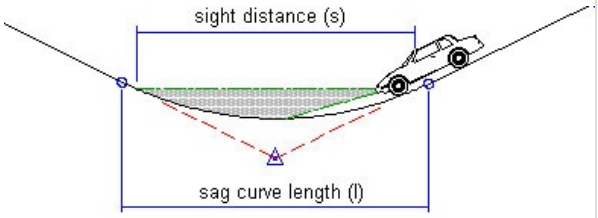
Value	Description	Photo Example
Beam & Slab	A beam and slab bridge is a type of concrete bridge made up of precast beams that are placed on supporting piers or abutments.	
Girder	A girder is a horizontal structural member supporting vertical loads by resisting bending and shear. It is a larger beam often built-up of multiple metal plates, usually bolted, riveted, or welded together; precast or cast-situ, reinforced or prestressed concrete structure.	
Log	A log bridge is a timber bridge that is constructed using longer logs closely spaced together to form a flat surface. These logs can be supported by wooden columns or a handrail.	
Portal Frame	This bridge consists of in-situ concrete foundations and seals are included between successive units to ensure a water-tight structure.	

Value	Description	Photo Example
Suspension	A suspension bridge consists of a bridge floor held below suspension cables that are attached to larger cables above, which are strung across the bridge from one end to the other.	 
Truss	A truss bridge is a type of structure made mainly of pin-connected members supporting vertical loads through axial tension and compression actions of its members. It is often made of a top and a bottom chord connected to slender web members placed in between them.	
Unknown	The bridge type is unknown.	
Other	The bridge type is not listed in this table.	

Curvature

AWM Table:	**Bridges**
Attribute:	**Curvature**
Purpose:	To provide....

Value	Description	Photo Example
Horizontal Curve	A horizontal curve is a section of roadway that changes the direction or alignment of the road. Horizontal curves are used to gradually transition between two roadways that intersect, allowing vehicles to turn smoothly instead of making a sharp cut.	

Value	Description	Photo Example
Vertical Crest Curve	A vertical crest curve is a type of vertical curve that connects two inclined sections of a roadway to form a crest. Vertical crest curves are used to gradually transition between different grades of a roadway, allowing vehicles to negotiate elevation changes smoothly.	
Vertical Sag Curve	A vertical sag curve is a gradual change in the slope of a roadway that connects descending grades to form a bowl shape. Vertical sag curves are used to gradually transition between different grades of a roadway, allowing vehicles to negotiate elevation changes smoothly.	
Horizontal and Vertical Crest Curve	A horizontal and vertical crest curve is a combination of a horizontal curve and a vertical crest curve on a roadway. A horizontal curve changes the alignment or direction of a road, while a vertical curve changes the slope. A vertical sag curve is a type of vertical curve that occurs when a positive grade changes to a negative grade.	
Horizontal and Vertical Sag Curve	A horizontal and vertical sag curve is a combination of a horizontal curve and a sag vertical curve on a roadway. A horizontal curve changes the alignment or direction of a road, while a vertical curve changes the slope of a road. A sag vertical curve is a type of vertical curve that occurs when a negative grade changes to a positive grade.	

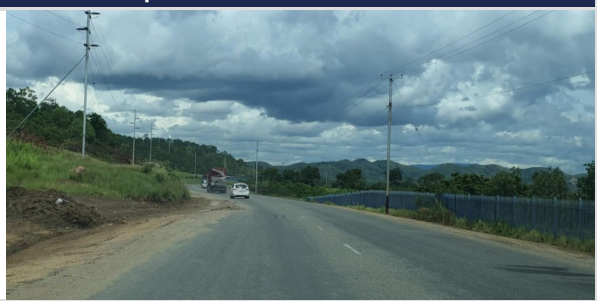
Value	Description	Photo Example
Multiple Horizontal Curve	A series of two or more back-to-back horizontal curves that are tangential.	
Multiple Vertical Curve	A series of vertical curves that join multiple sloped grades along a highway.	
Straight	Contains no horizontal or vertical curvature.	

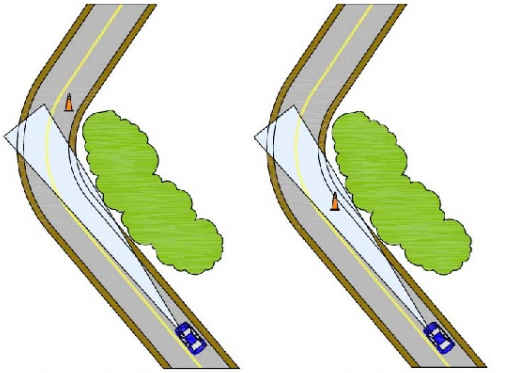
[Supporting Note Header]

[Supporting Notes to further explain any exceptions or special situations or to help provide further clarity]

Hazard

AWM Table:	**Bridges**
Attribute:	**Hazard**
Purpose:	To identify features on or near the road that may increase the risk of accidents or reduce driver awareness, so they can be considered in safety assessments, maintenance, and road design improvements.

Value	Description	Photo Example
Abrupt Change in Carriageway Width	An abrupt change in carriageway may involve a reduction in width of the trafficable roadway, which presents a potential hazard to road users.	

Value	Description	Photo Example
Deceptive Horizontal Curve	A horizontal curve or bend in the road that you cannot see around as you are driving	
Deceptive Vertical Curve	A vertical curve or bend in the road that you cannot see around as you are driving	
Restricted Sight Distance	Restricted sight distance is when a driver's view is limited, making it difficult to see ahead and react to potential hazards. Horizontal and vertical curves can limit a driver's stopping sight distance, which is the distance a driver needs to see to stop safely.	 Poor sight distance Good sight distance
Combination of Hazards	Combination of the above hazards.	
Other	Alternative hazard not listed above.	
Unknown	It is unknown what the hazard is that exists.	

Failure Mode

AWM Table:	**Bridges**
Attribute:	**Failure Mode**
Purpose:	To provide...

Value	Description	Photo Example

Value	Description	Photo Example
Ductile	Ductile failure occurs when a material is loaded beyond its yield strength. This causes the material to become deformed for a period of time before eventually failing.	
Non-Ductile	Non-ductile failure refers to inflexible or brittle breaks in materials. Materials like cast iron fail in this way when tensile load occurs.	
Unknown		

[Supporting Note Header]

[Supporting Notes to further explain any exceptions or special situations or to help provide further clarity]

Analysis Method

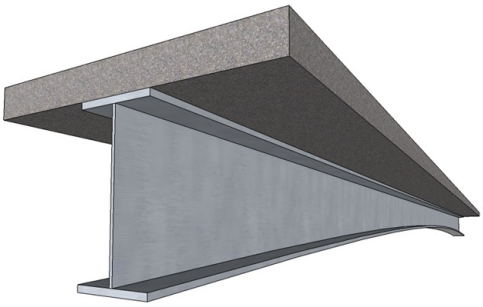
AWM Table:	**Bridges**
Attribute:	**Analysis Method**
Purpose:	To record the level of assessment applied to the road or structure, helping users understand the reliability and detail of the information used for planning, design, or condition evaluation

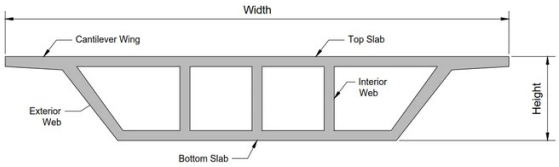
Value	Description
Preliminary	A basic or early-stage assessment using limited data or assumptions; suitable for initial planning or screening
Rigorous	A detailed and thorough analysis using site measurements, calculations, or technical modelling.
Not Analysed	No analysis has been carried out for this asset or section.

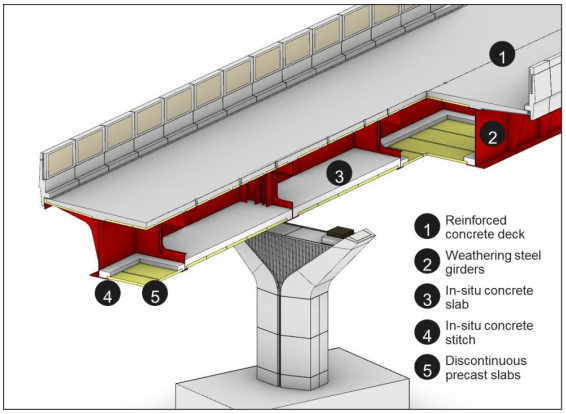
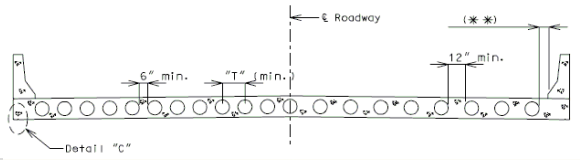
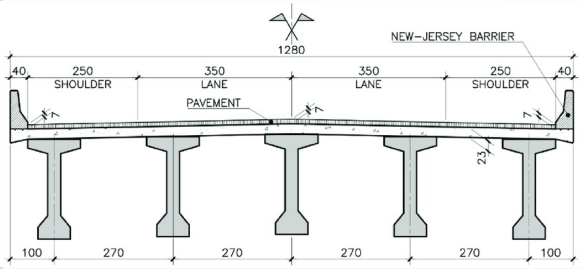
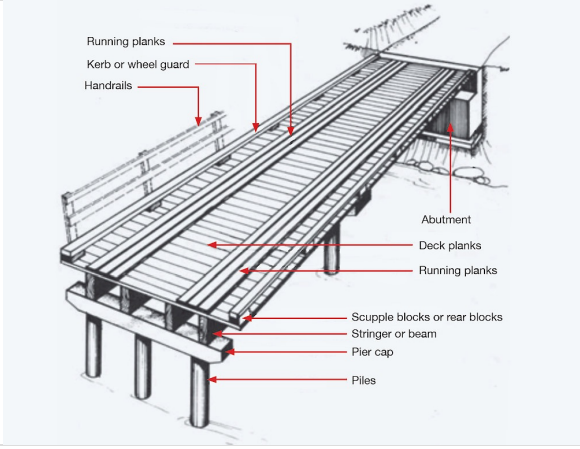
Value	Description
Other	The assessment method used does not fit into the listed categories and may involve alternative or non-standard approaches.
Unknown	The type or level of analysis is not recorded or cannot be determined.

Superstructure Cross Section

AWM Table:	Bridges, Bridge Span
Attribute:	**Superstructure Cross Section**
Purpose:	To describe the type of structure used to carry the road or pathway across a span (such as a bridge), which helps with design classification, maintenance planning, and structural assessment.

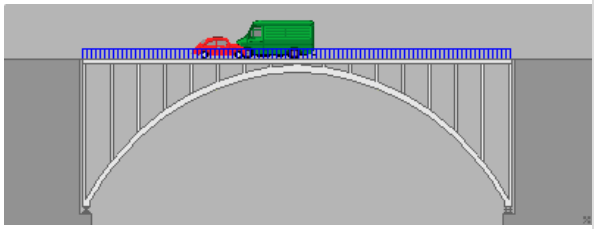
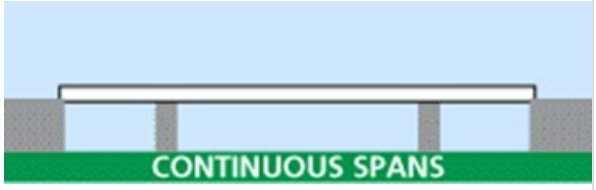
Value	Description	Photo Example
Beam and Slab (Composite)	A beam-slab composite is a construction technique that combines a concrete slab with a steel beam to create a strong and stiff structure. The technique takes advantage of the strengths of both materials, with concrete being strong in compression and steel being strong in tension.	
Beam and Slab (Non Composite)	The precast beams are placed on the supporting piers or abutments, usually on rubber bearings which are maintenance free. An in-situ reinforced concrete deck slab is then cast on permanent shuttering which spans between the beams.	

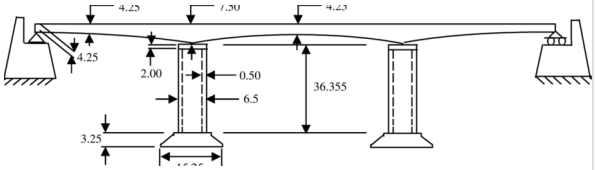
Value	Description	Photo Example
Beam Deck	A beam deck typically involves a combination of beams and a deck that work together to support the loads from traffic and transfer them to the bridge supports. Beams can be made of steel, concrete, or a combination of both (composite beams).	
Box Girder	A girder that forms an enclosed tube with multiple walls.	
Slab	Slab bridges are flat concrete beams with twisted or roughened reinforcing steel rods concentrated in the lower portion and at either end of the slab, where tensile forces and sheer are the greatest.	
Truss, Deck	A bridge which carries its deck and traffic entirely on top of the truss structure.	
Truss, Through	This bridge involves portal frames which increases their span capability. In doing so, the vertical clearance above the bridge's roadway sets the truss height.	

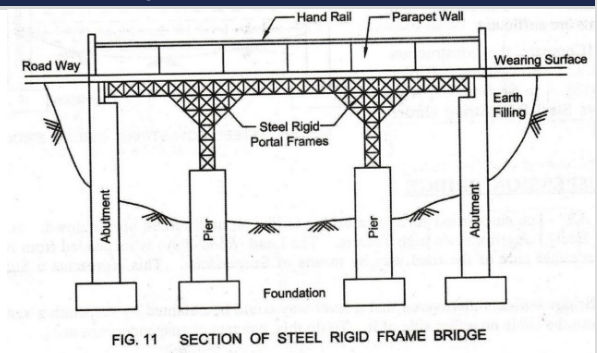
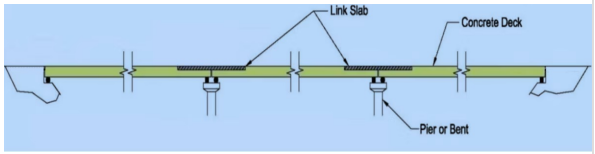
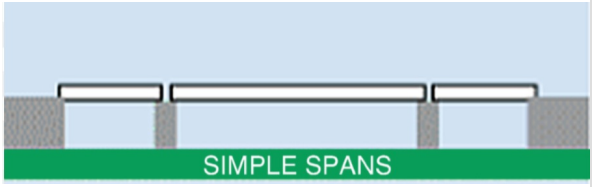
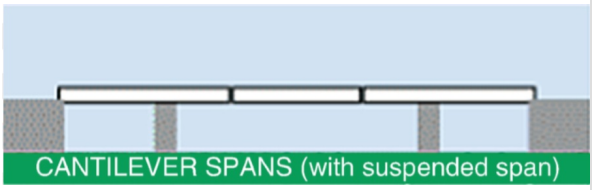
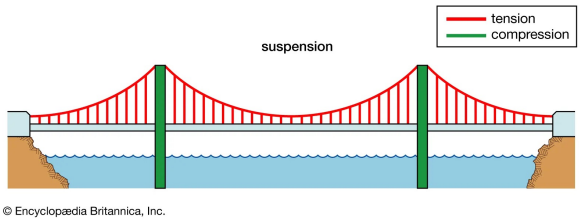
Value	Description	Photo Example
Units with Slab	A superstructure cross section with a slab typically involves a combination of beams (or girders) and an embedded concrete slab.	
Units without Slab	A superstructure cross section without a slab typically involves the primary load-carrying elements, such as beams or girders, and other structural components that provide stability and support.	
Void Slab	A concrete slab with hollow spaces (voids) inside to reduce weight while still supporting loads.	
Girder	A large horizontal support beam that carries loads from the bridge deck to the supports or piers.	
Log Beam Deck	A basic deck made from logs or tree trunks placed side-by-side, usually for temporary or low-traffic bridges.	
Unknown	The type of structural form used to carry the deck is not recorded, visible, or cannot be identified from available information.	

Superstructure Long Section

AWM Table:	**Bridges, Bridge Span**
Attribute:	**Superstructure Long Section**
Purpose:	To provide superstructure categorisation that differentiates the span and support provided by the longitudinal section of the bridge, as opposed to the cross section.

Value	Description	Photo Example
Arch, Deck	Abutments at each end shaped as a curved arch. Arch bridges work by transferring the weight of the bridge and its loads partially into a horizontal thrust restrained by the abutments at either side, and partially into a vertical load on the arch supports.	
Arch, Earth Filled	Earth filled arches support the roadway on earth fill that is contained between the spandrel walls.	
Arch, Through	Bridge in which the base of an arch structure is below the deck but the top rises above it.	
Continuous Span	A superstructure which extends as one piece over multiple supports.	

Value	Description	Photo Example
Hinged Span	A hinged bridge span is a bridge with a hinge that allows the bridge to move or be lifted.	
Integral Span	An integral bridge is a structure where there are no expansion joints in the superstructure between spans and between spans and abutments.	
Partially Continuous	A bridge where some spans are joined to share loads, but not all – allowing some movement while still improving strength across sections.	
Portal Frame	The portal frame bridge system comprises of a precast portal frame which interlinks on precast structural base sections. A joint is created between the frame and the base units.	

Value	Description	Photo Example
Rigid Frame Fixed End	A bridge where the superstructure and supports are built as one stiff unit, with no movement at the ends – making it very strong but less flexible.	 FIG. 11 SECTION OF STEEL RIGID FRAME BRIDGE
Semi-Integral (Link Slab Over Pier)	A semi-integral span bridge with a link slab over a pier is a bridge design that uses link slabs to connect bridge decks without traditional deck joints.	
Simple Span	Simple span bridges cross from one support to another and can be joined together to create a longer span.	
Suspended Span	Span in which the arms do not meet in the center; instead, they support a central truss bridge which rests on the ends of the cantilever arms.	
Suspension	A suspension bridge is a type of bridge in which the deck is hung below suspension cables on vertical suspenders.	
Unknown	The shape or form of the bridge in the lengthwise (longitudinal) direction is not recorded or cannot be determined from available information.	

Superstructure Material

AWM Table:	**Bridges, Bridge Span**
Attribute:	**Superstructure Material**
Purpose:	To identify the primary material used in the bridge superstructure, supporting decisions related to maintenance, structural performance, durability, and replacement planning.

Value	Description	Photo Example
Aggregate	Crushed rock or gravel used in combination with cement to form concrete, or as a standalone fill material in some simple structures.	
Armco	Corrugated steel used primarily in culverts or low-span bridges, known for being lightweight and easy to install.	 

Value	Description	Photo Example
Concrete	A hard, durable mixture of cement, water, and aggregates, widely used for strong and long-lasting bridge decks and beams.	
Earth	Compacted soil or fill material used in very basic or low-load crossings, such as causeways.	
Gabion	Wire cages filled with rocks, stacked to form a supporting structure, often used for retaining walls or low-level bridges.	

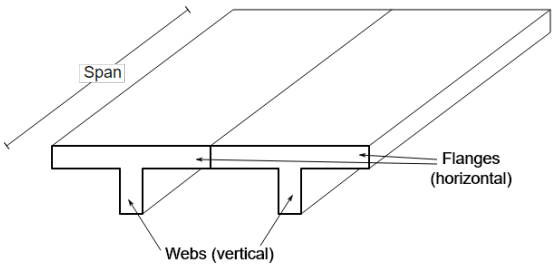
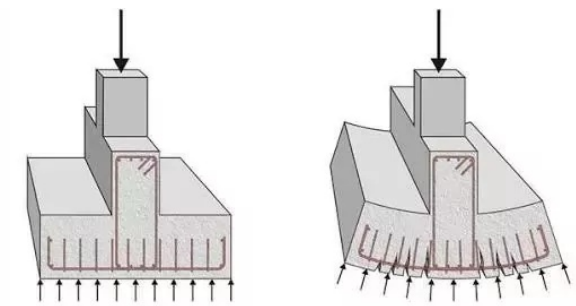
Value	Description	Photo Example
Log	Tree trunks or large timber beams used as simple structural members, often in rural or temporary crossings.	
Masonry	Stone or brick units laid and bound together, typically used in older or traditional bridge structures.	
Polyethylene (PE)	A type of plastic material, lightweight and resistant to chemicals and corrosion, used in modern small bridges or culverts.	
Polyvinyl Chloride (PVC)	A rigid plastic material occasionally used in small or temporary structures due to its resistance to moisture and low cost.	

Value	Description	Photo Example
Steel	Strong metal used for beams, girders, and reinforcement, common in medium to long-span bridges.	
Timber	Processed wood used for beams, decks, or full bridge structures, especially in rural or remote areas.	
Unknown	The material has not been identified or recorded.	

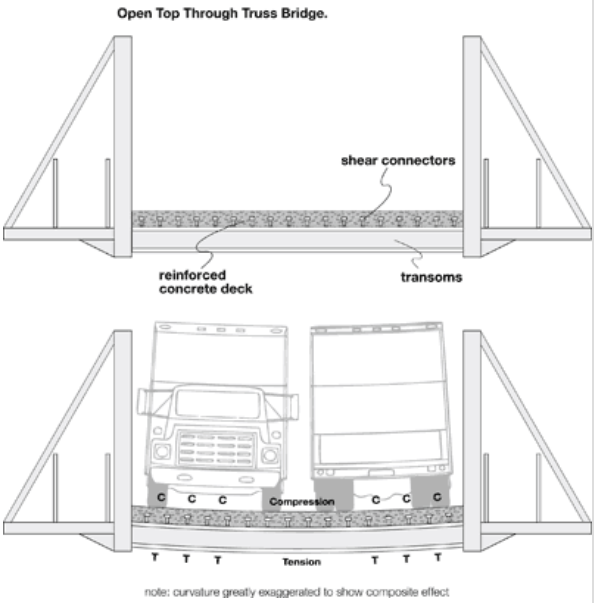
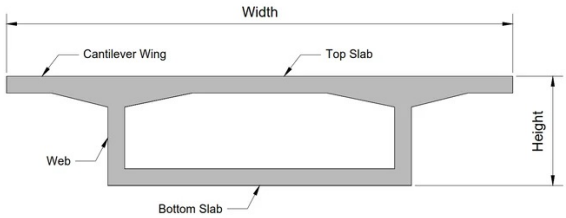
Beam Type

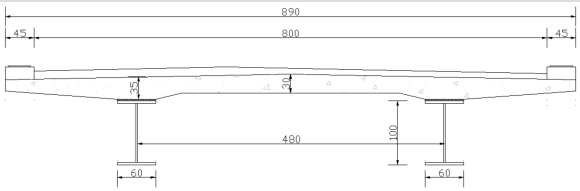
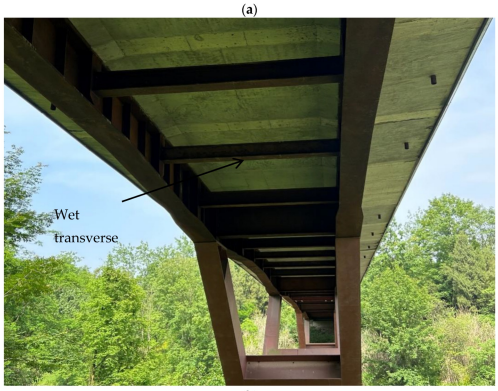
AWM Table:	**Bridges, Bridge Beam, Bridge Span**
Attribute:	**Beam Type**
Purpose:	To identify the specific shape or form of beams used in a structure, which supports design classification, structural assessment, and maintenance planning.

Value	Description	Photo Example
Double Core Unit	A precast concrete beam with two hollow cores running through it, used to reduce weight while maintaining strength.	

Value	Description	Photo Example
I Beam	An I-beam is a structural steel member with an I-shaped cross-section that's used in many construction projects. These beams have the capacity to withstand various types of loads.	
U Beam	A type of steel beam, which is a structural steel product with multiple uses mainly in the construction sector. U-Beams are also known as a parallel flange channel or C Beams. They typically can be welded together to form I-Beams.	
T Beam	T beam bridges have cast-in-place, reinforced concrete beams with integral deck sections to either side of the tops of the beams.	
Inverted T Beam	An inverted T-section concrete beam is a type of beam that has a cross-sectional shape that resembles an inverted letter "T". The top of the beam is flat, while the bottom of the beam has a flange that extends out on either side. Inverted T-beam is used when the beam is subjected to hogging moments.	

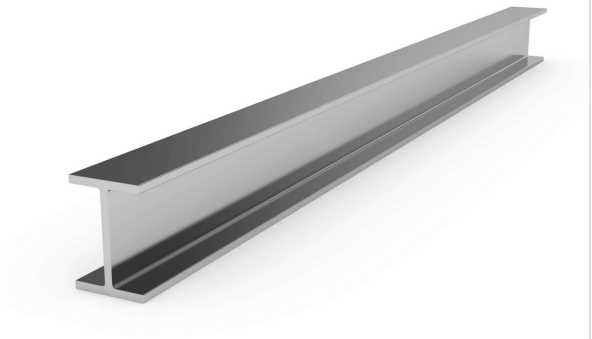
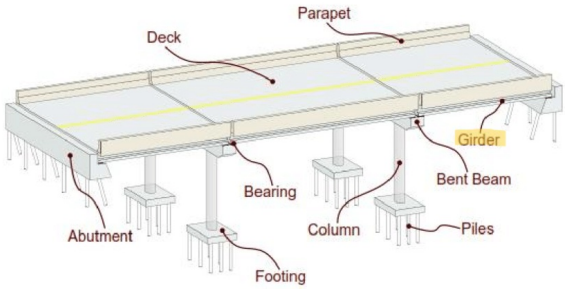
Value	Description	Photo Example
Log Beam	A large piece of wood, or log, that is used to create a structure.	
Plate Girder	A structural element made of welded or bolted steel plates that is used to support heavy loads and spans in bridges.	
Precast Concrete Panel	A bridge deck made of a series of prefabricated concrete panels that are cast off-site and then installed at the bridge site.	
RSJ and U Beam	Rolled Steel Joists and Universal Beams are are both types of steel beams used for structural support in construction and engineering.	

Value	Description	Photo Example
Stringers and Transom	Steel beams which span under the roadway and carry the loads of the roadway to the trusses or beams.	
Bailey	A type of pre-fabricated, modular steel truss bridge used for temporary or emergency crossings; quick to assemble without heavy equipment.	
Box Girder	A hollow, rectangular beam—often made of steel or concrete—that provides high strength and stiffness, used for longer spans.	
Truss	A beam made from a connected framework of triangles, efficiently distributing weight across long spans.	

Value	Description	Photo Example
Frame	A beam system where horizontal and vertical members form a rigid structure, typically seen in rigid frame bridges.	 (a)  (b)
Girder	A large, solid horizontal support beam (usually steel or concrete) that holds up the bridge deck and transfers loads to the piers or abutments.	
Unknown	The beam type is not recorded or cannot be identified based on available information.	
Not Applicable	No beams are used in the structure, or the structure type does not involve beams.	

Secondary Member Type

AWM Table:	Bridges
Attribute:	Secondary Member Type
Purpose:	To describe the type of structural elements that support or connect the main parts of a bridge or crossing, helping with structural assessment, repair planning, and material classification.

Value	Description	Photo Example
Beam	A beam is a structural element that primarily resists loads applied laterally across the beam's axis.	
Girder	A large beam or compound structure used for building bridges. It is the main horizontal support of a structure which supports smaller beams.	
Log	A large piece of wood, or log, that is used to create a structure.	
Truss	A structure of connected elements, usually forming triangular units. These members are structured and connected in a way such that they only incur axial force. The members of a truss are considered two-force members because the forces are only applied at either end of the member, resulting in either a compression or tension force.	

Value	Description	Photo Example
Other	A secondary structural element that does not fit into the listed types.	

Secondary Member Material

AWM Table:	**Bridges**
Attribute:	**Secondary Member Material**
Purpose:	To record the material used for the secondary structural elements of a bridge or crossing, which helps assess durability, maintenance needs, and structural performance.

Value	Description	Photo Example
Bailey	Bailey bridges are made of modular steel elements and standard steel alloys. The parts are interchangeable, and the bridges can be used to restore road blocks, construct bridges, or reinforce existing bridges.	
Bitumen	Bitumen is the liquid binder that holds asphalt together. A bitumen-sealed surface is a layer of bitumen sprayed and then covered with an aggregate. This is then repeated to give a two-coat seal.	

Value	Description	Photo Example
Concrete	Concrete bridge decks can be constructed using precast or cast-in-place methods.	
Steel	Steel bridge members are easy to fabricate and are widely used in bridge construction due to the high tensile strength of steel materials.	
Timber	Wood is the raw material. Maintenance costs are significantly lower for timber bridges, as they are less prone to corrosion and require less frequent inspections and repairs compared to steel bridges.	
Other	The material used does not match the listed categories.	

Super Restraint

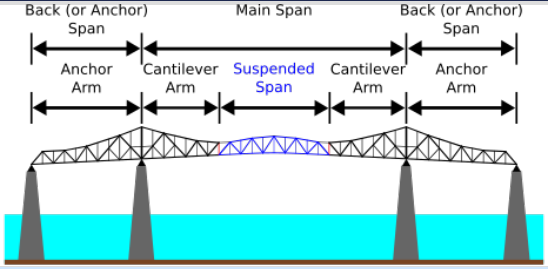
AWM Table:	**Bridges**
Attribute:	**Super Restraint**
Purpose:	To record the material or system used to restrain the superstructure (bridge deck or beams), which helps assess stability, durability, and maintenance needs of the bridge.

Value	Description	Photo Example

Value	Description	Photo Example
Cables/Bolts	Most bolted connections in bridges will transfer the forces between the plates using shear connections and tensile connections.	
Concrete	Concrete elements such as blocks, keys, or encasements are used to restrain movement of the bridge superstructure.	
Steel	Steel components, such as plates, angles, or fabricated connections, are used to restrain or secure the bridge deck.	
Other	A restraint method or material not listed, such as composite systems, timber, or unconventional anchoring techniques.	
Unknown	The type of superstructure restraint is not recorded or cannot be identified from available information.	

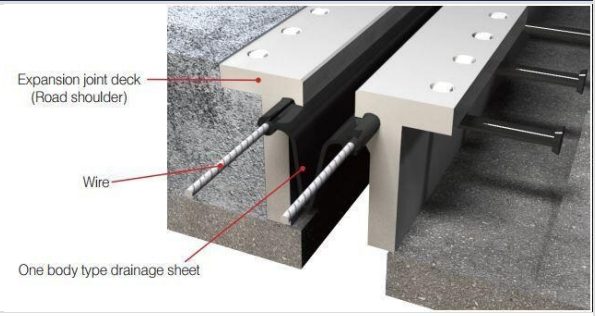
Deck Type

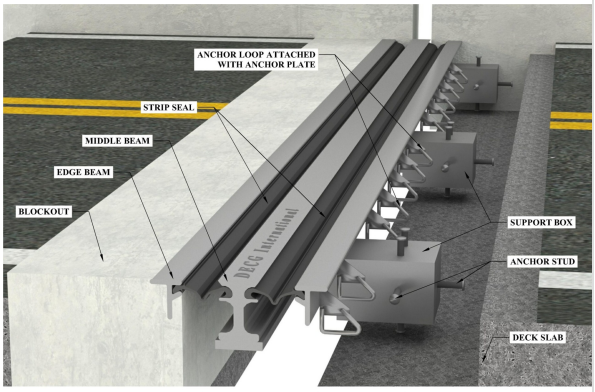
AWM Table:	**Bridges, Bridge Deck**
Attribute:	**Deck Type**
Purpose:	To describe how the bridge deck is supported and connected to the rest of the structure. This helps engineers and asset managers understand load paths, movement behaviour, and maintenance needs.

Value	Description	Photo Example
Cantilevered & suspended	The deck has parts that extend beyond the supports (cantilevered) and sections that hang between them (suspended).	
Continuous	The deck is made of spans that are joined and act as a single unit over multiple supports, without hinges or breaks.	
Fixed end	The deck is rigidly attached to its supports at both ends, restricting movement and rotation.	
Simply supported	The deck rests freely on supports at each end, allowing rotation and slight movement.	
Earth	The deck is made from compacted soil or natural ground, not a constructed structure (e.g. earth embankment crossing).	
Prestressed Concrete	The deck is made of concrete that has internal tensioned steel cables to make it stronger and span longer distances.	
Other	A deck type that does not fit the listed categories, such as composite decks or unusual designs.	
Unknown	The deck type is not recorded or cannot be determined from available information.	

Expansion Joint Type

AWM Table:	Bridges
Attribute:	**Expansion Joint Type**
Purpose:	To identify the type of expansion joint used in a bridge, which helps assess how the structure accommodates movement caused by temperature changes, traffic loads, and foundation shifts. This supports effective inspection, maintenance, and replacement planning.

Value	Description	Photo Example
Air Gap	A simple open space between deck segments with no filler, allowing free movement but offering no protection against debris or water.	
Bitumen Filled Gap	To prevent water and debris from entering bridge joints, they need to be sealed with an air-tight, waterproof, and flexible material. Bitumen filled gaps, also known as asphalt plug joints, are good quality closed joint solutions for new bridge construction or bridge rehabilitation.	
Metal Finger Joint	Also known as finger expansion joint, consists of symmetrical or non-symmetrical elements (such as comb or saw-tooth or sinusoidal plates) which are anchored on one side of the deck joint gap and interpenetrate to bridge deck joint gap.	

Value	Description	Photo Example
Metal Sliding Plate	It's made up of two overlapping steel plates that are attached to the bridge deck on either side of the expansion joint opening. The plates are usually bolted to timber decks or embedded into concrete decks.	
Modular Joint	The Modular Expansion Joint System (MEJS) is a mechanical device installed in bridge expansion joint openings. The primary function of the MEJS is to allow vehicle traffic to travel smoothly across large expansion joint openings.	 MODULAR STRIP SEAL EXPANSION JOINT
Rubber Extrusion Reinforced	A rubber expansion joint is a flexible connector to absorb noise, shock, vibration, physical and thermal energy. Made of natural or synthetic elastomers it may be internally reinforced with fabrics and metal for strength and pressure resistance whilst metal reinforcement may be used externally for movement control.	

Value	Description	Photo Example
Rubber Extrusion Unreinforced	A rubber joint shaped to fit the gap, without internal reinforcement, used to absorb movement and keep out water and dirt.	
Rubber Seal (Solid)	A solid piece of rubber fitted into the joint, allowing minor movement and providing a seal against moisture.	
Rubber Seal and Vertical Metal Plate	A rubber seal and vertical metal plate bridge expansion joint typically includes a flexible elastomer encased around a steel bridging plate system and steel angles.	
Rubber Strip Seal	A mechanical device adapted for sealing an elongated gap formed between two adjacent road slab sections by providing a continuous support for vehicles crossing the gap while allowing the desired temperature responsive movement of the road slab sections.	

Value	Description	Photo Example
Other	Any type of expansion joint not listed, such as fabric joints, modular systems, or custom-made solutions.	

[Supporting Note Header]

[Supporting Notes to further explain any exceptions or special situations or to help provide further clarity]

Parapet Type

AWM Table:	**Bridges**
Attribute:	**Parapet Type**
Purpose:	To identify the type of parapet used on a bridge, which helps assess safety features, containment capability, and maintenance needs. Parapets provide edge protection for vehicles and pedestrians.

Value	Description	Photo Example
Rails and Posts	A parapet made of horizontal rails supported by vertical posts, often metal or timber. It allows visibility and provides basic barrier protection.	 
Wall	A solid parapet structure made of concrete, masonry, or other rigid materials, offering strong containment and a physical barrier.	
Unknown	The type of parapet is not recorded or cannot be identified from available information.	

Parapet Material

AWM Table:	**Bridges**
Attribute:	**Parapet Material**
Purpose:	To record the material used for bridge parapets, which helps assess durability, safety performance, and maintenance requirements over time.

Value	Description	Photo Example
Aluminum	Lightweight metal parapets made from aluminum, typically used for corrosion resistance and ease of handling.	
Concrete	Parapets made entirely of concrete, offering strong impact resistance and low maintenance.	
Masonry	Parapets constructed from stone or brick, usually seen in older or decorative bridges.	

Value	Description	Photo Example
Steel	Parapets made from steel components such as beams, posts, or rails, offering high strength and flexibility in design.	
Timber	Parapets built from wood, often used on rural, low-traffic, or older structures.	
Steel and Concrete	Parapets combining steel elements (like rails) with concrete (like posts or bases), providing both strength and mass.	

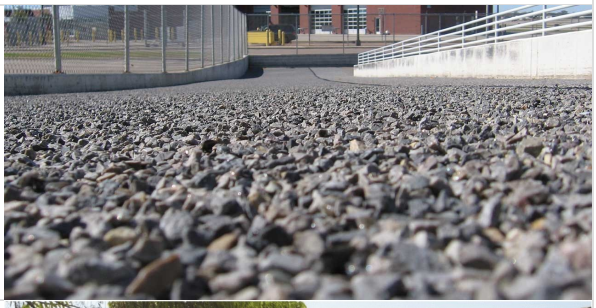
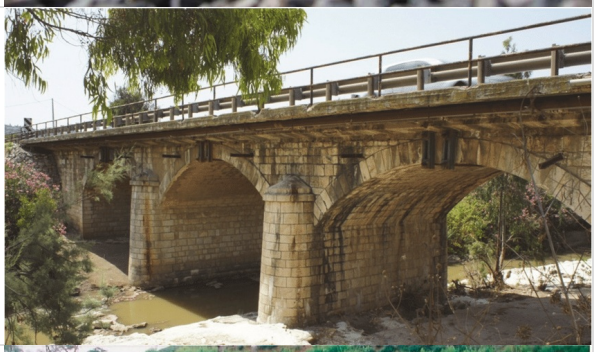
Value	Description	Photo Example
Steel and Timber	A hybrid of steel and timber components, offering both flexibility and traditional materials.	
Timber and Concrete	Parapets that use timber rails with concrete posts or supports, typically in transitional or budget-conscious designs.	
Other	Parapet materials not covered above, such as plastic composites, fiberglass, or experimental designs.	
Unknown	The parapet material has not been recorded or cannot be identified from available data.	

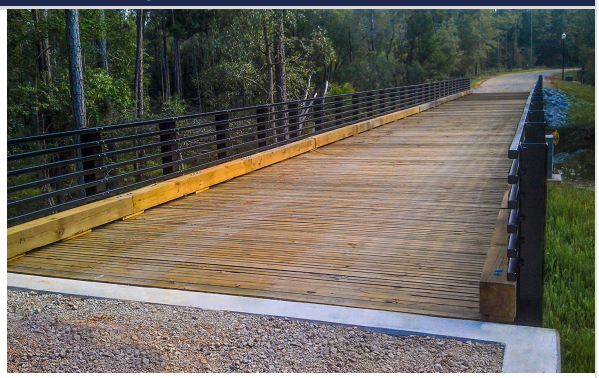
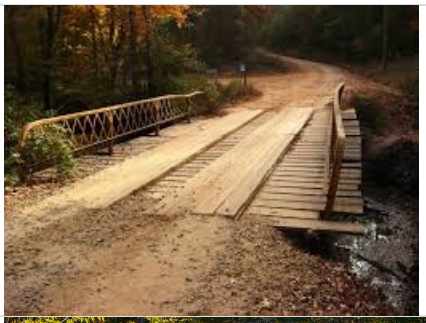
Deck Wearing Surface

AWM Table:	**Bridges**
Attribute:	**Deck Wearing Surface**
Purpose:	To identify the material used as the top surface layer of a bridge deck. This helps assess skid resistance, ride quality, drainage, durability, and maintenance needs.

Value	Description	Photo Example

Value	Description	Photo Example
Asphalt	A smooth, black bituminous surface used to provide a durable, flexible driving surface on bridges.	
Ballast and rail	Crushed stone ballast supporting railway tracks laid directly on the bridge deck, used for rail transport bridges.	
Chip seal	A surface made by spraying bitumen and then covering it with small aggregate chips, offering a rough texture and skid resistance.	
Cobble	Rounded stones set closely together, typically seen in older or decorative bridge decks.	

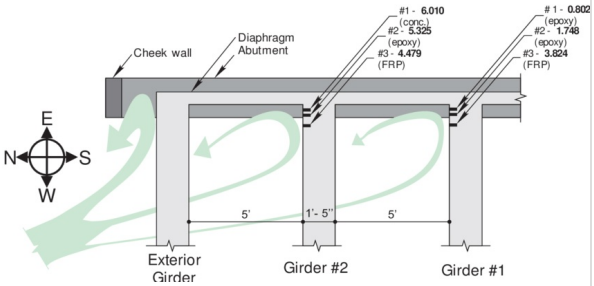
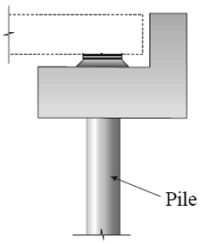
Value	Description	Photo Example
Concrete	A hard, durable surface made from poured or precast concrete, often used for long-term performance.	
Gravel	Loose stone aggregate placed as a simple surface layer, typically found on low-volume or temporary structures.	
Masonry	Built from stone or brick materials, often seen on historic or decorative bridges.	
Rail	Steel rails forming the main wear surface, usually for rail bridges where train wheels make direct contact.	

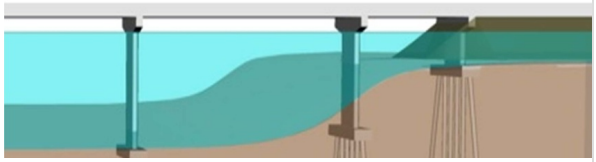
Value	Description	Photo Example
Wood - Deck Plank	Timber planks laid side-by-side across the bridge deck, used for lighter traffic or traditional bridges.	
Wood - Running Plank	Narrow timber strips placed only where vehicle wheels travel, commonly seen on timber bridges.	
Steel	A metal surface deck, often corrugated or plate, used where strength and minimal weight are needed.	
Other	Any surface type not listed above, such as synthetic materials or combinations of multiple materials.	
Unknown	The surface material is not recorded or cannot be determined from current data.	

Abutment Type

AWM Table:	**Bridges**
Attribute:	**Abutment Type**
Purpose:	To classify the structural form of abutments used to support the ends of bridges, helping guide inspection, maintenance, and future design choices.

Value	Description	Photo Example

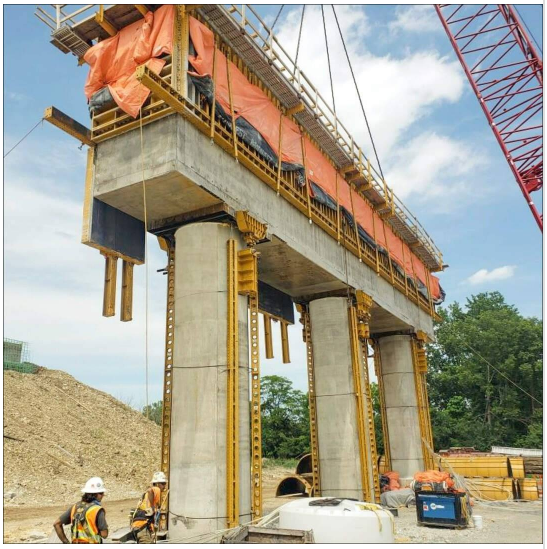
Value	Description	Photo Example
Diaphragm wall	Diaphragm walls are employed in the construction of bridge abutments to provide stable support for the bridge deck and resist lateral earth pressures.	
Reinforced Earth	Reinforced earth is also known as Mechanically Stabilised Earth (MSE). This technique combines soil with artificial reinforcing elements to create strong, stable structures such as retaining walls.	
Gabions	A gabion abutment is a support or structure built from a gabion, which is a basket or cage of wire mesh filled with rocks or earth. Gabions are used to protect the soil around bridges, abutment slopes, and bridge piers.	
Pile bent	They consist of a group of piles. Piles are cylindrical-shaped elements driven or drilled in the ground and connected at their top with a cap to allow the bridge superstructure to be supported on seats. Above ground, pile bent abutments look like spill through abutments.	

Value	Description	Photo Example
Solid wall	A solid wall abutment is a solid wall that extends from its foundation, and is often used in bridge construction.	
Spill through	Spill-through abutments comprise an abutment column (a standard-stub column) at the end of an unconfined earth-fill embankment.	
Other	An abutment type that does not fit into the listed categories. This may include custom, experimental, or combined designs not commonly used.	
Unknown	The type of abutment has not been recorded, or there is not enough information available to determine it.	

Abutment Cap

AWM Table:	**Bridges**
Attribute:	**Abutment Cap, Pier Cap**
Purpose:	To describe the type of structure used at the top of abutments or piers, where the bridge superstructure rests. This helps with load assessment, maintenance planning, and understanding how the bridge transfers forces to the supports.

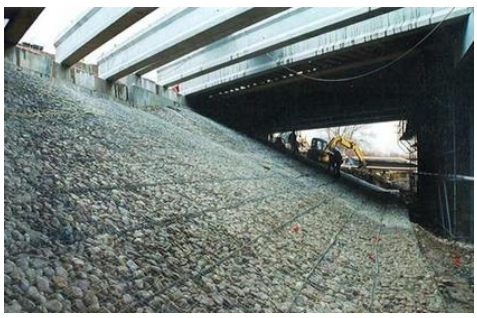
Value	Description	Photo Example

Value	Description	Photo Example
Concrete (cast in-situ)	Concrete poured and formed directly on the bridge site, allowing it to be molded to specific shapes as needed during construction.	
Concrete (Precast)	Concrete components made off-site in a controlled environment, then transported and installed at the bridge location.	
Steel	A metal cap made from steel sections or plates, valued for its strength, durability, and use in modular or high-load designs.	
Timber	Timber caps, also known as timber bent caps, are usually rectangular, constructed from large, solid timber beams securely connected to the piers or columns using bolts, metal plates or other fastening methods.	
Other	A cap type that does not match any of the listed standard options. It may be a custom or uncommon design.	

Value	Description	Photo Example
Unknown	The cap type is not recorded or cannot be identified based on available information.	

Abutment Bank Protection

AWM Table:	**Bridge**
Attribute:	**Abutment Bank Protection**
Purpose:	To identify the type of protective structure used around abutments to prevent erosion or scour from water flow. This supports the maintenance and safety of bridge foundations over time.

Value	Description	Photo Example
Concrete	A solid, continuous structure made from cast or precast concrete used to protect the bank from water damage.	
Gabions	Rock-filled wire cages placed along the bank to absorb water energy and reduce erosion.	
Mattresses	Thin, flexible layers (often wire mesh filled with stone) laid on the riverbed or slope to provide wide-area erosion protection.	

Value	Description	Photo Example
Paving	A surface layer made of flat stones, bricks, or concrete units arranged to protect the bank and maintain its shape.	
Rip rap	Loose stones or rubble placed on the slope of a bank to slow water flow and prevent erosion.	
Stone wall	A constructed wall made of stacked stones, often without mortar, used to hold back soil and resist water impact.	
Other	A type of bank protection that does not fit any of the listed categories, including unique or combined solutions.	
Unknown	The bank protection type is not recorded or cannot be determined from available information.	