Basic Information Requirements

- Structure numbering
- Location details
- Technical inventory data
  - Bridges
  - Major Culverts
  - Lesser Culvert
  - Retaining Walls
  - Gantries
  - Road tunnels
  - Light masts

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Location Details

- Adequate location details required for each structure
- Location details captured should accommodate the authority's reporting needs e.g. reports on structures per maintenance region, per suburb, per ward etc.
- Integration with other information databases is preferable, e.g. a Road Referencing System, to avoid duplication of data sets
- Some location details are authority-specific
- GPS coordinates are common to all authorities. One point is generally sufficient, but in the case of very long structures, two or more points may be captured

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Location Details

National & Provincial Authorities	Municipal Authorities
Route/Road Number Section Number Chainage km Road Name/Description Province District Municipality	Road/Street Name Road/Street from Road/Street to Route Number Town Suburb Ward
Maintenance Region Maintenance Depot GPS Coordinates: Longitude (East) and Latitude (South) Elevation Ownership (Indicates which authority is the owner of the structure). Status (Indicates the current status of the structure, e.g. existing, demolished, planned, etc.)	

Technical information

- Essential technical inventory data should be captured for each structure
- Information should preferably be recorded from “as-built” drawings and design and completion reports
- Alternatively, the data must be measured and collected on site

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Technical information: Bridges

- Bridge type;
- Number of spans;
- Number of piers;
- Number of abutments;
- Number of arches;
- Number of cable groups;
- Overall structure length;
- Overall structure width;
- Total deck area;
- Maximum pier height;
- Maximum abutment height;
- Minimum width of roadway between kerbs;
- Paved width of approach road;
- Minimum vertical clearances; and
- Angle of skew

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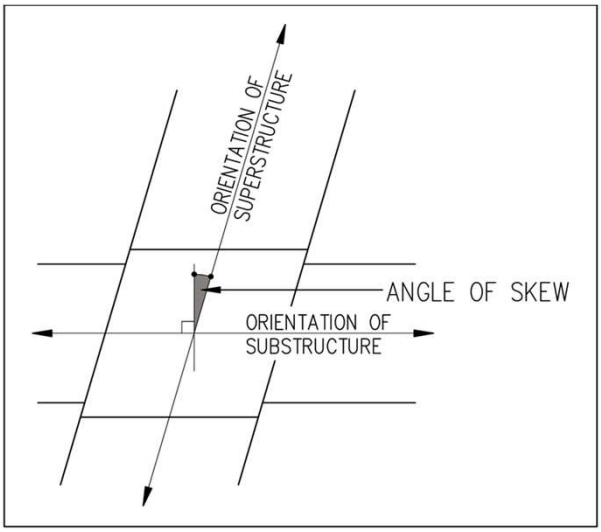
Definition of Angle of Skew



Technical information: Culverts

- Number of cells;
- Overall structure length;
- Overall structure width;
- Maximum Cell Size: Width;
- Maximum Cell Size: Height;
- Total opening area;
- Average cell length;
- Maximum height of fill;
- Total plan area;
- Minimum width of roadway; and
- Paved width of approach road.

Technical information: Retaining walls and Gantries

- Retaining Walls
- Wall type;
- Length of wall;
- Maximum height of wall;
- Total area of wall in elevation.
-
- Gantries
- Gantry type;
- Height of vertical members;
- Span of horizontal members; and
- Total length of vertical and horizontal members.

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Technical information: Road tunnels

- Road Tunnels
- Tunnel type;
- Length of tunnel;
- Width of tunnel;
- Height of tunnel; and
- Tunnel cross-sectional area.

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Technical information: Light Masts

- Group of masts or a single mast;
- Location of the first mast and the last mast in a linear group or of three masts on the outer extremities of a group such as light masts at an interchange;
- Number of masts in the group;
- Foundation type;
- Light mast type;
- Light mast material (e.g. galvanized steel); and
- Light mast height;

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Additional Technical information

- Far more inventory information can be captured – see TMH19 Appendix A

Keep in mind that the collection and **maintenance** of data is costly

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