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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DESIGN CHECK LIST (DCL) - SAP | | | | | | DPB No. | | |  | | | DMP: |  | | | |
| Project Name: |  | | | | | | | Design Package: | | |  | | | | | |
| Project No: |  | | | Date: |  | | | Signal Job No. | |  | | | Revision: | | |  |
| **General Review** | | | | | | | | | | | | | | | | |
| **REQUIREMENT** | | | **DOCUMENTATION REQUIRED** | | | | | | | | | | | | **ADEQUATELY DOCUMENTED** | |
| **YES** | **NO** |
| Title Block | | | Name of plan/section. Description of job included | | | | | | | | | | | |  |  |
| Designer/Checker/Verifier-approval names to be printed with accompanying signatures | | | | | | | | | | | |  |  |
| Mechanism for version control | | | | | | | | | | | |  |  |
| Drawing Standard | | | Drawing layers etc to drawing specification | | | | | | | | | | | |  |  |
| Soft copy of file to be provided | | | | | | | | | | | |  |  |
| Check to Signal Functional Specification (SFS) | | | Type of equipment is in accordance with SFS | | | | | | | | | | | |  |  |
| Speed boards are in accordance with TOC manual | | | | | | | | | | | |  |  |
| Buffer stops, low speed overlaps and catchpoint risks are identified and managed. | | | | | | | | | | | |  |  |
| General-Existing documentation | | | Check adjacent plan interface requirements | | | | | | | | | | | |  |  |
| Check to current maintenance copy and job record for ‘correctness’ and outstanding jobs. | | | | | | | | | | | |  |  |
| Power | | | Check distribution and cable sizes (ECOs/CBs etc. not to be shown) | | | | | | | | | | | |  |  |
| Catchpoints | | | Has a risk assessment of run off been provided? | | | | | | | | | | | |  |  |
| Has appropriate use of signals positioning and low speeds been provide to mitigate risk? | | | | | | | | | | | |  |  |
| Kilometreage | | | All Kms are the civil Km reference | | | | | | | | | | | |  |  |
| Utilise the track setting out drawing | | | Are points Km for each end shown? | | | | | | | | | | | |  |  |
| Are signal positions plotted for good sighting? | | | | | | | | | | | |  |  |
| Are track lengths correct? | | | | | | | | | | | |  |  |
| Are draw bridges, tunnels, platforms etc shown at correct Km? | | | | | | | | | | | |  |  |
| Is curve and gradient information shown with correct Kms at transition points? | | | | | | | | | | | |  |  |
| Are fouling/clearance points identified so as to locate block joints correctly? | | | | | | | | | | | |  |  |
| Signal Positions/profiles | | | Are correct forms of signal shown with ID plate, Kms and arrow pointing to track it applies to? | | | | | | | | | | | |  |  |
| Are repeater signals provided with name ID plates? | | | | | | | | | | | |  |  |
| Is a route identification table in accordance with standard provided (if applicable)? | | | | | | | | | | | |  |  |
| Are repeaters located close to block joints or tuned loops (if applicable)? | | | | | | | | | | | |  |  |
| Do overset shunts require green light (if applicable)? | | | | | | | | | | | |  |  |
| Are single lights indication boards provided for single light areas showing begin/end? | | | | | | | | | | | |  |  |
| Curves & Gradients | | | Correct curves and gradients – Correct km point shown for each transition. | | | | | | | | | | | |  |  |
| Level Crossings | | | Are level crossing types clearly shown? | | | | | | | | | | | |  |  |
| Are approach and approach holdings detailed correctly? | | | | | | | | | | | |  |  |
| Are level crossing warning boards, whistle boards shown? | | | | | | | | | | | |  |  |
| Are Level Crossing Track Frequencies detailed correctly? | | | | | | | | | | | |  |  |
| Scale | | | Scale used shown | | | | | | | | | | | |  |  |
| Is Km point shown adjacent to scale changes? | | | | | | | | | | | |  |  |
| Braking | | | Has an emergency and service braking analysis been provided? | | | | | | | | | | | |  |  |
| Are preliminary medium indications correctly shown on the plan? | | | | | | | | | | | |  |  |
| Conditional clearing | | | Has analysis for operational benefit been provided? | | | | | | | | | | | |  |  |
| Have timing tracks been provided 200-300 metres? | | | | | | | | | | | |  |  |
| Are conditional overlap tracks around 200 metres? | | | | | | | | | | | |  |  |
| General | | | Are roads labeled? | | | | | | | | | | | |  |  |
| Are location cases, bungalows, buildings, platforms, bridges, tunnels, notice boards etc shown with correct Km depicted? | | | | | | | | | | | |  |  |
| Are location cases and relay rooms shown on the correct side of the track? | | | | | | | | | | | |  |  |
| Points | | | Are Kms shown for every point end? | | | | | | | | | | | |  |  |
| Are motors positioned where the most clearance between roads is available if not on outside of track? | | | | | | | | | | | |  |  |
| Are ESMLs/EOLs shown and positioned in accordance with principles? | | | | | | | | | | | |  |  |
| Telephones | | | Are telephones shown as required? Post mounted or ground mounted. | | | | | | | | | | | |  |  |
| Track Circuits | | | Have traction return requirements been met (if applicable)? | | | | | | | | | | | |  |  |
| Are audio frequencies labeled? | | | | | | | | | | | |  |  |
| Are tail cables and track circuit lengths correct to standards? | | | | | | | | | | | |  |  |
| Is frequencies allocations correct between adjacent roads? | | | | | | | | | | | |  |  |
| Are DPUs marked with specified Kms (if applicable)? | | | | | | | | | | | |  |  |
| Are Jeumont tracks labeled as SR or DR? | | | | | | | | | | | |  |  |
| Have tuned loops/block joints opposite each other been designed to minimise ULX (if applicable)? | | | | | | | | | | | |  |  |
| Have tracks over a group of points considered ‘quick release/clearance’ and avoided ‘over locking’? | | | | | | | | | | | |  |  |
| Are block joints located clear of fouling or clearance points ? | | | | | | | | | | | |  |  |
| Has track length been optimised to 200metres minimum in areas where trains may stand to negate an overlap or conditional overlap (e.g. platform tracks)? | | | | | | | | | | | |  |  |
| Buffer stops | | | If friction buffer stops are provided, have approach speeds been analysed? | | | | | | | | | | | |  |  |
| Are Kms shown at each buffer stop? | | | | | | | | | | | |  |  |
| Storage/stabling sidings | | | Is configuration of track circuits in accordance with Signalling Functional Specification? | | | | | | | | | | | |  |  |
| Do signals, indications, car marker boards and berth signs manage multiple trains? | | | | | | | | | | | |  |  |
| Yard limits | | | Show all Yard Limits boards | | | | | | | | | | | |  |  |
| Shunt Limits | | | Are Shunt Limit boards positioned correctly? | | | | | | | | | | | |  |  |
| Site Inspection | | | Have signal sighting forms been provided? | | | | | | | | | | | |  |  |
| ***I confirm that the required Check has been carried out and that any errors, omissions or inconsistencies have been corrected in the deliverable.*** | | | | | | | | | | | | | | | | |
| **ARTC ID No.** | | **Name:** | | | | | **Signature:** | | | | | | | **Date:** | | |

**Guidance Note on use of this Form:**

**Who fills it in?**

* The relevant designer can use this form as a design aid.
* The relevant checkers can use this form as a checking aid.

**When is it used?**

* The designer can use this form as the design progresses or at the end of the design during their production check process to help ensure the integrity of their design.
* The checkers can use this form to help them during the checking process.

**What documents accompany it?**

* The relevant design that requires checking should accompany this form (where applicable).

**Explanation on completing key fields**

**DCL Identification**

* **Project No:** *The valid project number assigned.*
* **Project Name:** *The full project title/description*.
* **Signal Job No:** *The associated allocated signal engineering job number*.
* **DPB/DMP No:** *The relevant DBP and DMP numbers to the design that is being checked.*
* **Design Package:** *Brief description of the design to be checked.*

**General Review**

* **Requirement:** *Area of detailed design.*
* **Documentation Required:** *Specific details within the design (but not limited to) required to fulfil the requirement.*
* **Adequately Documented:** *Depending if the design is accurately detailed, then yes or no can be marked off.*