Road Design

Drawing Presentation Guidelines

February 2025

Government of South Australia
Department for Infrastructure and Transport

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Document Information

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Document Management

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Contents

1 General Design Information

1.1 Introduction

1.1.1 The General Design Information drawings are used to show the construction requirements within the scope of a project. This information is shown on several drawing types.

1.1.2 Layers to be shown as per the DIT CAD Layer Matrix

1.2 Title and Index

Purpose

1.2.1 The 'Title and Index' drawing is used as a cover sheet to a set of construction drawings.

1.2.2 The drawing also shows the arrangement of the different construction drawings and reference documents used within the suite.

Content

1.2.3 The following CAD entities are required:

a) The project title (layer = "D-ENHA-Title Block", block provided)

b) An index (layer = "D-ENHA-Schedules", block provided), showing the arrangement of the sheets within the drawing suite and a list of associated drawings and reference documents.

c) Sheets within the drawing suite shall be grouped according to 'Sheet Type' and listed as 'Sheet No.' and 'Sheet Location Description'.

d) Associated drawings and reference documents shall be grouped as 'Reference Documents' and listed as 'Drawing No.' and 'Sheet No.'. If the document is not a drawing it shall be listed as the 'Document Title'.

e) A Locality Plan, showing the project's location in relation to the Adelaide CBD (for projects in the metropolitan area), or to the nearest major town (for rural projects) (layer = "D-ENHA-Title Block").

1.2.4 If a project is relatively small (e.g., less than 10 sheets) then a 'Title and Index' drawing may include:

a) A display of the overall project layout. The project layout shall be drawn to the largest possible scale that allows the full project extents to be shown on a single A1 sheet.

b) Section markers referencing the typical sections in accordance with Section 2.4.

c) Survey on the Title & Index Drawing shall be trimmed (i.e., survey detail should only be shown outside the extents of the design).

1.3 Overview Plan

Purpose

1.3.1 The 'Overview' drawing is used to show the location of the project in relation to the existing landscape. It will also provide details of the sheet layout for the project.

1.3.2 A display of the overall project layout. The project layout shall be drawn to the largest possible scale that allows the full project extents to be shown on a single A1 sheet.

Content

1.3.3 The sheet layout borders (layer = 'D-ENHA-Sheet Layout, AutoCAD Colour = 144), showing the extent of each sheet in the drawing suite is shown over the design.

1.3.4 If a project is relatively small (e.g., Less than 5 layouts to a drawing type) then an ‘Overview Plan’ may be deemed unnecessary. In such a case, an ‘Overview’ shall be provided on the ‘Title and Index’.

1.3.5 Design is to be shown in yellow (AutoCAD Colour = 2).

1.3.6 Survey is not shown on the ‘Overview’.

1.3.7 An aerial image is to be shown below the design to assist in locating the project site.

1.4 Typical Cross Sections

Purpose

1.4.1 The ‘Typical Cross Sections’ drawing is used to show the “typical” cross section(s) proposed for the road infrastructure and relationship between the designed and existing surfaces, including the nominal pavement configuration.

1.4.2 The ‘Typical Cross Sections’ drawing is to show a limited number of cross sections for the Main Road and Side Road.

1.4.3 A ‘Typical Cross Sections’ drawing is not required for small projects where a “typical” section does not exist.

1.4.4 The typical cross section is to show sufficient detail to allow the requirements to be understood without the need to measure off them.

Content

1.4.5 Lines shall be shown indicating the following:

a) Existing and design surfaces

b) Reference string

c) Other surfaces or design strings may be shown at the discretion of the designer

d) Extents of existing seal

e) Carriageway cross-fall (%)

f) Batter-slopes (V:H)

1.4.6 Symbols shall be shown identifying the following:

a) ‘NJ’ saw cut string location

b) Existing and new fences

c) Existing and new safety barriers

d) Pavement types and configuration

e) Hatch patterns selected for clarity

1.4.7 Extents of Typical Cross Sections may be identified with section markers or a chainage range.

1.4.8 The width of a design features may be shown as ‘varies’ vary where appropriate.

1.4.9 ‘Details’ if required, may be shown on this drawing.

1.4.10 Text may be shown identifying the following:

a) Typical feature widths

b) Pavement types and configuration

1.5 Demolition and Vegetation Removal

Purpose

1.5.1 The ‘Vegetation and Demolition’ drawing is used to show all existing features that are required to be removed (or reinstated) as part of the project.

Content

1.5.2 The following CAD entities are required:

a) Text describing features to be removed, reinstated, relocated, replaced, or abandoned (layer = “D-ENHA-General Notes”) (Paper Space text height = 2.5mm)

b) Vegetation to be removed crosses (layer = “D-ENHA-Vegetation to be removed)

c) Vegetation Survey numbering (layer = “D-ENHA-Vegetation ID number)

1.5.3 Survey on the Vegetation and Demolition Drawing to be untrimmed.

1.5.4 The design extent is to be shown hatched (AutoCAD Colour = 145 with Transparency=50%).

1.5.5 Extent of the design boundary is shown as a dashed line (AutoCAD Colour = 145).

1.5.6 Notes shall be included to clarify:

a) Vegetation survey tree numbers

b) Trees to be removed, pruned, or assessed

c) Vegetation to be removed

d) Tree protection zones

e) Specific elements to be retained

f) Element to be removed and stored for reinstatement

g) Other text to enhance the vegetation removal at the discretion of the designer.

1.6 General Construction Plans

Purpose

1.6.1 The ‘General Construction’ drawing is used to show both the existing and proposed layout and should clearly demonstrate what is required to be built as part of the project.

Content

1.6.2 The following CAD entities are required:

a) Text describing features to be installed. Include cross references to installation details if appropriate (layer = “D-ENHA-General Notes”) (Paper Space text height = 2.5mm)

b) Text describing drainage features to be installed are not required on this drawing as they will be shown on the ‘Stormwater and Contours’ drawing.

c) Text describing size and type of existing services as supplied in the survey.

d) (layer = “S-GAS-Services Label”, “S-Water-Service Label”, “S-SEWER- Label”, “S-COMM-Service Label”, “S-ELEC-Service Label”) (Paper Space text height = 2.5mm)

e) Text and symbols showing new service information (if supplied) (Paper Space text height = 2.5mm)

f) Dimensions to assist interpretation of the design (layer “D-ENHA-Dimensions”)

g) Text describing components of any designed safety barrier including lengths and definitions of elements, post spacings and end treatments (layer = “D-ENHA-General Notes”) (Paper Space text height = 2.5mm)

1.6.3 Survey on the General Construction Drawing shall be untrimmed (i.e., survey details should extend across the design area).

1.6.4 Services on the General Construction Drawing shall be untrimmed (i.e., services details should extend across the design area).

1.6.5 Vegetation identified to be removed on the vegetation removal plan is not shown and is to be trimmed from the general construction plans.

1.7 Land Acquisition Sketches

Purpose

1.7.1 The ‘Land Acquisition’ Sketches are used to show the proposed land acquisition boundaries required on the project.

1.7.2 The land acquisition sketches are used by the Department’s acquisition team to manage the acquisition process with property owners, including assessment of compensation and any subsequent court proceedings.

Content

1.7.3 Property Acquisition Sketches shall be presented on the DIT Sketch Titleblock and shall be provided as two electronic files (one .DWG file and one .PDF file).

1.7.4 The following model features shall be included on the drawing and shown in the colours indicated:

a) Design features – Black

b) Survey features – AutoCAD colour 253

c) Existing boundaries – Cyan

d) New boundaries – Blue

e) Survey stations – AutoCAD colour 10

1.7.5 Line types shall be as indicated in the DIT Layer Matrix.

1.7.6 Layer visibilities shall be as indicated in the DIT Layer Matrix (General Construction drawing type).

1.7.7 New boundaries shall be lines and polylines with points only at changes in direction. Dashed lines must not be made up of individual line segments.

1.7.8 The following symbol shall be placed at each survey station and be annotated with the station number. It is important that the lower end of the vertical line is located at the coordinates of the survey station point.

1.7.9 A Cover Sheet and a Detail Sheet for each plan parcel is required when more than property is being acquired.

1.7.10 The details required for the Cover Sheet and Detail Sheet can be combined for projects where only one plan parcel is being acquired.

a) CAD Enhancements – Cover Sheet:

b) Any text deemed appropriate, in particular road names and direction arrows

c) North Point

d) Area of land acquisition hatched (AutoCAD Colour = 30 with Transparency = 50%)

e) CT / VOLUME / FOLIO numbers and Plan Parcel

f) Label Site location and reference to detail sheet number

g) Locality Plan showing the location of the project

h) Land Acquisition table with columns for:

i) Site ID

ii) Site location

iii) CT / VOLUME / FOLIO

iv) Plan parcel

v) Total land area (m²)

vi) Land acquired (m²)

vii) Total residual lane (m²)

1.7.11 A detail sheet shall be created for each land

1.7.12 CAD Enhancements – Details Sheet

a) A detail sheet shall be created for each land parcel to be acquired

b) Acquisition Legend showing survey stations, existing property boundaries, and new property boundaries

c) Any text deemed appropriate, in particular road names and direction arrows

d) North Point

e) Area of land acquisition hatched (AutoCAD Colour = 30 with Transparency = 50%)

f) Area of land acquisition label in m²

g) CT / VOLUME / FOLIO numbers and Plan Parcel

h) Dimensions of land to be acquired

1.7.13 General

a) Drawing sheet size should generally be A1 although this may be varied slightly if deemed appropriate (for example to allow the whole area to be included in one sheet)

b) An aerial image to be shown in the background

c) Tables of Coordinates are not required – coordinate data will be extracted directly from drawing entities Locality Plan showing the location of the project

1.8 Significant Vegetation Sketches

Purpose

1.8.1 The ‘Significant Vegetation’ Sketch is developed to communicate the reason behind the proposed impact or removal of significant vegetation.

1.8.2 The “Significant Vegetation” Sketch is used by the Department’s environment team to manage the approval process associated with significant vegetation approvals and should be developed early in the design development process facilitate approvals.

Content

1.8.3 The “Significant Vegetation” Sketch is to incorporate information as detailed within the DIT Vegetation Impact Guideline.

1.8.4 Vegetation Impact Sketches shall be presented on the DIT Sketch Titleblock and shall be provided as two electronic files (one .DWG file and one .PDF file). The DWG file should not contain any custom objects.

1.8.5 Drawing sheet size should generally be A1 although this may be varied slightly if deemed appropriate (for example to allow the whole area to be included on one sheet).

1.8.6 Line types shall be as indicated in the DIT Layer Matrix.

1.8.7 Any loaded XRefs shall be bound to the host drawing and any unloaded XRefs shall be detached.

1.8.8 The drawing shall be saved as “Vegetation Impact Sheet X of Y.dwg” (where Y is the total number of Vegetation Impact sheets and X is the sheet number).

1.8.9 The following features should also be included on the drawing:

a) North Point and road names

b) Aerial image background

c) Vegetation survey tree numbers

d) Vegetation survey phot numbers

e) Trees to be removed, pruned, or assessed

f) Vegetation to be removed

g) Structural root zone

h) Tree protection zones

i) General design information

j) Text and notes to highlight the reason behind the proposed vegetation is required to be removed

k) Other text to enhance the vegetation removal at the discretion of the designer.

1.8.10 The following model features shall be included on the drawing and shown in the colours indicated:

a) Design features – Yellow

b) Survey features – Black

c) Existing boundaries – Cyan

d) New boundaries – Blue

1.9 Values and Constraints Sketches

Purpose

1.9.1 The values and constraints sketches are to be developed to document the information identified in the Environmental and Heritage Impact Assessment (EHIA) - that may be a constraint or impact the design process.

1.9.2 The “Values and Constraints” sketches are to be developed early in the design process (e.g. concept or preliminary design) to aid in integrating the design with the outcomes of the EHIA.

Content

1.9.3 Refer to the EHIA Guidelines for further guidance on the content of values and constraints sketches.

2 Road Design Information

2.1 Introduction

2.1.1 The Geometric Information drawings are used to show the geometric road design information for design review, approval, and construction set-out requirements of a project.

2.1.2 Layers to be shown as per the DIT CAD layer Matrix.

2.2 Geometric Set-out Drawings

Purpose

2.2.1 The 'Geometric set-out' drawing is used to show the location of the main reference and point strings that are required to be set out by the surveyor.

2.2.2 The 'Geometric set-out' drawing is also to provide an asset management record of the major geometric road design features.

2.2.3 For smaller projects, the details listed below can be arranged on the General Construction drawing provided they do not cause the drawing to become congested.

Content

2.2.4 The geometric set-out drawing shall include indicating the following lines:

a) Control (MC or MR) strings (MC strings AutoCAD Colour = red, MR strings AutoCAD Colour = blue)

b) Other design features to be shown (AutoCAD Colour = 253)

c) Drainage network to be shown (AutoCAD Colour = 253)

2.2.5 The geometric set-out drawing shall include the following setout points:

a) Drainage Junction (PBOX AutoCAD Colour = 212)

b) Inspection Point (PDIP AutoCAD Colour = 212)

c) Lighting Pole (PLIG AutoCAD Colour = 212)

d) Drainage Gully (PPIT AutoCAD Colour = 212)

e) Ramp (PRAM AutoCAD Colour = 212)

f) Traffic Signal Pole (PTSP AutoCAD Colour = 212)

g) Miscellaneous (PMIS AutoCAD Colour = 212)

2.2.6 The geometric set-out drawing is to include Text or symbols identifying the following:

a) North point

b) Reference string label (MC or MR)

c) Chainages

d) MR string features

e) Crest and sag indicators

f) Reference string element information including length, radius and bearing

2.2.7 The geometric horizontal alignment schedule is to include the following information for the master reference MC and MR Strings:

a) Point and chainage

b) Easting and northing

c) Height

d) Bearing

e) Element, straight or radii

f) Length

2.2.8 Survey information to be trimmed.

a) Grids are to be displayed at the following spacing for different drawing scale:

b) 1:1000 spacing 200m

c) 1:500 spacing 100m

d) 1:300 spacing 50m

e) 1:200 spacing 50m

2.3 Long Sections

Purpose

2.3.1 The 'Longitudinal Section' drawing is used to show the vertical relationship between the designed and existing surfaces.

2.3.2 The drawing is also used to show the key geometric details of the reference string.

Content

2.3.3 The longitudinal sections shall include indicating the following lines:

a) Existing and design surfaces

b) Other surfaces or design strings that will enhance the design information may be shown at the discretion of the designer (e.g. roadside swale invert)

2.3.4 The longitudinal sections are to include the text boxes below the longitudinal section with information corresponding to features as follows:

a) Chainage

b) Design surface level

c) Existing surface level

d) Horizontal alignment information, including length and radii of horizontal features

e) Vertical alignment information, including length, grade in %, and "K" value of vertical features

f) Superelevation, including, superelevation % and development transitions (projects without super elevation may omit this feature)

g) Where the reference string and design surface do not represent the same levels, such as urban projects with median islands, an additional box for the reference string level is required

2.3.5 The longitudinal sections are to include text or symbols identifying the following:

a) Datum level

b) Chainage and level of high and low points

c) Text and labels to describe the long section features at the discretion of the designer

2.4 Cross Sections

Purpose

2.4.1 The 'Cross Section' drawing is used to show the vertical relationship between the designed and existing surfaces.

Content

2.4.2 The cross section interval used for construction drawings may vary depending on the scope of the project. Typically, urban roads will have sections at 10m intervals and rural roads at 20m intervals

2.4.3 Lines and text shall be shown indicating the following:

a) Existing and design surface

b) Reference string

c) Other surfaces or design strings may be shown at the discretion of the designer

d) Datum level

e) Extent of existing seal

f) Carriageway cross-fall (%)

g) Batter-slopes (V:H)

h) Chainages

i) Reference string name and X and Y coordinate at the reference point

2.4.4 Text box for the following:

a) Design string cut label

b) Design level

c) Level difference (from design level to existing level)

d) Horizontal offset

2.4.5 Symbols shall be shown identifying the following:

a) ‘CE’ string location and ‘NJ’ string location (if sub-grade surface not shown)

b) Existing and new fences

c) Existing and new safety barriers

2.5 Road Design Information Sketches

Purpose

2.5.1 Road design information is used to document the design assessment and information supporting the design.

2.5.2 ‘Vehicle turn-path’ sketches are used to display the vehicle turning path for the design and checking vehicles.

2.5.3 ‘Sight distance check’ sketches are used to verify the various sight distances used in the design.

Content

2.5.4 Road design sketches shall be presented on DIT Sketch Titleblock and provided in PDF format within the supporting design documentation or report.

2.5.5 Drawing sheet size should generally be A1 although this may be varied slightly if deemed appropriate (for example to allow the whole area to be included on one sheet).

2.5.6 Layer visibilities shall be as indicated in the DIT Layer Matrix (Traffic Control drawing type)

2.5.7 Survey model to be trimmed.

2.5.8 Road design sketches are to be incorporated as an appendix within the design report

Vehicle Turn-Path Sketches

2.5.9 The vehicle turn-path sketches shall include the following information:

a) Title for each sketch indicating the location, manoeuvre being modelled and vehicle type

b) North point and road names

c) General design information

d) Vehicle turning path to include vehicle body, appropriate clearance lines and to be shown with a transparency (50%)

e) Other text as deemed appropriate to describe the turn path at the discretion of the designer

Sight Distance Sketches

2.5.10 The sight distance sketches shall include the following information:

a) Title for each sketch indicating the location, and sight distance reviewed

b) North point and road names

c) General design information

d) Sight distance lines / triangles, required parameters and values achieved

e) Other text as deemed appropriate to describe the sight distance assessment at the discretion of the designer.

3 Stormwater and Grading Information

3.1 Introduction

3.1.1 The Drainage and Grading information drawings are to document the stormwater management and drainage design and associated site grading. Layers to be shown as per the CAD Layer Matrix

3.1.2 For smaller projects, the details listed below can be arranged on the General, provided they do not cause the drawing to become congested.

3.2 Stormwater and Contours

Purpose

3.2.1 The 'Stormwater and Contours' drawings are to be developed to document:

a) Site grading (contours) including any swales, levees, or bunds to direct overland flow

b) Location and orientation and details of new drainage structures

c) Existing drainage structures and drains that are to remain

d) Scour protection treatments

Content

3.2.2 Site survey and contour information is to be trimmed (i.e., survey detail does not extend across the design area survey contour area).

3.2.3 The drawing is also used to shows specific construction / maintenance details.

3.2.4 For line style for pipe and culvert with a diameter of 450mm and about, are to be scaled to show the actual width. All other pipes and culverts are shown with a line style = 1

3.2.5 The following CAD entities are required:

a) Symbols showing new drainage structures (layer = "D-DRAI-Drainage Structure", block provided)

b) Lines showing new stormwater pipes and culverts (layer = "D-DRAI-DI-Pipe Invert", line style provided)

c) Drainage Structure ID numbers identifying new drainage structures and existing drainage structures to remain (layer = "D-ENHA-General Notes", block provided)

d) Text identifying new drains by their string name (layer = "D-DRAI-Drainage Structure ID Label", block provided) (PS text height = 3.5mm)

e) Symbols showing new scour protection treatments (layer = "D-DRAI-Drainage Structure", block provided)

f) Text describing specific drainage requirements (layer='D-ENHA-General Notes") (PS text height = 2.5mm)

3.3 Drainage Schedules

Purpose

3.3.1 Drainage schedules are to be developed to document detailed information on the drainage pits and drain details.

3.3.2 Drainage schedules can be placed on the Stormwater and Contours drawing sheet, provided they do not cause the drawing to become congested.

3.3.3 For larger more complex projects drainage schedules are to be placed on their own stand-alone drawing.

3.3.4 The Easting and Northing (X / Y) coordinate shown in the Schedules are to be used for asset location. The values may differ from actual set out details. Drainage Structure are to be set from model information. Refer to the Geometric Model Detail document for details.

Content

3.3.5 The pit details schedule is to include the following information for each pit:

a) Individual pit ID and description

b) Set out data including:

i) Easting and Northing (X / Y) in the drawing coordinate

ii) Top (lid) and invert level of the structure in AHD (or noted otherwise)

c) Structure size

d) Pipe junctions (branch junctions in additional to the nominated inlet and outlet)

3.3.6 The drain details schedule is to include the following information for each pipe / culvert run:

a) Individual drain ID

b) Inlet and outlet structure ID the drain connects into

c) Number of drain runs and size

d) Type of drain, including size and class

e) Upstream (US) and downstream (DS) invert (INV) levels

f) Plan length (length of pipe between pit walls)

g) Drain grade in %

3.4 Drainage Longitudinal Section

Purpose

3.4.1 The ‘Drainage Longitudinal Section’ drawing is used to show the drainage design details in a sectional view.

Content

3.4.2 The longitudinal sections shall include indicating the following:

a) Existing and design surfaces

b) Outline of drainage infrastructure including:

i) New drains and structures

ii) Existing drains and drainage structures, where connecting the design includes connections

c) Hydraulic Grade Line (HGL)

d) Existing underground services drawn to scale and annotated

3.4.3 The longitudinal sections are to include the text boxes below the longitudinal section with information corresponding to features as follows:

a) Design Flow – in “cumec”(m^3/sec)

b) Grades (grade of the pipe or culvert in %)

c) HGL (Hydraulic Grade Line)

d) Invert level – downstream and upstream of the drainage structure

e) Top Level - lid level at Junction Box or Side Entry Pit or top of Headwall

f) Chainage

3.4.4 The longitudinal sections are to include Text and / or symbols identifying the following:

a) Drainage structure ID and information

b) Pipe / culvert size and class

c) Datum level

d) Section annotation referencing drain identifier and approximate plan location

e) Existing underground services annotation, size and type, and with 'critical level' for clearance (where depth is unknown or interpolated, this shall be stated)

f) Drawing notes as required to inform the construction personnel of any relevant features

3.5 Drainage Catchment Sketches

Purpose

3.5.1 The 'Drainage Catchment' sketches are to show the catchment area information used in the drainage design of the project.

3.5.2 Drainage catchment sketches shall be incorporated within Design Reports and facilitate the review of the stormwater and drainage design.

Content

3.5.3 Drainage catchment sketches shall be presented on DIT Sketch Titleblock and provided in PDF format within the supporting design documentation or report.

3.5.4 Drawing sheet size should generally be A1 although this may be varied slightly if deemed appropriate (for example to allow the whole area to be included on one sheet).

3.5.5 Survey model to be trimmed.

3.5.6 The Sketch is to incorporate a drainage catchment details schedule incorporating:

a) Catchment area identifier

b) Structure ID the catchment drains to

c) Catchment area

d) Catchment properties (i.e., paved / vegetated / other)

e) Design ARI

3.5.7 The following CAD entities are required:

a) Lines showing the catchment boundaries (layer = "D-DRAI-Drainage Catchment Bdy+ID Label")

b) Text identifying the Catchment boundary identifiers (layer = "D-DRAI-Drainage Catchment Bdy+ID Label") (Paper Space text height = 5mm)

c) Specific Drainage design notes (layer = "D-ENHA-General Notes")

d) Drainage Catchment details schedule (layer = "D-ENHA-Schedules")

e) Minimum scale of drawing 1:2500

4 Pavement Design

4.1 Introduction

4.1.1 The intent of the “Pavement Treatment” drawings is to document the pavement designs and locations for different pavement types.

4.1.2 Layers to be shown as per the DIT CAD Layer Matrix.

4.2 Pavement Treatment

Purpose

4.2.1 The purpose of the pavement treatment is to document the locations for different pavement types and associated joints and sawcut lines.

Content

4.2.2 The pavement treatment plans are to be developed to document:

a) Location of different pavement types (through pavement hatches)

b) Saw-cut location of existing pavements

c) Pavement joint types and locations

d) Traffic lane lines (to assess wheel paths)

e) Pavement treatment legend

f) Extent of pavement works

g) Geometric alignment master strings and chainages

h) Specific pavement construction / maintenance notes and details

4.2.3 The following CAD entities are required:

a) Hatching showing pavement treatment locations (layer = “D-PAVT-Pavement Hatch”)

b) All pavement treatment types shall be identified using a ‘solid’ hatch pattern of varying colours

c) Secondary hatch patterns (e.g., ANSI31) may be combined with the solid colour to provide further distinction between treatment types. Secondary hatch patterns shall be AutoCAD colour 7 (black/white) and their scale is to be the same as shown in the legend (if used)

d) Text describing saw cut locations specific pavement treatment requirements (layer = “D-ENHA-General Notes”) (Paper Space text height = 2.5mm)

e) Text describing pavement treatment type linked to hatch pattern by a leader (only for less complex or smaller jobs) (layer = “D-ENHA-General Notes”) (Paper Space text height = 2.5mm

f) Text identifying ‘plane & reinstate’ depths (layer = “D-ENHA-General Notes”) (Paper Space text height = 3.5mm)

g) Legend describing pavement treatment types and their hatch pattern (layer = “D-ENHA-Legends”) (Paper Space text height = 2.5mm)

4.2.4 Survey on the pavement treatment drawing shall be untrimmed (i.e., survey detail should extend across the design area).

Pavement Joint Details

4.2.5 Pavement joint type and reference to the DIT standard pavement joint type is to be documented in the pavement treatment drawings.

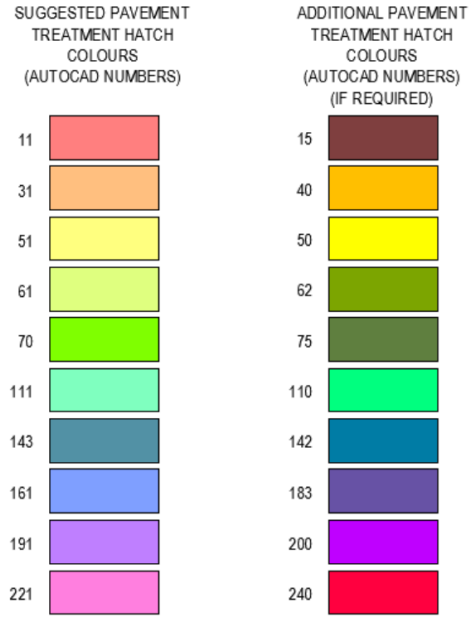
4.2.6 Where there is no suitable DIT standard pavement joint detail, additional the pavement joints are to be documented in the pavement treatment plans.

Pavement Hatch Colour Selection

4.2.7 AutoCAD Colour 1-7 and 144 are not to be used for pavement hatch.

4.2.8 Colour combinations shall be chosen to provide clarity between adjoining pavement hatch types. Suggested pavement treatment hatch colours and AutoCAD colour numbers are detailed in Figure 4-1 .

Figure 4-1 Pavement Hatch Colours



4.3 Pavement Design Schedules

Purpose

4.3.1 Pavement schedules are to be developed to document detailed pavement design information for each pavement type identified in the pavement treatment plan.

Content

4.3.2 Pavement schedules can be placed on the Pavement Treatment drawing sheet, provided they do not cause the drawing to become congested. For larger, more complex projects, pavement schedules are to be placed on their own stand-alone drawing.

4.3.3 The pavement schedule is to include the following information for each pavement type:

a) Hatch colour used in the pavement treatment plan for the corresponding pavement design

b) Pavement type ID

c) Design traffic

d) Pavement layer information including:

e) Material type or subgrade design CBR

f) Nominal compacted thickness of each layer

g) Depth to bottom of pavement layer below the finished pavement surface level

h) Tolerance to the top of each pavement layer

i) Additional details to assist the construction of the pavement layer

5 Appendix A - Example Drawings

5.1.1 Refer to Example Drawings for Large Projects RD2.1 and Example Drawings for Small Projects RD2.2

6 Appendix B – Example Sketches

6.1.1 Refer to Example Sketches RD2.3