

Digital Plans and Schedule Schema

Introduction

DCS Spatial Services will accept the following POSI application components in digital format (in lieu of a Microsoft Excel or .pdf submission):

- *Survey Mark Audit Schedule,*
- *Survey Project Plan Drawing, and*
- *Proposed Horizontal and/or Vertical Control Network*

The format must be ESRI ArcMap compatible (shapefile or geodatabase) and adopt the following digital schema outlined in this document.

Survey Mark Audit Schedule

The following schema must be adopted when creating a digital *Survey Mark Audit Schedule*:

Field position: 1

Description: Phase 1 – Investigation: Project Mark ID

Field name: **Project_ID**

Definition: Project-specific identification for the survey mark

Content options:

- Free text (e.g. GIP1, DHW2, SS12345, etc.)

Field position: 2

Description: Phase 1 – Investigation: SCIMS Mark ID

Field name: **SCIMS_ID**

Definition: SCIMS identifier - only applies to Permanent Survey Marks

Content options:

- Free text (e.g. PM12345, SS12345, TS12345, etc.)
- Blank (for Reference Marks or Bench Marks)

Field position: 3

Description: Phase 1 – Investigation: Type

Field name: **Type**

Definition: The physical type of survey mark

Content options:

- Free text (e.g. PM, SS, TS, DH&W, GIP, BOLT, etc.)

Field position: 4

Description: Phase 1 – Investigation: Origin

Field name: **Origin**

Definition: The origin of the mark i.e. SCIMS, DP or Plan on which mark is recorded on

Content options:

- SCIMS (for Permanent Survey Marks)
- Deposited Plan number (e.g. DP12345) (for Reference Marks or Bench Marks)
- Reference to the public record ID (for Reference Marks or Bench Marks)
- Unknown (for Reference Marks or Bench Marks)

Field position: 5

Description: Phase 1 – Investigation: Coordinates: Datum

Field name: **Datum**

Definition: The datum with which the listed coordinates relate to

Content option:

- GDA2020

Field position: 6

Description: Phase 1 – Investigation: Coordinates: Easting

Field name: **Easting**

Definition: The Easting of the mark at the search date

Content options:

- Free number (e.g. 333333.333)

Field position: 7

Description: Phase 1 – Investigation: Coordinates: Northing

Field name: **Northing**

Definition: The Northing of the mark at the search date

Content options:

- Free number (e.g. 6666666.666)

Field position: 8

Description: Phase 1 – Investigation: Coordinates: Zone

Field name: **Zone**

Definition: The Zone of the mark (if applicable)

Content options:

- Free number (e.g. 56)

Field position: 9

Description: Phase 1 – Investigation: Coordinates: Coord Source

Field name: **XY_Source**

Definition: The coordinate source of the mark

Content options:

- SCIMS (coordinates have been retrieved from SCIMS)
- Calculated (coordinates have been calculated from Deposited Plans or other sources, without field verification)
- RTK (coordinates have been calculated using a Real Time Kinematic GNSS observation)
- AUSPOS (coordinates have been calculated from a static GNSS observation submitted to Geoscience Australia's AUSPOS positioning service)
- Traverse (coordinates have been calculated using terrestrial observation)

Field position: 10

Description: Phase 1 – Investigation: GDA: Class

Field name: **GDA_Class**

Definition: The GDA Class of the mark in SCIMS at the search date

Content options:

- A, B, C, etc. (for Permanent Survey Marks)
- Blank (for Reference Marks or Bench Marks)

Field position: 11

Description: Phase 1 – Investigation: GDA: PU

Field name: **GDA_PU**

Definition: The uncertainty of the coordinates of a mark, in metres, at the 95% confidence level, with respect to the defined reference frame

Content options:

- Free number (e.g. 0.02)
- Blank (for Reference Marks or Bench Marks and for Permanent Survey Marks without a PU value published in SCIMS at the search date)

Field position: 12

Description: Phase 1 – Investigation: GDA: LU

Field name: **GDA_LU**

Definition: The average measure, in metres at the 95% confidence level, of the relative uncertainty of the coordinates of a mark(s), with respect to the survey connections to adjacent marks in the defined frame

Content options:

- Free number (e.g. 0.03)
- Blank (for Reference Marks or Bench Marks and for Permanent Survey Marks without a LU value published in SCIMS at the search date)

Field position: 13

Description: Phase 1 – Investigation: AHD: RL

Field name: **AHD_Value**

Definition: Height of survey mark in AHD published in SCIMS at the search date

Content options:

- Free number (e.g. 111.111)

Field position: 14

Description: Phase 1 – Investigation: AHD: Class

Field name: **AHD_Class**

Definition: The AHD Class of the mark in SCIMS at the search date

Content options:

- LA, LB, LC, etc. (for Permanent Survey Marks)
- Blank (for Reference Marks or Bench Marks)

Field position: 15

Description: Phase 1 – Investigation: AHD: PU

Field name: **AHD_PU**

Definition: The uncertainty of the height of a mark, in metres, at the 95% confidence level, with respect to AHD71

Content options:

- Free number (e.g. 0.02)
- Blank (for Reference Marks or Bench Marks and for Permanent Survey Marks without a PU value published in SCIMS at the search date)

Field position: 16

Description: Phase 1 – Investigation: AHD: LU

Field name: **AHD_LU**

Definition: The average measure, in metres at the 95% confidence level, of the relative uncertainty of the height of a mark(s), with respect to the survey connections to adjacent AHD71 marks

Content options:

- Free number (e.g. 0.03)
- Blank (for Reference Marks or Bench Marks and for Permanent Survey Marks without a LU value published in SCIMS at the search date)

Field position: 17

Description: Phase 1 – Investigation: Desktop Search: Mark Status

Field name: **DT_Status**

Definition: The status of the mark in SCIMS or Deposited Plan at the search date (if applicable)

Content options:

- Placed (mark was placed by Plan of Survey)
- Found (mark has status of 'Found' on Plan of Survey or SCIMS)
- Not Found (mark has status of 'Not Found' on Plan of Survey or SCIMS)
- Disturbed (mark has status of 'Disturbed' on Plan of Survey)
- Destroyed (mark has status of 'Destroyed' on Plan of Survey or SCIMS)

Field position: 18

Description: Phase 1 – Investigation: Desktop Search: Search Date

Field name: **DT_Date**

Definition: The date that the desktop audit was performed / metadata was retrieved from SCIMS for the mark

Content options:

- Date DD/MM/YYYY (e.g. 01/12/2021)

Field position: 19

Description: Phase 2 - Proposed Impact: Pre-Construction Field Audit: Mark Status

Field name: **FA_Status**

Definition: The status of the mark at the inspection date (for all marks)

Content options:

- Found Intact (mark was found in good condition)
- Not Found (mark was searched for and not found; no evidence exists to indicate that it was destroyed)
- Disturbed (mark was found; however, it was in an unstable condition or there was evidence that it had been disturbed or moved to another location)
- Destroyed (evidence was found that the mark was destroyed)
- Not Searched (the mark is outside the project extent and a search was not performed)

Field position: 20

Description: Phase 2 - Proposed Impact: Pre-Construction Field Audit: Project Impact

Field name: **FA_Impact**

Definition: The expected impact of the project works on the mark

Content options:

- Safe (the mark will not be impacted in any way by the project works)
- Vulnerable (the mark is in danger of being disturbed or destroyed by the project works. Suitable protection measures must be enacted)
- To Be Destroyed (the mark will be destroyed by the project works)
- Already Gone (the mark was destroyed prior to commencement of - and by works not related to - the project)
- Proposed (the mark will be placed as part of the preservation of survey infrastructure strategy)
- Not Searched (the mark is outside the project extent and a search was not performed)

Field position: 21

Description: Phase 2 - Proposed Impact: Pre-Construction Field Audit: Inspection Date

Field name: **FA_Date**

Definition: The date that the pre-construction field audit was performed

Content options:

- Date DD/MM/YYYY (e.g. 01/12/2021)

Field position: 22

Description: Phase 3 - Work As Executed: Post-Construction Field Audit: Mark Impact

Field name: **WAE_Impact**

Definition: The actual impact of the project works on the mark

Content options:

- Safe (the mark was not impacted by the project works)
- Destroyed (the mark was destroyed by the project works)
- Already Gone (the mark was destroyed prior to commencement of - and by works not related to - the project)
- Placed (the mark was placed as part of the preservation of survey infrastructure strategy)
- Not Searched (the mark was outside the project extent and a search was not performed)

Field position: 23

Description: Phase 3 - Work As Executed: Post-Construction Field Audit: Inspection Date

Field name: **WAE_Date**

Definition: The date that the post-construction field audit was performed

Content options:

- Date DD/MM/YYYY (e.g. 01/12/2021)

Field position: 24

Description: Phase 3 - Work As Executed: Post-Construction Field Audit: SCIMS Notified

Field name: **SS_Notice**

Definition: The date that SCIMS was notified of the disturbance or destruction of the mark

Content options:

- Date DD/MM/YYYY (e.g. 01/12/2021)

Survey Project Plan Drawing

The following requirements must be met if submitting a *Survey Project Plan Drawing* in digital format (i.e. shapefile):

- All survey marks as listed in the Survey Mark Audit Schedule – points
- Extent of works – lines or polygons
- Project design linework (optional) – lines or polygons
- Cadastre (optional) - lines or polygons

Proposed Horizontal and/or Vertical Control Network

The following requirements must be met if submitting a *Proposed Horizontal and/or Vertical Control Network* in digital format (i.e. shapefile):

- All Permanent Survey Marks as listed in the Survey Mark Audit Schedule – points
- Additional Permanent Survey Marks that may be used as constraints - points
- Temporary marks - points
- Proposed GNSS, traverse and/or levelling – lines
- Proposed AUSPOS - points