

## Drawing Services - 04A - Microstation Element Attributes and Symbology

### Corporate Work Instruction

Hazards	Personal Protective Equipment	Tools & Equipment
N/A	N/A	N/A

**Note:** This work instruction should be read in conjunction with the other Drawing Instructions. Refer to the Overview of Drawing Instructions for details.

**Note:** Additional Drawings Work Instructions exist for the provision of Water and Sewerage Infrastructure in subdivisions, refer to Guidelines for Developers and Consulting Engineers (TRIM: D2007/24189); and provision of Power Infrastructure in subdivisions, refer to Power Networks Design and Construction Guidelines, NP001.10 Documentation Requirements (TRIM: QDOC2007/15).

**Purpose:** The purpose of this work instruction is to standardise element attributes and symbology for drawings produced with Microstation for PWC. This work instruction has been developed in conjunction with AS 1100 – 1993. Drafting Officers are required to familiarise themselves with this standard.

1. All PWC Drawings (excluding FIS Associated / Symbology) are to be produced incorporating the following element attribute and symbology assignments.	
2. FONT:	No 1 – Working or No 3 - Engineering
	Slant - + 15° (slanting of text is only to be used for highlighting)
	Lower Case – Shall only be used for conventional signs and symbols normally requiring such characters as mm, kg, Nm, etc.
	Underlining – not to be used
	Justification – limited only to standard Microstation settings.



Danger



Caution



Tag



Environmental



Permit



Document

Approved by:	Prepared by:	Issue Date:	Status:
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## Microstation Element Attributes and Symbology

<b>3. Working Units</b>				
<b>Unit Names</b>				
	Master Units	m	m	mm
	Sub Units	cm	mm	um
	Resolution Typical use	Mapping	Architecture	Elec/Mech. Drawings
	Sub units / Master	100	1000	1000
	Positive Units / Dub Unit	1	1	1
<b>4. Co-ordinate Readout</b>				
Co-ordinates		Format		Master Units
		Accuracy		0.123
<b>5. Angles</b>				
Angles	Format	DD MM SS		
	Mode	Azimuth (active angle = 90°)		
	Accuracy	0.123		
	Typical Use	Mapping survey		
	Or			
	Format	DD.DDD		
	Mode	Conventional (active angle = 0°)		
	Accuracy	.123		
Typical Use	Structural, architecture			
<b>6. Global Origin</b>				
Global Origin		Centre of Design Plane		
		(Design Plane = 4.2 Billion x 4.2 Billion Positional Units)		
<b>7. Element Attributes Class - Primary</b>				

Weight * Refer Note C, D	0	1	2	3	4	5	6	7
Pen Equivalent	.18mm	.25mm	.35mm		.5mm		.7mm	1.0m
Colour * Refer Note D	0	1	2	3	4	5	6	7
	White	Blue	Green	Red	Yellow	Violet	Orange	Cyan
Text Height * Refer Note	2.5		3.5		5		7	10
Text Width	1.78		2.50		3.67		5	7.14
Line Spacing	1.78		2.50		3.57		5	7.14

### Text Use

TEXT USE	TEXT HEIGHT (mm)	
	SHEET SIZE	
	AO	A1, A2, A3, A4
Titles and Drawing Numbers	7	3, 3.5
Subtitles, Headings, View and Section Designations	5	3.5
General Notes, Materials Lists Dimensions	3.5	2.5

**Note:** A) Min text height is 2.5mm

**Note:** B) If larger Text is required, the ratio of 1.4:1 height to width is to be used, using line spacing equal to text width.

**Note:** C) If extra line weight is required the assignment is to follow the sequence weight number colour number eg: weight 10 = colour 10

**Note:** D) These colour /weight associations to be used when colour assignment are unavailable.