SECTION 1 - GRAPHIC COMMUNICATION - The Graphic Language & Design

1.1 Development of Technical Presentation

From earlier times, communication by use of graphics has divided along two separate and distinct paths. On the one hand there is what is generally recognised today as the art form, and on the other there are the technical drawings. The technical drawings have become a sophisticated development of the earlier drawings and illustrate the contemporary requirement to provide a working document for various aspects of community development.

Technical drawings or presentations are produced in a wide range of disciplines and serve to communicate ideas, accurately describe manufacturing or construction processes, record the "as constructed" activity, and frequently form important adjuncts to contract documents and to fulfil legal requirements.

1.2 The Graphic Language and Design

Technical presentations are a specialised graphic language. They represent the mental processes of design brought to reality in a tangible form, and as an accurate message in communication. All technical presentations must aim to precisely convey without ambiguity, the message intended, and leave no room for misinterpretation or an inaccurate conclusion.

To achieve this aim, the graphic language must conform to a set of basic rules to enable the user to effectively and efficiently write or read this language. It is essential that all practitioners in a discipline, which covers a wide variety of subject matter, be familiar with the codes and standard of presentation.

In Australia these codes are prepared and distributed by Standards Australia (The Standards Association of Australia). These are known as Australian Standards (AS) and are coordinated to parallel recommendations of the International Standards Organization (ISO) based in Geneva, Switzerland.

Throughout this handbook there will be frequent reference to Australian Standards, and where appropriate, Victorian practice will be related to these national standards. For standard abbreviations of words and terms refer to Appendix 6.

The co-ordinate systems and map projections relevant to Victoria are described in Appendix 5.

1.3 The Surveyor's Responsibility

Proficiency in the art and practice of technical presentation is basic to all those engaged in the branches of surveying where the presentation of work requires a drawing, chart or diagram. Quite often, the drawing prepared as a result of a survey represents all that a client sees of the work of a surveyor. For many, the standard of presentation of work will not only reflect the standard of professional competence, but will also serve as a measure by which the work will be judged.

Apart from becoming proficient in the graphic language, the values derived as by-products of serious application to this aspect of professional life are neatness, speed and accuracy. These attributes are some of the hallmarks of the successful surveyor. Deficiencies however in these skills may bring the tag of professional illiteracy.
1.4 **Inter-disciplinary Communication**

It is important that all members of the profession of surveying be well acquainted with this Handbook, and where engaged in multi-disciplinary employment or the wide ranging involvements of general practice, also acquire a sufficient working knowledge of technical presentations related to allied disciplines, such as engineering and architecture.

1.5 **Adoption of the International System of Units (SI)**

All units used in this Handbook will comply with AS 1000-1979, The International System of Units (SI) and the Victorian Metric Conversion Act, 1973, in so far as it affects survey practice and specific Acts and Statutory Rules directly affecting survey practice.

Linear measurements should always be expressed either in metres or millimetres, depending on the purpose of the survey. In general, decimetres and centimetres are units not acceptable in survey practice.

For cadastral surveys, lengths are expressed in metres and decimals of a metre. For architectural and engineering purposes, lengths are expressed in metres and/or millimetres.