

EUROPEAN STANDARDS FOR CONSTRUCTION DRAWINGS

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Abstract. Technical and Construction Drawings for Civil Engineering Constructions undergo standardization according to the regulations and requirements set up by the CEN and CENELEC organizations. The national standards must comply with the EU standards. The goal of this paper is to show the differences between the old and the new standards because the future engineer must be aware of them as the changes continuously take place in the environment of technical/construction drawings.

Keywords: Drawing standards, construction drawings

1 Introduction

Technical and construction drawings for civil engineering constructions undergo standardization according to the regulations and requirements set up by the CEN (European Committee for Standardization/ Comité Européen de Normalisation) and CENELEC (European Committee for Electrotechnical Engineering) organizations. In our country the national organization PKN (Polski Komitet Normalizacyjny) is the unit responsible for conducting the standardization work in accordance to the national needs. PKN affiliates in CEN and simultaneously is the member of the ISO (International Organization for Standardization). The national standards must comply with the EU (European Union) standards and thus the process of translation and implementation of newly established records has also started in Poland already in the mid 90s of the last century. Although the work has not been completed yet, the educators must remember that the new standards are sometimes diametrically different from existing earlier national requirements. Transformation process between the old and the new will take some more time. However, the future engineer must be aware of the changes which take place in the environment of technical/construction drawings.

This paper will focus only on these standards, which refer to the area of construction drawings for civil engineering students. The list of actual standards has been provided in Appendix 1. As the area of discussion refers to Polish standards, the titles index has been provided in Polish language.

2 Categorizing various types of technical drawings and standards

2.1 Types of standards

The standards recommended for application in engineering drawings have always been categorized according the relevant fields of possible applications into the various basic types of drawings, which can be listed as it follows: (a) construction or building drawings, (b) general purpose drawings (designated with a symbol "N"), (c) mechanical drawings (respectively designated with "M"), and (d) electrical drawings ("E"). Today we have in use the standards which were developed in a wide span of time. The earliest issues have designations either PN-N number: year – these refer to general purpose applications, PN-B

number year – these refer to a construction/ building drawings or finally the standards designated with PN-E/M, which refer to electrical or mechanical drawings. To give an example, the standard (App.1, item [2]) relating to guidelines on folding larger drawing sheets into A4 sheet size is still valid though it was established in the year of 1986.

Since 1995, the ISO standards have been gradually introduced and translated into Polish language. The newly introduced standards have received designations of PN-ISO. The process has been continued and the standards designated with PN-EN ISO have started to appear as new editions of the PKN. The last standards have exactly the same numbering as the standards valid in EU and it is assume that they are also the international standards. They gradually replace earlier national standards.

2.2 Types of drawings used at the civil engineering faculties

Technical drawing and engineering graphics is nowadays a basic subject conducted at the civil engineering faculties. The scope of teaching covers the techniques of representation of 3D designed constructions on a 2D media. A graphical language, which is a standardized set of symbols, conventions and lettering, must be unique and recognizable by those who communicate design ideas. The design ideas must be easily transferred between the designers and the executors who work on the construction site. Basic types of drawings for engineering constructions require differentiation into various categories relative to their specificity. The author, based on her experience, would divide all the standards into four groups:

- 1) Standards for general application such as those on formatting a drawing layout, line types, lettering, projection methods,
- 2) Standards used in an architectural design project,
- 3) Standards applied into reinforced concrete construction drawings,
- 4) Standards applied in metalwork drawings.

Unique representation of a construction requires making drawings in different accuracy (App.1, item [42]):

- i. Schematic drawings (scales: 1:100, 1:200)
- ii. Working drawings (scales: 1:10, 1:20, 1:50)
- iii. Assembly drawings (scales: 1:50, 1:100, 1:200)
- iv. Detail drawings (scales: 1:1, 1:2, 1:5, and 1:10).

There is no doubt that from the educational point of view the listed above teaching scope is vast. If we consider the need for additional introduction of CAD techniques the task of communication between the educators and the students becomes even more complicated. Based on experience gained by the author during the teaching the course of “Technical drawing and engineering graphics” at the Faculty of Civil Engineering of CUT, some peculiarities of the new standards will be discussed. The goal of teaching the course is to make the students familiar with the basic standards, which can be applied to make drawings listed above in points 1)÷4).












2.2.1 Formatting a drawing layout, lettering and projection methods

To set a layout of a drawing sheet we have the standards regarding its sizes (App.1, items [35], [36]), the text (App.1, items [29]÷[33]), title blocks and spaces provided for drawing and for text, and title blocks on drawing sheets according to (App.1, items [68], [69]). Recommended scales are defined in (App.1, item [19]). For the sheet size A4, the sheets positioned both horizontally and vertically are permitted; the title block is situated in the bottom part of the drawing space. The direction of reading of the drawing is the same as that

of the title block. To fold a drawing into A4 sheet size one can use the old standard (App.1, item [2]), which has not been withdrawn from the application until today.

Basic conventions for lines have been introduced in (App.1, items [9] ÷ [13]). Worth noticing is the fact that the new **nomenclature** for the line types has been introduced. The new names of lines have been derived from the line types used in CAD systems. The examples of the new names are presented in Table 1. Combinations of lines have been also defined in this standard. Lines should be drawn in **black** or in **white** depending on the **background color**. Other standardized colors can be also used to draw standardized lines but then the legend explaining the meaning of the used colors should be provided. Special system for designation of lines has been also defined in (App.1, item [9]). The table with the line coding has been provided. To give an example the line **ISO 128-20 – 03 x0,25/ white** designates dashed line (code 03) of 0,25 width and white color.

Table 1: Line types according to PN-EN ISO 128-20:2002

Linetype	Representation	Name
Basic line types		Continuous line
		Dashed line
		Dash-dot line
		Dashed line with two dots
Complex lines		Corrugated line
		Spiral line
		Zigzags line
Combined line types		System of two or more parallel lines
		System of 2 overlapping line types
		System of 2 parallel lines with recurrently placed connecting elements
		System of recurrently placed geometrical elements connected with a continuous line

2.2.2 Projection methods

Visualization of a design project requires application of basic projection methods. The standards include in (App.1 [20] ÷ [23]) limit the recommended projection methods into only a few types known from descriptive geometry area: orthographic representations of objects - both the 1st and the 3rd angle projection method (App.1 [21]), axonometric representations: isometric (App.1 [22]), central projection (App.1 [23]). Further requirements, especially those related to representation of buildings and providing cross sections are set up by the standards (App.1 [54], [38], [41]). Fig. 2.2.2.1 provides an example of two types of orthographic projection method: direct and mirror views and their respective designations with arrows.

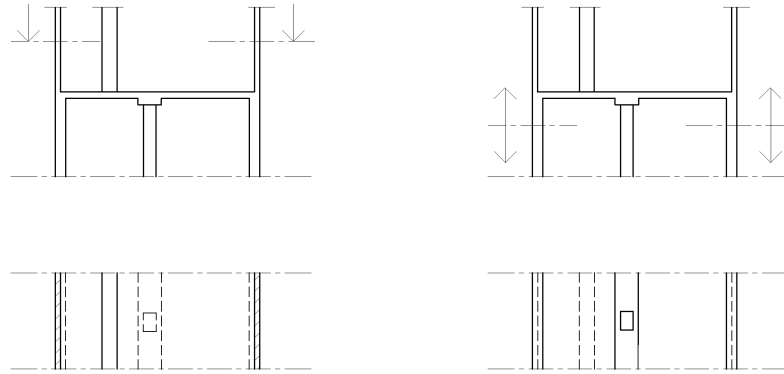


Figure 2.2.2.1: Example of two types of orthographic projection: a) direct view b) mirror view

For the case of axonometric projection (App.1 [22]) there are recommended the following types of methods:

- 1) Orthographic axonometric view: **isometric view** with deformation factor $\lambda=\mu=\nu=1$.
- 2) Oblique representation:
 - a. **Cavalier oblique** drawing with deformation factor $\lambda=\mu=\nu=1$
 - b. **Cabinet oblique** drawing with deformation factor $\lambda=\mu=\nu=1:1/2:1$ (Fig.2.2.2.2a),
 - c. **Planometric oblique** drawing with deformation factor $\lambda=\mu=\nu=1$ (Fig.2.2.2.2b),
 - d. Foreshortened planometric representation with deformation factors $\lambda=\mu=\nu=1:1:2/3$,
- 3) **Dimetric** representation (Fig.2.2.2.2c). The recommended by the standard (App.1 [22]) angles which make axes x and y with a horizontal line are respectively equal to: 42° and 7° . In traditional textbooks on geometry], these angles are slightly different and respectively are equal to 41° and 7° ([4]) or to 42° and 9° ([5]). Deformation factor equals $\lambda=\mu=\nu=1/2:1:1$. In dimetric representation the direction of projection is almost perpendicular to the projection plane and thus it is considered to be “close” to orthographic axonometric representation of an object even though it is in fact an oblique representation.

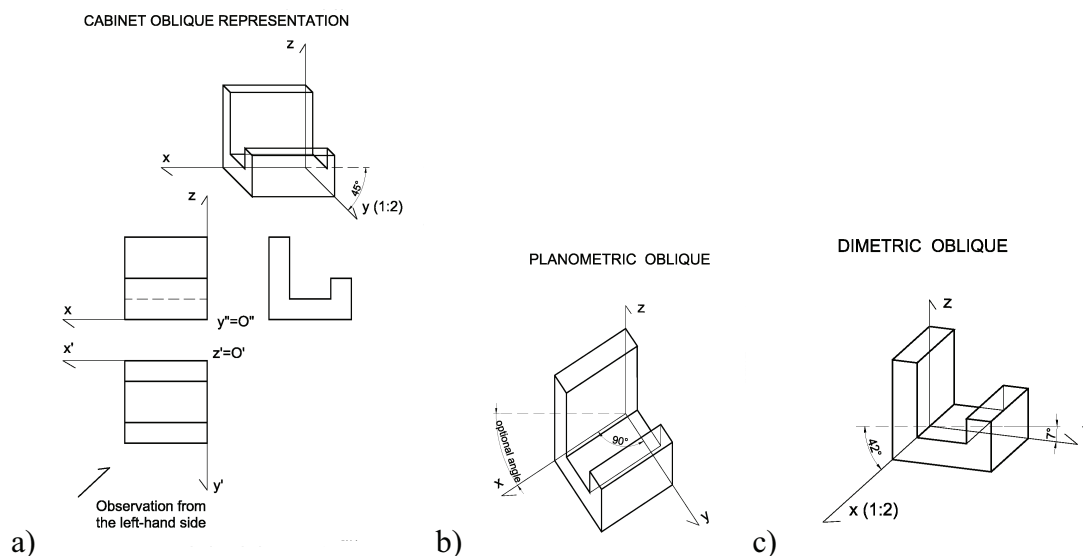


Figure 2.2.2.2: Example of two types of oblique representation: a) a cabinet oblique, b) planometric oblique, c) dimetric representation

2.2.3 Architectural design project

Once a student of civil engineering has become familiar with the basic conventions applied for sheet sizes, lettering, title blocks and lines designations it's time to move on to architectural drawings. A ground floor plan (Fig.2.2.3) can be here used to learn the basics of dimensioning, designations and requirements for representation of the staircases, levels of stories, designations of various types of chimneys, typical designations of doors and windows. Recommended standards for this type of drawings are listed in (App.1: [38], [40], [50]÷[52], [70]). If regards landscape drawings the standards (App.1: [39], [53], [70]) are used.

Application of the standards (App.1: [38] and [40]) becomes questionable. The last standard (PN-B 01029) in its exemplary drawings recommends using [mm] as obligatory units for dimensioning of an architectural drawing. This recommendation does not comply with architectural engineering practice, where dimensioning is traditionally done in [cm]. The standard PN-B 01025 (App.1: [38]) established in 2004 not only provides confusing exemplary drawings in which both types of units are used simultaneously but also presents a very poor quality drawings.

Another question arises regarding the nomenclature used for various degrees of accuracy used in the drawings. In the earlier versions of the standards, the so called degrees of accuracy for representation of the default drawing elements were used in architectural design plans, namely: a) the 1st degree of accuracy was used for the rough, schematic drawings, b) the 2nd degree of accuracy was used for more detailed drawings (scales 1:50; 1:100) and c) the 3rd degree of accuracy was used for details' representation (scales 1:2; 1:5; 1:10 1:20). Today, the degrees of drawing accuracy have disappeared and two new terms have been introduced such as: a) **conventional symbols** for the smaller scales and b) **simplified symbols** for the higher degrees of accuracy and the larger scales (e.g. 1:50; 1:100). The new nomenclature brings even more confusion into the matter. The terms conventional symbols and simplified symbols do not correspond to their practical applications and seem to be confused in meanings. In the opinion of the author these two terms should be interchanged: the *simplified symbols* should be used for the less precise drawings (earlier 1st degree of accuracy), while the term *conventional symbols* should be used to designate the higher accuracy drawings.

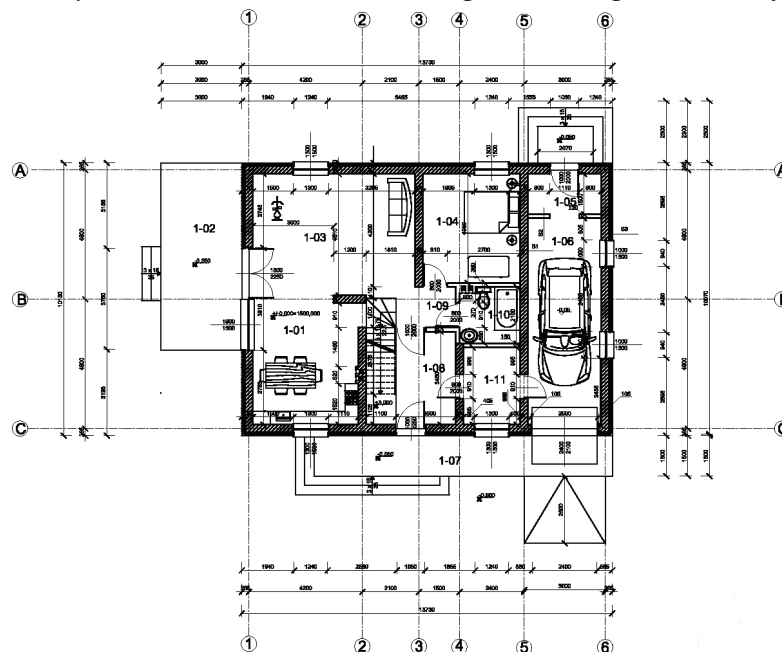
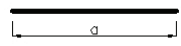
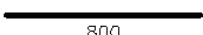

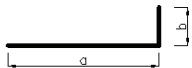
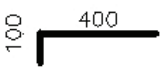

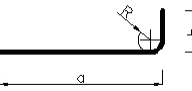
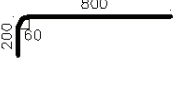
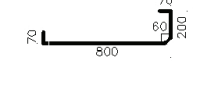
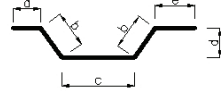

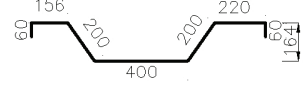


Figure 2.2.3: Example of a ground-floor plan dimensioning

2.2.4 Reinforced concrete drawings

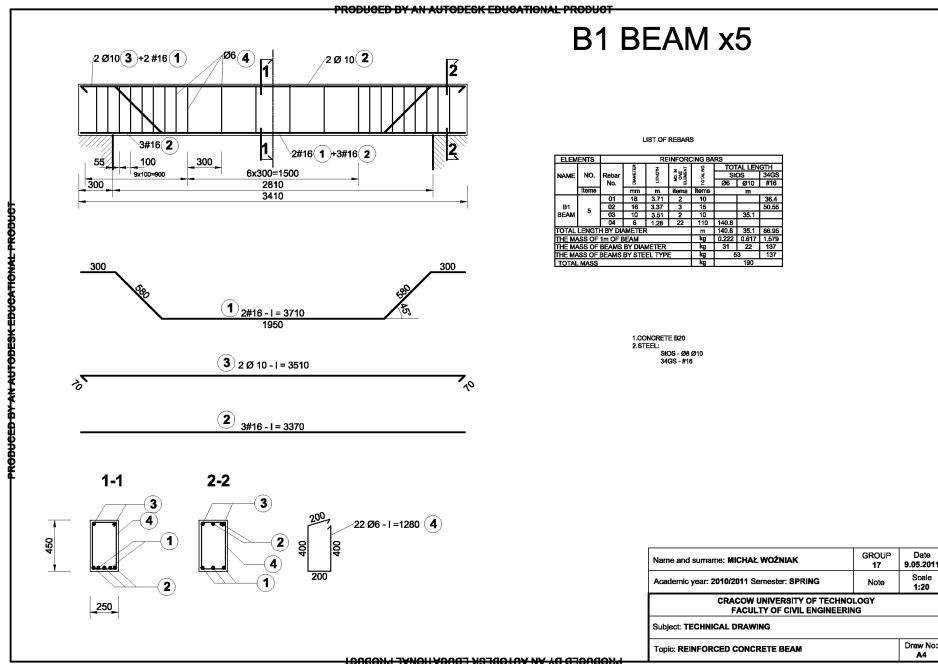
For the construction drawings, the basic standard (App.1, item [43]) provides the principles for creation of various types of them as listed in paragraph 2.2, positions (i. ÷ iv.). The classification is valid for both metalwork and reinforced construction drawings. As regards reinforced concrete constructions the most significant are the standards (App.1, item [43] and [47]), which have replaced the earlier standards. The standard [App.1: item 47] has introduced the changed table for scheduling the reinforcing bars (shortly: rebars) as regards reinforced concrete structures. A new system for coding of rebars, which has been here introduced, consists of 2 characters: the 1st character designates the number of arcs or the type of deflection, the 2nd character designates the direction and the angle of deflection of a reinforcing bar (see a few examples of designations provided in Table 2). To consider code 46 we may want to notice that the rebar has been bent 4 times and the code number “6” designates that deflections are done at angles less than 90° with a standard radius but not all in the same direction.

Table 2: Exemplary coding of the rebar shapes

Code	Shape of a rebar	Rebar without the hooks	Rebar with hooks
00			
	00 0 0 a h	00 0 0 800	00 1 1 800 60
11			
	11 0 0 a b h	11 0 0 400 100	11 1 1 800 200 70
12			
	12 0 0 a b R h	12 0 0 800 200 60	12 1 1 800 200 60 70
46			
	46 0 0 a b c d e h	46 0 0 156 200 400 164 220	46 1 1 156 200 400 164 220 60

If regards scheduling of reinforcing bars there can be used three various systems for designation: a coded system, a non-coded system and a mixed system, which utilizes two earlier discussed systems. Fig.2.2.3 presents these two systems. The list of rebars according to the older system has been provided in the drawing of a concrete beam (Fig.2.2.4.a), while a table of reinforcement according to the new standard PN-EN ISO 3766: 2006 has been provided separately in Fig.2.2.4.b. In case a reinforcing bar has got hooks, the two numbers following the code are equal to 1 otherwise these two numbers equal 0 (see Table 2).

a)



b)

List of rebars according to PN-EN ISO 3766:2006 (see: Table 2)

Elements	Beam No.	Steel Type	Diameter	Rebar length [m]	No of beams	No of rebars per 1 beam	Total No of rebars	Total length of rebars [m]	Code of the shape	Hooks	Dimensions of deflected segments [mm]					
											a	b	c	d	e	h
Beam B1	01	34GS	16	3,64	5	2	10	36,4	46	0	0	255	580	1950	410	
	02	34GS	16	3,37	5	3	15	50,55	00	0	0	3370				
	03	St0S	10	3,51	5	2	10	35,1	00	1	1	3350				70
	04	St0S	6	1,28	5	22	110	140,8	31	1	1	200	400			40

Total Mass of reinforcing bars for 5 Beams B1

	Total length [m]		
	34GS	St0S	
	#16	Ø10	Ø6
Total length by diameter [m]	86,95	35,1	140,8
Mass per length unit [kg/m]	1,579	0,617	0,222
Total mass by diameter [kg]	137	22	31
Total mass by steel type [kg]	137	53	
TOTAL MASS [kg]	190		

Figure 2.2.4: Example of a reinforced concrete beam with two types of tables for scheduling the reinforcing bars: a) the old type and b) the new one

2.2.5 Metalwork drawings

If regards structural metal works, the basic standard PN-5261 relating to steel work drawings has been modified for several times since 1994 to take the final version in 2002 (App.1:[18]). Simplified representation of bars and profile sections such as C-bars, T-beams, I-beams, Angles, etc...have been introduced in the standard (App.1:[18]).

For various types of joints such as bolts and pins we can use the standard (App.1:[7]). Symbolic representation of welded, brazed and soldered joints for steelwork constructions is included in the standards (App.1: [27], [71], [72]).

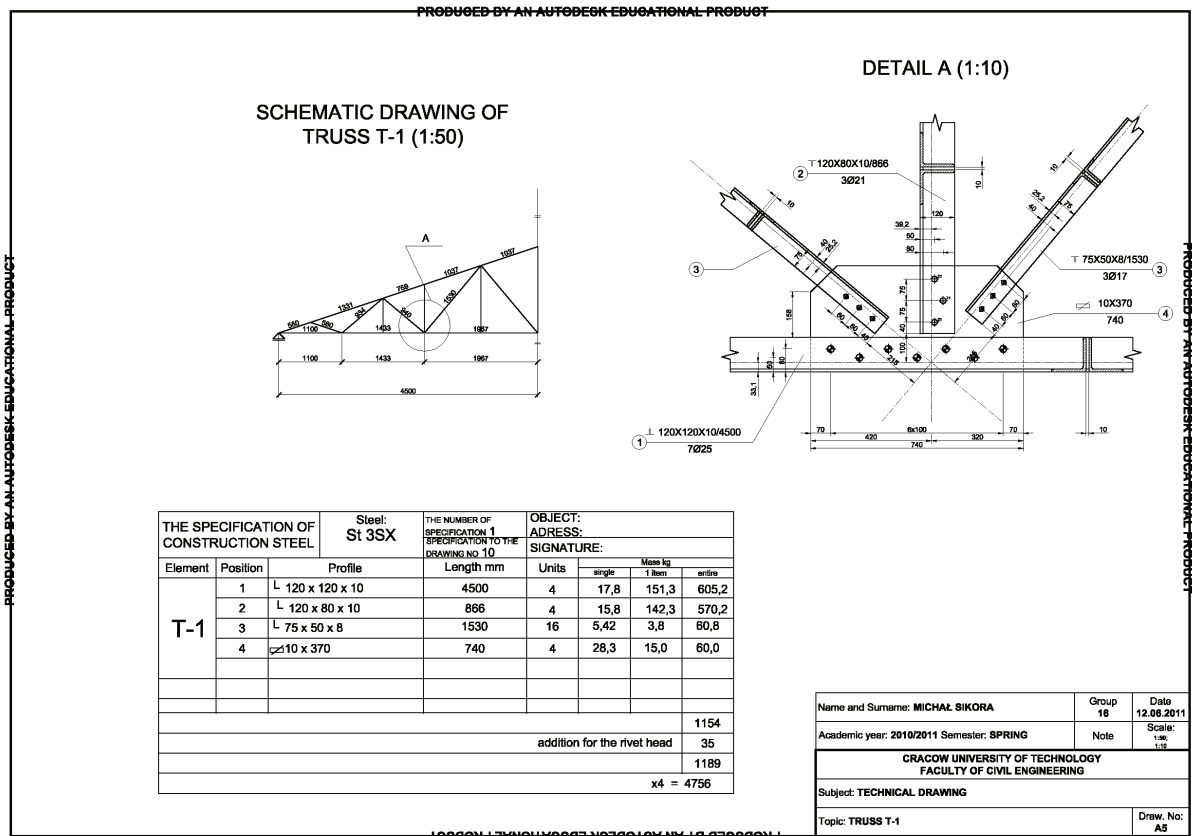


Figure 2.2.5: Example of a steel truss drawing with two types of views: a schematic drawing and a detailed drawing

3 Conclusions

The main points of the conclusion can be formulated as it follows:

- i. There exist a vast number of standards, which must be introduced within the junior course of technical graphics.
- ii. It is necessary to be up-to-date with new editions of standards in Poland by continuous visiting www.pkn.pl.
- iii. Polish Committee for Standardization (PKN) provides unification of the standards with those obligatory within the European Community and thus the PN-EN standards become subsequently translated from the EN-ISO originals and adjusted to Polish standards.
- iv. There is the tendency to replace nomenclature of projection methods, line types, etc... with the one that derives from the CAD systems.
- v. For the time being there is the lack of consistency in dimensioning for architectural design if regards application of the units.
- vi. Several universities provide the courses “Technical graphics” and /or “Engineering graphics” in English. There is no sufficient support for English nomenclature in the generally available literature.
- vii. The most relevant and up-to date set of references for technical drawings has been included in [1].
- viii. Currently applicable standards have been listed in Appendix 1.

- ix. As it is said in Polish standards, the set of regulations regarding drawing standards and conventions used in technical drawing is only recommended by the PKN but not restrictively required for implementation.
- x. It is a great challenge for the teacher to utilize any CAD system within junior courses.

References

- [1] Błach A., Bizoń M., Dudzik P., Jarocki A., Kajrunajtys J., Kalinowska E., Tytkowski K.T.: *Dydaktyczne materiały pomocnicze do przedmiotu „Geometria i grafika inżynierska” – Rysunek budowlany i CAD*. Politechnika Śląska, 2009.
- [2] Miśniakiewicz E., Skowroński W.: *Rysunek techniczny budowlany*. Arkady, Warszawa 2009.
- [3] www.pkn.pl: Polish standards for: Technical drawings, Construction drawings, Building design, Technical product documentation.
- [4] Grochowski B.: *Geometria wykreślna*. PWN, Warszawa 1977, p. 39.
- [5] Świsterski S.: *Problemy geometrii wykreślnej w konstrukcji maszyn*. Adaptacja autorska Tadeusz Raczyński, Skrypt PK, Wyd. Polit. Krakowskiej, 1987, p.243.

STANDARDY EUROPEJSKIE W RYSUNKU TECHNICZNYM

Dydaktyka przedmiotów takich jak: *Rysunek techniczny, Grafika inżynierska, Projektowanie wspomagane komputerem*, które należą do grupy przedmiotów podstawowych w programach pierwszych dwóch lat studiów inżynierskich, wymaga zaznajomienia studentów z normami dotyczącymi zasad przedstawiania obiektów na rysunkach architektoniczno-budowlanych oraz konstrukcyjno budowlanych. Z uwagi na fakt, iż w kolejnych latach Polski Komitet Normalizacyjny wprowadza w użycie nowe normy, koniecznością staje się aktualizowanie bazy norm wykorzystywanych w procesie dydaktycznym wyższych uczelni technicznych. Autorka niniejszego referatu przeprowadziła analizę aktualnych norm (Appendix 1) pod kątem ich wykorzystania w dydaktyce wspomnianych przedmiotów oraz ich aktualności i przydatności do wykonywania wspomnianych rysunków oraz zawarła spostrzeżenia na temat wprowadzanych zmian. Baza danych zawarta w Appendix 1 jest aktualna na dzień 01.07.2011r.

Appendix 1: Table of currently applicable standards (*elaborated by R. Górska*)

	Groups of standards	Currently valid (July 2011) Yes/ No	Comments
	Technical drawing (Rysunek techniczny)		
1.	PN-N-01601:1976 Rysunek techniczny - Forma graficzna arkusza	Withdrawn	Replaced by PN-EN ISO 5457:2002
2.	PN-N-01603:1986 Rysunek techniczny. Składanie rysunków	Yes	
3.	PN-N-01606 Rysunek techniczny - Pismo	Withdrawn	
4.	PN-N-01607:1988 Rysunek techniczny -- Oznaczenia graficzne materiałów	Yes	
5.	PN-N-01608 Rysunek techniczny - Rzutowanie prostokątne	Withdrawn	Replaced by PN-EN ISO 5456-2:2002
6.	PN-N-01610:1980 Rysunek techniczny - Podziałki	Withdrawn	Replaced by PN-EN ISO 5455:1998
7.	PN- N – 01613:1981 Rysunek techniczny – Uproszczenia rysunkowe – Części złączone	Yes	

8.	PN-N-01616:1982: Rysunek techniczny – Linie rysunkowe	Withdrawn	Replaced by PN-EN ISO 128-20:2002
9.	PN-EN ISO 128-20:2002 Rysunek techniczny -- Zasady ogólne przedstawiania -- Część 20: Wymagania podstawowe dotyczące linii	Yes	New designations of Line types
10.	PN-EN ISO 128-22:2002 Rysunek techniczny -- Zasady ogólne przedstawiania -- Część 22: Wymagania podstawowe i zastosowanie linii wskazujących I linii odniesienia	Yes	
11.	PN-EN ISO 128-23:2002 Rysunek techniczny -- Zasady ogólne przedstawiania -- Część 23: Linie na rysunkach budowlanych	Yes	
12.	PN-EN ISO 128-24:2002 Rysunek techniczny -- Zasady ogólne przedstawiania -- Część 24: Linie na rysunkach technicznych maszynowych	Yes	
13.	PN-ISO 128-50:2006 Rysunek techniczny -- Zasady ogólne przedstawiania -- Część 50: Wymagania podstawowe dotyczące przedstawiania powierzchni na przekrojach i kładach	Yes	
14.	PN-ISO 129: 1996 Rysunek techniczny – Wymiarowanie – Zasady ogólne. Definicje. Metody Wykonania I oznaczenia specjalne	Yes	Replaces: PN-N-01614:1982
15.	PN-ISO 129/Ak: 1996 Rysunek techniczny – Wymiarowanie – Zasady ogólne. Definicje. Metody Wykonania I oznaczenia specjalne (Arkusze krajowy)	Yes	
16.	PN-ISO 5261: 1994 Rysunek techniczny – Przedstawianie uproszczone prętów i kształtowników	Withdrawn	Replaced by: PN-EN ISO 5261:2002
17.	PN-ISO 5261/Ak: 1994 Rysunek techniczny – Przedstawianie uproszczone prętów i kształtowników	Withdrawn	Replaced by: PN-EN ISO 5261:2002
18.	PN-EN ISO 5261: 2002 Rysunek techniczny – Przedstawianie uproszczone prętów i kształtowników	Yes	
19.	PN-EN ISO 5455:1998 Rysunek techniczny -- Podziałki	Yes	Replaces: PN-N-01610:1980
20.	PN-EN ISO 5456:2002 Rysunek techniczny – Metody rzutowania – Część 1: Postanowienia ogólne	Yes	
21.	PN-EN ISO 5456:2002 Rysunek techniczny – Metody rzutowania – Część 2: Przedstawianie prostokątne	Yes	
22.	PN-EN ISO 5456:2002 Rysunek techniczny – Metody rzutowania – Część 3: Przedstawianie aksonometryczne	Yes	
23.	PN-EN ISO 5456:2006 Rysunek techniczny – Metody rzutowania – Część 4: Rzutowanie środkowe	Yes	
24.	PN-ISO 7200:1994 Rysunek techniczny -- Tabliczki tytułowe	Withdrawn	Replaced by PN-EN ISO 7200:2007
25.	PN-M-01134:1989 Rysunek techniczny maszynowy -- Uproszczenia rysunkowe -- Połączenia spawane i powierzchnie napawane	Withdrawn	Replaced by two standards PN-EN ISO 4063:2009, PN-EN 22553:1997
26.	PN-EN ISO 4063:2011 Spawanie i procesy pokrewne -- Nazwy i numery procesów	Yes	
27.	PN-EN 22553:1997 Rysunek techniczny -- Połączenia spawane, zgrzewane i lutowane -- Umowne przedstawianie na rysunkach	Yes	
	PN-EN ISO 7083:1998 Symbole tolerancji geometrycznych – Proporcje i wymiary	Yes	
28.	Technical product documentation – Dokumentacja techniczna wyrobu		
29.	PN-EN ISO 3098-0:2002 Dokumentacja techniczna wyrobu –	Yes	

	Pismo - Część 0: Zasady ogólne		
30.	PN-EN ISO 3098-2:2002 Dokumentacja techniczna wyrobu -- Pismo -- Część 2: Alfabet łaciński, cyfry i znaki	Yes	
31.	PN-EN ISO 3098-3:2002 Dokumentacja techniczna wyrobu -- Pismo -- Część 3: Alfabet grecki	Yes	
32.	PN-EN ISO 3098-4:2002 Dokumentacja techniczna wyrobu -- Pismo -- Część 4: Znaki diakrytyczne i specjalne alfabetu łacińskiego	Yes	
33.	PN-EN ISO 3098-5:2002 Dokumentacja techniczna wyrobu - Pismo - Część 5: Pismo alfabetu łacińskiego, cyfry i znaki w projektowaniu wspomagany komputerowo (CAD)	Yes	
34.	PN-EN ISO 5457:2002 Dokumentacja techniczna wyrobu -- Wymiary i układ arkuszy rysunkowych	Yes	
35.	PN-EN ISO 5457:2002/A1:2010 Dokumentacja techniczna wyrobu -- Wymiary i układ arkuszy rysunkowych	Yes	
	PN-EN ISO 7200:2007 Dokumentacja techniczna wyrobu -- Pola danych w tabliczkach rysunkowych i nagłówkach dokumentów	Yes	
36.	Construction/ Building drawings		
37.	PN-B-01025:1970 Rysunek budowlany - Oznaczenia graficzne na rysunkach architektoniczno-budowlanych	Withdrawn	Replaced by: PN-EN ISO 4157-2:2001, PN-EN ISO 4157-1:2001, PN-B-01025:2004, PN-N-01616:1982
38.	PN-B-01025:2004 Rysunek budowlany -- Oznaczenia graficzne na rysunkach architektoniczno-budowlanych	Yes	Replaces: PN-70/B-01025
39.	PN-B-01027:2002 Rysunek budowlany -- Oznaczenia graficzne stosowane w projektach zagospodarowania działki lub terenu	Yes	Replaces two standards: PN-B-01027:1971 & PN-B-01035:1971
40.	PN-B-01029:2000 Rysunek budowlany -- Zasady wymiarowania na rysunkach architektoniczno-budowlanych	Yes	Introduces dimensioning of building drawings in [mm]
41.	PN-B-01037:1987 Projekty budowlane -- Zasady rzutowania	Yes	
42.	PN-B-01030:2000 Rysunek budowlany -- Oznaczenia graficzne materiałów budowlanych	Yes	Replaces: PN-B-01030:1970
43.	PN-B-01040: 1994 Rysunek konstrukcyjny budowlany. Zasady ogólne	Yes	
44.	PN-B-01041: 1988 Rysunek konstrukcyjny budowlany. Konstrukcje betonowe, żelbetowe i sprężone	Withdrawn with no replacement	
45.	PN-B-01042: 1988 Rysunek konstrukcyjny budowlany. Konstrukcje drewniane	Yes	
46.	PN-B-01043: 1988 Rysunek konstrukcyjny budowlany. Konstrukcje stalowe	Withdrawn	
47.	PN- EN ISO 3766: 2006 Rysunek budowlany. Uproszczony sposób przedstawiania zbrojenia betonu	Yes	
48.	PN-EN ISO 4066:2001 Rysunek budowlany -- Wykaz prętów do zbrojenia betonu	Withdrawn	Replaced by: PN-EN ISO 3766:2006
49.	PN-EN ISO 4069:2001 Rysunek budowlany -- Wykaz prętów do zbrojenia betonu	Withdrawn	
50.	PN-EN ISO 4157-1:2001 Rysunek budowlany -- Systemy oznaczeń -- Część 1: Budynki i części budynków	Yes	
51.	PN-EN ISO 4157-2:2001 Rysunek budowlany -- Systemy oznaczeń -- Część 2: Nazwy i numery pomieszczeń	Yes	
52.	PN-EN ISO 4157-3:2001 Rysunek budowlany -- Systemy oznaczeń	Yes	

	– Część 3: Identyfikatory pomieszczeń		
53.	PN-EN ISO 11091:2001 Rysunek budowlany – Projekty zagospodarowania terenu	Yes	Replaces PN-B-01031:1962
54.	PN-ISO 2594:1998 Rysunek budowlany – Metody rzutowania	Yes	
55.	PN-ISO 3766:1994 Rysunek konstrukcyjny budowlany. Symboliczne przedstawianie zbrojenia betonu	Withdrawn	Replaced by: PN-EN ISO 3766:2006
56.	PN-ISO 4066:1994: Rysunek konstrukcyjny budowlany – Wykazy prętów do zbrojenia betonu	Withdrawn	Replaced by PN-EN ISO 3766:2006
57.	PN ISO 4068:2001 Rysunek budowlany – Linie odniesienia	Withdrawn with no replacement	
58.	PN-ISO 4172:1994 Rysunek techniczny. Rysunki budowlane. Rysunki do montażu konstrukcji prefabrykowanych	Yes	
59.	PN-ISO 4172/ Ap1:1999 Rysunek techniczny. Rysunki budowlane. Rysunki do montażu konstrukcji prefabrykowanych	Yes	
60.	PN-ISO 6284:1994 Tolerancje w budownictwie – Oznaczenie tolerancji na rysunkach budowlanych	Withdrawn	Replaced by PN-ISO 6284:2001
61.	PN-ISO 6707-1:2008 Budynki i budowle -- Terminologia -- Część 1: Terminy ogólne	Yes	
62.	PN-ISO 7437:1994 Rysunek techniczny. Rysunki budowlane. Ogólne zasady wykonywania rysunków roboczych prefabrykowanych elementów konstrukcyjnych	Yes	
63.	PN-ISO 7437/ Ap1:1997 Rysunek techniczny. Rysunki budowlane. Ogólne zasady wykonywania rysunków roboczych prefabrykowanych elementów konstrukcyjnych	Yes	
64.	PN-ISO 7518:1998 Rysunek techniczny – Rysunki budowlane – Uprozczone przedstawianie rozbiórki i przebudowy	Yes	
65.	PN-ISO 7518/Ap1:1999 Rysunek techniczny – Rysunki budowlane – Uprozczone przedstawianie rozbiórki i przebudowy	Yes	
66.	PN ISO 8560:1994 Rysunek techniczny – Rysunki budowlane – Przedstawianie modularnych wymiarów, linii i siatek	Yes	
67.	PN ISO 8560/Ap1:1998 Rysunek techniczny – Rysunki budowlane – Przedstawianie modularnych wymiarów, linii i siatek	Yes	
68.	PN-ISO 9431: 1994 Rysunek budowlany – Części arkusza rysunkowego przeznaczone na rysunek, tekst i tabliczkę tytułową	Yes	
69.	PN-ISO 9431/Ap1: 1999 Rysunek budowlany – Części arkusza rysunkowego przeznaczone na rysunek, tekst i tabliczkę tytułową	Yes	
70.	PN-EN ISO 7519:1999 Rysunek techniczny -- Rysunki budowlane - - Ogólne zasady przedstawiania na rysunkach zestawieniowych	Yes	
71.	PN-EN ISO 4063:2011 Spawanie i procesy pokrewne -- Nazwy i numery procesów	Yes	Replaces: PN-EN ISO 4063:2009
72.	PN-EN 22553:1997 Rysunek techniczny -- Połączenia spawane, zgrzewane i lutowane -- Umowne przedstawianie na rysunkach	Yes	
73.	PN-EN ISO 7083:1998 Symbole tolerancji geometrycznych – Proporcje i wymiary	Yes	