AN INDEXING AND FILING SYSTEM FOR SURVEYORS

By E.W. Petzold, P. Eng., O.L.S.

A sub-committee of the Education Committee was set up some time ago, with Mr. Petzold as Chairman, to enquire into and report on a satisfactory indexing and filing system for Surveyors.

This part of Mr. Petzold's report is published in a preliminary form as a matter of interest to many Surveyors. It is the intention of the Committee to prepare a booklet on this subject in detail, in the near future.

To illustrate this system, I will attempt to follow a request for survey as it is received from the client through the indexing and filing system, to the field, to the drafting office, filing and indexing after returns have been forwarded to client, and closure of the job when payment has been received. This can be conceived as a composite of the better parts of all the systems encountered during this enquiry and does not refer to any one system in any one office.

When a request for survey is received, the job is assigned next succeeding number, (e.g. 57-141, being the 141st job received in 1957). A job sheet (see Exhibit No. 1) is filled out containing this number, date received, by whom, Client's name, address, geographic location of the job, job requirements, finished product requirements (plan size, scale, etc., description if necessary and number of copies) due date, quote if applicable, and the surveyors remarks on how the job should be conducted. An index book (see Exhibit No. 2) of all work done by the office is also kept, with one line in the book for each job. The following columns are noted (1) Job Number, (2) Township, (3) Plan or Lot/Con or Municipality, (4) Date received, (5) Date commenced, (6) Date completed, (7) Client's name (8) a four or five word summary of the job. The job sheet will follow the job to completion. Some offices fill out the job sheet in triplicate, one copy for the office and one copy to be mailed to the client.

The job is then given to the office manager for compilation as much as

possible from existing office records, whence it is placed in a current work cabinet or such place that the field staff can schedule the job with the remainder of the current work load. At this time no further indexing is necessary than already described.

During the conduct of the job the surveyor may be required to obtain copies of work done by other surveyors. Registry Office records, etc. When field work is completed, the job package is placed in the current work cabinet for drafting and calculation.

At completion, the "Date Completed" column in the index book may be filled out and a Kardex file (see Exhibit No. 3) completed. If the above numbering system is used, the Kardex should be as follows: (Usually 4"x6" cards are used and this will hold sufficient information). The card separators may refer to the Township, City, Town, etc. Within each municipality, a card may be made up for each registered plan and each township Concession Lot or part Lot, depending on the number of jobs done in each locality. These plan or Lot numbers will appear at the top of the card. The remainder of the card can be lined horizontally only, and the information for one job placed on each line: Most common; (1) Job Number, (2) Lots on Reg. Plan, (3) four or five word summary of job. Some large organizations have a card made out for each job, but this, then, is a duplication of the job sheet, and would contain much superfluous information, not required in the average office. This single Kardex should be sufficient for most

Page 8 J O B S H E E T

	0 0 <i>D</i>	O II D D I	
DATE:	Rec'd by		Project No.
CLIENT		SEND BI	LL TO
NAME:		NAME:	
ADDRESS:		ADDRESS	Ł
PHONE			
PURFOSE:			
TO CARTON		DIMADUG	
LOCATION:		REMARKS:	
Lot - R.P. Lot - Con.			
Twp.			
Street Address			
		4.5	
***************************************	·	100	
DATA REQUIRED Plan			
Sketch Search		, //	
Descp.		+ 7	
		1	
DATE DUE:			
QUOTE:		y	
	FIELD SEARCH	DRAFT.	SEARCH BY
COMMENCED.			SURVEY BY DRAWN BY
COMPLETE.			TRACED BY CHECK BY
DATE MAILED.	Evhibit #1 (Act	ual Size)	

Page 9

Sample Page - Index Book (Actual size is 11" x 18")

I III I I I I I I I I I I I I I I I I	JOB NO.	TOWNSHIP	LOT / CON	RECEIVED	COMMENCED	COMPLETE	CLIENT	DESCRIPTION	
				 	 				
					-				
					-				
	-				-				
					-				
				 					
				+	-			-	
			-						
					+				
				1					
	1				1				
								<u> </u>	
								_	
				1					
				1					
	1								
								4	
			+						
	+								
	+								
	+							-	
	-				+				
	+				+				
	-			+	 				
		 			+			1)	
								1	
				+					
		,							

Exhibit #2 (Reduced Scale)

Sample Card - Kardex File

CONCESSION OR REGISTERED PLAN	NO.	TOWNSHIP
JOB_NO.	LOTS -	TYPE OF SURVEY

medium sized offices. An additional Kardex using the client's name as a control may be set up, preferably alphabetically, but this is not used in the majority of offices, and should only apply to large organizations. In this case, the probable tabulation of data would be as above on the face of the card.

I shall not attempt a discussion of the pros and cons of separating the job package into its various components since surveyors were of an almost equally divided opinion on the two methods. One suggestion however: Whether the job package is broken down or filed as one unit, having the job number appear on each page of field notes, calculations, searches, etc, cannot be stressed too firmly. The reason for this becomes self-evident when you are working on several jobs simultaneously and in the same area. Most offices maintain a file of regis-

tered plans by municipality, and these plans as well as plans of previous surveys by other surveyors should be filed separately.

Since the majority of plans of survey can be made of standard legal size (8-1/2 x 14) or multiples thereof, the strong advantage of leaving the job folder in one unit is that the linen tracing can be folded and placed in the job folder.

Larger linen tracings create a difficulty in the survey office. Several methods were encountered during this inquiry of which two will be described.

Pigeon hole method.

If a pigeon hole rack is built to file large plans rolled up, the simplest indexing system is to have numbers on one row of holes and letters on one column of holes. Then an index book must be maintained to show the location of each plan. For example, the

Sample Page - Accounts Index Book (Actual size is 11" x 18")

JOB NO.	CLIENT	BILL I	2	3	AMOUNT	DATE	AMOUNT	JOB NO.	CLIENT	BILL I	2	3	AMOUNT	DATE	AMOUN
		-		-								-		-	nanchen und
										-	-	-	-		-
 						-				-				+-	+
 +			-				1100000			-	-	-		1	+-
						-	7 10000000	-							
									7.12.17				1 7 1		
												-	-		+
-													 		+
 -		-				-				+	-			-	+
+											-	-			
 1															
														-	-
											-			-	
 		-								-		-		+	+
 +												-		+	+
															1
												-	100	-	
 		-										-			
 			-											-	+
 +			-			-						-	1	1	1
												-		ļ	-
														+	+
		-									-			-	-
 		+								-	-	1	1	-	-
							1		4.7					-	
														-	-
											1	1			

Exhibit #4 (Reduced Scale)

columns in this index book should show (1) Job Number (2) Brief description of job (3) Pigeon hole number.

If a flat drawer rack is used, the plan is better preserved, many more plans can be stored in each unit, but the plans may not be as readily available, because of this bulk storage aspect. Several of the Survey Equipment Supply Companies in Toronto handle tube-type filing cabinets where each plan is filed in a single tube. This provides the best method of plan preservation and ready availability, but cost may be prohibitive.

All correspondence concerning a particular job should have "our file - - - " and the job number indicated at the upper right hand corner of the page of correspondence. The job number can also be used to control accounts receivable. A number of this nature lends itself readily to good, simple accounting practices. There are various methods in use to record the time spent on any one job by each member of your organization, and it is the feeling of this committee that cost control and recording would be outside the scope of this report.

When the amount of the account is arrived at and the account sent to the client, a new index book (see Exhibit No. 4) should be opened to list these accounts, the date of the account being the controlling factor, so that column one in the book will have the date each bill was sent out. Succeeding columns may be as follows: (2) Bill 2; (3) Bill 3; (4) Job Number; (5) Amount; (6) Date Paid; (7) Amount Paid. Columns 2 or 3 are the second and third billing dates. If this additional index book is kept, one can assess the position of accounts receivable at a glance, and your accountant will be more than pleased with such a record.

A good practice is to send your

client the number of copies of the bill he requires and keep one copy for office records in an accounts receivable file folder. When this account is received, the copy may be extracted, cheque stub or other proof of payment stapled to it and then placed in the job folder as a completed job.

SUMMARY

All job data, with the exception of Registered Plans and plans of survey by other surveyors, for one job is kept in one package.

A few minutes a day will enable the surveyor to estimate his work on hand, schedule each job, take action on slow accounts and other administrative duties. Very simple instructions to the office staff are all that are necessary for maintenance of the index books and card systems.

With the above system, or and adaptation thereof, even large offices can produce data in very short order.

There is little uniformity in the actual method used in filing and indexing by all organizations, but an analysis of all the answers indicates a common trend running through all the systems in more than one aspect.

The most significant remark passed on to me, and realized in my own personal experience is that when starting a practice, one should assume that he is (1) going to be in practice for some time, and (2) if this proves to be true, the practice will grow through the years. If these two probabilities are considered before or near the beginning of a practice, it will be self-evident that a simple comprehensive index and filing system must be set up at once, so that any volume of work can be readily handled, without involving much overhead expense, the nemesis of new survey practices. This does

not apply to the survey profession alone, but is common to all businesses, and is only good business practice.

For the benefit of those contemplating practice, many of the established firms have indicated a willingness to allow you to examine their methods. All of the better systems are readily adaptable to your own particular needs, in fact, adaptability is the main feature of a good indexing and filing system.

Some of the larger practices operate a very extensive card index system to enable them to extract the information they require from massive files in a relatively short period of time. My own experience has shown that even for a relatively small office the expense and time to maintain a Kardex is insignificant compared to its value in locating data, and I would advocate its use in any size practice. I am aware that only 40% of the organizations questioned maintain such an index. This alone would solve at least 50% of the problem outlined at the beginning of this report.

The following information was advanced at the time of the enquiry in addition to that asked for.

With respect to the organizations that keep all job data in one folder (field notes, Registry Office records, computations, correspondence, Report of Survey, affected surveys, etc.) the surplus data such as Registry Office searches, computations, correspondence, is destroyed after five years more or less in order to lessen the bulkiness of the files.

Some organizations consider the completed products (plan of survey) to be the field notes, and a separate plan file (usually according to size) is maintained in addition to the field notes file. For the plan file, some organizations set up a separate numbering system, some file by the original job number.

Some organizations which are primarily urban in nature of work use a sectional system for the home city, and may further index each job by section number or street name.

MEETING OF BOARD OF EXAMINERS 2 November, 1959

1. The meeting reviewed the marks obtained by the candidates at the September examinations, as compiled. The following candidates were successful: INTERMEDIATE EXAMINATION P. Crawford, H. Roeser; K. Biro, A.S. Cochrane, C. Dudarewicz, J.E. Ellis, J. Garbutt, L.J. Legros, G. Loewen, E.J. Luck, S.D. Medley, L.A. Miller, P.R. Milton, W. Plaxton, N.H. Verhoef, W.I. Watson. FINAL EXAMINATION, PART I G. W. Bracken, P.R. Schults, W.J. Torrance; J.L. Hill, J.R. Holm, P. Pavlin, B. Square, P.J. Sutherland, S.L. MacDougall. FINAL EXAMINATION, PART II B.D. Coote, J.R. Dewar, B.K.

Edwards, J.J.H. Hunt, R.R. Scott, W. Setterington; R.I. Burton, C.C.R. Hay, R.T. McCurdy, V. Raiend, A.J. Simpson, T. Staszak, E.C. Tacium, P.R. Welsman, F.C. Wilson.

FINAL EXAMINATION, PARTS I AND II

R. W. Kirkpatrick, R. H. Ross

- 2. Articles of Agreement of two applicants were approved unconditionally. One other was approved conditionally. Six other applicants were informed as to the additional educational requirements necessary to make them eligible for apprenticeship.
- Two applications for reduction in length of apprenticeship were approved; one was not approved.