

INFORMATION
AND
MANAGEMENT
IN
BUILDING CONSTRUCTION

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22nd International Symposium on
Housing Construction and Financing
3-7 October 1994, Salzburg, Austria

CHANGES

COMPUTER

SOFTWARE

CHEAP

POWERFUL

BUILDING FIRMS

ENGINEERING MANAGEMENT

PLANNING

DECISION MAKING

PERT

COST ESTIMATION

GLOBAL APPROACH

AVAILABLE SOFTWARE

FLEXIBLE

PARTICULAR CONDITIONS

THREE CASES

SUBCONTRACTORS

ASSEMBLING TECHNIQUES

FINANCIAL INCENTIVES

SUBCONTRACTORS MANAGEMENT

SPECIALIZED OR SPECIFIC TASKS

CHEAPER, QUICKER AND MORE RELIABLE

SUBCONTRACTS

COORDINATING

BUDGET

QUALITY CONTROL

PACKAGE

LARGE AMOUNT OF DATA

INFORMATION READILY AVAILABLE

SUBCONTRACTOR CHOICE

PLANNING

CONTROL

ASSEMBLING TECHNIQUES

PREFABRICATION VERSUS TRADITIONAL

LABOUR TRANSPORTATION EQUIPMENT

TIME, MONEY AND LABOUR

COMPUTER PACKAGE

DECISION MAKING

SPREADSHEET AND DATABASE

CASE STUDY

PARTIAL PREFABRICATION OF REINFORCED CONCRETE BEAMS

COUPLED PROGRAM

FORMING, REINFORCEMENT, SHORING, MIXING, POURING,
TRANSPORT AND PLACEMENT

FINAL COST OF BOTH SOLUTIONS

FINANCIAL INCENTIVES

DEPENDENT FROM HUMAN EFFORT AND DEDICATION

TROUGH FINANCIAL REWARDS

SUBJECTIVE INFORMATION

INFORMATION BASED SYSTEM

COMPUTER NETWORK OF PERSONAL MACHINES

FINANCIAL GAINS

NEGOTIATION WITH CLIENTS

ALTERNATIVE SOLUTIONS AND MATERIALS

OTHER SECTORS

COMMON DATABASE OF COSTS

BASELINE

CHARACTERISTICS

DECISION MAKING BASED ON LEARNED FACTS

INFORMATION ABOUT THE PERFORMANCES

PLANNED AND ACTUAL VALUES OF COST AND DURATION

JOB QUALITY STANDARDS

COORDINATION WITH OTHER SUBCONTRACTORS

FINANCIAL CONDITIONS

MULTICRITERION APPROACH

CONTROLLING PHYSICAL PROGRESS

COSTS

CLOSURE DATE

ONLINE OPERATION

FIRST CASE: CONCENTRATION OF INFORMATION

SELECTION STAGE

CONTROL

SECOND CASE: OBJECTIVE EVALUATION

BIDDING

DECISION MAKING

THIRD CASE: YEAR OF 1992

UPDATED FINANCIAL RESULT

COMPATIBILITY

INCREASED PRODUCTIVITY

COMPUTERS AND **PROPER** SOFTWARE

UNAVOIDABLE FOR CONSTRUCTION FIRMS

SOFTWARE **DEVELOPMENT** SERVICES