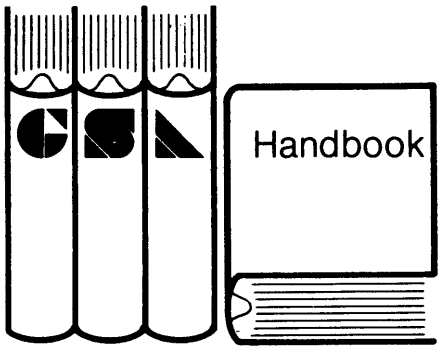
76-26



PBS P 8010.1
November 11, 1976

Architect-Engineer and Construction Manager

Value Management Services

General Services Administration
Public Buildings Service

76-26

November 11, 1976 PBS P 8010.1

A-E/CM VALUE MANAGEMENT SERVICES

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CHAPTER 1. INTRODUCTION

PART 1. GENERAL

1. Scope. This handbook prescribes requirements for obtaining value management (VM) services under architect-engineer (A-E) and construction manager (CM) contracts awarded by GSA for services during the design and construction phases of public and special purpose buildings. It also provides administrative guidelines and procedures for the implementation and application of VM during facility planning and procurement.

2. Definitions and abbreviations. A complete listing of definitions and abbreviations of terms associated with VM is contained in the HB, Value Management (PBS P 8000.1A). A partial listing of definitions is provided in contract clause 101 illustrated in figure 2-13.

3. VM methodology. The methodology of VM is also presented in the HB, Value Management (PBS P 8000.1A). This handbook concentrates on one form of application, namely the facility project design phase. Because many common words like "value," "function," and "worth" have specific meanings when used in connection with VM, readers are encouraged to review PBS P 8000.1A if they are not trained in VM methodology.

4. Authority.

a. All authority exercised in connection with the guidelines and procedures prescribed in this handbook shall be in accordance with existing redelegations of authority and administrative limitations except as modified herein.

b. Regional Commissioners and the Assistant Commissioners are authorized to consider requirements in all PBS publications as general guidance rather than rigid standards in order to approve and implement results from value management efforts.

(1) Where definite advantages can be expected, deviations are authorized provided that a professional judgment has been made that a safe, adequate, more economical, or better design or procedure will result.

(2) This authorization for worthwhile deviations does not apply to deviations from statutory and similar requirements included in Public Laws, Federal Procurement Regulations, Executive orders and similar regulations. Examples of statutory requirements include provisions for the handicapped, air and water pollution abatement and control, and the use of specifications which are non-proprietory.

5. Applicability. The provisions of this handbook apply to PBS Design and Construction personnel in the Central Office and regional offices and to all contracts incorporated by reference therein. VM review and study of project designs performed internally shall be accomplished concurrent with design review whenever possible in accordance with the following guidance:

a. All internal designs having an ECC (Estimated Cost of Construction) of $1 million or more will include VM services equivalent to that required in this HB for A-E contracts. At the option of the Regional Commissioner such VM services may be performed by an in-house team not responsible for the design or by contract with a qualified firm offering VM trained multidiscipline task teams to perform these studies.

b. All projects less than $1 million in value will be reviewed for value improvement potential by the regional VM Board representative from the Construction Management Division or by the staff VM specialist. Those projects with value improvement potential will have a study performed by in-house staff, A-E designer, or term contract VM consultant.

c. All projects between $500,000 and $1 million must be studied for value improvement except where the Regional Commissioner makes a determination that the project has no cost reduction potential.

PART 2. BACKGROUND

6. Introduction. Each year a considerable amount of this nation's available resources are allocated to construction. The costs of construction have risen sharply in the past decade, and until very recently, the rise in costs exceeds that of the preceding year. Every means must be used to obtain our required construction within funds allocated, and to efficiently utilize taxpayer money placed in our trust. The GSA realizes that VM can make a significant contribution toward greater economy in developing, acquiring, operating, and supporting the facilities necessary to fulfill its mission. VM is a tool to help management gain the desired results within the constraints of time and cost. To capture this potential, VM must be clearly understood and correctly applied. It must have the involvement and cooperation of every decision-maker working for PBS.

7. History. The VM technique emerged from the industrial community. During World War II, many critical materials were difficult, if not impossible, to obtain. This forced the use of substitute materials by many manufacturing concerns. One of these manufacturers, the General Electric Company, found that many of the substitute materials used were providing equal or better performance at less cost. This situation was observed by the Vice President of Purchasing for the General Electric Company, Mr. Harry Erlicher. He felt that an effort should be made to provide product efficiency by intentionally developing substitute materials.

a. In 1947, the task of investigating this possibility was assigned to Mr. Lawrence Miles, a creative staff engineer. Mr. Miles developed techniques to enable this type of change to be performed intentionally rather than accidentally. The term "value analysis" was coined for his technique. Based upon the success experienced by General Electric, the concept spread throughout private industry because of its ability to yield a large return for a relatively modest investment.

b. Industry has used a variety of terms for value programs such as "value improvement," "value buying," and "value control." There are some subtle differences between these programs as they relate to specific application, but the basic objectives, philosophy and methodology are the same for all.

c. The first Government organization to implement a formal program was the Department of Defense's Navy Bureau of Ships in 1954 (now the Navy Ships System Command). They called the program "value engineering" (VE) to reflect the emphasis on engineering. This name is now the most commonly used and accepted since the chartering of the Society of American Value Engineers in 1959. In late 1961 the program was formally implemented throughout the Department of Defense.

8. Expansion to construction. Before 1961 most of the experience relating to VE dealt primarily with manufactured hardware, yet the methodology of VE was supposedly applicable to the design process in general. Establishment of a formal program by the Department of Defense, across the board, involved their design and construction agencies in VE. Between 1963 and 1965 the three military services instituted programs by staffing full time value engineers and by introducing VE incentive clauses into their construction contracts, permitting contractors to propose VE changes and share in resultant savings. The successes achieved with these programs led to the following milestones outside of the Department of Defense:

1967 - The U. S. Senate, Committee on Public Works, held hearings on August 1 and 2 concerning the use of VE in the Government. Five agencies testified.

1969 - The National Academy of Sciences, Federal Construction Council, Building Research Advisory Board, convened a conference to research the application of VE in construction. Symposium Workshop Report No. 4 dated May 27, 1969 published its results. Seven agencies testified.

1973 - In March, the General Services Administration, Public Buildings Service Published the first VE service contract clauses for use in design and construction manager contracts.

1973 - The U. S. Senate, Subcommittee on Buildings and Grounds, Committee on Public Works, held hearings on June 18 and 19 concerning the use of VE in construction. Six agencies and four professional societies testified.

1974 - The General Accounting Office published a report (May 6, B-163762) on the "Need for Increased Use of Value Engineering, a Proven Cost Saving Technique, in Federal Construction."

1976 - The Environmental Protection Agency, Water Program Operations, published a program guidance memorandum (PGM #63) making value services mandatory during design under their construction grants program.

9. Change to value management. In 1974, GSA changed its program name from value engineering to value management. This was done to indicate that value methodology was not peculiar to any one discipline but rather, suggests increased need to manage value and have executive involvement in managing change. Value Management is a term that is common to all, because it deals with functions rather than products.

PART 3. GENERAL APPLICATION

10. Opportunities for VM. In 1965, the Department of Defense conducted a study to determine the sources of opportunity for VM. The aim of the study was to obtain an indication of range and degree of application. From a sample of 415 successful value changes, the study identified seven factors which were responsible for about 95 percent of the savings actions. Predominant among these were excessive cost, additional design effort, advances in technology, and the questioning of specifications. The study revealed that a single factor was rarely the basis for a VM action. The study findings are tabulated in figure 1-10. The following lists some of the areas to which VM has been applied:

Designs	Supplies
Equipment	Regulations
Systems	Criteria
Procedures	Packaging
Paperwork	Shipping
Specifications	Maintenance
Publications	Operations
Testing	Manufacturing

Percent of total actions	Percent of total savings	Factor	Definition
13.9	23.2	Advances in technology	Incorporation of new materials, components, techniques, or processes (advances in the state-of-the-art) not available at the time of the previous design effort.
27.8	14.8	Additional design effort	Application of additional skills, ideas, and information available but not utilized, during previous design effort.
5.2	11.8	Change in user's needs	User's modification or redefinition of mission, function, or application of item.
6.8	4.0	Feedback from test/use	Design modification based on user tests or field experience suggesting that specified parameters governing previous design were unrealistic or exaggerated.
14.4	17.7	Questioning specifications	User's specifications were examined, questioned, determined to be inappropriate, out-of-date, or overspecified.
4.6	3.8	Design deficiencies	Prior design proved inadequate in use (e.g., was characterized by inadequate performance, excessive failure rates, or technical deficiency).
23.1	22.2	Excessive cost	Prior design proved technically adequate, but subsequent cost analysis revealed excessive cost.
4.2	2.5	Other	

*Source: Directorate of Value Engineering, Office of the Assistant Secretary of Defense (Installations and Logistics), *Reduce Costs and Improve Equipment Through Value Engineering*, January 1967, page 7-10. (Obtainable from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)

Figure 1-10. Factors Leading to Changes from VM Effort

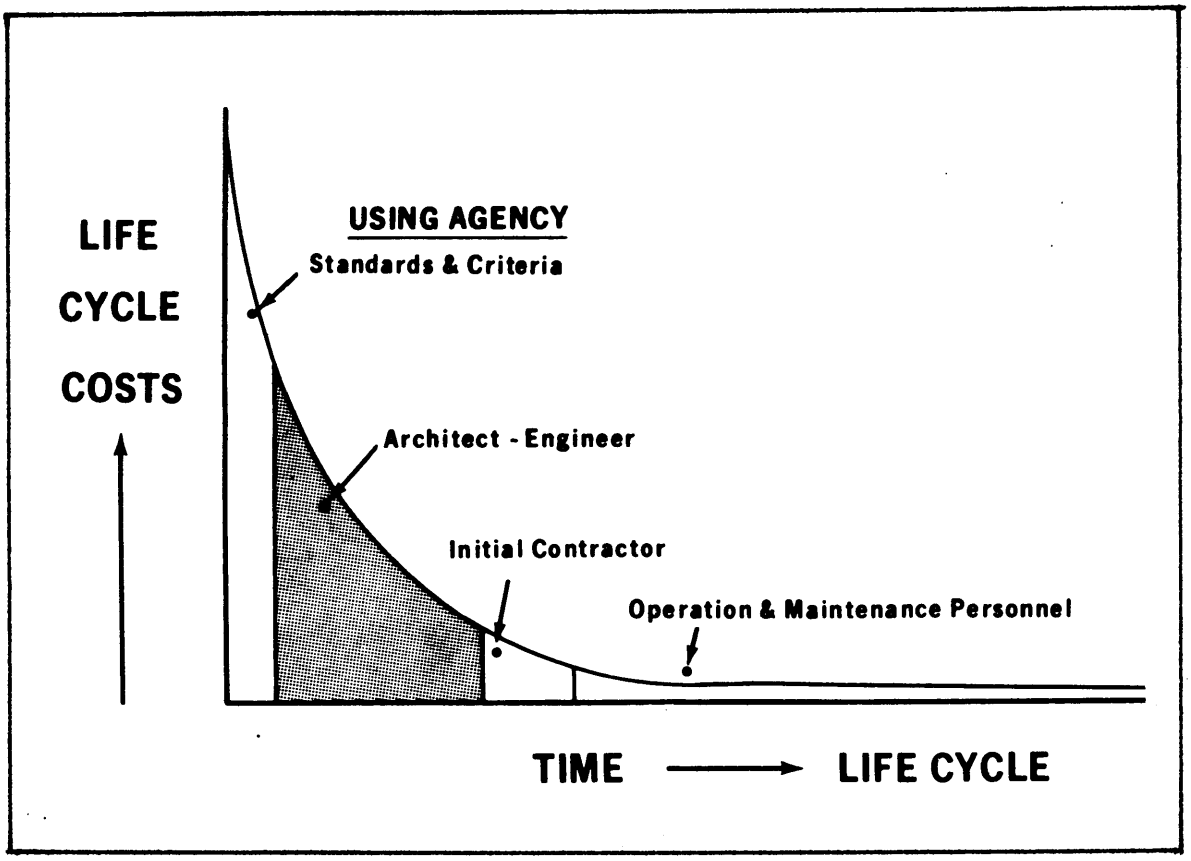

Figure 1-11.1. Decision Maker's Influence on Cost

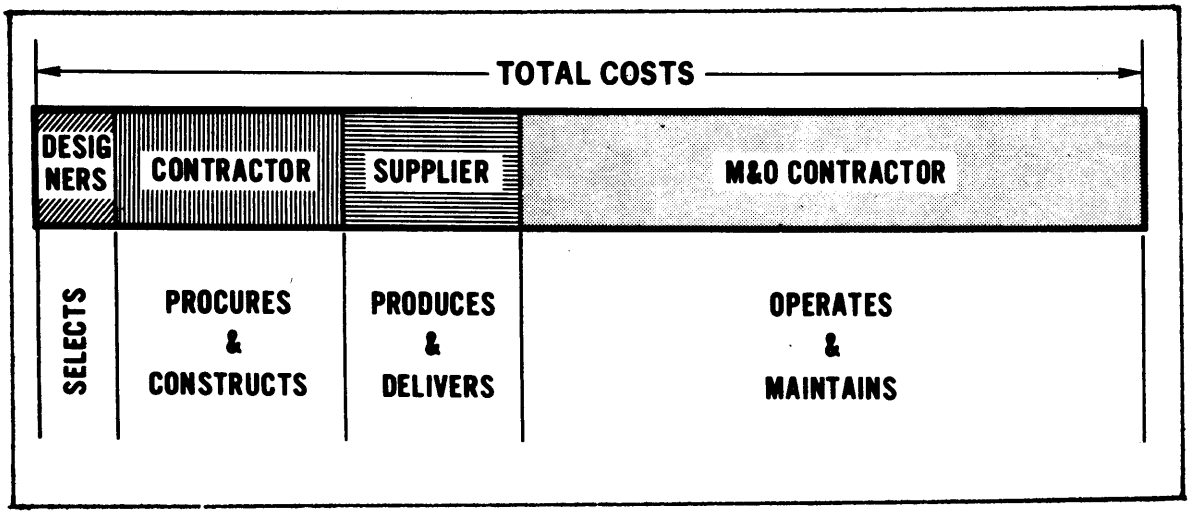

Figure 1-11.2. Distribution of Costs for a Facility

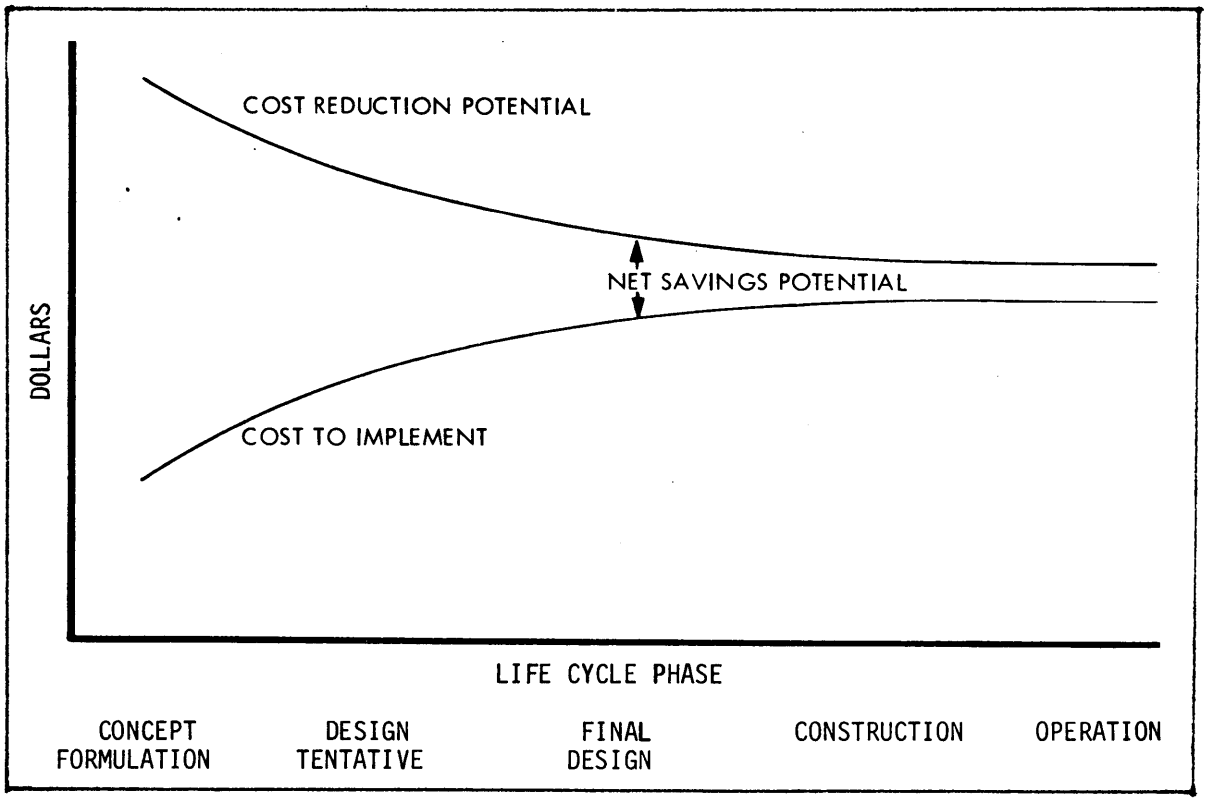

Figure 1-12. Life Cycle Phases and Savings Potential

Decisions and appraisals must often be made before the complete picture is available. The goal of low total cost of ownership (rather than just low acquisition cost) emphasizes the need for a VM effort in related planning, design, construction, and maintenance fields. VM effort in this phase is directed to furnishing inputs needed to ensure the most economical decisions.

b. Design tentative. During this phase approved concepts are definitized, preliminary drawings and outline specifications are started, and sufficient detailed information is developed to substantiate all quantities and costs that have been presented in the program directive. This is the most opportune time to question performance characteristics. A VM study which analyzes the essential requirements, technical characteristics, and the design tasks, may reveal alternatives offering improved value. Comparisons during this phase require special skills to validate the projected economic benefits. VM efforts in this phase are directed toward creating value indexes of function, cost and worth of the systems as a whole, and its major subsystems. By defining value in measurable terms, VM can produce a function cost analysis to improve visibility of the costs directly related to necessary requirements.

c. Working drawings. It is during this phase that specific design details are formulated and schedules created. Continuity of VM effort in this phase is essential to ensure that hidden costs are not unintentionally engendered in the project during the development of specifics. VM efforts in this phase are usually limited to eliminating unnecessarily restrictive detail for requirements, ensuring standardization for details, minimizing the quantities of different types, and eliminating items not necessary. Usually redesign as a result of VM effort at this stage cannot be economically accomplished due to the implementation costs involved, unless the life cycle savings potential is large enough to justify the expense. However, when projects are designed and placed on the shelf for a year or more, that time could well be spent in a VM effort updating requirements and implementing improvements.

d. Construction. During this phase VM can be performed both internally and by the Contractor. Internal VM can be accomplished by reviewing specific contract requirements and initiating change orders to save money. Another fruitful area for internal application is performing a VM review of all potential change orders tending to increase contract cost. They should be reviewed to prevent adding nonessential functions and to create alternate solutions that would lower the cost of or eliminate the necessity for the change. The Contractor program provides the Government with knowledge of costs and products that can be used in future efforts.

e. Operation. The total cost of ownership is affected by operation, maintenance, and other support costs. Reducing these costs (in excess of any attendant increase in procurement cost) results in lower life cycle cost. Large potential savings often justify the investment for the VM study and subsequent implementation expenses during the operational phase. VM studies during this phase offer an opportunity to make changes not made earlier due to a lack of time or other constraints. Also, the reasons leading to the entry into the supply system of some items may no longer be valid. Therefore, they may no longer represent an optimum choice. VM studies during the operational phase have resulted in:

(1) Extension of an item's life by the application of new state-of-the-art designs, materials and processes;

(2) Reduced repair costs by achieving the required function in a more economical manner;

(3) Elimination of items and work through re-examination of user needs;

(4) Savings in energy and other operating costs; and

(5) Reduction in number of supply items in stock.

13. Problem solving. Since the VM process is basically a problem solving technique, it can be applied to a wide variety of problem areas using the same approach. It can be used to solve problems regardless of the cost of the solution; therefore, application of the technique, in itself, does not necessarily mean that money will be saved. When VM is used for the purpose of solving problems, management can expect that the solution will be arrived at analytically and documented with respect to its economies. Use of the program for this sole purpose should be done with great care. Such use could be counterproductive to the most effective use of VM which is really to preempt problems before they become a concern to management.

14. Pre-empting problems. VM is most effectively applied to search out areas of application where no problems exist and everything is running smoothly. The optimum application of VM on every design or procedure would result in receiving total cost control, good value for every dollar spent, no deductive bid items, no cost overruns, no design deficiencies; i.e., no problems. However nice that objective seems, it remains impractical to VM everything. Like any profitable program or business, the successful VM program is based on a maximum return from optimum investment. Following Pareto's Law of Distribution (see figure 1-14) VM attempts to identify and isolate the 20 percent of the elements in a single system that contribute to 80 percent of the cost of the system. Those with the greatest potential for impact on cost, then become the candidates for application of VM.

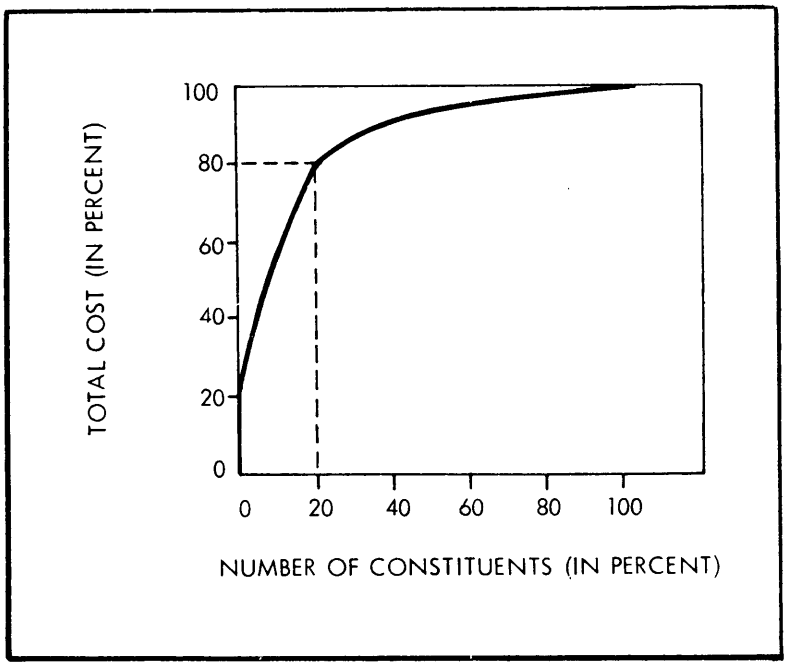

Figure 1-14. Pareto's Law of Distribution

PART 4. RELATED CONCEPTS

15. Introduction. Many new management techniques are being accepted and used in facilities procurement, and a certain amount of confusion exists in the minds of many people as to the role and scope of these concepts and their relationship to VM. Specific questions that come up from time to time include the following:

a. Does VM overlap or replace any of these techniques?

b. Are the objectives of VM opposed to the objectives of these techniques?

c. If ideas emanating from the various techniques result in conflicting recommendations, should the decision consider only the VM recommendations?

There is an interface between other techniques and VM; however, there should be no basic conflict between any two. While each one has its own goals and uses, each has the overall goal of supporting planning, design, construction and maintenance objectives. This part discusses the relationship of VM to some of these techniques.

16. Design-to-cost. This technique requires that cost be an essential design parameter. As such, cost becomes of equal importance with performance and schedule in making decisions. The availability of clear cost targets through a design-to-cost program for a facility, coupled with increased visibility of minimum/maximum performance levels and schedule requirements, is an essential first tool for the value process. When the design-to-cost budget is divided into facility system and subsystem level of detail, and that budget is based upon worth, then good value will be easier to attain.

17. Trade-off analysis. Trade-offs by definition and usage involve interrelated changes. Thus; reliability, quality, or maintainability is reduced to bring cost down; floor loading or lighting levels are increased, so costs go up; delivery is expedited and costs go up; etc. By contrast, VM makes necessary function or minimum performance levels a constant rather than a variable. In VM, these may not be reduced as a means of reducing cost. VM does not involve trade-offs if it provides the necessary function at lowest overall cost. Whereas minimum performance requirements are not traded off for lower cost in VM, the way of accomplishing this performance may be altered to reduce cost. That is, the necessary performance of components of certain products-systems may be derived from the performance of other components in the system. In this restricted sense, VM may be thought to involve exchanges to allow for use of standardized parts in the system, or to reduce the cost of integrating components into the system. But the necessary performance of the product/system itself is not changed.

18. Cost reduction. Cost reduction is an effort to make a product, system, or facility cheaper. It means accepting things as they are to reduce cost, often through redesign or simply deleting work. VM, on the other hand, is a more fundamental approach which takes nothing for granted and questions everything about a product including the very existence of the item itself, subject only to the restriction that the required function or performance must not be degraded. However, the act of cost reduction, itself, does provide a useful function in the value process. Cost reduction forces the separation of "needs" from "desires"; e.g., the need for an automobile from the desire for a Mercedes, the need for an office building from the desire for a monument. VM can sacrifice desires but not needs. Cost reduction often sacrifices both.

19. Economic analysis. Cost effectiveness and VM share a common objective. Both represent a systematic analysis of alternative ways of accomplishing given functions and of the costs associated with each alternative. PBS cost effectiveness studies (sometimes called present value analysis) are employed in the very early planning stage to compare the overall effectiveness and associated costs of alternative concepts in broad contexts. Typically, such studies might compare the impact of (1) site location in a community, or (2) alternative ways of providing space such as lease, construct, consolidate, or rehabilitate existing facilities. A cost effectiveness study may be complemented by VM efforts to ascertain the value levels of the proposals presented and, if suitable, propose additional alternatives. VM also may be used to achieve or even reduce the cost predicted for the selected alternative.

20. Systems analysis.

a. Systems analysis has been defined as "an inquiry to assist decision maker's in choosing preferred further courses of action by systematically examining and re-examining the relevant objectives and quantitatively, where possible, the economic costs, effectiveness (benefits), and risks of the alternatives." True systems analysis is more a research or predesign strategy than a method or technique. It may be viewed as an approach to, or way of looking at complex problems of choice under conditions of uncertainty.

b. PBS uses a refined level of systems analysis when a designer is given operational performance requirements to describe a system and is then required to use traditional cost analysis techniques to analyze competing systems; i.e., structural, mechanical, heat recovery, fuel, etc. During subsequent development of the selected overall systems, design of the sub systems is often assigned to various design groups. A coordinating groups should be assigned the task of assuring that the sub systems will work together. The combined output of these individual groups is a design reflecting the emphasis on achieving functional

compatibility and required performance with limited funds and time. Integration of VM into the system analysis effort contributes to the creation of an overall design having a total cost which is consistent with the worth of the system functions.

21. Standardization. Standardization and VM are not opposing philosophies with the former attempting to "freeze" the "status quo" and VM trying to change it. Standardization efforts include procedures to enhance effectiveness by accommodating innovations in technology and changes in the user's needs. Used where appropriate, standards can reduce total cost. In some cases, unnecessary costs occur because the standards are not being used. In other cases, waste may occur because the standards used are obsolete or inappropriately applied. In either instance, VM provides a useful input to any standardization effort.

22. Life cycle costing. Life cycle costs include all costs incident to the planning, design, construction, operation, maintenance, supply, disposal, and relocation of a system or facility, calculated in terms of present value or annual owning and operating cost. It is a method used to compare and evaluate the total costs of competing proposals for identical functions based on the anticipated life of the facility or product to be acquired. This approach determines the least costly of several alternatives. However, the selected alternative may only represent the best of several poor candidates. VM may be used to develop additional worthy alternatives to consider before selecting the best choice. Whereas life cycle costing emphasizes cost visibility, VM seeks value optimization. The two disciplines are complementary because the former is required to achieve the latter.

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Figure 2-13. Value Service Requirements

CHAPTER 2. VALUE SERVICE REQUIREMENTS

PART 1. GENERAL

1. Scope. This chapter establishes the administrative and contractual requirements for obtaining value services under architect-engineer (A-E) and construction manager (CM) contracts awarded by GSA.

2. Applicability. Levels of value management activity shown below shall be based on the full value of proposed project work even though phased over a period of years. The level of value management activity shall not be lowered because accomplishment of project design work is phased. The region has the option, however, to increase the levels of service specified below if the savings potential for a particular project exists.

a. A-E contracts. Requirements for VM services as outlined in this chapter shall be included in GSA contracts with A-E's in connection with the design of buildings, extensions, alterations, repair and improvement projects as set forth below:

(1) Level 1 VM services are required for all projects with estimated construction costs over $200,000.

(2) Level 2 VM services are required for all projects with estimated construction costs over $1,000,000.

(3) Level 3 VM services are required for all projects with estimated construction costs over $5,000,000.

(4) Level 4 VM services are required for all projects with estimated construction costs over $30,000,000.

(5) Special requirements as outlined in this chapter shall be included, rather than level 1, 2, 3, or 4, whenever a construction manager will be utilized on the project.

b. CM contracts. Requirements for VM services outlined in this chapter shall be included in all GSA contracts with construction managers.

3. Contract procedures. VM services shall be included in the initial scope of services required for an A-E or CM contract.

a. Type of contract. VM services shall be negotiated on a firm fixed-price basis for the full scope of services specified in the contract.

b. Phasing. VM services may be divided into separately identifiable phases with performance of each phase, after the first phase, subject to the exercise of an option by the contracting officer. Payments for each phase are made after VM services required by the contract have been approved by the contracting officer.

c. Fee limitations. In accordance with the provisions of Section 304(b) of the Federal Property and Administrative Services Act of 1949 as amended (41 U.S.C. 254(b)), the Administrator of General Services has determined that the portion of an A-E's fee representing payment for VM services may be excluded in determining whether the A-E's fee is within the statutory 6 percent limit, except those items relating directly to the production and delivery of plans, drawings, and specifications.

d. Fee breakdown. Contracting officers shall obtain a breakdown of the fee for VM services that is included in the fixed price contract. The fee breakdown shall correspond to the level of VM services required in each specific contract.

4. Program concepts. GSA's value service requirements are recognized by the major professional societies: American Institute of Architects, National Society of Professional Engineers, and American Consulting Engineers Council. The mutually approved concepts for the program are:

a. GSA requirements do not provide for incentive sharing, with A-E or CM, of savings achieved during design or construction.

b. GSA considers VM a professional service to be provided by the construction manager and architect-engineer.

5. Program objectives. In addition to gaining facilities of better value, GSA recognizes potential benefits in the following areas as a result of providing VM services during design:

a. Time. To some, application of VM causes a disruption of the design process. More often than not, however, early application of VM saves design time by eliminating unnecessary design work, adding to a clarification of the design scope, reducing false starts, and preventing the loss of time that occurs when budgets are exceeded. The more urgent and tight the design schedule becomes, the more these provisions can aid in achieving the desired schedule.

b. Standardization and simplification. It is the inherent nature of a designer to create a special design as a solution to a specific problem. VM ensures that simplification and standardization alternatives are considered in the quest to reduce cost through the analysis of redundant functions.

c. Design deficiencies. When contract requirements are in error, conflict, or are incomplete, they often result in costly changed conditions to the procurement. VM task team reviews performed by personnel other than the original designers have uncovered potential design deficiencies in time to correct them during the design process.

d. Solving problems. VM is one of the best problem solving methodologies available to the contracting officer. Problems with performance, reliability, unforeseen conditions, or quality can be directed for solution to a value task team for study.

e. Special studies and programs. Cost benefit, economic analysis, productivity, work simplification, energy, and environmental studies can all be enhanced by combining them with VM studies and applying VM methodology.

6. Contractor training. It is the responsibility of the Architect-Engineer and Construction Manager to acquire the trained personnel needed to provide the VM services required by contract. However, Architect-Engineer or Construction Manager employees are eligible to participate in VM training courses held for Government employees provided (1) space is available, and (2) the A-E or CM has a current contract with PBS. Such participation is especially encouraged when the VM studies selected for workshop application are taken from the A-E's project.

7. Government processing costs. Costs for the review and administration of A-E and CM participation in VM shall be charged and accounted for in accordance with the HB, Resource Management System, PBS P 3400.10, figure 6-2, where the third character of the work symbol shall be "N".

8 thru 12. Reserved.

PART 2. SCOPE OF SERVICES

13. Contract clauses. This part illustrates the standard clauses for VM services to be selected as shown below and included by reference to this part of the VM handbook in the applicable contract. Paragraph numbers used below refer to those illustrated in figure 2-13 which, when grouped as specified, formulate a value service clause (VSC) for the procurement.

a. Level 1 services. VSC requirements for this level shall consist of paragraphs:

100. Scope	112. Review of VCP's
101. Definitions	113. Government Value Reviews
104. Cost Models	117. Government Furnished Material
111. Review of VSP's	118. Fee for VM Services

b. Level 2 services. VSC requirements for this level shall consist of paragraphs:

100. Scope	111. Review of VSP's
101. Definitions	112. Review of VCP's
102. Organization & Control	113. Government Value Reviews
104. Cost Models	114. VM Executive Seminar
105. Criteria Review	116. Access to Records
106. Task Team Studies	117. Government Furnished Material
107. System Study	118. Fee for VM Services
108. Component Study	119. Final Report

c. Level 3 services. VSC requirements for this level shall consist of paragraphs:

100. Scope	111. Review of VSP's
101. Definitions	112. Review of VCP's
102. Organization and Control	113. Government Value Reviews
104. Cost Models	115. VM Workshop
105. Criteria Review	116. Access to Records
106. Task Team Studies	117. Government Furnished Material
107. System Study	118. Fee for VM Services
108. Component Study	119. Final Report
109. Bid-Package Studies	

d. Level 4 services. VSC requirements for this level shall consist of paragraphs:

100. Scope
101. Definitions
102. Organization and Control
103. Program Manager
104. Cost Models
105. Criteria Review
106. Task Team Studies
107. System Study
108. Component Study
109. Bid-Package Studies
111. Review of VSP's
112. Review of VCP's
113. Government Value Reviews
114. VM Executive Seminar
115. VM Workshop
116. Access to Records
117. Government Furnished Material
118. Fee for VM Services
119. Final Report

e. Special VM services. These requirements for A-E's, in conjunction with CM VM service, shall consist of paragraphs only:

100. Scope
101. Definitions
102. Organization and Control
105. Criteria Review
110. Coordination with Construction Managers
111. Review of VSP's
112. Review of VCP's
113. Government Value Reviews
116. Access to Records
117. Government Furnished Material
118. Fee for VM Services

f. CM VM services. VSC requirements for these services shall consist of:

(1) For level 3, paragraphs:

100. Scope
101. Definitions
102. Organization and Control
104. Cost Models
105. Criteria Review
106. Task Team Review
107. System Study
109. Bid-Package Studies
112. Review of VCP's
113. Government Value Reviews
115. VM Workshop
116. Access to Records
117. Government Furnished Material
118. Fee for VM Services
119. Final Report

(2) For level 4, paragraphs:

100. Scope
101. Definitions
102. Organization and Control
103. Program Manager
104. Cost Models
105. Criteria Review
106. Task Team Studies
107. System Study
109. Bid-Package Studies
112. Review of VCP's
113. Government Value Reviews
114. VM Executive Seminar
115. VM Workshop
116. Access to Records
117. Government Furnished Material
118. Fee for VM Services
119. Final Report

14. Guidance to contracting officers. Several of the contract paragraphs require contracting officer decisions to fit local conditions and the particular project in question. The Central Office Director, Value Management, is available to provide specific guidance upon request. The following general guidance regarding each of the contract paragraphs is as follows:

a. Paragraph 102. Design schedules shall include provisions for performing value services and time to implement expected results. A tight design schedule and an urgent need for design completion should not cause requirements to be deleted from the contract. Such situations intensify the need for increased value services occurring in concert with design services. Should the value study reveal a warranted change or recommend a significant cost savings action that would cause slippage in the design schedule, the contracting officer should give favorable consideration to authorizing a time extension, if necessary. The added cost of construction (caused by inflation) due to design slippage and the cost of delay in building occupancy should be considered in determining net cost savings resulting from a value study that requires redesign.

b. Paragraph 104. The cost model provided by GSA Form 3287, Cost Worth Model, represents the distribution of anticipated in-place systems costs for a new facility. For repair and alteration projects, costs should be allocated only to the systems effected. At the concept stage of a project, costs should be presented in parametric form as well as on a gross square foot (GSF) basis. It is preferred that parameter quantities be developed by the original designers for pricing by estimators. A current cost model is required before commencing a workshop.

c. Paragraph 105. It is intended that the design team developing the design concepts perform the criteria review. The designer should be encouraged to question, study, or recommend changes to Government-imposed restrictions whether they be performance criteria, scope requirements, standard prescriptive specifications or special instructions, either imposed directly by the contracting officer or resulting from informal contacts with the client or the PBS staff.

d. Paragraph 106.

(1) The objective of the task team study is to perform a design review to generate suggestions for value improvement of the design. Depending on the scope of the design and the time constraints for completing it, value studies can vary from a one-person effort to team efforts. The maximum size for an efficient value team is five persons supported on a part-time basis by other elements of the design organization.

(2) Task team reviews are to be performed by individuals not responsible for the original design. This is intended to prevent extensive interruption of the design process as well as provide a less prejudicial value review. At least 60 percent of the task team should be workshop trained. At Level 4 service, all members of the task team should have completed an acceptable VM workshop.

e. Paragraph 111.

(1) The A-E has the responsibility to accept or reject all the proposed changes created by his employees, submitted by the construction manager, or suggested by the Government, unless otherwise directed by the contracting officer. In so doing, the designer remains fully responsible for the adequacy of his design and his obligation to meet cost or price and schedule requirements of the contract.

(2) Prior to implementing changes that affect completed and approved design work to date, GSA criteria, or other direction, the A-E shall have negotiated the fee for the added work and received contracting officer approval. A-E's are expected to implement VM changes at no additional compensation during the design process when it is feasible to do so, or as determined by the contracting officer to bring the project back within the budget.

f. Paragraph 113. Contracting officers should be aware that they can at any time request internal Government value review of the design to control cost or to solve a problem. Contracting officers may also take advantage of these VM services by directing that certain ideas be studied during the workshop or task team effort.

g. Paragraph 114 and 115.

(1) The location of the seminar or workshop should be in the city where the project is to be constructed. The contracting officer may change this requirement to minimize travel expenses.

(2) In Level 4 service, where both an executive seminar and workshop are required, the executive seminar should be conducted after completion of the criteria review, concept submittal, and cost model preparation. The time should be used partially as a planning session for future task team studies and selection of study areas for the workshop after completion of the submittal of tentative design requirements.

(3) The workshop is 40 hours in length and should be carried through to completion on a scheduled basis in at least one month's time. The workshop should involve employees working on the project design, representation from all of the design consultants, as well as the VM task team. Effective value management requires use of the best talent, those who cannot be spared, so as to take advantage of this opportunity.

Before the workshop schedule is approved, care should be taken to know what is to be studied and that the information phase of the VM Job Plan has been completed. Also, contracting officers should anticipate that the workshop will produce recommended design changes and should be ready to process them accordingly.

h. Paragraph 114.

(1) In negotiating a fee, there may be included the costs (salaries) of A-E personnel attending executive seminars or workshops, who will apply the training in performing the design services; the fee may not include the A-E's costs (salaries) of personnel attending executive seminars or workshops who will perform the task team studies.

(2) The A-E will be compensated for implementing changes resulting from value studies when they affect completed and approved design work to date. The entitlement and the amount of compensation shall be determined by the contracting officer before the A-E is authorized to proceed with any changes. Such compensation will be limited to the additional costs of redesign. Value management changes intended to bring the project, as designed by the A-E, back within the budget shall be accomplished by the A-E without additional compensation.

VALUE SERVICE REQUIREMENTS

100. Scope. The contractor shall engage in a value management program in accordance with subsequent paragraphs of this clause, shall submit progress reports thereon as specified, and shall submit to the contracting officer any value study proposals (VSP's) resulting from the required program. This clause is intended to establish minimum contractor performance concerning value management. It is not intended to prescribe exactly the organization and operation of a contractor's value management efforts. It is intended that the application of this requirement will result in reduced overall costs without degradation of the essential characteristics of any item, through use of value management principles and techniques. The contractor will not receive an incentive share of any savings which might accrue to the Government as a result of these requirements. Conversely, the contractor's fee will not be reduced when:

(1) Approved VSP's and related cost savings make it easier to meet overall contract cost limitations and/or targets.

(2) Approved VSP's have the effect of reducing his work during design or save time and make it easier to meet contract schedules.

101. Definitions. For the purpose of this clause, the following definitions will apply:

(1) Value management. Value management is defined as an organized effort directed at analyzing the function of systems, equipment, facilities, and supplies, for the purpose of achieving the required function at the lowest overall cost, consistent with requirements for performance, including reliability, maintainability, delivery, and human factors.

(2) Value management program. Value management program is defined as the contractually required value management directed toward design and delivery of facilities, systems, supplies and material with essential characteristics at lowest overall costs. It includes the identification of high cost areas for study, the evaluation of function-cost-worth, application of the VM job plan, and the interdisciplinary study of selected subjects proceeding systematically with the design or contract.

(3) Essential characteristics. Essential characteristics are defined as the minimum operational, functional, maintenance, safety, performance, and reliability needs of the user which must be fulfilled.

(4) Value study proposal. Value study proposal (VSP) is defined as a formal recommendation for change resulting from value management activity which shall give consideration to the overall costs to the Government.

(5) Overall costs. Overall costs are defined as a combination of initial purchase and user supporting costs. The initial purchase cost is the total price of acquisition including where applicable, site, design, construction, management, inspection, financing, equipment, testing, spare parts, and initial occupancy. User supporting costs are those which represent the operating, maintenance, repair, replacement, and logistics expense to the user throughout the useful life of the equipment or facility. Another term for overall cost is life-cycle cost.

(6) Value management study. A value management study is defined as a function-oriented appraisal of all the elements of an item, system, or process to achieve essential characteristics at minimum overall cost.

Figure 2-13. Value Service Requirements
(Part 1 of 6)

(7) Value management job plan. The VM job plan is a systematic study procedure including the following phases:

1. Information gathering
2. Function analysis
3. Creative solution generation
4. Judicial solution evaluation
5. Development of alternatives
6. Presentation of recommendations
7. Implementation of changes
8. Follow-up reporting of results

(8) Acceptable VM workshop. The minimum criteria for an acceptable VM workshop to provide individual qualification for task team participation are:

1. The workshop be a minimum of 40 hours in length.

2. It use "real" studies in the course of the workshop and not case studies.

3. It follow a VM job plan that contains function analysis and applied creative thinking to function as two basic elements of the plan.

4. It be conducted by a certified value specialist (CVS) of the Society of American Value Engineers or equivalent.

102. Organization and control. The contractor shall identify an organization responsible for the overall direction of the value management program and shall clearly define its relationship to top management, subcontractor, and other design associates. As a minimum:

(1) VM effort shall be formally scheduled and accomplished to achieve the greatest benefits and cost reduction consistent with other contractual obligations.

(2) The contractor shall actively control, monitor, and guide VM program activity to ensure its effectiveness and shall submit bi-monthly reports of his program's current activity, planned activity, and accomplishments.

103. Program manager. A value program manager shall be assigned for the duration of the contract to conduct and/or guide activities related to this clause. He shall be qualified by education, training, and experience equivalent to that required by the Society of American Value Engineers for certified value specialists.

104. Cost models. A cost model shall be prepared and submitted with design concepts. It shall be updated just prior to each specified value service effort and provided for use in conducting the VM executive seminar, VM workshop, system study, component study, or bid-package studies.

(1) Cost models shall be in diagrammatic form as provided by GSA Form 3287, Cost Worth Model. The cost information on the model shall be developed from and supported by detailed cost estimates prepared under provisions of the design contract or CM contract. The contractor shall develop or convert cost estimating data into appropriate parameters, quantities and unit costs for inclusion and association with each element of the cost model.

(2) At the beginning of each value service effort, the value study team shall create a worth model to the same level of detail as the cost model. These models shall be used to aid the identification and selection of cost reduction potential for VM studies. Cost and worth models shall accompany the study results delivered to the contracting officer.

Figure 2-13. Value Service Requirements
(Part 2 of 6)

105. Criteria review. At an early stage in the contract, such as concept development, the contractor shall examine all criteria, including technical guidelines, regulations, or other instructions including those in the scope of work communicated by GSA or by the using agencies through GSA, for the purpose of identifying and questioning constraints to achieving the required task at the lowest overall cost consistent with desired performance requirements. Based upon this examination, the contractor shall submit a report to the contracting officer identifying areas where criteria changes are considered desirable to develop savings, even though such recommendations may be at variance with existing Government criteria or instructions provided concerning the design in question. Recommended criteria modifications, together with the magnitude of savings therefore, should be included in the report.

106. Task team studies. The contractor shall perform task team studies throughout the life of the contract to review his work for VM ideas and cost effectiveness. The frequency and extent of the studies shall be as specified below. Immediately upon completion of each task team effort, the contractor shall submit a report of the team's VSP's to the contracting officer.

(1) The VM task team shall be composed of an interdisciplinary team not responsible for the original design. One or more of the team members shall have completed an acceptable VM workshop prior to being engaged on a study team. The makeup of the team, individual qualifications of the team members, and extent of effort shall be as determined by the contracting officer.

(2) Operation of the team need not necessarily be a full time, day-to-day process nor is it necessary that the extent of work required by each member be equal. Such factors will depend on the scope and complexity of the project and the subject under study.

107. System study. The contractor shall perform a 3-5 day task team study to review tentative design submittals for VM ideas, and cost effectiveness. The study shall concentrate on system selections as expressed by single line drawings and calculations for foundation, superstructure, mechanical, electrical, fire protection, vertical transportation, etc.; system relationships; design configurations; and scope requirements.

108. Component study. The contractor shall perform a 2-3 day task team study to review the design at the 75 percent completion stage for VM ideas, and cost effectiveness. The study shall concentrate on drawing requirements for materials and equipment used in high quantities, and on specification requirements where the cost to make a change is minimal compared to the potential savings.

109. Bid-package studies. As an alternative, in lieu of the above component study, the contractor may perform a 1-2 day task team study to review each of the separate bid packages on phased procurement at the 75 percent design completion stage of each package. The study shall concentrate on all items of procurement in the bid-package under consideration but shall also consider interface with items that might influence cost savings on subsequent bid-packages.

Figure 2-13. Value Service Requirements
(Part 3 of 6)

110. Coordination with construction managers. The A-E shall provide the following services in conjunction with activities of the construction manager (CM):

(1) He shall attend and participate in a 40-hour VM workshop to be given by the CM. The workshop shall be attended by at least ten employees from the A-E's firm and/or each of his subcontractors and other design associate firms.

(2) He shall identify areas in his design for possible value study during the workshop and shall submit his recommendations to the CM. He shall assist the CM by providing data to complete the information phase of the VM job plan in preparation for the workshop.

(3) He shall participate in and provide suitable personnel to assist the CM in each task team study required in the CM contract. These are the systems study and the individual bid-package studies outline in paragraphs 107 and 109 above.

(4) The contractor shall continue to utilize the individuals of his firm and those of his design consultants who have received VM experience under this contract as a special value review team to provide comments, ideas, and recommendations for value improvement through the rest of the design effort.

111. Review of VSP's. The contractor shall review and consider for incorporation, VSP changes and ideas suggested by the Government, by a task team study effort and/or VM consultant. The contractor shall take one of the following courses of action for each idea suggested:

(1) During design, incorporate the idea provided that it is convenient to do so at no additional fee and so advise the Government.

(2) Reject the idea and advise the Government the reason for such action.

(3) Recommend approval of a change to completed and approved design work or Government criteria and advise the contracting officer of the additional fee necessary to incorporate the idea. The contracting officer will then determine whether the additional service will be required.

112. Review of VCP's. The Government will receive and initially screen VCP's submitted by the separate construction contractor(s) pursuant to the value incentive clause in their contracts.

(1) The contractor will be asked to review and comment on those VCP's the Government is considering favorably.

(2) If the contractor considers that adoption of a specific VCP requires design effort beyond the scope of this contract, the contractor shall so notify the contracting officer. The contracting officer will then determine whether or not the additional service will be required.

113. Government value reviews. The Government reserves the right to perform value reviews of the design during performance of design services under contract. VSP's developed by the Government will be forwarded to the contractor for his consideration. Such a review, however, will not relieve the contractor of his responsibility for controlling costs and compliance with any cost targets or limitations of his contract.

Figure 2-13. Value Service Requirements
(Part 4 of 6)

114. VM executive seminar. At an early stage during design, the contractor shall host and convene a 1-day executive seminar in VM using a qualified VM consultant.

(1) The VM consultant shall be qualified by education, training, and experience equivalent to that required by the Society of American Value Engineers for certified value specialists and shall have a recognized background in the field of value engineering or analysis.

(2) The seminar shall be attended by at least ten employees from the contractor's firm and/or each design or consultant firm associated with the procurement. In addition, the contractor shall invite the attendance of representatives from the Government and the various using clients/agencies of the project under design.

(3) The seminar schedule and program of instruction shall be submitted to the contracting officer for approval at least 2 weeks in advance of the proposed commencement of the seminar.

(4) The contractor shall provide suitable seminar facilities and program for participants in the seminar session. Location of the seminar shall be in the city where the project is to be constructed.

(5) The Government will provide guest speakers as desired.

(6) Seminar objectives shall be to provide a brief refresher of value concepts, discuss procedures for value effort during the design process and discuss the contract objectives and cost model.

115. VM workshop. The contractor shall host and convene a 40-hour VM workshop using two experienced instructors, one of whom shall be a qualified VM consultant. The workshop shall be held after completion of approximately 30 percent of the design effort.

(1) One VM consultant shall be qualified by education, training, and experience equivalent to that required by the Society of American Value Engineers for certified value specialists and shall have a recognized background in the field of value engineering or analysis. The other instructor shall have previous VM workshop instructor experience.

(2) The workshop shall be attended by at least ten employees from the contractor's firm and/or each design or consultant firm associated with the procurement. In addition, the contractor shall invite the attendance of representatives from the Government, the various using clients/agencies of the project under design and other individuals that may be recommended by the contractor and approved by the Government in order to achieve an optimum attendance of 25 to 30 people.

(3) The contractor, in concert with the Government, shall identify areas in the design for value study during the workshop. The contractor shall complete the information phase of the VM job plan and shall prepare a data package for each VM study to be used in the workshop.

(4) The workshop schedule, project studies, textbook, and program instruction shall be submitted to the contracting officer for approval at least 3 weeks in advance of the proposed commencement of the workshop. Location of the workshop shall be in the city where the project is to be constructed.

Figure 2-13. Value Service Requirements
(Part 5 of 6)

(5) Government management and project officials shall be invited to the closing portion of the workshop to hear team study presentations. At the conclusion of the workshop, the contractor shall provide the Government with a copy of each teams' VM workbook and recommendations.

(6) The contractor shall provide suitable facilities, programs, textbook, and loose-leaf notebook binders for each participant in the workshop session.

(7) The workshop objective is the study of selected design criteria or proposed design solutions for the contract in a controlled environment using VM methodology, with the objective of recommending changes to contract work to improve value.

116. Access to records. The contractor shall maintain project files in sufficient detail to enable the contracting officer or his representative to evaluate the quantity and quality of work performed pursuant to these value service requirements. Such documentation shall be kept current and available for review, upon request, by the contracting officer or his representative.

117. Government furnished material. The Government will furnish VM handbooks, workbooks, and all other referenced forms for the information and use of the contractor as necessary.

118. Fee for VM services. Upon award of this contract, the contractor shall provide the Government with a breakdown of the fee included in the contract for VM services by major activities, such as criteria review, workshop, task team reviews, bid-package reviews, etc.

119. Final report. Upon completion of final design the contractor shall submit a final VM report concerning the results of the services provided. The report shall summarize the cost and benefits of the services and shall identify all VM actions implemented in the design.

Figure 2-13. Value Service Requirements
(Part 6 of 6)

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CHAPTER 3. CONSULTANT QUALIFICATIONS

CHAPTER 3. CONSULTANT QUALIFICATIONS

1. Scope. This chapter establishes procedures for interested firms to place their qualifications on file with GSA and the minimum qualifications for individuals performing VM services under GSA contracts. This chapter will be used by GSA for approving employees/consultants chosen by A-E or CM firms to provide VM service.

2. Filing requirement. The VM qualifications of employees or consultants selected by A-E or CM firms to provide VM services must be on file with GSA or submitted for approval. GSA Form 2759, Value Management Consultant Qualification Questionnaire and GSA Form 2759-A, Principals and Associates Personal Resume of VM Qualifications are the forms required to be filed. OMB Approval Number 29-R0213 has been assigned to GSA Form 2759 and OMB Approval Number 29-R0214 has been assigned to GSA Form 2759-A. Figures 3-2.1 and 3-2.2 illustrate these forms.

a. Submit one copy of GSA Form 2759 on behalf of the firm offering to provide VM services.

b. Submit one copy of GSA Form 2759-A for each employee or associate qualified to perform the VM services offered by your firm.

3. VM consultant list. PBS maintains a listing of consultants desiring to perform VM services. Interested firms and individuals can be listed by submitting GSA Forms 2759 and 2759-A to the Central Office, PBS, Director, Value Management (PWV).

a. Acceptance of listing. GSA Forms 2759 and 2759-A will be reviewed for completeness and accuracy at the time of submission. However, applicants will be listed without complete evaluation as to their qualifications. GSA Forms 2759 and 2759-A may be used to evaluate, select, and/or approve consultants for specific contracts when they occur. This may be done with or without further contact with the consultant in question. Therefore, the information submitted should be accurate, complete, and comprehensive the first time submitted.

b. Listings. Listings will indicate the type of service offered, principal business of the firm, principal specialty of the firm, and size of staff. In addition, the listing will record two judgements regarding the information on file:

(1) Does the data on file support the claimed capability to provide the type of VM service offered? This will be answered "yes" under the following conditions:

(a) For workshop instruction, if the firm files a GSA Form 2759-A for an individual who is a certified value specialist (CVS), or equivalent, and said data indicates experience in leading acceptable VM workshops.

(b) For seminar instruction, the same as (a) above.

(c) For leading VM task teams, if the firm files a GSA Form 2759-A for an individual who has completed an acceptable VM workshop within 5 years of the date of filing.

(d) For conducting VM studies, if the firm files GSA Form 2759-A for a minimum of four individuals, each with different backgrounds or disciplines, and who have completed an acceptable VM workshop.

(2) What experience does the data on file indicate regarding the VM services offered? The entries "none," "limited," and "adequate" will be used in the following manner:

(a) "None" should be self explanatory.

(b) "Limited" will be indicated if the VM service offered by the firm has been provided once previously by the employees on file.

(c) "Adequate" will be indicated if said services have been provided more than once.

c. Distribution of listings. Listings will be located in a module of the computer based PBS information system (PBS/IS).

(1) PBS/IS data regarding VM consultant listing will be directly accessible in all regional offices for the use of contracting officers by May 1977.

(2) The Director, Value Management, PBS, will maintain a file of all original consultant submittals and a computer printout of the master listing by January 1977.

(3) Listings will be made available for their use in procurement by all Federal, state and local government agencies upon request.

d. Annual updating. Listed VM consultants are encouraged to review and update their GSA Forms 2759 and 2759-A on file at least once a year.

e. Referral service. Upon request, GSA officials will respond to requests for referral of VM consultants by providing no fewer than four names from that portion of the listing where the supporting data is indicated to be on file for the type of VM service desired.

f. Obtaining work. In response to requests for proposals, A-E's and other consultants should include their VM qualifications and not merely refer to "being on GSA's list." Being listed does not imply a consultant is qualfied or capable. It does mean, however, that at the

VALUE MANAGEMENT CONSULTANT QUALIFICATION QUESTIONNAIRE

INSTRUCTIONS

Use typewriter in completing this form. Attach GSA Form 2759-A and other documents as appropriate. Submit originals to:

General Services Administration (PWV)
Washington, DC 20405
ATTN: DIRECTOR,
VALUE MANAGEMENT

1. FIRM NAME

OFFICE OF MANAGEMENT AND BUDGET NO. 29-R0213

2. HOME OFFICE *(Number, street, city, State, ZIP code, telephone no.)*

3. TYPE ORGANIZATION
- ☐ INDIVIDUAL OWNERSHIP
- ☐ PARTNERSHIP
- ☐ CORPORATION
- ☐ OTHER *(Specify)*

4. NAME AND TITLE OF PERSON IN CHARGE

5. LIST CITIES IN WHICH YOUR FIRM IS LOCATED OTHER THAN THE HOME OFFICE

6. TYPE OF VM SERVICES FOR WHICH YOUR FIRM IS QUALIFIED AND WISHES TO BE CONSIDERED
- ☐ WORKSHOP INSTRUCTION
- ☐ SEMINAR LECTURING
- ☐ LEADING TASK TEAMS
- ☐ CONDUCTING VM STUDIES

7. PRINCIPAL BUSINESS OF YOUR FIRM

8. WHAT PERCENT OF YOUR BUSINESS IS PROVIDING VM SERVICES? %

9. VM EXPERIENCE SUBJECT AREAS IN WHICH YOUR FIRM HAS EXPERIENCE

☐ SYSTEMS OR PROCEDURES ☐ CONSTRUCTION DESIGN ☐ OTHER DESIGN ☐ SOFT-WARE ☐ HARD-WARE ☐ OTHER *(Specify)*

10. INDICATE IN ORDER OF PREFERENCE FOR TYPE OF VM STUDY IN WHICH YOUR FIRM SPECIALIZES

___ SYSTEM OR PROCEDURES ___ CONSTRUCTION DESIGN ___ OTHER DESIGN ___ SOFT-WARE ___ HARD-WARE ___ OTHER *(Specify)*

11. OTHER VM EXPERTISE	F.A.S.T. DIAGRAMMING	COST MODELING	OTHER *(Specify)*
	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO

12. TRAINING STUDY PREFERENCE
☐ REAL STUDIES ☐ CASE STUDIES

13. HOW LONG HAS YOUR FIRM BEEN PROVIDING VM SERVICES?

14. DESCRIBE YOUR VM ORGANIZATION IN RELATION TO THE ORGANIZATION OF YOUR FIRM

15. NUMBER OF EMPLOYEES	PRESENT VM ORGANIZATION			REMAINDER OF ORGANIZATION			TOTAL
	ENGINEERING DEGREES	OTHER DEGREES	NON-DEGREES	ENGINEERING DEGREES	OTHER DEGREES	NON-DEGREES	
Full Time							
Part Time							
TOTAL							

16. LIST VM CLIENTS AND SERVICES PROVIDED OVER THE PAST THREE YEARS *(Continue on a separate sheet, if needed)*

CLIENT'S FIRM NAME	TYPE OF VM SERVICE PERFORMED	MONTH AND YEAR PERFORMED	DESCRIPTION OF VM SERVICE *(Number persons trained, type of projects, savings potential achieved, etc.)*

NO. OF ATTACHMENTS *(GSA Form 2759-A and other documents furnished)*	CERTIFICATION	SIGNATURE AND TITLE OF SUBMITTING OFFICIAL	DATE
	I certify that the information provided herein is true, complete, and correct to the best of my knowledge and belief, and is made in good faith.		

GENERAL SERVICES ADMINISTRATION

GSA FORM 2759 (REV. 3-75)

Figure 3-2.1. GSA Form 2759, Value Management Consultant Qualification Questionnaire

PRINCIPALS AND ASSOCIATES PERSONAL RESUME OF VM QUALIFICATIONS
(Please type or print clearly filling in all items completely.)

1. FIRM NAME

OFFICE OF MANAGEMENT AND BUDGET NO. 29-R0214

2. EMPLOYEE'S NAME *(Last, first, middle initial)*

3. DATE OF BIRTH

4. POSITION/TITLE IN FIRM

5. NUMBER OF YEARS WITH FIRM

6. EDUCATION	NAME OF COLLEGE	DEGREE	YEAR	SPECIALIZATION	
7. REGISTRATION	TYPE			YEAR	STATE
8. VALUE MANAGEMENT EDUCATION	SOURCE	COURSE TITLE(S)		YEAR	NUMBER OF HOURS
9. PROFESSIONAL SOCIETY MEMBERSHIPS	NAME(S) OF SOCIETY	NO. OF YEARS	MEMBERSHIP GRADE	10. PROVIDE DATE OF QUALIFICATION AS (CERTIFIED VALUE SPECIALIST)	
11. SHOW YEARS OF EXPERIENCE AS:	INSTRUCTOR	VM PROGRAM MANAGER	VM TEAM LEADER	VM TEAM MEMBER	VM INCENTIVE CLAUSE ADMINISTRATOR

12. PUBLISHINGS *(Give title, date, publisher of books, papers, articles written by you on VM)*

13. HONORS/AWARDS *(Give award, date or other recognition received for VM activities)*

14. GIVE A BRIEF DESCRIPTION OF YOUR PRESENT DUTIES

15. VM SERVICES QUALIFICATION AND EXPERIENCE
Mark one or more in each category, as appropriate "X"

TYPE OF SERVICES YOU FEEL QUALIFIED TO PROVIDE	WORKSHOP INSTRUCTOR	Lead	
		Assistant	
	Seminar Lecturer		
	TASK TEAM	Leader	
		Member	
SUBJECT AREAS IN WHICH YOU HAVE EXPERIENCE	Systems/Procedures		
	Construction Design		
	Other Design		
	Software		
	Hardware		
	OTHER *(Specify)*		

16. INDICATE IN ORDER OF PREFERENCE, THE TYPE OF VM STUDY IN WHICH YOU FEEL QUALIFIED

Systems/Procedures	
Construction Design	
Other Design	
Software	
Hardware	
OTHER *(Specify)*	

17. Please attach a statement giving name of firm, dates of employment and description of duties at the last two places of employment.

CERTIFICATION	SIGNATURE OF EMPLOYEE	DATE
I certify that the information provided herein is true, complete, and correct to the best of my knowledge and belief, and is made in good faith.		

GENERAL SERVICES ADMINISTRATION — GSA FORM 2759-A (REV. 3-75)

Figure 3-2.2. GSA Form 2759-A, Principals and Associates Personal Resume of VM Qualifications

time of submittal he indicated the type of VM services for which he desired to be considered and met the minimal GSA requirements for the classification assigned.

4. Evaluation criteria. Contracting officers are responsible for rating, evaluating, and approving individuals for performing VM services. The following minimal factors shall be considered in making this determination. Other factors may be considered by the contracting officer in addition to those shown.

a. Type of service. The type of VM service required in the contract should be the first consideration in evaluating individual capability. The types of services, listed in their order of difficulty from most to least are:

(1) Workshop leader

(2) Seminar lecturer

(3) Task team leader

(4) Task team member

b. Type of VM study. The next consideration should be relating individual VM experience to the type of VM study effort required. For PBS, the weighted ranking, from highest to lowest, is a VM background in:

(1) Construction related studies

(2) Software studies

(3) Other type design studies

(4) Hardware studies

c. Individual background. The last consideration should be relating individual educational experience to the type of VM study effort required. For PBS, the weighted ranking from highest to lowest for individual educational background is:

(1) A degree in architecture or in the engineering fields of civil, mechanical, structural, or electrical;

(2) A degree in industrial engineering or experience in cost engineering or construction management; and

(3) A degree or equivalent experience in some other related discipline.

d. Certification. Individuals used as a workshop leader or seminar lecturer shall be qualified by education, training, and experience equivalent to that required by the Society of American Value Engineers for certified value specialists and shall have a recognized background in the field of value engineering/value analysis/value management.

e. Workshop trained. To be so qualified, an individual is required to have attended a workshop that meets all of the following criteria:

(1) The workshop must be a minimum of 40 hours in length;

(2) It must use "real" studies in the course of the workshop and not case studies;

(3) It must follow a VM job plan that contains function analysis and applied creative thinking to function as two basic elements of the plan; and

(4) It must be conducted by a CVS of the Society of American Value Engineers or equivalent.

5. Approval of VM consultants. All VM consultants to be retained under A-E or CM contracts are subject to the approval of the contracting officer.

6. Selection and award of CM contracts.

a. Offerors on CM contracts shall include in their technical proposal the names and qualifications of the individuals they intend to use in performing the specified VM services. Offerors will be disqualified from submitting a price proposal if the portion of the technical proposal for VM services does not meet the minimal requirements of this handbook.

b. Price proposals of the CM for VM services shall be based upon the offerors technical proposal. Once the contract is awarded, the CM contractor shall utilize the personnel offered in his technical proposal for the performance of the work.

c. Substitution of personnel for VM services will normally not be permitted unless the CM presents unusual and mitigating circumstances and offers comparably qualified individuals, subject to approval of the contracting officer.

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CHAPTER 4. REPORTING

CHAPTER 4. REPORTING

1. General. The reporting requirements established in this chapter will facilitate the planning, scheduling, conducting, and monitoring of progress of VM achievement under contract services.

2. Contractor submittals.

a. During the course of performing value service requirements, A-E's and other consultants will be generating background documentation and information on VM activity. Information from these submittals should be used by the contracting officer to ensure that the services are productive to the design process and provide an adequate return on investment for the cost of the service. Referring to the value service requirement paragraphs listed in chapter 2, part 2, the contractor should be expected to provide the following list of submittals:

(1) A design schedule showing VM activity interface. Bi-monthly progress reports. (Par. 102)

(2) Name and qualifications of the assigned VM program manager. (Par. 103)

(3) Cost models and worth models. (Par. 104)

(4) Recommendations to change criteria. Use of GSA Form 2762, Design Review Ideas (figure 4-2) is suggested. (Par. 105)

(5) Names and qualifications of assigned VM task team members. (Par. 106)

(6) Disposition of design changes from each VM study effort; i.e., the systems study, component study, and each bid-package study. (Par. 111)

(7) Executive seminar schedule and program. (Par. 114)

(8) Workshop schedule, data packages for each study, textbook and program. Copy of each team's completed study workbook and recommendations. (Par. 115)

(9) Breakdown of fee for VM services. (Par. 118)

(10) Final cost/benefit report. (Par. 119)

b. The information provided by the above submittals should serve to provide data needed to submit the three reports required by Central Office. These are GSA Form 2781, A-E/CM VM Service Report; GSA Form 2023, Inter-agency Training Course Report; and GSA Form 2777, VM - Internal Savings Report, and are explained in the following paragraphs.

DESIGN REVIEW IDEAS

VALUE

TITLE

NUMBER

DESIGN

REVIEW STAGE

DATE

ITEM NO.	REFERENCE NO.	RECOMMENDATION	EXISTING COST ($000)	*TARGET SAVINGS ($000)

Implement those you can – right now!

Page of pages

GENERAL SERVICES ADMINISTRATION

GSA DC 73-3511

GSA FORM 2762 (10-72)

Figure 4-2. GSA Form 2762, Design Review Ideas

3. A-E/CM VM service report. Figure 4-3 illustrates this report, GSA Form 2781, and provides preparation instructions.

a. Purpose. The function of this report is to:

(1) Record and collect cost information on consultant value service activity in order to monitor program return on investment and perform statistical analysis on levels of service for varying types of projects; and

(2) Provide scheduling information on individual procurements in order to facilitate Central Office nationwide planning of services in order to support regions by providing timely guidance during negotiation and conduct of value services. Typical Central Office support available to the regions is providing program materials, training aids, guest speakers, and assistance in processing changes requiring Central Office concurrence on supplemental life-cycle-cost-funding.

b. Contract planning. For individual procurements it is encouraged that the form be used as a planning device to estimate anticipated schedules and VM fees for budget purposes or in preparation for negotiation.

c. Submittal. The Directors of Construction Management Divisions, PBS are responsible for ensuring that reports are prepared properly and submitted on time.

(1) Submittal shall be within 45 days of the first contract award for either an A-E contract or CM contract, whichever occurs first. The report shall be updated and submitted within 45 days of a second contract award (if applicable) or any contract modification to an A-E or CM contract that changes schedule or fee.

(2) Original report copies shall be forwarded to the Director, Value Management (PWV). A duplicate copy shall be distributed to the region's local VM Board Chairman.

d. Monitoring. VM Board Chairmen are responsible for monitoring regional A-E/CM activity to insure that all VM costs and benefits are reported to Central Office.

e. Report control symbol. Report control symbol PB-119 has been assigned to this report.

A-E/CM VM SERVICES REPORT

REPORTS CONTROL SYMBOL: PB-119

PROJECT TITLE AND LOCATION

PROJECT NUMBER	PROJECT VALUE	A-E FEE	CM FEE
A-E CONTRACTOR *(Name)*		LEVEL OF VM SERVICE *(See GSA HB, A-E/CM Value Management Design Services, PBS P 8010.1)*	
CM CONTRACTOR *(Name)*		☐ LEVEL 1	☐ LEVEL 3
VM CONSULTANT *(Name)*		☐ LEVEL 2	☐ LEVEL 4

DESIGN STATUS AND VM SERVICES	SCHEDULE STARTING DATES	VM FEES $ A-E PORTION	VM FEES $ CM PORTION
A-E AWARD			
CM AWARD			
VM Program Manager			
DESIGN CONCEPT			
Cost Model			
Criteria Review			
Executive Seminar			
DESIGN TENTATIVE			
Workshop			
Systems Study			
DESIGN INTERMEDIATE			
Component Study			
Bid Package Studies			
POST CONSTRUCTION			
Final VM Report			
VCP Review			
	TOTAL VM FEE	$	$

REMARKS

SUBMITTED BY *(Name)*	CORR. SYMBOL	TELEPHONE NO.	DATE

GENERAL SERVICES ADMINISTRATION

GSA FORM 2781 (REV. 8-76)

Figure 4-3. GSA Form 2781, A-E/CM VM Services Report (Part 1 of 2)

Preparation Instructions

General Instructions

When a construction manager is not to be involved during the design process insert NA (not applicable) where appropriate.

Specific Instructions

All entries should be self explanatory with the following clarification:

Project Value - Insert the estimated cost of construction escalated to the anticipated bid opening date.

Level of VM Service - Check the level of service included in the contract. Use the remarks space to indicate deviations from the standard levels of service.

Schedule - Collaborate with the A-E to coordinate conduct of value services with the design schedule.

VM Fee - Insert breakdown of fee based upon negotiations with A-E and CM or based upon their submittal after contract award.

Remarks - Where a VM Program Manager has been assigned to the contract, provide his name and telephone number. Where a project is to be phased or broken down into a series of bid packages, indicate the number and type of packages anticipated.

Submitted By - The name of the GSA contracting officer for the A-E contract is desired.

Figure 4-3. GSA Form 2781, A-E/CM VM Services Report (Part 2 of 2)

4. Training report.

a. Background. GSA Order OAD 1070.1, GSA Interagency Training Course Report, prescribes the use of GSA Form 2023, Interagency Training Course Report, to report interagency training provided by GSA. To prevent the need for issuing a new report form, GSA Form 2023 shall be used to report intra as well as interagency VM training, including that conducted by A-E or CM contract. Requirements for use of GSA Form 2134, Training Authorization and Record, remain in effect for all training provided to GSA employees, including that provided under A-E or CM contract provisions.

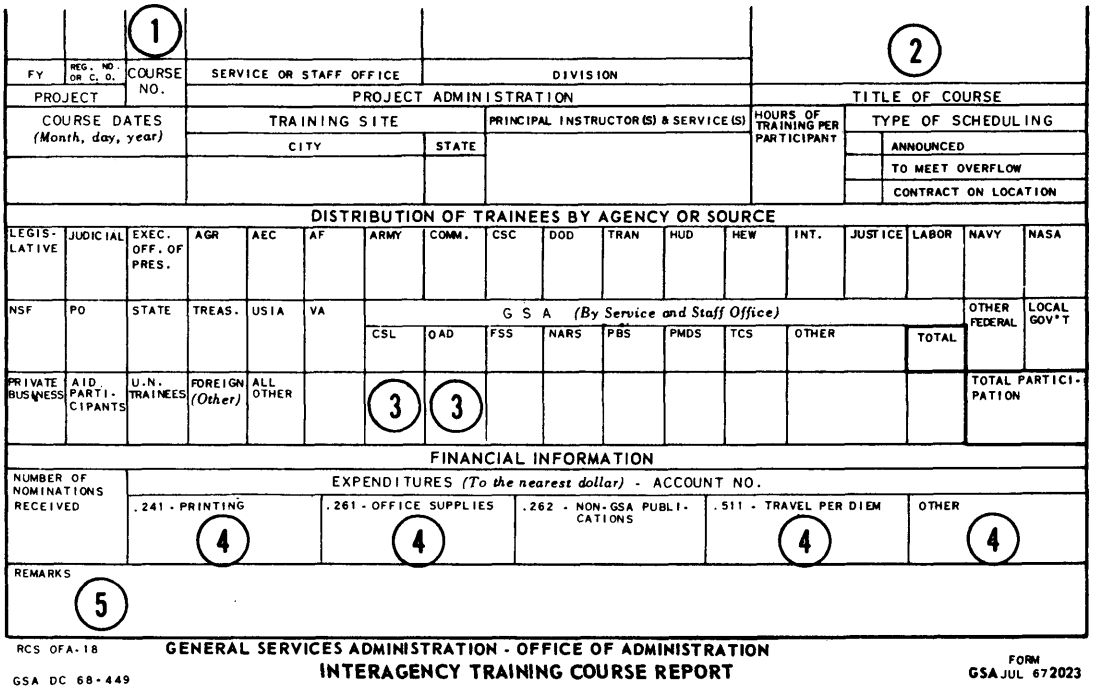
b. Purpose. The function of this report is to provide supplemental cost and manhour data utilized by regional offices in support of contract provisions.

c. Preparation. Specific instructions for completing GSA Form 2023 are outlined in GSA Order OAD 1070.1. Special detailed instructions for the VM program are provided in figure 4-4.

d. Submittal. The Directors of Construction Management Divisions, PBS,are responsible for ensuring that reports are properly prepared and submitted on time.

e. Distribution. The three-part form set shall be distributed in accordance with GSA Order 1070.1. Concurrent with this distribution, a photocopy of the report shall be forwarded to the Director, Value Management (PWV). Reports shall be submitted within one week of completion of each training activity.

f. Report control symbol. Report control symbol OFA-18 has been assigned to this report.



		(1)													(2)		
FY	REG. NO. OR C. O.	COURSE NO.	SERVICE OR STAFF OFFICE			DIVISION											
PROJECT			PROJECT ADMINISTRATION												TITLE OF COURSE		
COURSE DATES (Month, day, year)			TRAINING SITE				PRINCIPAL INSTRUCTOR(S) & SERVICE(S)							HOURS OF TRAINING PER PARTICIPANT	TYPE OF SCHEDULING		
			CITY			STATE									ANNOUNCED		
															TO MEET OVERFLOW		
															CONTRACT ON LOCATION		

DISTRIBUTION OF TRAINEES BY AGENCY OR SOURCE

LEGISLATIVE	JUDICIAL	EXEC. OFF. OF PRES.	AGR	AEC	AF	ARMY	COMM.	CSC	DOD	TRAN	HUD	HEW	INT.	JUSTICE	LABOR	NAVY	NASA
NSF	PO	STATE	TREAS.	USIA	VA	G S A (By Service and Staff Office)										OTHER FEDERAL	LOCAL GOV'T
						CSL	OAD	FSS	NARS	PBS	PMDS	TCS	OTHER		TOTAL		
PRIVATE BUSINESS	AID PARTICIPANTS	U.N. TRAINEES	FOREIGN (Other)	ALL OTHER		(3)	(3)									TOTAL PARTICIPATION	

FINANCIAL INFORMATION

NUMBER OF NOMINATIONS RECEIVED	EXPENDITURES (To the nearest dollar) - ACCOUNT NO.				
	.241 - PRINTING (4)	.261 - OFFICE SUPPLIES (4)	.262 - NON-GSA PUBLICATIONS	.511 - TRAVEL PER DIEM (4)	OTHER (4)

REMARKS (5)

RCS OFA-18
GSA DC 68-449

GENERAL SERVICES ADMINISTRATION - OFFICE OF ADMINISTRATION
INTERAGENCY TRAINING COURSE REPORT

FORM GSA JUL 672023

(1) Insert: VM

(2) Proper titles are: Executive Seminar
Workshop

(3) Insert separate entries as applicable: A-E, CM

(4) Include only regional out of pocket costs. Do not include costs for handbook, forms or other materials provided by Central Office.

(5) Insert project title and contract number.

Figure 4-4. Training Report

5. VM internal savings report. Figure 4-5 illustrates this report, GSA Form 2777, and provides preparation instructions.

a. Purpose. The function of this report is to:

(1) Report VM changes implemented by A-E's with related cost benefits to GSA; and

(2) Provide a source of crossfeed data to encourage reapplication of ideas in other contracts, in other regions and on other designs.

b. Submittal. The Directors of Construction Management Divisions, PBS, are responsible for ensuring that reports are prepared properly and submitted on time.

(1) Submittal shall be within 30 days of approving implementation of a consultant VM change or gaining knowledge that such a change has been made by the A-E. Reports that become due within 60 days of a scheduled bid opening of a construction project may be delayed until after receipt of bids at the discretion of the region.

(2) Original report copies, with signatures affixed, shall be forwarded to the Director, Value Management (PWV). A duplicate copy shall be forwarded to the region's local VM Board Chairman.

c. Report control symbol. Report control symbol OA-48-PB has been assigned to this report.

VALUE MANAGEMENT - INTERNAL SAVINGS REPORT

REPORTS CONTROL SYMBOL: OA-48-PB

GSA SERVICE	CITY AND STATE	REGION NUMBER

SHORT TITLE OF ACTION

PRIMARY SOURCE OF ACTION: ☐ EMPLOYEE ☐ CONSULTANT SERVICES ☐ OTHER ☐ CROSSFEED ☐ WORKSHOP/TASK TEAM

RECAPITULATION OF SAVINGS (*Dollars in thousands*)

BUDGET ACTIVITY	HARD SAVINGS	IMPACT SAVINGS *(Non recurring)*	LCC SAVINGS *(Recurring annually)*	TOTAL

DESCRIPTION OF CHANGE *(Describe the policy, procedure, method or design in effect prior to this action or which normally would have been followed and describe the approved alternate.)*

STATE WHY THE CHANGE IS FUNCTIONALLY ACCEPTABLE

DESCRIPTION OF IMPLEMENTING ACTION *(Describe who implemented it, when it was implemented, how it was implemented.)*

COMPUTATION OF SAVINGS *(Show (1) the cost which would have been incurred without the action; (2) the cost after the action - either actual or estimated as appropriate; (3) readily identifiable and directly related offsetting costs; and (4) the net savings.)*

ACTION	NAME/POSITION/SYMBOL	SIGNATURE	DATE
Reported By			
Validated By			
Approved By			

GENERAL SERVICES ADMINISTRATION GSA FORM 2777 (REV. 9-76)

Figure 4-5. GSA Form 2777, VM-Internal Savings Report (Part 1 of 3)

Preparation Instructions

General Instructions

Use a separate form for each major VM change. One form may also be used to group a number of small changes (by engineering area) made to the same procurement.

Specific Instructions

All entries should be self explanatory with the following clarification:

Short Title of Action - Include subject title of change(s) with project title and location on second line.

Budget Activity - Insert the type of funding for the project such as: new construction, repair & alteration, transfer project.

Hard Savings - This is defined as:

1. That portion of net savings remaining in the form of allocated funds after initial procurement has taken place.

2. Funds credited to the appropriation by change order.

3. Savings to current year authorized maintenance and operation funds.

4. Reduction of funds needed to fulfill an approved prospectus.

Impact Savings - This is defined as a one time (non-recurring) savings resulting from:

1. Reduction of a previously approved budget.

2. That portion of net savings for which appropriated funds do not exist after initial procurement, assuming that had the change not been made there would have been insufficient funds for procurement.

3. Savings achieved by changing a design prior to construction contract award.

Figure 4-5. GSA Form 2777, VM-Internal Savings Report (Part 2 of 3)

LCC Savings - This is defined as an annual (recurring) savings resulting from:

1. Reductions in future annual maintenance and operation costs or in other annual ownership costs.

2. Changes to general design criteria, policies, or guide specifications with future annual benefits based upon historical experience as to average annual impact.

Savings - Express all savings in thousands of dollars rounded off to one decimal point.

Description of Change - Provide the "before" and "after."

Reported By - The project manager, project engineer or design A-E who approves, reviews or directs implementation of the change.

Validated By - The contracting officer in charge of the design contract who can attest that the change was in fact made.

Approved By - Delegated to the Regional Commissioner.

Figure 4-5. GSA Form 2777, VM-Internal Savings Report (Part 3 of 3)