



Construction Management and Engineering Consulting Services Related to Real Property Implementation Guide

Multiple Award Schedule - Professional Services Category

Updated July 2020

The purpose of this guide is to define the scope and application of services covered under the Multiple Award Schedule (MAS) Special Item Number (SIN) 541330ENG, which includes construction management and engineering consulting services related to real property. For ease of reference, these services are referred throughout this document as Real Property Management Services (RPMS).

Note: MAS does not include architect-engineer (A-E) services as defined in the Brooks Act and Federal Acquisition Regulation (FAR) Part 2 and 36. MAS does not include design or construction services as defined in FAR Part 2 and Part 36. MAS does not include Davis-Bacon Act work as described in FAR Subpart 22.4.

Real Property Management Services (RPMS) are defined as services in which the RPMS contractor is responsible exclusively to the government agency and acts in the government agency's interests at every stage of the project. The government agency RPMS approach utilizes a firm (or team of firms) to temporarily expand the government agency's capabilities, allowing government agencies to successfully accomplish their program or project. Schedule offerors must have project experience providing Engineering or Construction Management services as a third party to be considered for award. The RPMS contractor shall comply with the American Institute of Architects, the Associated General Contractors, and the National Society of Professional Engineers Standard Form of Agreements for Construction Management and the Construction Management Association of America (CMAA).

The RPMS contractor performing the functions of a Construction Manager acts as an advisor or consultant to the government to assist with executing a project that is properly constructed, on time and on budget. **As a Construction Manager, the RPMS contractor is not involved with designing the project, performing the construction of real property, or acting as a named party under the construction contract.**



An example of how SIN 541330ENG works: An Agency is going to design and construct a building. They need expert advice from a third-party construction company, since they do not have all of the construction expertise. The Agency hires the construction company that is going to design and construct the building for them and you are the third-party consultant that is hired by the Agency to act as their eyes and ears during the design and construction phases. Use caution here, because if you are the third-party consultant then your company could be blocked from working as the company hired to design and construct the building due to a conflict of interest. Some construction companies have separated their company into two independent sections or two separate companies so that this does not happen.

If the RPMS vendor's offered project experience includes any portion of the following services, it shall not receive an award of this Schedule: designing the construction project, performing the construction of real property, or acting as a named party under the construction contract. Projects where the vendor acted as the Construction Manager over its own construction project are also unacceptable. It is permissible for RPMS contractors to create concept designs to assist the government agency in formulating ideas and budget cost, but in no way can the designs be used in the actual construction of a project. The constructor/A-E firm creates the building designs. The RPMS contractor may have reviewed and/or provided advice on such plans.

RPMS contractor's roles and responsibilities include, but are not limited to, the following:

- In providing RPMS projects, the contractor acts as the government agency's designated agent and maintains a coordinating relationship with the government agency, its clients, as well as, with the architect-engineers, construction contractors and other contractors supporting the government.
- The RPMS is **not contractually responsible** for and does not assume the risk of delivering the construction project on time and within budget. The RPMS contractor does not have responsibility for the construction means, methods, techniques, sequences or procedures, which are solely the construction contractor's responsibility.
- The RPMS contractor does not have Contracting Officer authority and may not direct change orders or any work which may incur additional obligations.
- The RPMS contractor is not financially liable for the construction contractor's failure to carry out the work in accordance with the contract documents. Instead the RPMS contractor endeavors to obtain satisfactory performance from each of the construction contractors.



- The RPMS ensures work is performed in accordance with the contract documents, to guard the government agency against defects and deficiencies.
- The certification of payment by the RPMS contractor does not replace the Contracting Officer's acceptance of work.
- The RPMS contractor shall not have responsibility for acts or omissions of the construction contractors, subcontractors, or their agents or employees.
- The RPMS contractor makes no warranties relating to schedules or completion dates, budgets, cost of work or project.
- The RPMS contractor has no liability for any errors or omissions in the construction documents or any defects in the services attributable to the RPMS contractor's use of and/or good faith reliance upon the construction documents.
- Visits and observations by the RPMS contractor and the Resident Project Representative are not intended to be exhaustive or to extend to every aspect of the construction contractor's work in progress or to involve detailed inspections of the construction contractor's work.
- The RPMS contractor's role is limited to spot checking, selective sampling, and similar methods of general observation of the work, based on the RPMS contractor's professional judgment.
- The RPMS contractor shall not supervise, direct, or have control over construction contractor's work.
- The RPMS contractor may review all certificates of inspections, test, and approvals required by laws and regulations or contract documents.
- The RPMS contractor reviews the construction constructor's certifications for compliance with the contract documents. This review does not constitute an independent evaluation that the content or procedures of such inspections, test, or approvals comply with requirements of the contract documents.
- The RPMS contractor's services do not necessarily require a licensed engineer to perform the services of studies, investigations, evaluate site surveys; site evaluations, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals and other related services (FAR Part 36.601-4(a)(3)). However, in performing RPMS a licensed engineer is often desired in order to be in a position to better communicate with the design architect and construction contractor.
- The RPMS contractor is expected to establish all necessary liaisons, coordination, and support with any project-related agencies and representatives of federal, state, regional, and local governments as appropriate for each task order.



- The construction contractors are solely responsible for construction means, methods, sequences and procedures used in the construction of the projects, and for performance in accordance with their applicable government contract(s).
- The RPMS contractor may provide a Quality Control Superintendent (QCS) to ensure delivery of day-to-day construction management services throughout all phases of construction.
- The RPMS contractor may provide inspectors who physically inspect work for code compliance and adherence to construction contract requirements, recommend approvals or rejections of materials and workmanship and monitor labor and safety requirements. The RPMS contractor should notify the construction contractor and the government agency orally and in writing when unsafe working conditions are observed.
- The RPMS should attempt to resolve problems, minimize claims, act to mitigate circumstances that could lead to claims, and advise the government of any potential disputes.
- The RPMS contractor should exercise due diligence to ensure that work is performed in conformity with applicable requirements (codes, regulations, standards, construction contract plans, and specifications, etc.).

The RPMS contractor offers advice, absent any conflicting interest, on matters such as:

1. Project Design Phase Services These services may include, but are not limited to, the following:

- Subject matter expertise
- Delivery methods
- Design technical reviews
- Code compliance reviews
- Constructability reviews
- Analysis of value engineering proposals or Earned Value Management Systems (EVMS)
- Preparation of cost estimates (including independent check estimates)
- Cost analysis
- Cost control/monitoring
- Energy studies
- Utility studies
- Site investigations
- Site evaluations (surveying cannot be done on schedule)
- Review of design scope changes
- Scheduling/Conducting/Documenting design related meetings
- Market studies



Note: Design Phase Services shall not result in certified designs used for construction.

2. Project Procurement Phase Services These services may include, but are not limited to, the following:

- Assisting Procurement Contracting Officers
- Assisting Contracting Officers in answering bid/RFP questions
- Attending/Participating in Site Visits
- Attending/Participating in Pre-Bid Conferences
- Preparing and issuing solicitation amendments for review and approval by the Government Contracting Officer
- Performing Cost/Bid/Proposal Analysis

3. Project Construction Phase Services These services may include, but are not limited to, the following:

- Assisting Administrative Contracting Officers
- Establishing temporary field offices
- Setting up job files, working folders, and record keeping
- Maintaining organized construction files
- Scheduling and conducting pre-construction meetings
- Documenting actions taken and decisions made
- Monitoring the submittal review process
- Review and monitoring of project schedules for construction progress with emphasis on milestone completion dates, phasing requirements, workflow, material deliveries, test dates
- Assisting in problem resolution and handling of disputed issues (including development of Government position)
- Maintaining marked-up sets of project plans and specifications for future as-built drawings
- Performing routine inspections of construction as work proceeds
- Taking action to identify work that does not conform to the contract requirements and notifying the contractors when work requires correction
- Compiling, through site inspections, lists of defects and omissions related to the work performed and providing these lists to the contractor for correction
- Review of construction contractor payment requests (including preparation of necessary forms for payment processing)
- Monitoring project financial data and budgetary cost accounting



- Administration of construction contract change orders (issuing proposal requests, preparing cost estimates, reviewing cost proposals, assisting agency in negotiations, preparing change order packages for processing)
- Scheduling, conducting, and documenting regular progress meetings with all interested parties to review project status, discuss problems, and resolve issues
- Scheduling, conducting, and documenting (prepare minutes, etc. for distribution) construction related project meetings
- Monitoring construction contractor compliance with established safety standards (note and report unsafe working conditions, failures to adhere to safety plan required by construction contract)
- Monitoring construction contractor's compliance with contract labor standards
- Coordination of construction activities with customer managers and occupying agency personnel
- Monitoring the design and construction clarification process and, when appropriate, reminding the A-E and other parties involved of the need for timely actions
- Participating in all "partnering" activities during construction (workshops, meetings, etc.)
- Preparing special reports and regular project status reports
- Providing for progress and/or final photographs of project work
- Evaluate site surveys
- Conduct investigations
- Provide assistance in obtaining permits
- Perform hazardous material assessments and monitoring of hazardous material abatement work
- Provide cost estimating assistance
- Assisting Termination Contracting Officers
- Pre-occupancy evaluations

4. Fire Protection Services These services may include, but are not limited to, the following: design review services, shop drawing and submittal reviews, inspection and testing services, performing inspections and witnessing acceptance testing of fire protection and life safety systems, construction inspection services, fire and smoke modeling and analysis services, loss investigation services, technical consultant services, conducting fire protection facility surveys, developing risk reduction strategies and recommendations to mitigate identified risk conditions, conducting research studies, maintenance program for fire protection and life safety systems, and developing and completing fire safety evaluation worksheets.



Government agencies may use Fire Protection Engineer(s) (FPE) as its principal agent to advise on or manage projects. The FPE assumes the position of professional adviser and expands the government's capabilities. The FPE frequently helps the Government agency identify issues that protect people and their environments from the destructive effects of fire and smoke. The FPE expertise is used to temporarily expand the Government agency's capabilities, so that the Government agency can successfully accomplish its program or project, while ensuring the safety of its people and property. The FPE provides expert advice in support of the Government agency's decisions in the implementation of the project.

The discipline of Fire Protection Engineering includes but is not limited to:

- Active fire protection - fire suppression systems, and fire alarm.
- Passive fire protection - fire and smoke barriers, space separation
- Smoke control and management
- Escape facilities- Emergency exits, Fire lifts, etc.
- Building design, layout, and space planning
- Fire prevention programs
- Fire dynamics and fire modeling
- Human behavior during fire events
- Risk analysis, including economic factors

The following services are allowed under SIN 541330ENG:

I. Design Review Services:

Perform design reviews for multiple stages of design (e.g., 75%, 95%, 100%, etc.) for various planned building renovation projects and/or new construction projects associated with fire protection and life safety systems. Design reviews, may include, but are not limited to the following:

- a. Review design drawings and specifications related to the fire protection and life safety aspects of the design for compliance with government agency fire protection and life safety requirements and applicable federal, state, regional, and local government's national codes and standards
- b. Review the continuity of and coordination between drawings and contract specifications related to the fire protection and life safety aspects of the design
- c. Review change orders and RFIs for projects
- d. Review as-built drawings



- e. Develop or review scope(s) for projects that impact building fire protection & life safety systems
- f. Develop or review project work items
- g. Develop or review cost estimates for fire protection & life safety systems
- h. Develop and review bid documents
- i. Participate in design review meetings. Includes, participating in discussions with government agency personnel, members of the design team, etc., to discuss the design as well as review comments

II. Shop Drawing/Submittal Review Services:

- a. Perform shop drawing/submittal reviews for projects (e.g., shop drawings, calculations and product catalog data sheets, and other pertinent project information)
- b. Perform an evaluation to determine that proposed fire protection and life safety systems and equipment and their associated components submitted for review are in compliance with the contract specifications, design drawings, manufacturer's recommendations, government agency requirements, and the applicable federal, state, regional, and local government's national codes and standards
- c. Perform shop drawing/submittal reviews to determine any conflicts with the design contract plans and specifications or any potential design changes that may be needed during the submittal reviews (i.e., additional equipment, relocation of equipment, etc.)

III. Inspection & Testing Services:

- a. Review contract documents/drawings and notify contractors of potential mechanical, construction and fire protection and life safety system coordination issues
- b. Develop or review pretesting protocols of fire protection and life safety systems and equipment prior to testing
- c. Perform site investigations to evaluate fire protection and life safety systems and equipment for compliance with federal, state, regional, and local government's national codes and standards. Perform contractor performance monitoring (e.g., preventive maintenance contractors, installation contractors, etc.) associated with fire protection and life safety systems
- d. Perform system inspections and analysis of existing fire protection and life safety systems and equipment
- e. Perform microbiologically influence corrosion analysis of fire sprinkler systems



- f. Witness acceptance testing of fire protection and life safety systems and equipment (e.g., fixed fire suppression and control systems, fire alarm systems, emergency communication systems, mass notification systems, smoke control and management systems, normal and emergency power and lighting systems, explosion prevention and control systems, fire and smoke resistant assemblies, means of egress and components, and other active and passive fire protection and life systems and equipment, etc.) and document results, to evaluate operations and to verify adherence to construction contract requirements (or the lease agreement, if applicable), applicable federal, state, regional, and local government's national codes and standards, government agency requirements, and standard industry practices

IV. Construction Inspection Services:

- a. Perform site inspection services at various levels of the construction process (e.g., 50%, 75%, 95%, etc.). The inspections may include building construction (i.e., fire and smoke rated walls, shafts, barriers, etc.), fire protection and life safety systems, integrating with other building systems, etc. to verify proper installation in accordance with the contract design drawings, specifications (or solicitation if the project is lease construction), and applicable federal, state, regional, and local government's national codes and standards
- b. Provide central location for archiving and storage of building drawings, computer files, design and construction correspondence, regulatory information, EVMS, estimates/payment, QA/QC, materials, zoning, historical preservation, energy and other special documents

V. Fire & Smoke Modeling/ Analysis Services:

- a. Perform fire and smoke modeling to analyze fire growth, smoke development and movement, fuel load, egress times, smoke management designs, suppression system activation, structural fire engineering, etc. Review fire and smoke modeling reports
- b. Perform or review fire hazard analysis to determine national Fire Code limitations, commodity compatibility, compartmentalization issues, suppression system design criteria, etc.



VI. Loss Investigation Services:

- a. Perform site investigation to identify probable causes for losses (i.e., fire, explosions), incident reconstruction, system failures, federal, state, regional, and local government's national codes and standards compliance analysis, etc.

VII. Technical Consultant Services:

- a. Perform technical fire protection engineering consultant services which may include, but are not limited to the following:
 - i. Perform facility fire protection engineering and/or life safety assessments
 - ii. Perform national building and fire code analysis
 - iii. Perform analyses of fire protection water supplies, fire sprinkler systems, fire pumps, etc.
 - iv. Perform or review interpretations of requirements in federal, state, regional, and local government's national codes and standards
 - v. Perform fire protection water supply testing
 - vi. Perform quality assurance/control and oversee fire protection contractors operation, inspection, testing, and maintenance practices
 - vii. Perform accessibility compliance review
 - viii. Perform joint commission assessments
 - ix. Perform fire risk assessments to identify risks, assess risks, and to develop economic strategies to mitigate those identified risks
 - x. Perform egress analysis, fire and life safety evaluations, human behavior analysis, performance-based analysis, etc.
 - xi. Review fire protection policy documents, design guides, etc.
 - xii. Review engineering reports or studies which relate to fire protection
 - xiii. Review contractor-conducted facility fire protection engineering and/or life safety assessments
 - xiv. Review adequacy of occupant egress and other fire protection systems within a facility
 - xv. Review products (e.g., electronic door locking system, polybutylene fire sprinkler piping, flammable liquid container performance, etc.) for federal, state, regional, and local government's national codes and standards compliance
 - xvi. Develop or review risk reduction strategies based on unique characteristics of the facility
 - xvii. Develop or review fire protection related specifications
 - xviii. Develop or review government agency fire protection technical guidance



- xix. Develop or review exit calculations, fire pump calculations, risk assessments, hydraulic sprinkler calculations, etc.
- xx. Develop or review alternative design methods for building code compliance
- xxi. Develop or review wildland exposure analysis/wildland interface analysis to identify the fire and life safety hazards of an urban wildland interface area
- xxii. Develop or review fire protection and life safety master plans
- xxiii. Develop or review facility occupant emergency evacuation plan
- xxiv. Develop or review approaches that integrate various building systems into a comprehensive fire protection and life safety package
- xxv. Develop or review fire protection related training materials for government agency personnel and customers
- xxvi. Develop or review fire protection engineering analyses to demonstrate equivalent level of fire safety for office buildings
- xxvii. Evaluate capability of existing fire protection and life safety systems and equipment
- xxviii. Evaluate and report on building systems for feasibility for integrating with fire protection and life safety systems and equipment (e.g. extinguishers)

5. Commissioning Services: The RPMS contractor must be able to provide any level of commissioning needed from total support to specialty services. These services may include, but are not limited to, the following:

- Professional and technical expertise for assistance with start-up, calibration, and/or certification of a facility or operating systems within a facility, to include commissioning of fire protection and life safety systems and equipment
- Start-up planning, forecasting start-up duration, estimating start-up costs, determining start-up objectives, organizing start-up teams and team assignments, testing building system components, conducting performance tests
- Witness commissioning of fire protection and life safety systems and equipment
- Perform commissioning of fire protection and life safety systems and equipment

6. Testing Services: The RPMS contractor may be tasked to provide the services of an independent testing agency/laboratory to perform project specific quality control testing and inspection services. These services may include, but are not limited to the following: Testing and inspection of soils, concrete, precast concrete connections, steel, steel decking, applied fireproofing, roofing, curtain walls/glazing, and elevator installations



7. Claims Services: The RPMS contractor may be tasked to provide claims services when and as required by the government for specific projects. The RPMS contractor will review disputes and claims from the A-E and/or construction contractor(s) and render all assistance that the government may require, including, but not limited to, the following:

- Furnishing reports with supporting information necessary to resolve disputes or defend against the claims
- Preparation and assembly of appeal files
- Participation in meetings or negotiations with claimants
- Appearance in legal proceedings
- Preparation of cost estimates for use in claims negotiations
- Preparation of risk assessments/analyses relative to claim exposures
- Preparation of findings of fact and any other documentation required by the Government

8. Post Construction Services: At or near substantial completion of project construction, the RPMS contractor may be tasked to provide services including, but not limited to, the following:

- Performing Post Occupancy Evaluations (POEs)
- Assisting government agencies in the formulation of lessons learned
- Providing occupancy planning including development of move schedules, cost estimates, inventory lists, etc.
- Providing move coordination, relocation assistance, and/or furniture coordination

9. Pre-Demolition Services:

- Scrapping evaluation, analysis, estimating and disposal reporting for material recovery

Other engineering consulting disciplines relating to RPMS include:

- Mechanical engineering
- Electrical engineering
- Forensic engineering
- Structural engineering



Tasks that may be performed in relation to these services include services like those described in the Fire Protection Engineering Services section above, such as:

- Design reviews
- Shop drawing/submittal reviews
- Inspection and testing services
- Witnessing acceptance tests of equipment and systems
- Commissioning services
- Modeling and analysis
- Loss investigation
- Facility surveys
- Safety evaluations
- Research studies
- Risk mitigation analysis, reporting, and consulting
- Strategy development relating to engineering projects/programs
- Other related technical consulting services