

PROFESSIONAL ENGINEERING SERVICES

CONSTRUCTION MANAGEMENT, 871-7 & 871-7 RC GSA Schedule Contract: GS-10F-0149W

Contract Period: March 26, 2010 - March 25, 2015

5723 Arapahoe Avenue, Ste. 1B Boulder, CO 80303 Phone: 303-652-3200 Fax 303-652-8555

Email: teri@fdi-one.com

Website: www.fdi-one.com

Business Size & Classification: Certified Small, Woman-Owned DBE

Duns: 137225830

Point of Contact: Teri A. Ficken, President

Email: <u>teri@fdi-one.com</u> Phone: 303-652-3200 Fax: 303-652-8555

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Schedules button at www.fss.gsa.gov





Company Overview

F&D International, LLC is a multi-disciplined A&E firm that provides a full range of services to federal, state and local agencies for their capital construction projects. Our unique processes and technology combined with our experienced staff are applied to each project to ensure effective project execution in terms of scope, quality, schedule and cost.

We offer a staff of experienced, creative project managers, construction managers, architects, engineers, planners and environmental engineers to address the broad array of services needed for the success of your project including Construction Management.

We recognize that each client has a different set of needs and requirements. From the inception of a project through its daily management and leadership we ensure our services are tailored to the specific needs of our client and their capital project; providing appropriate expertise, experience and strategic advice throughout the project life cycle.

Our projects include government, healthcare, hospitality, aviation, industrial, cultural institutions, museums, and educational institutions.

Quality

Our teams are driven by a standard of excellence that provides the highest level of ethics and professionalism available to our clients – we are dedicated to your mission success!

Collaboration & Teamwork

We take a holistic approach, we listen to you and understand your needs – your mission success is our goal.

NAICS Codes

541330- Engineering Services

541310- Architectural Services

541350- Building Inspection Services

541620- Environmental Consulting Services

541720 – Archeological Research and Development Services

541611- Administrative Management Consulting Services

236220- Commercial and Institutional Building Construction

541618- Other Management and Consulting Services

541690- Other Scientific and Technical Consulting Services

541410- Interior Design Services

541990- All Other Professional, Scientific & Technical Services

213112 - Surveying, Oil and Gas Wells

541370 – Surveying and Mapping Services

541360 - Mapping and Surveying, Geophysical



Services We Offer

Specialized Federal Experience

Our team has years of experience working with government agencies across the entire U.S. and through our experience across numerous industry sectors. We have recently completed numerous LEED Gold, LEED Silver and one LEED Platinum project. F&D offers expertise in the following services:

Construction Management

Project Management

Construction Inspection Contract Administration

Engineering Services

Architectural Services

LEED

Federal Standards, Codes and Design Guidelines

Facility Condition Assessments

Code Review Analysis

NEPA

Blast Analysis

BIM & CAVE Modeling

As-built Services

High Performance Building

Certifications

The F&D team is fully licensed and certified in the following areas:

Licensed Civil Engineers Licensed Structural Engineers

Licensed Electrical Engineers Air Quality Permitting
Licensed Construction/Project Managers Asbestos Consulting

ICC Certified LEED-AP

Construction Management Services

Our vast experience providing project and development management services combined with the technical expertise of our staff provides our federal clients with an unsurpassed ability to manage your project from inception to completion. We will provide comprehensive management services for every stage of your project and assure that you will receive the best quality while maintaining your budget.

Property Condition Assessments and Reports

F&D performs Property Condition Assessments (PCAs) that include a complete assessment of energy consumption, electrical, mechanical, plumbing, building envelope, structural, drainage, parking, ADA and other components. These are conducted per ASTM E 2018-08 Standards and establish an opinion of probable costs to address maintenance and capital expenditures over 10 to 30 years. Our technical staff also has a working knowledge of NASA Facility Inspection Guidebook/Field Manual and can respond quickly to meet your needs including:

Natural disaster response Structural and building envelope inspections

Foundation and roof inspections HVAC systems inspections

Site conditions and reporting ADA compliance

Oversight of corrective actions Cost estimating and value engineering

Architectural Services

Our team offers a full-range of architectural services and we have developed a unique understanding of working within defined budgets, maximizing the value of our team and approaching every project within a collaborative and creative environment. F&D is an industry leader in integrated sustainable design – we are committed to sustainable design and environmentally correct design and construction practices. Services include:

LEED/Sustainable DesignSite evaluationsPlanningSpace needs assessmentsStructural evaluationsDesign developmentPublic involvementHistoric preservation

Sustainability

We fully support the GSA sustainable solutions initiative. Sustainable Design is part of our corporate culture – our team is fully committed to environmentally correct practices for high performance buildings.

Oil and Gas

Our technical team has an in-depth knowledge of federal, state and local regulations for conventional and unconventional gas and oil projects. Our licensed engineers can provide:

Air quality assessments SPCC / SWMPPP plans Environmental Compliance & Planning Permitting Air Quality

Compliance inspections Civil/Mechanical engineering Water Resources Surveying



Customer Information

- 1a. Special Item Numbers (SINs) Covered Under this Contract:
 - 871-7 Construction Management
 - 871-7 RC
- 1b. Identification of the Lowest Priced Model Number: N/A
- 1c. Hourly Rate Schedule: See table on pages 5 and 6.
- 2. Maximum Order: \$1,000,000.00
- 3. Minimum Order: \$100.00
- 4. Geographical Coverage: World Wide
- 5. Point of Production: 5723 Arapahoe Ave. Ste. 1B, Boulder, CO 80303
- 6. Discount from List Prices: Prices shown herein are net (discount deducted). See table on pages 5 and 6.
- 7. Quantity Discounts: N/A
- 8. Prompt Payment Terms: Net 30 days
- 9a. Government purchase cards are accepted up to the micro-purchase threshold: Yes
- 9b. Government purchase cards are accepted above the micro-purchase threshold: Yes, will accept over \$3,000.00.
- 10. Foreign Items: N/A
- 11a. Time of Delivery: As specified on each Task Order.
- 11b. Expedited Delivery: To be negotiated Between Contractor and Ordering Agency.
- 11c. Overnight and 2-Day Delivery: N/A
- 11.d Urgent Requirements: Agency should contact F&D to discuss effecting a faster delivery.
- 12. F.O.B. Points: Destination.



- 13a. Ordering Address:F&D International, LLC5723 Arapahoe Ave, Ste. 1BBoulder, CO 80303
- 13b. Ordering Procedures: For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA) and a sample BPA can be found at the GSA/FSS Schedule homepage (fss.gsa.gov/schedules).
- 14. Payment address:
 F&D International, LLC
 5723 Arapahoe Avenue
 Suite 1B
 Boulder, CO 80303
- 15. Warranty Provision: N/A
- 16. Export Packaging Charges: N/A
- 17. Terms & Conditions of Government Purchase Card Acceptance (any thresholds above the micro-purchase threshold): Government Commercial Credit Cards are Accepted.
- 18. Terms & Conditions of Rental, Maintenance and Repair: N/A
- 19. Terms & Conditions of Installation: N/A
- 20. Terms & Conditions of Repair Parts: N/A
- 21. List of Service and Distribution Points: N/A
- 22. List of Participating Dealers: N/A
- 23. Preventive Maintenance: N/A
- 24a. Special Attributes: N/A
- 24b. Section 508 Compliance: If applicable, Section 508 compliance information on Electronic and information Technology (EIT) supplies and services will be addressed on a task order basis. The EIT standards can be found at www.section 508.gov.
- 25. DUNS Number: 137225830.
- 26. Notification Regarding Registration in SAM Database: Registered CAGE Code 3K5Q8.

Pricing Information (Labor Rates)

SINs and Professional Engineering Disciplines Awarded

SINs	SIN Description	Engineering Discipline
871-7	Construction Management	Civil, Structural, Electrical

Prices include an Industrial Funding Fee (IFF) of .75%

Domestic Contract Price List

	3/26/2010-	3/26/2011-	3/26/2012-	3/26/2013-	3/26/2014-
	3/25/2011	3/25/2012	3/25/2013	3/25/2014	3/25/2015
Labor Category	Year 1	Year 2	Year 3	Year 4	Year 5
Senior Program Manager	\$129.21	\$133.09	\$137.08	\$141.19	\$145.43
Project Manager	\$107.67	\$110.90	\$114.23	\$117.65	\$121.18
Assistant Project Manager	\$64.60	\$66.54	\$68.53	\$70.59	\$72.71
Senior Construction					
Manager	\$99.05	\$102.02	\$105.08	\$108.23	\$111.48
Construction Manager	\$73.18	\$75.38	\$77.64	\$79.97	\$82.36
Senior Engineer	\$155.05	\$159.70	\$164.49	\$169.43	\$174.51
Electrical Engineer, II	\$96.40	\$99.29	\$102.27	\$105.34	\$108.50
Engineering Technician I	\$43.07	\$44.36	\$45.69	\$47.06	\$48.48
Estimator	\$56.00	\$57.68	\$59.41	\$61.19	\$63.03
CADD Technician	\$41.35	\$42.59	\$43.87	\$45.18	\$46.54
Quality					
Assurance/Compliance	\$77.53	\$79.86	\$82.25	\$84.72	\$87.26
Architectural Specialist	\$56.00	\$57.68	\$59.41	\$61.19	\$63.03
Space Planner/Designer	\$44.79	\$46.13	\$47.52	\$48.94	\$50.41
Environmental Engineer	\$155.05	\$159.70	\$164.49	\$169.43	\$174.51
Land Planner	\$56.00	\$57.68	\$59.41	\$61.19	\$63.03
Financial Analyst	\$103.36	\$106.46	\$109.65	\$112.94	\$116.33
Technical Writer	\$44.79	\$46.13	\$47.52	\$48.94	\$50.41
Commissioning Specialist	\$77.53	\$79.86	\$82.25	\$84.72	\$87.26
Project Coordinator	\$46.51	\$47.91	\$49.34	\$50.82	\$52.35
Administrative Assistant	\$30.14	\$31.04	\$31.98	\$32.93	\$33.92

Oversees Contract Price List

	3/26/2010- 3/25/2011	3/26/2011- 3/25/2012	3/26/2012- 3/25/2013	3/26/2013- 3/25/2014	3/26/2014- 3/25/2015
Labor Category	Year 1	Year 2	Year 3	Year 4	Year 5
Senior Program Manager	\$142.12	\$146.38	\$150.78	\$155.30	\$159.96
Project Manager	\$118.43	\$121.98	\$125.64	\$129.41	\$133.29
Assistant Project Manager	\$71.05	\$73.18	\$75.38	\$77.64	\$79.97
Senior Construction Manager	\$108.96	\$112.23	\$115.60	\$119.06	\$122.64
Construction Manager	\$80.52	\$82.94	\$85.42	\$87.99	\$90.63
Senior Engineer	\$170.55	\$175.67	\$180.94	\$186.36	\$191.96
Electrical Engineer, II	\$116.68	\$120.18	\$123.79	\$127.50	\$131.32
Engineering Technician I	\$47.37	\$48.79	\$50.25	\$51.76	\$53.32
Estimator	\$61.57	\$63.42	\$65.32	\$67.28	\$69.30
CADD Technician	\$45.47	\$46.83	\$48.24	\$49.69	\$51.18
Quality Assurance/Compliance	\$85.27	\$87.83	\$90.46	\$93.18	\$95.97
Architectural Specialist	\$61.57	\$63.42	\$65.32	\$67.28	\$69.30
Space Planner/Designer	\$49.26	\$50.74	\$52.26	\$53.83	\$55.44
Environmental Engineer	\$170.55	\$175.67	\$180.94	\$186.36	\$191.96
Land Planner	\$61.57	\$63.42	\$65.32	\$67.28	\$69.30
Financial Analyst	\$113.70	\$117.11	\$120.62	\$124.24	\$127.97
Technical Writer	\$49.26	\$50.74	\$52.26	\$53.83	\$55.44
Commissioning Specialist	\$85.27	\$87.83	\$90.46	\$93.18	\$95.97
Project Coordinator	\$51.16	\$52.69	\$54.28	\$55.90	\$57.58
Administrative Assistant	\$33.15	\$34.14	\$35.17	\$36.22	\$37.31

The following Service Contract Act Matrix is applicable to this contract: F&D International, LLC SCA Matrix

SCA Eligible	SCA Equivalent Code	WD Number
Contract	Title	
Labor Category		
Administrative	01020 – Administrative	052082
Assistant	Assistant	
Engineering	30081 – Engineering	052082
Technician I	Technician I	
Environmental	30090 – Environmental	052082
Technician	Technician	
Technical Writer	30461 – Technical Writer	052082

The Service Contract Act (SCA) is applicable to this contract and it includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the SCA matrix. The prices offered are based on the preponderance of where work is performed and should the contractor perform in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.

Labor Category Descriptions

The following labor categories apply to the following SINs:

871-7 Construction Management

871-7RC Construction Management – Recovery Purchasing

Senior Program Manager

<u>Functional Responsibilities</u>: Program oversight which would include technical and business management across single or multiple projects. Foster an integrated team approach, communicates effectively, prepare master plan as well as management plan. Monitors adherence to master project schedules, review of estimates, make sound business decisions, oversight of value engineering, design/constructability review. Analysis of program mission, goals and objectives. Directs and provides engineering expertise for all phases of program/project management from inception through completion.

<u>Minimum/General Experience</u>: A minimum of 10 years of progressive work experience in the overall management of programs with one year minimum experience in staff management. Must have demonstrated abilities to coordinate, organize, and report.

Education: A BS degree in Engineering, Architecture or related academic or technical field.

Project Manager

<u>Functional Responsibilities</u>: Provides business, technical and personnel management and coordination for an individual project. Including issue-tracking, daily project management, oversight of general contractor, architect, and subcontractors as needed. Management of all submittals, RFI's and change order cost reviews, construction quality control, oversight of all permits, and safety regulations, inspecting the work for compliance with current Industry and Government practices, drawings and specifications.

<u>Minimum General Experience</u>: A minimum of 3 years of progressive work experience as a manager on a moderately complex project. Must be able to manage subordinate groups of technical and administrative personnel.

Education: A BS degree construction management or related field.

Assistant Project Manager

<u>Functional Responsibilities:</u> Supports the Project Manager. Gathers data and performs basic analysis of information, maintains all daily logs and meeting minutes, prepares correspondence, distributes mail and documents, collects data, performs other duties as needed.

Minimum General Experience: A minimum of 2 years of progressive work experience on relatively complex projects.

Education: A BS degree in construction management or related field.



Senior Construction Manager

<u>Functional Responsibilities:</u> Administers the construction contract per the terms of the contract, owner's procedures and F&D International's guidelines. Assembles PCO/CO packages for owner approval, assists in the resolution of and identification of problems and issues, conduct job site meetings with various contractors as needed, coordinates final inspection and punch lists, manages change orders, contingency budget, supervises contractors and support staff, reviews construction documents for completeness.

<u>Minimum General Experience</u>: A minimum of 5 years of directly related construction management experience.

Education: A Bachelor's degree in a related technical field such as construction management.

Construction Manager

<u>Functional Responsibilities:</u> Works under the supervision of the Senior Construction Manager to administer the construction contract per the terms of the contract, owner's procedures and F&D's guidelines. Reviews construction documents for constructability and completeness, manages change orders, supervises contractors and subcontractor as needed. Assembles PCO/CO packages for approval, management and oversight of punch lists, works with project team to resolve any disputes and claims. Is on site at the project on a daily basis and notes progress of work, workers on site, keeps daily log of any safety and weather issues to the Senior Construction Manager.

<u>Minimum General Experience:</u> A minimum of 3 years of directly related construction management experience.

Education: A Bachelor's degree in construction management or related field.

Senior Engineer

<u>Functional Responsibilities</u>: Provide leadership developing complex technical solutions for engineering and planning analysis and studies. Supervises project coordination and management. Provides comprehensive definition of all technical aspects of the project requirements within all engineering disciplines. Knowledgeable of all local, state and national codes. Performs evaluations of alternatives and assessments of risks and costs, conventional engineering, quality assurance and other related professional services, as well as investigative engineering.

<u>Minimum General Experience</u>: A minimum of 10 years of progressive work experience on relatively complex projects.

Education: A BS degree in Engineering and a current P.E. license.



Electrical Engineer, II

<u>Functional Responsibilities:</u> Planning, design, development, evaluation and operation knowledge of electrical principles, models and processes. Also included, but not limited to, the design, fabrication, measurement and operation of electrical devices, equipment and systems (e.g. signal processing; telecommunications; sensors, microwave, and image processing; microfabrication; energy systems and controls).

Minimum General Experience: A minimum of six (6) years of experience, of which at least four (4) years are in electrical engineering or related activities.

<u>Education</u>: BS Degree in an Electrical Engineering or related engineering field. The equivalent of a Bachelors Degree is four (4) years additional experience (minimum 10 years total experience).

Engineering Technician I

<u>Functional Responsibilities:</u> Performs any of the following under close supervision: prepares equipment specifications, checks bids from suppliers to assure conformance to specifications, prepares order requisitions, prepares letters to clients and suppliers, handles transmittal of drawings, reviews and distributes incoming and outgoing correspondence, collects data and prepares tabulations, assists engineers in the preparation of documents, performs misc. duties such as pick up and delivery of prints, reproductions and other materials, answers phones, filing and documentation of paper work and drawings.

Minimum General Experience: A minimum of 2 years of work experience.

Education: An Associate degree in a technical field.

Estimator

<u>Functional Responsibilities</u>: Performs construction cost estimating, provides conceptual cost estimates for projects, evaluation of cost models, project budget development, and compliance cost estimating, and change order cost analysis including establishing a fair and reasonable cost for authorized changes. Performs surveys from design documents and applies cost to quantities of materials, maintains budgets and budget comparisons. Identifies unusually high cost items in relation to other facilities. Maintains comprehensive data-base of actual costs across entire program. Supports team efforts for producing project reports.

<u>Minimum General Experience</u>: A minimum of 3 years of progressive work experience as a Cost Estimator or equivalent in construction and/or project management.

<u>Education</u>: A Bachelor's Degree in accounting, finance or closely related field.



Project Coordinator

<u>Functional Responsibilities</u>: Develops and reviews front end specifications for construction contract documents, handles job close-out documents, maintains project files on site, logs and tracks all RFI's, logs and tracks all Change Orders, maintains contingency report that includes all client expenses and contracts, assists in the preparation of monthly reports, assists in preparation of Procedures Manual, provides data processing and other oversight support, tracks status of required contract documents including bonds, insurance, draws, licensing, etc.

<u>Minimum General Experience:</u> A minimum of 2 years of directly related construction management experience.

Education: A Bachelors degree.

CADD Technician

<u>Functional Responsibilities:</u> Works under the supervision of more senior personnel. Performs routine and technical CADD functions. Works on designs and drawings using computer-aided drafting software to assist in the development of layouts, drawings, and designs.

<u>Minimum General Experience</u>: A minimum of 2 years of progressive work experience on complex projects. Strong knowledge of MS Excel, MS Access, AutoCAD and other related software. Must have one year experience in architectural designs, conceptual design plans and construction drawings, grading plans, profiles, cross-sections, and drainage.

Education: An Associate Degree or higher in computer aided drafting.

Administrative Assistant

<u>Functional Responsibilities:</u> Supports the activities of the designated department by performing the following duties: composes and generates routing correspondence, schedules appointments including conference setup and arrangements, photocopies, faxes, receives, sorts and redirects email, maintains files, helps prepare reports, agendas, minutes, etc. Also processes time sheets, expense reports, and maintains project correspondence files.

<u>Minimum General Experience</u>: Entry level position requiring a minimum of one year of experience beyond high school graduation.

Education: High School diploma or equivalent GED.



Quality Assurance/Compliance

<u>Functional Responsibilities:</u> Manages, organizes and maintains all quality assurance documentation required. Responsible for ensuring compliance with recognized standards and practices, Review of all documentation for completeness, accuracy and correctness. Supports the test and integration personnel as a witness to testing requirements. Certifies that all deliverables meet all quality requirements. Responsible for review of contract plans and specifications and determining compliance of material and workmanship by the construction contractor, submitting daily quality assurance reports a swell as written results of workmanship by the construction contractor. Oversight of the quality control/assurance program for the project. Also responsible for the oversight of all local and state code compliance and all OSHA safety requirements for the project.

<u>Minimum General Experience</u>: A minimum of 5 years of progressive working experience in engineering and systems analysis including quality assurance and codes.

Education: A BS degree or higher in engineering, construction management or closely related field. An Associate degree with substantial experience may qualify for this level.

Architectural Specialist

<u>Functional Responsibilities:</u> Plans, develops, interprets and provides advice on/from formal drawings, charts, illustrations, schematics, diagrams, and flow charts in accordance with project requirements. Additional duties may include review of drawings, schematics, design charettes, and providing guidance during all phases of planning and concept development stages. Responsible for project design, document production and coordination, approval of drawings and documents.

<u>Minimum General Experience:</u> A minimum of 5 years of progressive work experience on complex projects.

Education: BA or M/S in Architecture.

Space Planner/Designer

<u>Functional Responsibilities:</u> Review of proposed schematic designs and drawings during strategic planning or concept development phases. Ensures functionality of layouts, requirements for efficient use of space, ensures technology requirements of space including the planning, layout and location of supporting technology systems and utilities. Also reviews/approves interior design components such as paint, floor coverings, window coverings, signage and furnishings.

Minimum General Experience: A minimum of 2 years of directly related experience.

<u>Education</u>: Bachelor's degree in interior design or architecture with an emphasis in complex commercial projects.



Environmental Engineer

<u>Functional Responsibilities:</u> Acts in a lead capacity and is technically competent in environmental compliance, environmental management systems (EMS), cultural and natural management systems, pollution prevention strategies, system engineering and design, system test and evaluation. Fully knowledgeable with environmental laws, regulations, programs, policies and procedures.

Minimum General Experience: A minimum of 8 years of directly related experience.

Education: BS in an engineering discipline and a current P.E. License.

Land Planner

<u>Functional Responsibilities:</u> Acts in a lead capacity to research, design and develop land planning programs for the project. Leads the public processes, performs technical analyses, manages all of the land planning aspects of the project. Develop a land use plan through analysis of data and identification of goals for the community or the project, helps the community or project owner identify their goals and form a vision for the project. Responsible for the implementation or enforcement of many of the strategies and coordinating the work of many groups of people. Develops policy recommendations, community action plans, comprehensive plans, neighborhood plans, historic preservation plans and transportation plans. Other planning activities may include redevelopment plans, smart growth strategies, economic development strategic plans, site plans and disaster preparedness plans.

<u>Minimum General Experience</u>: A minimum of 5 years of land planning experience with increasing experience on relatively complex projects.

Education: A Bachelor's degree in land use and planning.

Financial Analyst

<u>Functional Responsibilities:</u> Serves as leader to systematically integrate business, cost estimating and financial management processes to ensure the efficient use of public funds. Able to formulate strategic financial plans, prepare cost estimates and correlate financing requirements into budgets. Possesses a thorough knowledge of Federal financial and accounting policies and systems requirements. Assesses products and or procedures for compliance with government standards accounting principles, internal controls, and application standards. Manages completion of work within the time frame specified by the client and ensures that all requirements are met, prepares milestone status reports and presentations for colleagues and clients.

<u>Minimum General Experience</u>: A minimum of 6 years of financial management experience with increasing responsibility as a team leader.

<u>Education</u>: A Bachelors degree in finance or related business accounting field.



Technical Writer

<u>Functional Responsibility:</u> Develops, writes and edits material for reports, manuals, briefs, proposals, instruction books and related publications. Coordinates the use of graphics, organizes material and completes writing assignments with regard to terminology, order, clarity, conciseness and style. Edits information and hardcopy materials, ensures proper cross referencing occurs and that the material is presented in a user-friendly manner.

Minimum General Experience: A minimum of 2 years of directly related experience.

Education: A Bachelor's degree in English, journalism or other related technical discipline.

Commissioning Specialist

<u>Functional Responsibility:</u> Acts in a capacity to handle all aspects of the commissioning of both new and existing buildings. Will be responsible to provide documented confirmation that the building systems are planned, designed, installed, tested, operated and maintained in compliance with the owner's project requirements. Communicates project objectives, reviews and has a working knowledge of the entire building documentation and plans, reviews design criteria, develops the commissioning plan, holds scope meetings, performs site assessments, develops master list of deficiencies and potential improvements. Verifies the installation and performance of the systems to be commissioned.

Also develops functional tests and diagnostic monitoring plan, performs diagnostic and functional testing. Analyzes and selects priority repairs and improvements, retests systems as necessary. Establishes the Basis of Design (BOD) for the systems to be commissioned, develops and incorporates commissioning requirements into the construction documents.

<u>Minimum General Experience</u>: A minimum of 3 years of directly related experience and the completion of 2 commercial commissioning projects.

Education: A BS degree in engineering or related discipline.



SIN Description

871-7 Construction Management: Customer agencies shall utilize construction managers as its principal agent to advise on or manage the process over the project regardless of the project delivery method used. The Construction Manager assumes the position of professional adviser or extension of staff to the customer agency. The Construction Manager frequently helps the customer agency identify which delivery method is the best for the project. The construction management approach utilizes a firm (or team of firms) with construction, design and management expertise to temporarily expand the customer agency's capabilities, so that they can successfully accomplish their program or project. The Construction Manager also provides expert advice in support of the customer agency's decisions in the implementation of the project.

The following are some of the tasks to be covered under Construction Management:

Project Design Phase Services: These services may include: design technical reviews; code compliance reviews; constructability reviews; analysis of Value Engineering proposals; preparation of cost estimates (including independent check estimates); cost analysis; cost control/monitoring; energy studies; utility studies; site investigations; site surveys; scheduling (including preparation of schedules and schedule reviews); review of design scope changes (including analysis of schedule impact); scheduling/conducting/documenting design related meetings; and performing market studies (material availability, contractor interest, etc.).

Project Procurement Phase Services: These services may include: providing assistance to the Contracting Officer in contract procurement; 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; and performing cost/bid/proposal analysis.

Project Construction Phase Services: These services may include: establishing temporary field offices; setting up job files, working folders, and record keeping systems; maintaining organized construction files; scheduling and conducting preconstruction meetings; documenting actions taken and decisions made, etc.; monitoring the submittal review process; review and monitoring of project schedules for construction progress with emphasis on milestone completion dates, phasing requirements, work flow, material deliveries, test dates, etc.; 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; perform site surveys; provide assistance in obtaining permits; perform hazardous material assessments and monitoring of hazardous material abatement work; and provide cost estimating assistance.

Commissioning Services: These services shall include, but are not limited to, providing professional and technical expertise for start-up, calibration, and/or certification of a facility or operating systems within a facility. The CM must be able to provide any level of commissioning need from total support to specialty services. Commissioning services may require 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.

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

Claims Services: The CM may be tasked to provide Claims Services when and as required by the Government for specific projects. The CM 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.

Post Construction Services: At or near substantial completion of project construction, the CM may be tasked to provide services such as: Performing Post Occupancy Evaluations (POEs); assisting Agency 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; providing telecommunication and computer coordination.