

10/21/97 TUE 12:26 FAX 212 738 3519

COSENTINI ASSOC.

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Cosentini Associates LLP
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C. Michael, P.E.
S. A. Quinn, P.E.
J. J. V. V.October 17, 1997
Revised October 21, 1997Mr. Joseph Aliotta
Swanke Hayden Connell, Ltd.
295 Lafayette Street
New York, NY 10012

Re: Office of Energy Management at 7 World Trade

Dear Joe:

We are pleased to submit our proposal to act as your consulting engineer for the preparation of plans and specifications for the mechanical, electrical, plumbing and fire protection facilities for the office of Emergency Management at 7 World Trade.

Our work will include the complete design of heating and air conditioning ductwork, lighting circuiting, controls, sprinklers, plumbing, fire protection, conduit and power for security, alarms systems and other specialties designed by others. In addition, we will provide an emergency generator, controlled inspections and balancing review.

As part of our effort we will coordinate our work with your office, representatives of DCAS and all special consultants.

Our work will include the following scope:

I. HVAC Engineering:

- Complete air conditioning system using base building systems on the floor
- Supplemental AC equipment and air distribution not included
- Ventilation for toilets, lockers and smoking is connected to existing exhaust ducts on the floor
- Kitchen exhaust is not included
- Lan A/C is provided and connected to existing condenser water on floor

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II. Electrical Engineering

- General lighting and switching
- Power distribution to equipment, receptacles, etc.
- Fire alarm system and tie-in to building's class "E" panel
- Data and communications conduit
- Telecommunications, security & AV by speciality consultants
- Equipment cuts and specs to be provided by Owner. Layout of equipment & rough in drawings by others
- Outdoor sound attenuated weather proof emergency generator (800-1000 KW).
- Fuel oil storage and pumping system.
- Electrical distribution system and automatic transfer switches to pick up new equipment loads and base building loads required to support the 24/7 operation. These items will include:
 - Elevator including cooling and controls
 - Fire alarm system and controls including smoke purging
 - Domestic water pumping system and hot water heating equipment
 - Cooling tower and cooling tower make-up and winterization
 - Condenser water pumps and controls (house tanks, etc.)
 - Modifications to the building controls to enable 24/7 operation of the new generator
 - Building security system

III. Plumbing Engineering

- Pantries
- Drinking fountains
- Bathrooms and lockers

IV. Fire Protection Engineering

- Sprinkler system including hydraulic calculations
- Tie-in to fire alarm system
- Fire extinguisher cabinets

Our work will be accomplished in the following phases and will be programmed to meet the design and construction time table.

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Schematic Design Scope of Work

- A. Engineer and Client (and Client designated team members) come to agreement as to the MEP requirements of the project based on Engineer recommendations.
- B. Document the MEP requirements.
- C. Ascertain the feasibility of achieving the requirements within the building/space and recommend changes and/or improvements.
- D. Coordinate system requirements and details with team members.
- E. Provide schematic plans for budgeting by others.
- F. Identify long lead items.
- G. Complete schematic design information and documents in accordance with project schedule.

Contract Documents Phase Scope of Work

- A. Provide contract drawings, specifications, and information schedules coordinated with design team members, all in conformance with project schedule.
- B. Entire project will be prepared on CADD equipment compatible with architects systems and discs will be provided for clients future use.
- C. Prepare final construction documents for filing purposes.
- D. Prepare documents for filing by Building Department Expeditor.
- E. Coordination of all work with outside consultants (retained by others.)

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Bidding or Negotiating Phases Scope of Work

- A. We will assist in reviewing of contractors bids and suggestions made by contractors to reduce costs.
- B. We will respond to contractors questions and clarify contract document intent during this phase.

Contract Administration Scope of Work

- A. Review of contractor shop drawings and submittals.
- B. Make periodic site visits and prepare field observations report. Prepare final punch list report.
- C. Attend coordination meetings and make site visits, as required.
- D. Identify status of construction and discrepancies to the design team.
- E. Assist in interpreting documents, issuing supplemental information and reviewing cost submittals by contractors. Controlled inspections are by us.
- F. Assist in determining dates and issuance of Certificates of Substantial and Final Completion, receiving, reviewing and forwarding as-builts; air balance reports, warranties, maintenance manuals and operation instructions submitted by the contractor for compliance with the project requirements. Operation and maintenance manuals not included.
- G. Processing and coordinating of changes to the contract.
- H. Review of defects and deficiencies during the 12 month warranty period.
- I. Balancing review.

The above scope of work assumes that the basic power, air conditioning, heating, water and other services are provided by the landlord and that any upgrades or modifications to the building's MEP infrastructure necessitated by this upgrade and/or 24/7 operation would be an additional service.

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Fee

Our fee proposal is based the following:

A. Basic MEP Services includes:

MEP General Office:	\$ 7,650	based on	9,000 s.f.
MEP Emergency Management Center:	\$35,000	based on	14,000 s.f.
<u>MEP Technology Spaces:</u>	<u>\$30,000</u>	based on	12,000 s.f.
TOTAL	\$72,650		
Emergency Gen. Scope:	\$30,000	(not to exceed with 3.0 multiplier x direct labor salary)	
Controlled Inspection:	\$12,000		
Balancing Review:	\$ 6,000		
Reimbursables:	\$ 7,265	(not to exceed plus \$3,000 not to exceed for Emergency Gen. Scope)	

NOTE: Fees assume "as-builts" of MEP systems exist.

Billing is as follows:

Schematic Design	-	35%
Construction Document	-	40%
Bidding & Negotiation	-	5%
Construction Admin.	-	20%

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We propose to perform additional services on a time-card basis with pre-established upsets which will be billed at 2.75 times Direct Personnel Expense (DPE). DPE is actual hourly rate plus 34% for mandatory and customary benefits.

Our rates are as follows:

	<u>Flat Rate</u>	<u>Hourly Rate Before Multiplier</u>	<u>Hourly Rate Before DPE & Multiplier</u>
Partner	\$200.00		
Principal	\$180.00		
Project Manager/Senior Engineer		\$35-49	\$117.25 - 157.45
Senior Designer/Engineer		\$26-36	\$ 83.75 - 113.09
Designer		\$19-28	\$ 53.60 - 80.40
CADD Operator/Draftsperson		\$10-21	\$ 26.80 - 50.25

We look forward to working with you and your office. Please call me if you have any questions.

Very truly yours,

COSENTINI ASSOCIATES LLP


Michael W. Maybaum, P.E. TM

Accepted By: _____

cc: Ms. E. Jackson, CA
Ms. L. Stokes, CA

Date: _____

(PROPOSAL\2184)