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DATE \_\_\_\_\_

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SEWERAGE and WATER BOARD

of

NEW ORLEANS

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**SPECIFICATIONS**

FOR

FURNISHING

PROGRAMMING FOR THE SUPERVISORY CONTROL AND DATA  
ACQUISITION SYSTEM FOR REMOTE MONITORING AND  
CONTROL OF THE SEWAGE PUMPING STATIONS

REQUISITION NO. 36-94-EE

**Proposals To Be Opened**

11:00 O'Clock A.M. Local Time of Thursday, October 13, 1994

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PLAINTIFF'S  
EXHIBIT  
428

B 113601

Civil Action No. 93-3212,  
Section S, Mag. 1

# SEWERAGE AND WATER BOARD OF NEW ORLEANS

## SPECIFICATIONS FOR FURNISHING

### PROGRAMMING FOR THE SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM FOR REMOTE MONITORING AND CONTROL OF THE SEWAGE PUMPING STATIONS

JOB NO. 27-18327-169520376

REQ. NO. 36-94-EE

(1) Sealed proposals will be received by the Sewerage and Water Board of New Orleans, at the office of its Purchasing Agent, Room 133, 625 St. Joseph Street, New Orleans, Louisiana 70165, up to 11:00 o'clock A.M., Local Time of Thursday, October 13, 1994 and publicly opened immediately thereafter for:

#### PROGRAMMING FOR THE SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM FOR REMOTE MONITORING AND CONTROL OF THE SEWAGE PUMPING STATIONS

in accordance with the following Specifications and as listed in the Form of Proposal. Any proposal received after that time will be returned "unopened".

#### INFORMATION FOR BIDDERS

(2) All proposals must be made upon the form embodied in these Specifications and this form must not be detached from the Specifications.

NOTE: Bids on forms other than those provided will not be considered.

(3) Permission will not be given for the withdrawal of, alteration of, or addition to any proposal after the final time set for the receipt of sealed proposals.

(4) Proposals will not be received from any person or party in default upon any Contract with the Sewerage and Water Board; and any proposal which does not fully comply with all of the provisions of the "Information for Bidders" and "Specifications" will be considered informal and may be rejected.

(5) Payment will be made within 30 days after delivery and acceptance of the equipment called for herein.

(6) Each bidder shall state in the Form of Proposal, in the space provided for that purpose, what cash discount, if any, will be allowed for payment within thirty (30) days after delivery and acceptance of the equipment called for herein. In proposals containing multi-item Bids, the cash discount shall be the same for all items or no discount will be considered.

(7) Delivery shall be made to Main Water Purification Plant, Electric Shop, 8801 Spruce Street, New Orleans, Louisiana and must be completed in the time stipulated by the Bidder in the space provided for that purpose headed- "Time of Delivery". Twenty-four (24) hour notice must be given prior to delivery, by telephoning Mr. Ronald H. Mains (865-0500). Delivery must be made on FLAT BED TRUCKS only, prior to noon on a normal working day.

Deliveries attempted on anything other than Flat Bed Trucks or without proper advance notice WILL be refused.

(8) The Lump Sum Price Bid for the equipment shall be F.O.B., Main Water Purification Plant, 8801 Spruce Street, New Orleans, Louisiana.

Risk of loss due to damage of any kind incurred during delivery shall be borne by the manufacturer until receipt and acceptance of the equipment by the Sewerage and Water Board.

(9) Firm proposals are desired and no proposal containing an escalator clause will be considered unless the limit of escalation is clearly defined. The Board reserves the right to add the maximum price increase to proposals providing for escalation, for comparison of proposals only.

(10) The Lump Sum prices bid in the proposal must be written in full in words and also in figures; if there is a difference between the words and the figures in any price bid, the price written in words shall be considered to be the true bid.

(11) Erasures or other changes in the Bid Price must be explained or noted over the Signature of the Bidder.

**NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL FIGURES OR PENCIL SIGNATURES WILL DISQUALIFY BIDDER.**

(12) If two or more proposals are received equal in amount and lower than any other proposal, the Board reserves the right to evaluate these proposals and to decide which proposal will be accepted. Preference will be given to home Contractors, all conditions being equal.

(13) The Contract Order will be awarded in full to the Bidder offering the lowest total lump sum proposal meeting these Specifications, and for furnishing the product of one (1) manufacturer. All equipment furnished shall be made in the U.S.A., foreign equipment will not be accepted.

(14) The bidders proposal to the Sewerage and Water Board shall be on the form provided for this purpose and when accepted by the Sewerage and Water Board, the same shall constitute the Contract.

Acceptance or rejection of Proposal cannot be granted prior to a meeting of the Board scheduled for the second Wednesday of the Calendar month immediately following receipt of Bids. Bidder's proposal shall remain in effect for this period up to maximum of 60 Calendar Days. Proposals which remain in effect for a lesser time shall be considered informal and may be rejected.

(15) Act 1029 of the 1991 Regular Legislative Session, together with R.S. 47:305.20 and R. S. 47:301 (8) (c) exempts the Sewerage and Water Board from all City and State sales and use taxes.

(16) Staff recommended awards based on bid results will be posted on a Bulletin Board located outside the office of the Sewerage and Water Board Purchasing Department within 72 hours after the Bid opening. Bidders may also telephone the Purchasing Department to learn the bid results. If a Contractor or his representative feels that there may be an incorrect award, he must notify the Purchasing Agent, or Assistant Purchasing Agent, in writing, of his objection within 72 hours after the bid award recommendations are posted.

(17) The Sewerage and Water Board reserves the right to reject all proposals and may exercise that right if so doing should appear to be to the best interest of the Board. The Board may waive informalities in the lowest proposal, if this should be to the best interest of the Board.

#### INSURANCE

(18) The vendor, as well as any sub-contractor, including any sub-contractor performing shipping and delivery as part of this transaction, shall maintain in good standing all appropriate insurance, especially general liability and workers' compensation, in endorsements and limits sufficient to protect himself, the Sewerage and Water Board, and the City of New Orleans from any and all claims arising out of his fulfillment of this transaction. In addition, the vendor shall maintain commercial auto liability insurance, or if sub-contracting for shipping and delivery, the vendor must ensure that the shipping and delivery sub-contractor maintains such auto insurance, and this insurance shall also be written in endorsements and limits sufficient to protect himself, the Sewerage and Water Board, and the City of New Orleans from any and all claims arising from the shipping and delivery involved in this transaction.

If this transaction involves the delivery of hazardous materials, a vendor shall ensure that he or any deliverer is at all times in compliance with CFR49, Parts 100-177. Vendor shall also ensure that manufacturer maintains product liability insurance for any commodity involved in this transaction which, if defective, could cause bodily injury and property damage. The vendor, any and all sub-contractors, and all insurers shall agree to waive all rights of subrogation in favor of the Sewerage and Water Board of New Orleans as a condition of the required insurance.

#### INDEMNIFICATION

(19) Vendor shall indemnify, hold forever harmless and defend the Board, its officers, agents, employees, representatives and insurers from any and all claims, demands, suits, money judgments, costs and expenses arising out of any accident, injury or damage to loss of property or life or personal injury during the performance of this transaction, growing out of resulting from or by reason of any act or omission by the vendor, its agents or employees, to the extent caused or contributed by the vendor, his agents or employees.

Vendor shall further indemnify and hold harmless the Board from any and all claims and liens for labor, services or materials furnished to the vendor in connection with this transaction.

#### WORKERS' COMPENSATION

(20) The vendor expressly agrees and acknowledges that he is an "independent contractor" as defined in LSA-R.S. 22:1021 (6). That its employees shall not be considered employees of the Board for workers' compensation coverage, and that the Board shall not be liable to the vendor or its employees for any workers' compensation benefits or coverage.

#### EXCLUSION OF UNEMPLOYMENT COMPENSATION COVERAGE

Vendor herein expressly agrees and acknowledges that it is an "independent contractor" as defined in LSA-R.S. 22:1472 (E), that neither the vendor nor any one employed by the vendor shall be considered an employee of the Board for the purpose of unemployment compensation coverage.

#### ACT 318 OF 1958

(21) Under terms of Act 318 of 1958, of the Regular Session of the Legislature of the State of Louisiana, all things being equal, preference must be given to either (1) firms doing business in the State of Louisiana or (2) to products produced (or) grown (or) manufactured in the State.

Before any bill for supplies shall be paid to any non-resident firm, a statement in writing shall be submitted by the seller to the effect that his firm has paid all taxes duly assessed by the State of Louisiana and its political subdivisions including franchise taxes, privilege taxes, sales taxes and all other taxes for which it is liable to the State and its political subdivisions.

#### TERMS AND CONDITIONS OF SALE

(22) The Sewerage and Water Board can honor only terms of sale specified herein. Proposals submitted which are based on Bidder's "Standard Terms and Conditions of Sale", or any terms and conditions other than those expressed herein, shall be considered informal and may be rejected.

#### SPECIFICATIONS

##### (23) GENERAL

a. Furnish and deliver custom programming, utilizing existing packaged software, required to fully implement data acquisition, data communications operator interface, and event logging and archiving which is necessary for the complete and proper operation of the Supervisory Control and Data Acquisition System used to monitor the Board's Sewage Pumping Stations.

b. There are currently 80 Sewage Pumping Stations which are to be configured for activation in this project. A tabulation of stations including station number, station name, address, number of pumps and route number is included hereinafter in Paragraph (29). Paragraph (30) includes a grouping by route number.

c. Sewage Pumping Stations range in the number of pumps from two (2) through (5). A different screen generic shall be used to depict each size station by number of pumps.

d. The data file number to be used in the PLC 5/11 shall match the station number assigned in Paragraph (29).

e. All hardware such as IBM Computer, Allen-Bradley PLC, and ICOM Software are existing and are not to be furnished under this contract.

##### (24) QUALIFICATION OF BIDDERS

a. The successful bidder shall have been regularly engaged in the provision of Programmable Logic Controller programming services utilizing the Allen-Bradley PLC and SLC family for a period of not less than 5 years. Additionally, verifiable training with ICOM's Wintellegence Series Software is required. Training may be verified by attaching a copy of training certification from ICOM. Experience Verification may be made by attaching five (5) references for projects similar in scope to the one herein described.

b. BIDS RECEIVED WITHOUT THE NECESSARY TRAINING CERTIFICATE OR WITHOUT FIVE (5) ACCEPTABLE REFERENCES SHALL BE CONSIDERED INFORMAL AND MAY BE REJECTED.

(25) DRAWINGS

a. Drawings included in these specifications are intended as guidelines only, to aid in the description of events and general screen layout.

(26) SYSTEM OPERATION

a. The complete SCADA System shall be capable of operating on a Master Control Unit consisting of an Allen-Bradley PLC 5/11 Programmable Controller with an IBM Personal Computer as the operator interface.

b. The system shall be capable of communicating with up to 100 remote SCADA Panels. Connection between the Master Control Unit and Remote SCADA Panels shall be by means of DF1 polling master-slave half duplex serial communications protocol over a 1200 baud radio modem link through an 800 MHZ Trunked Mobile Radio Channel. Capability shall be provided for expansion up to 200 Remote Connected SCADA Panels.

c. The system shall provide automatic system alarms based on detected faults in the master control unit, individual remote SCADA Panels and/or their connected devices, or the communications network.

d. The Master Control Unit shall have the capability of being programmed and modified on-line. It shall not be necessary to shut down any part of the system during these programming operations. On-Line programming and modifications to the data tables of the remote systems shall be possible. Programming and modifications at a remote SCADA Panel which require the panel to be brought off-line must only cause a shut down at the location in question.

e. The system shall have the capacity to generate alarms, solicit operator intervention, initialize control functions, produce reports for management evaluation, etc. based on data gathered from the Remote SCADA Panels.

(27) MONITORING FUNCTIONS

a. A summary of the proposed monitoring functions are shown below.

1. Data Element: Suction Level

Source Signal: 4-20ma from Pressure Switch installed in bubbler source line (one per station)

Method of Reporting:

- a) Instantaneous level shown on station graphic.
- b) Instantaneous level shown on route graphic.
- c) Graphically trended over 24 hr. period, displayed in daily report with points taken on a minimum 5 min. intervals.

2. Data Element: High Wet Well Alarm

Source Signal: 4-20ma from Item #1 - Suction Level Switch.

Method of Reporting:

- a) Alarm and level shown on station graphic.
- b) Alarm indication shown on route graphic and system overview.
- c) Concurrent printout of alarm condition noting station and description of alarm.
- d) Listing of alarm and time on station daily printout.

3. Data Element: Low Wet Well Alarm

Source Signal: 4-20 ma from Item #1 - Suction Level Xducer.

Method of Reporting:

- a) Alarm and level shown on station graphic.
- b) Alarm indication shown on route graphic and system overview.
- c) Concurrent printout of alarm condition and station name.
- d) Listing of alarm and time on station daily printout.

4. Data Element: Alarm-Water Accumulation, Pump Room

Source Signal: Float switch N.O. contact.

Method of Reporting:

- a) Alarm shown on station graphic.



- b) Alarm indication shown on route graphic and system overview.
- c) Concurrent alarm printout.
- d) Listing of alarm and time on station daily printout.

5. **Data Element: Unauthorized Entry**

Source Signal: Limit switch on Door/Hatch. (Defeated by proper entry through Card Reader).

Method of Reporting:

- a) Alarm shown on station graphic.
- b) Concurrent alarm printout.
- c) Listing of alarm and time on station daily printout.

6. **Data Element: Hand-Off-Auto Selection**

Source Signal: 120 VAC input from Pump Control Switch spare contacts.

Method of Reporting:

- a) Displayed on station graphic.
- b) Alarm in "Hand" of "Off" positions on graphic.
- c) Alarm indication shown on route graphic and system overview.
- d) Concurrent printout of alarm.
- e) Listing Alarm/Time on daily report.

7. **Data Element: Pump Running**

Source Signal: N.O. contact on starter.

Method of Reporting:

- a) Shown on station graphic by pump color change. Running time displayed.
- b) Shown on route graphic.

c) Graphically trended over 24 hours.

d) Running time stored for pump greasing, packing. Operator resettable.

8. Data Element: Discharge Pressure

Source Signal: 4-20ma from Discharge Pressure Xducers (two required per station).

Method of Reporting:

a) Shown on station graphic.

b) Shown on route graphic.

c) Alarm indication shown on route graphic and system overview.

d) Graphically trended over 24 hours.

e) Alarm on High Pressure.

f) Concurrent printout of alarm.

g) Listing Alarm/Time on daily report.

9. Data Element: Power Loss - Primary

Source Signal: 120 VAC input.

Method of Reporting:

a) Alarm shown on station graphic.

b) Alarm indication shown on route graphic and system overview.

c) Concurrent printout.

d) Listing Alarm/Time on daily report.

10. Data Element: Power Loss - Secondary

Source Signal: 120 VAC contact.

Method of Reporting:

a) Alarm on graphic.

- b) Alarm indication shown on route graphic and system overview.
- c) Concurrent printout
- d) Listing Alarm/Time on daily report.

11. Data Element: Security

Source Signal: Card Reader, Scanner Decoder.

Method of Reporting:

- a) Indicate Employee number on graphic.
- b) Concurrent printing of station entry with Employee number.
- c) List entry, time in and time out on station daily report. Time out taken from door closure.
- d) Provide three (3) outputs:
  - 1) Green Light = Entry Allowed.
  - 2) Red Light = Entry Denied.
  - 3) Contact Closure = Operate Audible Signal on Remote Buzzer.

12. Data Element: Pump Selection

Source Signal: 120 VAC input from Pump Lead/Lag Switch Contacts.

Method of Reporting:

- a) Displayed on Station Graphic.
  - b) Displayed on Route Graphic.
- b. All alarm printouts shall be directed to a remote serial printer via telephone modem whenever the local system is unmanned.

(28) DISPLAY SCREENS

- a. The three (3) main operator interface screens are described in Attachment 1 (System Overview), Attachment 2 (Route Graphical Display), and Attachment 3 (Station Detailed Graphical Display).

b. These screens are intended as guidelines and are not implicit of the full requirements of these specification.

c. All subscreens, displays, graphs, databases and reports expressed or implied herein and/or in common design practice shall be considered requirements of these specifications.

(29) STATION LIST

a. Below is the list of Sewage Pumping Stations with station number, address, number of pumps, route numbers, and number of power sources available.

STA. #	NAME	ADDRESS	# OF PUMPS	ROUTE #	PWR. SRCS
101	1	7336 Cohn St.	2	1	1
102	Unused				
103	3	8720 Olive St	2	1	1
104	4	5899 Fleur De Lis Ave	2	2	1
105	5	1302 Erato St	2	1	2
106	6	242 S Solomon St	2	1	1
107	Unused				
108	8	Broad at Toulouse St	2	1	1
109	9	2540 Annette St	2	1	2
110	Unused				
111	Unused				
112	Unused				
113	Unused				
114	14	4000 Clara St	5	1	2
115	15	2431 Palmyra St	4	1	2
116	16	3751 N Miro St	2	3	2
117	17	4975 Spain St	2	2	2
118	18	Vicksburg at Florida Ave	2	2	2
119	19	3730 Jumonville St	2	1	2

120	20	328 37th St	2	2	1
121	21	6670 Memphis St	2	2	2
122	22	5705 Perlita St	2	2	2
123	23	4500 Mithra St	2	2	2
124	24	5827 N Tonti St	2	3	1
125	25	2245 Charbonnet St	2	3	1
126	26	2244 St Maurice St	2	3	1
127	SPS "A"	1321 Orleans Ave	4	-	1
128	Alcee Fortier	Alcee Fortier at Levee	2	6	1
129	America	6789 Dwyer Rd	2	3	1
130	American Marine	4045 Jourdan Rd	2	3	1
131	Amid	7000 Almonaster Ave	2	4	1
132	SPS "B"	4725 St Claude Ave	2	3	2
133	Berg	11501 Morrison Rd	2	5	1
134	Boland	1910 Surekote Rd	2	3	1
135	Boulevard "X"	14434 Chef Hwy	2	6	1
136	Briarwood	13701 Morrison Rd	2	5	1
137	Bullard	5501 Morrison Rd	2	4	1
138	Burke	9001 Morrison Rd	2	5	1
139	Castle Manor	4950 Gawain Dr	2	4	1
140	Cerise	5001 Cerise Ave	2	4	1
141	Chicasaw	3841 Metropolitan St	2	2	1
142	City Park	5700 Marconi Blvd	2	2	1
143	Crowder	5500 Crowder Rd	2	4	1
144	Dotd	8118 Chef Hwy	2	4	1
145	Eastover	S I-10 Service Rd Near I-510	2	5	1
146	France and Florida	2701 France Rd at Florida Canal	2	3	1

147	Folger's	14601 Old Gentilly Rd	2	6	1
148	Gentilly Oaks	5000 Papania Dr	2	5	1
149	Industrial Park	4200 Industrial Pkwy	2	6	1
150	K-Mart	Desire at Old Gentilly Rd	2	2	1
151	Lake Forest	10451 Lake Forest Blvd	2	4	1
152	Lakeland Terrace	5057 Warren Dr	2	4	1
153	Lakewood South	Country Club Dr at Marcia	2	2	1
154	Lamb	6450 Morrison Rd	3	5	1
155	Lawrence	7900 Morrison Rd	2	5	1
156	Liggett	12500 Morrison Rd	2	5	1
157	Meco	3855 France Rd	2	3	1
158	Michoud	4400 Michoud Blvd	2	6	1
159	Oak Island	14201 Michoud Blvd	2	6	1
160	Pine Village	6155 Dwyer	2	3	1
161	Plum Orchard	7300 Chef Hwy	2	4	1
162	Shorewood	14441 Morrison Rd	2	5	1
163	Southern Scrap	Harbor Road	2	3	1
164	Venetian Isles	20711 Old Spanish Trail	2	6	1
165	Victoria	3620 Victoria St	2	3	1
166	Village D'Lest	13324 Dwyer Rd	2	6	1
167	Weber	10141 Morrison Rd	2	5	1
168	Willowbrook	Willowbrook at Michoud Acadiana Pl	2	6	1
169	Wilson	7709 Wilson Ave	2	4	1
170	English Turn #1	2503 Stanton Rd	2	7	1
171	English Turn #2	123 1/2 Oak Alley Dr	2	7	1
172	Eton	3440 Eton St	2	7	1
173	Gardon Oaks	3201 Memorial Park Dr	2	7	1
174	Holiday	3800 Herschel St	2	7	1

175	Horace	3301 Lawrence St	2	7	1
176	Huntlee	3201 Huntlee Dr	2	7	1
177	Lower Coast	3700 Hwy 406	2	7	1
178	Memorial	2501 Memorial Park Dr	2	7	1
179	Park Timbers	4100 Lennox Blvd	2	7	1
180	Tall Timbers	3800 Tall Pines Dr	2	7	1
181	Forest Isles	5631 W Forest Isles Dr	2	7	1
182	Woodland	4150 Woodland Dr	2	7	1
183	Wright	Lake Forest Blvd at Wright Rd	2	4	1
184	Aurora	6000 Carlisle Ct	2	7	1
185	Blair	3800 Blair St	2	7	1
186	Bridge Plaza	2914 Vespasian St	2	7	1
187	Unused				
188	Unused				
189	Unused				
190	Unused				
191	Unused				
192	Unused				
193	Unused				
194	Unused				
195	Unused				
196	Unused				
197	Unused				
198	Unused				
199	Unused				
200	Unused				

(30) STATION ROUTE ASSIGNMENTS

a: Listed below are the Sewage pumping stations listed by route.

NO ROUTE ASSIGNMENT

STA. #	NAME	ADDRESS	# OF PUMPS
127	Station "A"	1321 Orleans Ave	4

ROUTE 1

STA. #	NAME	ADDRESS	# OF PUMPS
101	1	7336 Cohn St	2
114	14	4000 Clara St	5
115	15	2431 Palmyra St	4
119	19	3730 Jumonville St	2
103	3	8720 Olive St	2
105	5	1302 Erato St	2
106	6	242 S Solomon St	2
108	8	Broad at Toulouse St	2
109	9	2540 Annette St	2

ROUTE 2

STA. #	NAME	ADDRESS	# OF PUMPS
117	17	4975 Spain St	2
118	18	Vicksburg at Florida Ave	2
120	20	328 37th St	2
121	21	6670 Memphis St	2



122	22	5705 Perlita St	2
123	23	4500 Mithra St	2
104	4	5899 Fleur De Lis Ave	2
141	Chjcasaw	3841 Metropolitan St	2
142	City Park	5700 Marconi Blvd	2
150	K-Mart	Desire at Old Gentilly Rd	2
153	Lakewood South	Country Club Dr at Marcia	2

ROUTE 3

STA. #	NAME	ADDRESS	# OF PUMPS
116	16	3751 N Miro St	2
124	24	5827 N Tonti St	2
125	25	2245 Charbonnet St	2
126	26	2244 St Maurice St	2
129	America	6789 Dwyer Rd	2
130	American Marine	4045 Jourdan Rd	2
134	Boland	1910 Surekote Rd	2
146	France and Florida	2701 France Rd at Florida Canal	2
157	Meco	3855 France Rd	2
160	Pines Village	6155 Dwyer	2
163	Southern Scrap	Harbor Road	2
132	SPS "B"	4725 St Claude Ave	2
165	Victoria	3620 Victoria St	2

ROUTE 4

STA. #	NAME	ADDRESS	# OF PUMPS
131	Amid	7000 Almonaster Ave	2
137	Bullard	5501 Morrison Rd	2
139	Castle Manor	4950 Gawain Dr	2
140	Cerise	5001 Cerise Ave	2
143	Crowder	5500 Crowder Rd	2
144	Dodt	8118 Chef Hwy	2
151	Lake Forest	10451 Lake Forest Blvd	2
152	Lakeland Terrace	5057 Warren Dr	2
161	Plum Orchard	7300 Chef Hwy	2
169	Wilson	7709 Wilson Ave	2
183	Wright	Lake Forest Blvd at Wright Rd	2

ROUTE 5

STA. #	NAME	ADDRESS	# OF PUMPS
133	Berg	11501 Morrison Rd	2
136	Briarwood	13701 Morrison Rd	2
138	Burke	9001 Morrison Rd	2
145	Eastover	S I-10 Service Rd Near I-510	2
148	Gentilly Oaks	5000 Papania Dr	2
154	Lamb	6450 Morrison Rd	3
155	Lawrence	7900 Morrison Rd	2
156	Liggett	12500 Morrison Rd	2
162	Shorewood	14441 Morrison Rd	2
167	Weber	10141 Morrison Rd	2

ROUTE 6

STA. #	NAME	ADDRESS	# OF PUMPS
128	Alcee Fortier	Alcee Dortier at Levee	2
135	Boulevard "X"	14434 Chef Hwy	2
147	Folger's	14601 Old Gentilly Rd	2
149	Industrial Park	4200 Industrial Pkwy	2
158	Michoud	4400 Michoud Blvd	2
159	Oak Island	14201 Michoud Blvd	2
164	Venetian Isles	10211 Old Spanish Trail	2
166	Village D'Lest	13324 Dwyer Rd	2
168	Willowbrook	Willowbrook at Michoud Acadiana Pl	2

ROUTE 7

STA. #	NAME	ADDRESS	# OF PUMPS
184	Aurora	6000 Carlisle Ct	2
185	Blair	3800 Blair St	2
186	Bridge Plaza	2914 Vespasian St	2
170	English Turn #1	2503 Stanton Rd	2
171	English Turn #2	123 1/2 Oak Alley Dr	2
172	Eton	3440 Eton St	2
181	Forest Isles	5631 W Forest Isles Dr	2
173	Garden Oaks	3201 Memorial Park Dr	2
176	Huntlee	3201 Huntlee Dr	2
174	Holiday	3800 Herschel St	2
175	Horace	3301 Lawrence St	2
177	Lower Coast	3700 Hwy 406	2

178	Memorial	2501 Memorial Park Dr	2
179	Park Timbers	4100 Lennox Blvd	2
180	Tall Timbers	3800 Tall Pines Dr	2
182	Woodland	4150 Woodland Dr	2

(31) PROGRAMMING CONSIDERATIONS

a. Flexibility in the accomplishment of the programming which constitutes the Man-Machine Interface (MMI) and the data management design will be allowed within the bounds of accepted practice. Listed below are specific tasks which must be accomplished in order to meet the intent of these specifications.

1. As this system is intended as a data acquisition and evaluation tool the criticality of data accuracy becomes paramount.
  - a) Information is to be updated a minimum of once every 5 minutes.
  - b) On critical state changes, information is to be updated at the next available poll request to that specific remote unit. All information for the critical state change is to be reasonably associated with the program scan at the remote on which it occurred.
  - c) Time stamps associated with scanned data shall be the actual time at the remote system, not the time in the Master Control Unit.
  - d) The clocks on the remote systems shall be synchronized daily to the master control unit clock to insure time integrity.
  - e) Should critical state changes occur between normal communications requests, the data shall be time stamped and stored at the remote. One set of records shall be stored for each critical state change and transmitted to the master control unit one record per normal request cycle beginning with the most recent record.
  - f) Loss of communications shall be handled in a manner similar to sub section e). The 5 minute minimum update time shall be eliminated for all communications losses exceeding 1 hour with only critical state changes being stored.
2. Polling patterns shall be established in the PLC 5/11 through the Win Logic 5 software in order to provide flexibility in system monitoring. A total of nine polling patterns are required as outlined below.

- a) System overview display.

Requires: 1 - Polling Pattern

Action: Each station queried once per full scan

- b) Station Graphic Display

Requires: 1 - Polling pattern

Action: Displayed station queried once every 10 station polls.

- c) Route Graphic Display

Requires: 1 - each for 7 - routes

Action: Stations in a route shall be grouped consecutively and read once each scan.

(32) TESTING REQUIREMENTS

1. Acceptance Test

Programming shall be tested as a system at the manufacturer's factory prior to delivery. The primary elements and control elements shall be simulated. This test will be witnessed by the Board's Representative(s). This Acceptance Test shall be performed in accordance with a written plan which shall be submitted to the Engineer for approval. A finalized copy of the plan as approved by the Engineer shall be in the Engineer's hands no less than 10 working days prior to the start of the test. The Manufacturer shall advise the Board of the planned test start date not less than ten (10) working days prior to the start.

2. Acceptance Test Objectives

The Acceptance Test shall be a demonstration of the complete operational capabilities of the system programming, utilizing simulated inputs, data transmission, and outputs to represent actual field conditions. Prior to the start of the test, the Manufacturer shall review the complete documentation package with the Representative(s) of the Board present to witness the test. At minimum the test shall demonstrate the following test:

- a) Operation of selected screen graphics and animations using simulated inputs and lights or meters to simulate outputs.
- b) Local and remote alarm announcements.

- c) Remote system startup.
- d) Loss of communications to show operation of storage at remote system.
- e) System security which shall include operation of Slot Scanner and Bar Code Workstation.

(33) TRAINING REQUIREMENTS

- a. Training shall be provided on site for the operation and monitoring of the system.

(34) PROGRAMMING AND DOCUMENTATION

- a. Programming required for these specifications shall become the property of the Board.
- b. All programming shall be fully documented and delivered in duplicate hardcopies and 3-1/2" floppy disks to the Board. Additionally, the software shall be loaded on the Board's computer for full operation.

(35) SUBMITTALS

- a. The Manufacturer shall furnish four (4) copies of all submittal data, as defined below, to the Board Engineer for consideration. The Board Engineer shall review all submittals and return two stamped and annotated copies to the Manufacturer. A minimum of 15 working days shall be allowed for the Engineer's review of these submittals.
- b. The following data shall be submitted for review and approval:
  - 1. Copy of System Overview Graphic.
  - 2. Copy of Typical Duplex Station Graphic.
  - 3. Copy of Typical Route Graphic.
  - 4. Acceptance Test Plan and Procedure.

(36) WARRANTY

Manufacturer shall warrant to the Sewerage and Water Board that the equipment furnished shall contain no defects in workmanship, materials, components, or title, and shall be of the kind and quality described in these specifications. Manufacturer shall remedy any defects due to faulty materials or workmanship which appear within a period of one (1) year from the date of acceptance of delivery.

ATTACHMENT TO SPECIFICATIONS

WELCOME

We welcome you to the S&WB and request your assistance in maintaining our Safety Standards. For the safety of yourself and everyone working at the S&WB, you are asked to observe the following safety precautions. When this notice has been read thoroughly, a senior representative of your company is required to distribute this information to all employees who will be affected. You may call S&WB Risk Management, 504-585-2252, or Safety Department, 504-942-3947, if you have any questions.

BASIC

1. Smoking will be allowed in designated safe areas only.
2. Horseplay, practical joking and fighting are positively prohibited.
3. The use or possession of illegal drugs or intoxicating beverages is strictly prohibited on all S&WB property.
4. Housekeeping is a must. We will keep our area safe and free from litter and expect you to do the same.
5. Handrails should always be used when going up or down ladders or stairs.
6. Atmospheric conditions such as adequate ventilation, presence of oxygen and absence of explosive gases will be assured before working in voids, tanks, or other enclosed spaces.

EMERGENCY

7. The S&WB'S Emergency Response Plan is a document which provides specific notification instructions to be followed in case of hazardous materials spills. The Board's Environmental Affairs office phone number is 942-3855, 7:30 - 4:00 P.M., regular business hours. The Board's 24 hour emergency line is 942-3833 (Central Yard) and 865-0575 (Central Control Dispatcher, Carrollton.) Since Board contracts are performed under various circumstances at various locations, prior to beginning any work the contractor should consult with the Board employee who is responsible for monitoring the contract in order to establish the most effective procedures for handling emergencies. Questions regarding compliance with the above shall be directed to either Risk Management or Safety at the above phone numbers.

SEWERAGE AND WATER BOARD OF NEW ORLEANS  
SAFETY ORIENTATION NOTICE - PAGE 2 OF 3

TRANSPORTATION

Warning signals and lights shall be used as follows:

8. Rotating beacons shall be used if your vehicle is so equipped.
9. Tall lights/emergency flashers shall be used.
10. Orange reflector type safety cones shall be placed to give other motorists warning.
11. If vehicle is moving, backing, or parking, proper traffic control shall be exercised.

PROTECTIVE CLOTHING AND EQUIPMENT

12. Safety glasses will be worn by all personnel who are exposed to eye hazards. Hard hats will be worn at all times while an employee is in the immediate vicinity of overhead hazards or while operating heavy equipment without a Rollover Protection Device.
13. Protective clothing and equipment such as rubber aprons and gloves, eye and face protection, approved respirators or dust masks will be worn when handling all harmful chemicals.

REPORTING

14. Defective equipment, machinery, hazardous conditions, or unsafe work practices or conditions shall be reported immediately to your Supervisor/Foreman who will then contact proper S&WB personnel for correction.
15. All injuries will be reported to the Risk Manager, 585-2252 or to the Safety Unit, 942-3980, regardless of how minor an injury may seem.
16. S&WB employees may hold safety meetings to discuss and promote safe work conditions and accident prevention. You may be asked to attend.

WORKSMART

17. Stay alert at all times, know what is going on around you. Know the safe operating procedures concerned with your assigned duties. When your duties may influence the Safety of Board employees, notify the employees and their supervisor first.
18. Vendor/Contractors shall at all times demonstrate strict compliance with all Federal, State, and Local regulations regarding safety, including but not limited to all relevant D.E.Q., D.O.T., E.P.A., and O.S.H.A. regulations.



~~SECRET~~

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19. The Vendor/Contractor will, at the request of the Risk Manager and Senior Safety Engineer, remove any of his employees found to be creating or contributing to unsafe conditions.
20. The following items are not allowed in or on any Sewerage and Water Board facility or jobsite:
  - Firearms and ammunition
  - Alcohol and illegal drugs
21. Radios should be turned off.

# PROPOSAL

(DO NOT REMOVE PROPOSAL FROM BID PACKAGE)

(37) MADE BY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY AND STATE \_\_\_\_\_

DATE \_\_\_\_\_

\_\_\_\_\_ have carefully examined the foregoing Specifications and do hereby agree, should our Proposal be accepted, to furnish and deliver the equipment, in accordance with and under the conditions of the foregoing Specifications, and as specified below, at the following price which is in words and figures.

PROGRAMMING FOR THE SUPERVISORY CONTROL AND DATA  
ACQUISITION SYSTEM FOR REMOTE MONITORING AND  
CONTROL OF THE SEWAGE PUMPING STATIONS

FOR THE LUMP SUM \_\_\_\_\_

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_).

(38) TERMS \_\_\_\_\_ will allow a cash discount of \_\_\_\_\_ % for payment within thirty (30)

~~days if the equipment is purchased from the manufacturer~~ ~~of the equipment~~ ~~manufactured by: 2162Y~~

ADDRESS \_\_\_\_\_

CITY AND STATE \_\_\_\_\_

POINT OF SHIPMENT: \_\_\_\_\_

(40) TIME OF DELIVERY  
\_\_\_\_\_ will make delivery complete within \_\_\_\_\_ days from date of Contract Order.

(41) ESTIMATED SIZE AND WEIGHTS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(42) We \_\_\_\_\_ (have/have not) taken exception to these Specifications.

(43) In the event of possible price escalation, we certify that the final delivery price will not exceed \_\_\_\_\_ Dollars.

(44) ADDENDA

The below signed acknowledges receipt of following Addenda:

NO. \_\_\_\_\_ DATED \_\_\_\_\_

NO. \_\_\_\_\_ DATED \_\_\_\_\_

NO. \_\_\_\_\_ DATED \_\_\_\_\_

(45) SIGNATURE OF BIDDER

NAME \_\_\_\_\_  
(PLEASE PRINT)

TITLE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY AND STATE \_\_\_\_\_

TELEPHONE \_\_\_\_\_  
(NORMAL) (WEEKENDS-HOLIDAYS)

SIGNATURE \_\_\_\_\_