



**A RESOLUTION BY
CITY UTILITIES COMMITTEE**

A RESOLUTION AUTHORIZING THE MAYOR OR DESIGNEE TO ISSUE A NOTICE-TO-PROCEED WITH METCALF & EDDY/CARDOZA ENGINEERS, A JOINT VENTURE, FOR FC-7619-03E, ARCHITECTURAL AND ENGINEERING SERVICES FOR R. M. CLAYTON BUILDING/TUNNEL/UTILITY UPGRADES ON BEHALF OF THE DEPARTMENT OF WATERSHED MANAGEMENT IN AN AMOUNT NOT TO EXCEED SEVEN HUNDRED NINETY TWO THOUSAND EIGHT HUNDRED ELEVEN DOLLARS (\$792,811.00). ALL CONTRACTED WORK SHALL BE CHARGED TO AND PAID FROM FUND ACCOUNT AND CENTER NUMBER: 2J28 524001 Q32I20269999 (2004 WATER AND WASTEWATER BOND FUND).

WHEREAS, the City of Atlanta (the "City") did enter into FC-7619-03E, Annual Contract for Architectural and Engineering Services; and

WHEREAS, the Commissioner of the Department of Watershed Management requires Architectural and Engineering Services for R. M. Clayton Building/Tunnel/Utility Upgrades in the amount not to exceed Seven Hundred Ninety-two Thousand Eight Hundred Eleven Dollars (\$792,811.00); and

WHEREAS, the Commissioner of the Department of Watershed Management and the Chief Procurement Officer for the Department of Procurement have recommended Metcalf and Eddy/Cardozo Engineering, Joint Venture, to provide Architectural and Engineering Services for implement electrical utilities modifications at the R. M. Clayton WRC to improve systems performance and reliability related to utility issues.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF ATLANTA, GEORGIA, that the Mayor be and is hereby authorized to approve a notice-to-proceed with Metcalf and Eddy/Cardozo Engineering, a Joint Venture, for FC-7619-03E, Annual Contract for Architectural and Engineering Services; in the amount not to exceed Seven Hundred Ninety-two Thousand Eight Hundred Eleven Dollars (\$792,811.00); and

BE IT FURTHER RESOLVED, that the Chief Procurement Officer be and is hereby directed to prepare an appropriate agreement for execution by the Mayor to be approved by the City of Atlanta as to form.

BE IT FURTHER RESOLVED, that this notice-to-proceed should not become binding on the City, and the City shall incur no liability upon same until such contract has been executed by the Mayor and delivered to the contracting party.

BE IT FINALLY RESOLVED, that all services for said notice-to-proceed shall be charged to and paid from fund account and center number: 2J28 524001 Q32I20269999 (2004 WATER AND WASTEWATER BOND FUND).

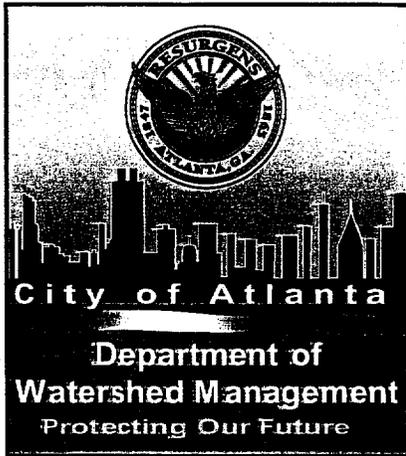
2/18/05 DOP (ADS)

A true copy,

Rhonda Daughin Johnson
Municipal Clerk, CMC

**ADOPTED by the Council
APPROVED by the Mayor**

March 7, 2005
March 15, 2005



**City of Atlanta
Department of Watershed
Management**

PROPOSAL

**RM CLAYTON
WATER RECLAMATION CENTER
UTILITIES UPGRADES**

January 2005

SUBMITTED BY:

**The Joint Venture of
METCALF & EDDY/CARDOZO ENGINEERING**



RM CLAYTON WATER RECLAMATION CENTER UTILITIES UPGRADES

SCOPE OF SERVICES

1. GENERAL

The objective of this proposal is to provide evaluation and design services for the Utilities Upgrades Project for the R.M. Clayton Water Reclamation Center (WRC).

The Joint Venture of Metcalf & Eddy/Cardozo Engineering (M&E/CE) will provide technical, supervisory, and administrative personnel to ensure the expeditious completion of the work specified herein, in compliance with local, State and Federal Regulations.

2. DESCRIPTION OF WORK

Objectives

The overall objective of the project is to implement electrical utilities modifications at the WRC to improve systems performance and reliability related to utility issues. The following scope of services has been developed by M&E/CE in consultation with the WRC staff and the City's Project Manager.

Several studies, preliminary evaluations, sketches, etc. related to these subtasks have been conducted by the City and/or its consultants in the past. Many of these were targeted to very specific, emergency or short-term fixes for the Plant. The M&E/CE team will gather and review these documents, so as to generate an all encompassing Utilities Upgrades design package with minimal duplication of effort.

A Technical Memorandum will be prepared only for those subtasks which require evaluation of different alternatives. M&E/CE will consult with the City when preparing the Technical Memoranda to ensure the City's requirements, including long-term objectives, are best achieved with the selected alternative. The Technical Memorandum will include alternatives evaluated, related issues, and selection criteria/process. Final and draft Technical Memoranda, as needed, will be submitted to the City on an as-completed basis.

A Subtask Fact Sheet will be prepared for each subtask. The Subtask Fact Sheet will outline the issue(s) and will include a brief summary of detail design requirements (design criteria, preliminary layouts, etc.), opinion of probable costs (detailed design and construction), and remarks, including those related to coordination with other subtasks, Task Orders, etc.

All Technical Memoranda and Subtask Fact Sheets will be compiled into a single Design Development Report (DDR) to be used as a guide for the design team to generate detailed construction documents.

Task 1 - Project Management

M&E/CE will designate a Task Manager who will act as the team's representative for the project, and who will be the single point of contact between the City and the M&E/CE team for matters concerning the project. The Task Manager will also be responsible for management of the team's efforts to accomplish the work described in this document.

Project Management effort will consist of:

1.1 Work Plan. A Work Breakdown Structure (WBS) plan will be prepared. The WBS will organize the work into activities, with each element having an identifiable beginning and end. Tasks will match the activities tracked in the Project Schedule. EPD and permit driven items will be addressed. The deliverables associated with each task and its estimated delivery date will be included. The WBS will contain a summary of the task budget, showing labor costs and man-hours allocated to each task. A draft Work Plan will be submitted to the City for review and approval. Following a 10-day City review, the Work Plan will be revised to incorporate the City's comments.

1.2 Scheduling. A detailed Project Schedule showing all major subtasks with their start and completion dates, deliverables, and date of delivery to the City will be developed. The schedule will be developed using Microsoft Project or other suitable scheduling tool.

1.3 Progress Reports. Monthly progress reports describing the work accomplished, products delivered, problems encountered or anticipated, and the rate of work progress will be prepared. This report will include an updated Project Schedule, summarizing progress and new milestone dates as necessary. A list of project issues, outstanding decisions, and issues requiring a response from the City will be included in the progress report.

1.4 Partnering. An informal partnering workshop will be held at the beginning of the project. The meeting will be conducted by an independent facilitator at a neutral site for key members of the project team. The partnering session will include a discussion of the project objectives, expectations, values and issues. The workshop will conclude with the preparation of a team charter. The charter will contain a mission statement, a list of measurable objectives, key project assignments (both City and Engineer's staff) and a mechanism for making decisions. Action plans will be developed to address specific issues of concern.

1.5 Progress Meetings. Monthly progress meetings will be conducted at the M&E/CE project office or other agreed upon location to review works progress, evaluation methods and preliminary findings with the City. Additional informal meetings may be called at any time for coordination.

1.6 Documentation. Project records and minutes of all meetings will be maintained.

- i. Draft submittals of all records and minutes will be made to the City for review and comments.
- ii. A review meeting will be conducted if an explanation of the comments is required and a course of action will be agreed upon for each comment.
- iii. The agreed upon changes to the documents will be incorporated and revised submittal will be made to the City.
- iv. Documentation will also be maintained on the City's Expedition System.

Deliverables:

- Work Breakdown Structure
- Project Schedule
- Progress Meeting Minutes (Expedition)
- Partnering Workshop Summary
- Monthly Progress Reports (Expedition)

Task 2 - Preliminary Design

A detailed list of proposed utility upgrades is provided as Appendix A. Major subtasks of the Preliminary Design phase are listed below.

2.1 Data Collection/Evaluation/Coordination with Field Staff. Key design staff will visit and inspect the project site and gather all information relative to the projects. This will include the locations of all existing buildings, infrastructure, utilities, equipment, components, and other attributes likely to have an impact on the project. Necessary investigations of existing equipment conditions, ratings, characteristics, and electrical distribution systems equipment verifications will be conducted. All work will be coordinated with field staff stationed at the WRC to ensure issues are appropriately addressed and to avoid duplication of effort.

2.2 Design Development. Technical Memoranda, as required and Subtask Fact Sheets will be prepared for each subtask.

2.3 Design Development Report (DDR). All finalized Technical Memoranda and Subtask Fact Sheets will be compiled into a single DDR, which will provide a summary of all proposed work to be performed under this Task Order and include opinion of probable construction cost(s). The City may use the DDR to establish priority for each subtask and to determine the most effective packaging of subtasks under this and other Task Orders into construction bid packages.

Deliverables:

- Technical Memoranda, as required (12 copies)
- Design Development Report (12 copies)

Task 3 - Design Services

During the design phase, construction contract bid documents will be produced based on the DDR. Existing, as-built drawings will be used as the basis for new drawings where possible in order to streamline drawing production.

3.1 Design Meetings & Reviews. In addition to the monthly progress meetings addressed under Task 1 hereinabove, major design review meetings will be held with the City staff at the 60% and 90% completion milestones. Twelve (12) copies of the documents will be provided to the City for review purposes for each design review. M&E/CE will incorporate the City's comments into the final plans and specifications.

3.2 Contract Documents. Detailed design will consist of preparation of general, civil, electrical, instrumentation, and standard detail drawings. Drawings will be prepared using AutoCAD format.

The City's standard master construction specifications will be used as the basis for the technical specifications for the project. Suitable manufacturers and suppliers will be identified for each specified item. All specifications will be formatted for Microsoft Word including track editing.

The City's latest front end documents will be used for the General and Special Conditions sections of the documents. Requirements for special provisions will be carefully evaluated with the City and Bid tabulations developed, such that the facilities and systems may be bid in separate Contracts as budgets dictate.

3.3 QA/QC Reviews. City and internal design reviews will be conducted the 60% and 90% completion milestones. Review comments will be addressed and incorporated in the design accordingly.

3.4 Engineers Cost Estimate. Cost estimates will be made using the City's standard cost estimating software. Cost estimates will be provided at the 60% and 90% review submittal to allow changes necessary to accommodate project budget to be made prior to bid. A final engineer's estimate will be provided at the submission of final bid documents.

3.5 Permitting Reviews. City and EPD review sets, as required to obtain building permits and maintain project schedule, will be prepared. Responses to all questions from the regulatory review will be made and the design will be updated as required.

Deliverables:



- 12 copies of 60% review documents
- 12 copies of 90% review documents
- 12 copies of 100% bid documents
- Regulatory review documents as needed. A maximum of twenty (20) design document sets is planned. Added sets will be provided at cost to facilitate bidding
- Construction cost estimate at 60%, 90%, and 100% design submittal

3. BUDGET

Appendix B indicates the budget for this project, actual detailed design costs will be re evaluated following preliminary design.

4. SCHEDULE

The project will be conducted as expeditiously as possible, with each of the following milestones based on the date of Notice to Proceed (NTP). Schedule is based on calendar days.

Finalize Work Plan	15 days after NTP
Complete evaluation phase	100 days after NTP
DDR Submittal	110 days after NTP
60% Design Submittal	160 days after NTP
90% Design Submittal	260 days after NTP
100% Design Submittal	300 days after NTP

Total time for the design project is 300 days after notice to proceed, unless changed by agreement between M&E/CE and the City.

5. M&E/CE TEAM

An organization chart denoting key project personnel likely to be utilized for this project is provided in Appendix D.

**RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES**

Scope of Services

APPENDIX A

MAJOR SUBTASKS - DETAILS

RM CLAYTON WATER RECLAMATION CENTER UTILITIES UPGRADES

MAJOR SUBTASKS - DETAILS

This section includes a detailed description of each major subtask. Miscellaneous items are grouped together and are those with less than \$100,000 construction cost. Although low cost, these items are critical to the Plant operation and reliability. Items requiring minimal design time that will be handled under the construction contract allowances are not listed.

Evaluations will address constructability, sequence of construction, civil, instrumentation and control (I&C), and electrical requirements, as applicable, with descriptions of their impact on the treatment process.

ELECTRICAL

5kV Switchgear Upgrades/Replacement

There are older portions of 5 kV switchgear and other obsolete electrical equipment [switchgear and motor control centers (MCC's)] that need to be replaced with modern components. This switchgear is more specifically located near the incinerator, in the blower building, administration building, DAF building, and old headworks. This work will be coordinated with work performed under the Compliance Upgrades and the Primary Side Improvements Task Orders. The approach for evaluation includes:

- Survey existing electrical equipment at the blower building, administration building, dissolved air floatation (DAF) building, and old headworks. Permanently mark and take a photographic record of items to be replaced.
- Make preliminary recommendations on new equipment.
- Develop preliminary layouts.
- Discuss options with the City and develop selected alternative(s), including construction sequencing.

Deliverable: Technical Memorandum discussing the different alternatives, and Subtask Fact Sheet to be included in the DDR.

Provide Redundant Power to Control Panels

A number of process-related control panels need provision of redundant power. These include; filter control panel, blower control panel, and Ultra Violet (UV), and headworks control panels as needed. The approach for evaluation includes:

- Survey existing control panels and determine redundant power requirements.
- Determine source(s) of redundant power.
- Develop preliminary concepts.
- Discuss options with the City and develop selected alternative(s), including construction sequencing.

Deliverable: Technical Memorandum discussing the different alternatives, and Subtask Fact Sheet to be included in the DDR.

Corroded Electrical and Control Panels Replacement

There are a number of control panels showing evidence of severe corrosion damage. A Plant-wide survey will be conducted to determine those panels in need of replacement. The replacement will include replacing wire, termination identification, and determining backup power requirements. The approach for evaluation includes:

- Survey existing electrical and process control panels and determine replacement requirements.
- Develop preliminary concepts.
- Discuss options with the City and develop selected alternative(s), including construction sequencing.

Deliverable: Technical Memorandum discussing the different alternatives, and Subtask Fact Sheet to be included in the DDR.

Building Electrical Grounding Systems

At present a number of buildings do not have electrical grounding capability (e.g. blower building). An evaluation will be conducted of all such buildings to assess grounding system requirements. The approach for evaluation includes:

- Survey existing buildings and determine grounding requirements.
- Field survey to verify the identified key as-built items.



- Develop preliminary concepts.
- Discuss options with the City and develop selected alternative(s), including construction sequencing.

Deliverable: Subtask Fact Sheet to be included in the DDR.

Full Plant Power Quality Assessment

Perform Plant-wide electrical distribution system study and power quality analysis including recommendations for correcting any overloaded circuits and for filters to mask harmonic distortion. Investigate incoming power to Plant for voltage spikes and harmonics issues to ensure that the Plant is receiving "clean" power. (This subtask is limited to predesign only.)

- Meet with the City and get and review reports of work to-date.
- Field-verify key as-built items identified.
- Field-monitor incoming power.
- Perform study and identify and evaluate alternative(s) as appropriate, including order of magnitude of costs.
- Discuss options with the City and develop selected alternative(s).
- Deliverable: Technical Memorandum discussing the different alternatives, and Subtask Fact Sheet to be included in the DDR.

**RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES**

Scope of Services

APPENDIX B

BUDGET

RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES

TASKS	LABOR CLASSIFICATION											TOTALS			
	Project Director	Technical Specialist/Manager	Project Manager	Engineer ES - Office	Engineer E5 - Office	Engineer E4 - Office	Designer D4 - Office	Cost Estimator	Word Processor	Field Technician	HOURS	LABOR COST	ODCs COST	SUB TASK COST	TOTAL COST
TASK 1 - Project Management	16		180			40			80		276	\$35,521	\$17,400	\$35,521	\$308,332
TASK 2 - Preliminary Design															
2.1 Data Collection/Evaluation/Coordination with Field Staff															
2.2 Progress Meetings		8		32	16	16	40		32		120	\$11,575	\$17,400	\$11,575	\$308,332
2.3 Planning and Workshops		12		40	24	24	40		40		152	\$16,363		\$16,363	
2.4 Field Investigations				24	24	24	24		20	64	184	\$19,201		\$19,201	
2.5 Detailed Studies - Electrical				40	40	32			8	180	288	\$27,048		\$27,048	
2.5.1 3kV Switchgear Upgrades/Replacement		12		120	120	24	24			332	332	\$33,668		\$33,668	
2.5.2 Provide Redundant Power to Control Panels		8		60	60	60	24			208	208	\$21,953		\$21,953	
2.5.3 Corroded Electrical & Control Panels Replacement		16		60	60	60	24			200	200	\$20,555		\$20,555	
2.5.4 Building Electrical Grounding Systems		16		120	80	120	60			412	412	\$43,530		\$43,530	
2.5.5 Plant Short Circuit and Harmonic Study		16		24	24	24	120			480	480	\$46,548		\$46,548	
2.6 Design Development Report		16		16	16	16	24	40		120	120	\$12,611		\$12,611	
2.7 Opinion of Probable Cost for Various Packaging Options		16		48	48	40				164	164	\$17,324		\$17,324	
2.8 Permitting/Code Requirements															
TASK 3 - Detailed Design															
3.1 General															
3.2 Electrical															
3.2.1 3kV Switchgear Upgrades/Replacement		8		80	80	316	688			622	622	\$55,787		\$55,787	
3.2.2 Provide Redundant Power to Control Panels		8		60	60	332	448			1200	1200	\$113,822		\$113,822	
3.2.3 Corroded Electrical & Control Panels Replacement		4		48	48	260	320			960	960	\$90,623		\$90,623	
3.2.4 Building Electrical Grounding Systems		8		40	40	156	232			728	728	\$66,631		\$66,631	
3.3 80% Complete Cost Estimate & Design Review		40		16	16	16	30	32		520	520	\$50,348		\$50,348	
3.4 90% Complete Cost Estimate & Design Review		40		16	16	16	30	32		174	174	\$21,333		\$21,333	
3.5 100% Complete Cost Estimate & Complete Bid Package		10		16	16	16	40	16		138	138	\$16,480		\$16,480	
TOTAL HOURS	16	190	648	702	1,040	1,848	2,344	120	460	284	7,652				
\$/hr	\$174.74	\$174.74	\$174.74	\$123.11	\$100.13	\$83.46	\$92.22	\$95.83	\$71.25	\$89.06					
TOTAL COSTS	\$2,796	\$33,201	\$97,291	\$86,423	\$104,135	\$154,234	\$216,164	\$11,500	\$32,775	\$25,293		\$29,000	\$763,811	\$792,811	

LABOR	TOTAL LABOR COST	\$763,811
OTHER DIRECT COSTS		
Communication, Postage		\$2,000
Software & Testing Equipment		\$15,000
Survey/Utilities Location		\$10,000
TOTAL OTHER DIRECT COSTS		\$29,000
TOTAL COST		\$792,811

**RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES**

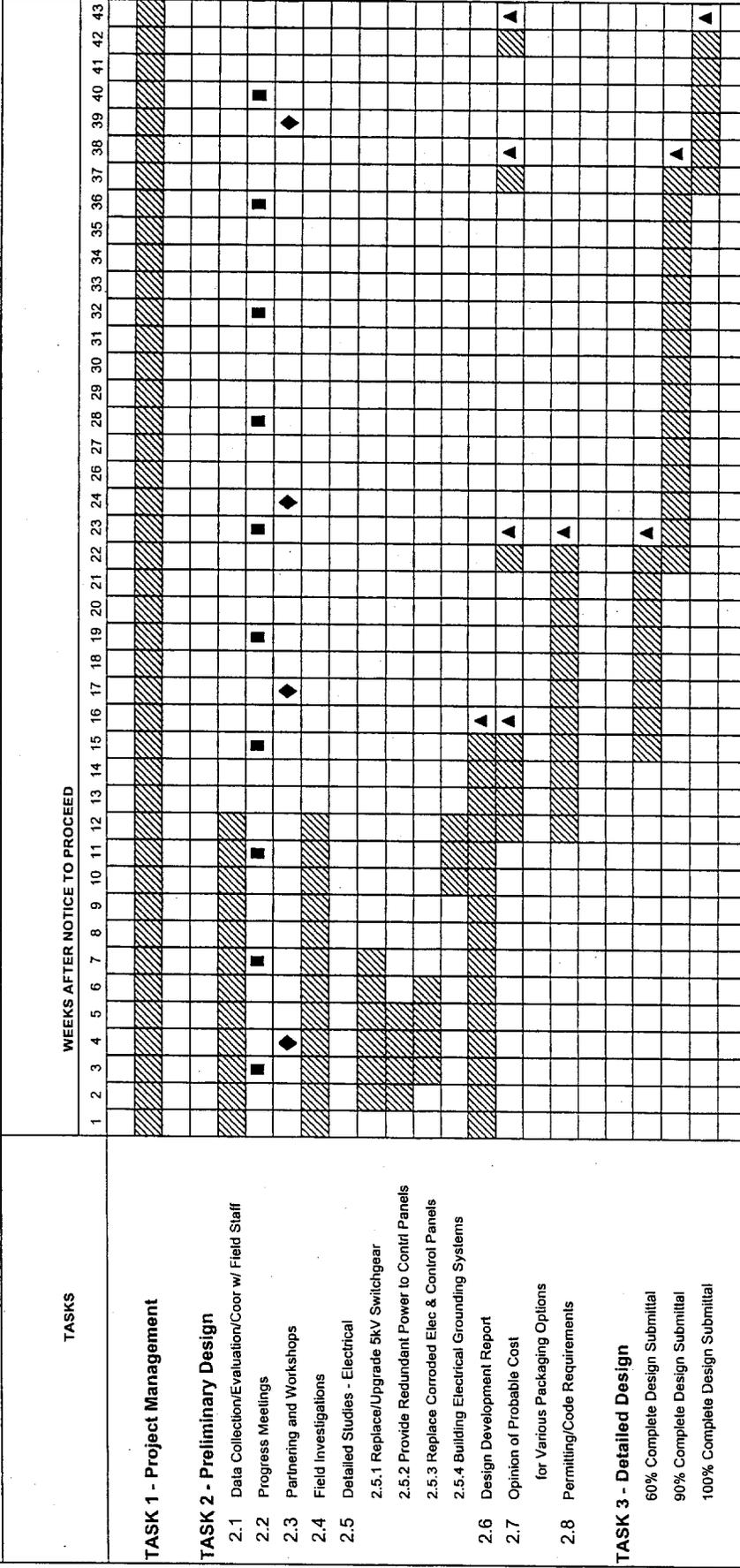
Scope of Services

APPENDIX C

SCHEDULE

RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES

RM Clayton Utilities Upgrades



- ▲ Task Milestone
- ◆ Partnering Session/Workshop
- Progress Meeting

**RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES**

Scope of Services

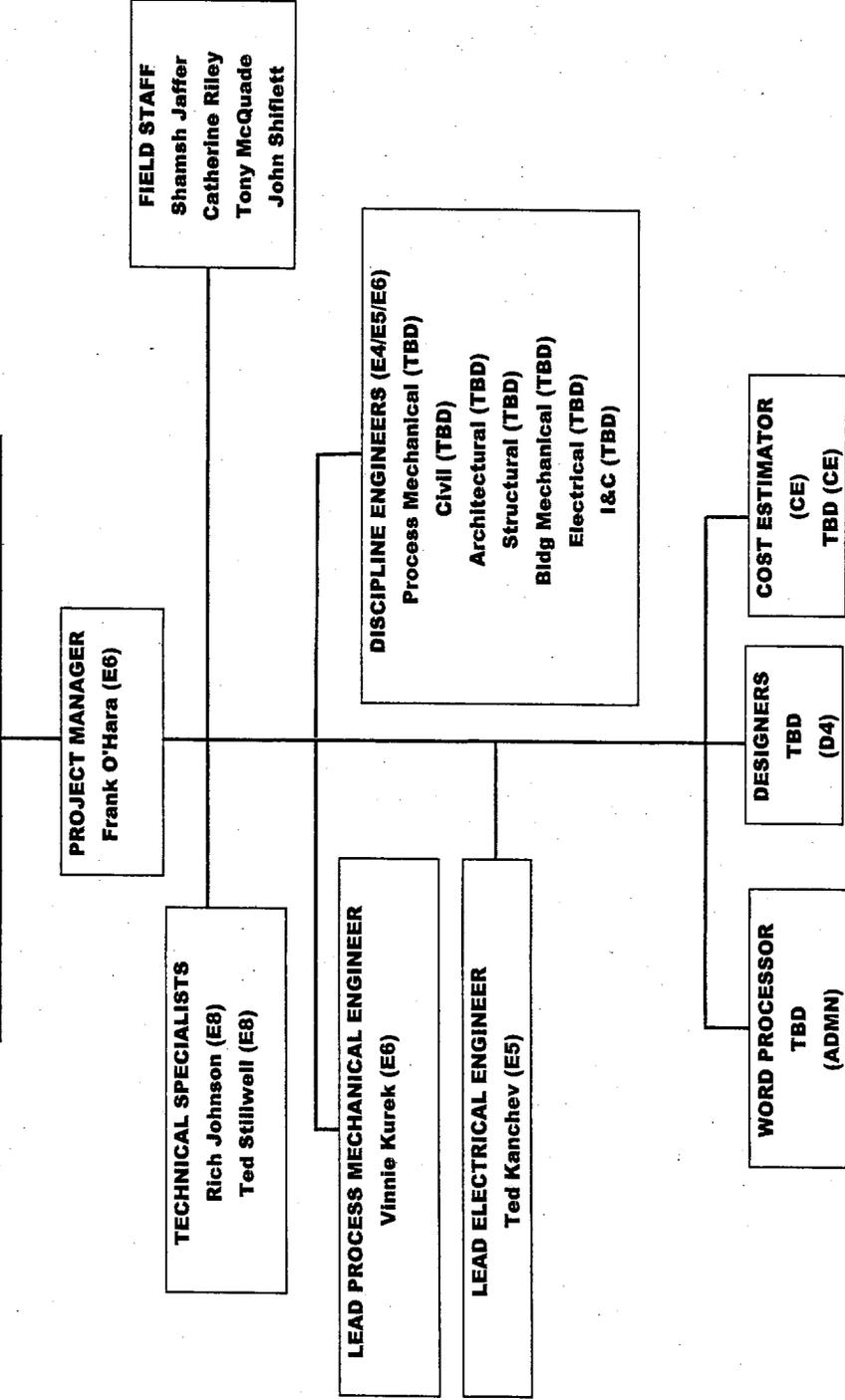
APPENDIX D

ORGANIZATION CHART

RM CLAYTON WATER RECLAMATION CENTER
UTILITIES UPGRADES



CITY OF ATLANTA
CONSTRUCTION MANAGEMENT GROUP
Robert Bush



Classifications without personnel listing will be filled from the M&E/CE Joint Venture resource pool.
This includes:

- | | | |
|-------------------|---------------------------|---------------------------|
| DMJM | Eagle Environmental Group | Thacker Operating Company |
| McCluer | CCCS | P.M. Holmes & Associates |
| MHR International | Mosby Law Group | |
| Street Smarts | WWPS | |

RCS# 6520
3/07/05
1:38 PM

Atlanta City Council

Regular Session

CONSENT I

CONSENT I PGS 4-15

ADOPT

YEAS: 12
NAYS: 0
ABSTENTIONS: 0
NOT VOTING: 1
EXCUSED: 0
ABSENT 3

Y Smith	Y Archibong	Y Moore	Y Mitchell
B Starnes	Y Fauver	Y Martin	Y Norwood
Y Young	Y Shook	Y Maddox	B Willis
B Winslow	Y Muller	Y Sheperd	NV Borders

CONSENT I

05-0388
 (Do Not Write Above This Line)

A RESOLUTION BY
 CITY UTILITIES COMMITTEE

A RESOLUTION AUTHORIZING THE MAYOR OR DESIGNEE TO ISSUE A NOTICE-TO-PROCEED WITH METCALF & EDDY/CARDOZA ENGINEERS, A JOINT VENTURE, FOR FC-7619-03E, ARCHITECTURAL AND ENGINEERING SERVICES FOR R. M. CLAYTON BUILDING/TUNNEL/UTILITY UPGRADES ON BEHALF OF THE DEPARTMENT OF WATERSHED MANAGEMENT IN AN AMOUNT NOT TO EXCEED SEVEN HUNDRED NINETY TWO THOUSAND EIGHT HUNDRED ELEVEN DOLLARS (\$792,811.00). ALL CONTRACTED WORK SHALL BE CHARGED TO AND PAID FROM FUND ACCOUNT AND CENTER NUMBER: 2J28 524001 Q32120269999 (2004 WATER AND WASTEWATER BOND FUND).

- CONSENT REFER
- REGULAR REPORT REFER
- ADVERTISE & REFER
- 1st ADOPT 2nd READ & REFER
- PERSONAL PAPER REFER

Date Referred _____
 Referred To: **ADOPTED BY**
 Date Referred **MAR 07 2005**
 Referred To: **COUNCIL**
 Date Referred _____
 Referred To: _____

First Reading

Committee _____
 Date _____
 Chair _____
 Referred To _____

City Committee Files
 Date *1/2005*
 Chair _____

Fav, Adv, Hold (see rev. side)
 Other _____

Members

[Signatures]
 Refer To _____

Committee

Date _____
 Chair _____

Fav, Adv, Hold (see rev. side)
 Other _____

Members

Refer To _____

Committee

Date _____
 Chair _____

Fav, Adv, Hold (see rev. side)
 Other _____

Members

Committee

Date _____
 Chair _____

Fav, Adv, Hold (see rev. side)
 Other _____

Members

Refer To _____

Refer To _____

- FINAL COUNCIL ACTION
- 2nd
 - 1st & 2nd
 - 3rd
 - Consent
 - V Vote
 - RC Vote

CERTIFIED

MAR 07 2005



MAYOR'S ACTION

[Signature]