OFFICIAL FILE COPY
CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

MEMORANDUM

MIAMI-DADE COUNTY

Date: December 2, 2008

To: Honorable Chairman Bruno A. Barreiro
and Members, Board of County Commissioners

Agenda Item No. 8(R)(1)(D)

From: George M. Burgess
County Manager

Resolution No. R-1349-08

Subject: Contract Award Recommendation for design criteria for the replacement of the 54-inch Sanitary Sewage Force Main from Miami Beach to the Central District Wastewater Treatment Plant and design criteria for the replacement of a 20-inch Water Main from Port Island to Fisher Island - Project No: E07-WASD-09; Contract No: E07-WASD-09 in the amount of $4,400,000.00, to Earth Tech, Inc. d/b/a Earth Tech Consulting, Inc.

RECOMMENDATION

This recommendation to award Contract No. E07-WASD-09 to Earth Tech Consulting, Inc. by Miami-Dade County in the amount of $4,400,000.00 has been prepared by the Miami-Dade Water and Sewer Department (WASD) and is recommended for approval. The consultant is to provide design criteria for the replacement of the 54-inch sanitary sewage force main from Miami Beach to the Central District Wastewater Treatment Plant (CDWWTP) and design criteria for the replacement of a 20-inch water main from Port Island to Fisher Island.

DELEGATION OF AUTHORITY

The authority of the County Mayor or County Mayor's designee to execute and implement this contract is consistent with those authorities granted under the Code of Miami-Dade County.

SCOPE

PROJECT NAME: Design criteria for the replacement of the 54-inch Sanitary Sewage Force Main from Miami Beach to the CDWWTP and design criteria for the replacement of a 20-inch Water Main from Port Island to Fisher Island

PROJECT NO: E07-WASD-09

CONTRACT NO: E07-WASD-09

PROJECT DESCRIPTION: Earth Tech Consulting, Inc. will prepare the design criteria package for a highly specialized project that will require a variety of technical services including but not limited to: permitting, surveying, subsurface investigations, land rights acquisition, developing contract documents, as well as post design services during construction and project coordination services on an as needed basis. In addition, the consultant will prepare the design criteria package with the best available technology for the replacement of the 54-inch diameter sanitary sewage force main from the point of Southern Miami Beach to the CDWWTP on Virginia Key and for the replacement a 20-inch water main from Port Island to Fisher Island.

The U.S. Army Corps of Engineers will be deepening the seaward portion of Government Cut from 50 feet to 52 feet which conflicts with both the 54-inch sewer pipeline and the 20-inch water pipeline in the Miami Harbor (Government Cut) Federal Navigation Project.

The proposed sanitary sewage pipeline is needed to replace the existing 54-inch pipeline which is in conflict with the proposed Miami Harbor (Government Cut) Federal Navigation Project. The existing 54-inch sanitary sewage force main is a critical pipeline that transmits all sewage collected from Miami Beach, Surfside, Bal Harbour, Bay Harbor Islands, North Bay Village and Fisher Island to the CDWWTP for treatment and disposal. As such, the proposed replacement sanitary sewage pipeline will need to be designed, constructed and placed into service prior to the decommissioning of the existing pipeline which needs to be removed from service and properly abandoned prior to the start of the Miami Harbor (Government Cut) Federal Navigation Project.

The proposed 20-inch water main is needed to replace the existing 20-inch water main which is in conflict with the proposed Miami Harbor (Government Cut) Federal Navigation Project. The existing water pipeline provides water service from Port Island to Fisher Island and continues onward to Virginia Key. The existing pipeline will need to be removed from service and permanently abandoned once the new pipeline has been constructed and placed into service and prior to the start of the Miami Harbor (Government Cut) Federal Navigation Project.

WASD anticipates the following services to be included, but not limited to: evaluating sanitary sewage conveyance alternatives, finalizing preliminary route selection and methodology of installation; preparation of permitting documents for the construction and future operation of the facilities; site investigations; surveying; geotechnical and geophysical services; prepare maintenance of traffic on land and harbor; hydraulic analysis; coordination with other utilities; assistance with securing "land rights" through the County's General Services Administration, County Attorney's Office, any other governmental agencies and/or municipalities, other professional consultants; a significant public involvement campaign; preparation of design reports; preparation of contract documents, design drawings and specifications; preparation of cost estimates and project schedules; provide assistance as needed during contract procurement and construction phases of the project.

Once the "land rights" have been secured, permits obtained and technical issues finalized, WASD intends to have the selected consultant develop contract documents to a level sufficient for the procurement and award of design/build contracts for the proposed sanitary sewage replacement pipeline and the replacement of the 20-inch water main.

PROJECT LOCATION:	CDWWTP located on Virginia Key to Miami Beach and Port Island to Fisher Island
PRIMARY COMMISSION DISTRICT:	Various Districts
APPROVAL PATH:	Board of County Commissioners
OCI A&E PROJECT NUMBER:	E07-WASD-09
USING DEPARTMENT:	Miami-Dade Water and Sewer Department
MANAGING DEPARTMENT:	Miami-Dade Water and Sewer Department

FISCAL IMPACT/FUNDING SOURCE:

OPERATIONS COST IMPACT/FUNDING:	The operation cost associated with the proposed 54-inch and 20-inch replacement lines will depend entirely on the alternatives selected. The operation cost associated with this project is approximately 3 percent per year of the total construction cost which is estimated at an average cost of $80 million for the 54-inch force main and $7 million for the 20-inch water main.
MAINTENANCE COST IMPACT/FUNDING:	The maintenance cost associated with the proposed 54-inch and 20-inch replacement lines will depend entirely on the alternatives selected. The operation cost associated with this project is approximately 3 percent per year of the total construction cost which is estimated at an average cost of $80 million for the 54-inch force main and $7 million for the 20-inch water main.
LIFE EXPECTANCY OF ASSET:	The life expectancy for the alternative selected is approximately 50 years.

FUNDING SOURCE:

SOURCE	AMOUNT
WASD Revenue Bonds Sold, Future WASD Revenue Bonds, Wastewater Connection Charges, and Wastewater Renewal Fund	$4,400,000.00

PTP FUNDING:	No
GOB FUNDING:	No

CAPITAL BUDGET PROJECTS:

BUDGET PROJECT / DESCRIPTION	AWARD ESTIMATE
9650241-CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS Book Page: 267 Funding Year: Proposed Capital Budget Book for FY 2008-09, Prior Years Funding	$4,000,000.00

9650181-WATER SYSTEM MAINTENANCE AND UPGRADES $400,000.00
Book Page: 275 Funding Year: Proposed Capital Budget Book for FY 2008-09, Prior Years Funding

Project Totals: $4,400,000.00

PROJECT TECHNICAL CERTIFICATION REQUIREMENTS:

TYPE	CODE	DESCRIPTION
Prime	3.02A	HIGHWAY SYSTEMS - TUNNEL DESIGN
Prime	6.01	WATER AND SANITARY SEWER SYSTEMS -WATER DISTRIBUTION AND SANITARY SEWAGE COLLECTION AND TRANSMISSION SYSTEMS
Prime	6.02	WATER AND SANITARY SEWER SYSTEMS - MAJOR WATER AND SANITARY SEWAGE PUMPING FACILITIES
Prime	17.00	ENGINEERING CONSTRUCTION MANAGEMENT
Other	3.04	HIGHWAY SYSTEMS - TRAFFIC ENGINEERING STUDIES
Other	5.01	PORT AND WATERWAY SYSTEMS - ENGINEERING DESIGN
Other	9.01	SOILS, FOUNDATIONS AND MATERIALS TESTING - DRILLING, SUBSURFACE INVESTIGATIONS AND SEISMOGRAPHIC SERVICES
Other	9.02	SOILS, FOUNDATIONS AND MATERIALS TESTING - GEOTECHNICAL AND MATERIALS ENGINEERING SERVICES
Other	10.05	ENVIRONMENTAL ENGINEERING - CONTAMINATION ASSESSMENT AND MONITORING
Other	15.01	SURVEYING AND MAPPING - LAND SURVEYING
Other	16.00	GENERAL CIVIL ENGINEERING

NTPC'S DOWNLOADED: 126

PROPOSALS RECEIVED: 6

CONTRACT PERIOD: 2190 Days. 6 years: Design, Route Analysis, Methodology, Rights and Permitting - 3 years; Procurement of design build - 1 year; Construction - 2 years

CONTINGENCY PERIOD:	219 Days
IG FEE INCLUDED IN BASE CONTRACT:	Yes
ART IN PUBLIC PLACES:	No
BASE ESTIMATE:	$4,000,000.00
BASE CONTRACT AMOUNT:	$4,000,000.00

CONTINGENCY ALLOWANCE (SECTION 2-8.1 MIAMI DADE COUNTY CODE):	**TYPE**	**PERCENT**	**AMOUNT**	**COMMENT**
	PSA	10%	$400,000.00	

TOTAL DEDICATED ALLOWANCE:	$0.00
TOTAL AMOUNT:	$4,400,000.00

TRACK RECORD / MONITOR

SBD HISTORY OF VIOLATIONS:	None
EXPLANATION:	Six firms submitted proposals for this project. One firm was found non-responsive and one firm withdrew from the solicitation process. At the First-Tier meeting held on April 25, 2008 the Competitive Selection Committee voted to hold a Second-Tier meeting with the four remaining firms. The Second-Tier meeting was held on May 15, 2008. The Committee ranked Earth Tech Consulting, Inc. as the highest ranking firm. The Negotiation Committee was approved by the County Manager on May 22, 2008. On June 6, 2008 the Negotiation Committee met with Earth Tech Consulting, Inc. and concluded its negotiations on August 13, 2008. This is the recommendation to award the contract to Earth Tech Consulting, Inc. Based on the Office of Capital Improvements CIIS database, Earth Tech Consulting, Inc. contains five evaluations with an average rating of 3.4 out of a possible 4 points, a better than satisfactory performance by this vendor.
SUBMITTAL DATE:	3/26/2008
ESTIMATED NOTICE TO PROCEED:	12/1/2008

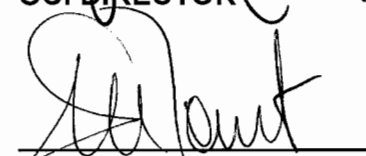
PRIME CONSULTANT:	Earth Tech, Inc. d/b/a Earth Tech Consulting, Inc.
COMPANY PRINCIPAL:	Norman C. Anderson
COMPANY QUALIFIERS:	Norman C. Anderson
COMPANY EMAIL ADDRESS:	franklin.torrealba@earthtech.com
COMPANY STREET ADDRESS:	3750 NW 87th Avenue, Suite 300
COMPANY CITY-STATE-ZIP:	Miami, FL 33178
YEARS IN BUSINESS:	38
PREVIOUS CONTRACTS WITH COUNTY IN THE LAST FIVE YEARS:	According to the Firm History Report provided by the Department of Small Business Development, Earth Tech Consulting, Inc. has been awarded two (2) contracts for a total dollar value of $8,800,000.00. The Board has approved total change orders in the amount of $2,425,000.00 which were needed to sustain the County's Needs Assessment Program.
SUBCONSULTANTS:	Lockwood, Andrews & Newnam, Inc., Dr. Sauer Corporation, Consulting Engineering & Science, Inc., Cardozo Engineering, Inc., Robayna and Associates, Inc., Geosol, Inc., Machado/Garcia-Serra, LLC., Margueritte W. Ramos & Associates
MINIMUM QUALIFICATIONS EXCEED LEGAL REQUIREMENTS:	No
REVIEW COMMITTEE:	**MEETING DATE:** 11/7/2007 **SIGNOFF DATE:** 11/7/2007 **RESUBMIT DATE:** 12/19/2007 **RESUBMIT SIGNOFF:** 12/19/2007
RESPONSIBLE WAGES:	No

REVIEW COMMITTEE ASSIGNED CONTRACT MEASURES:	TYPE	GOAL	ESTIMATED VALUE	COMMENT
	CBE	26.00%	$1,144,000.00	CBE
	CWP	0.00%	0	Not Applicable

MANDATORY CLEARING HOUSE:	No		
CONTRACT MANAGER NAME/PHONE/EMAIL:	Patty David	786-552-8040	pattyd@miamidade.gov
PROJECT MANAGER NAME/PHONE/EMAIL:	Victor Fernandez-Cuervo	786-268-5250	VICTORFC@miamidade.gov

Background

BACKGROUND: The design criteria projects for the replacement of a 54-inch sanitary sewage force main from Miami Beach to CDWWTP and for the replacement of a 20-inch water main from Port Island to Fisher Island are necessary due to conflicts with the Seaport's Government Cut Project that proposes to lower the depth of the Government Cut from 50 feet to 52 feet.

BUDGET APPROVAL FUNDS AVAILABLE:	For OSBM **OSBM DIRECTOR**	9/22/08 **DATE**
APPROVED AS TO LEGAL SUFFICIENCY:	**COUNTY ATTORNEY**	9/10/08 **DATE**
CAPITAL IMPROVEMENTS CONCURRENCE:	GM 10/9 **OCI DIRECTOR**	10-9-08 **DATE**
	 **ASSISTANT COUNTY MANAGER**	10/8/08 **DATE**
CLERK DATE		
	DATE	

JS OK 9/22

MEMORANDUM

(Revised)

TO: Honorable Chairman Bruno A. Barreiro and Members, Board of County Commissioners

DATE: December 2, 2008

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 8(R)(1)(D)

Please note any items checked.

_____ "4-Day Rule" ("3-Day Rule" for committees) applicable if raised

_____ 6 weeks required between first reading and public hearing

_____ 4 weeks notification to municipal officials required prior to public hearing

_____ Decreases revenues or increases expenditures without balancing budget

_____ Budget required

_____ Statement of fiscal impact required

_____ Bid waiver requiring County Manager's written recommendation

_____ Ordinance creating a new board requires detailed County Manager's report for public hearing

_____ Housekeeping item (no policy decision required)

_____ No committee review

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Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(R)(1)(D)
12-2-08

RESOLUTION NO. **R-1349-08**

RESOLUTION APPROVING NON-EXCLUSIVE PROFESSIONAL SERVICES AGREEMENT NO. E07-WASD-09 IN THE AMOUNT OF $4,400,000 TO EARTH TECH CONSULTING, INC. TO PROVIDE DESIGN CRITERIA FOR THE REPLACEMENT OF A 54-INCH SANITARY SEWER FORCE MAIN FROM MIAMI BEACH TO THE COUNTY'S CENTRAL DISTRICT WASTEWATER TREATMENT PLANT AND THE DESIGN CRITERIA FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM PORT ISLAND TO FISHER ISLAND; AND AUTHORIZING THE MAYOR OR MAYOR'S DESIGNEE TO EXECUTE SAME AND EXERCISE THE PROVISIONS CONTAINED THEREIN

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board hereby approves a Non-Exclusive Professional Services Agreement No. E07-WASD-09, in the amount of $4,400,000 to provide the design criteria for the replacement of a 54-inch sanitary sewer force main from Miami Beach to the County's Central District Wastewater Treatment Plant and the design criteria for the replacement of a 20-inch water main from Port Island to Fisher Island; in substantially the form attached hereto and made a part hereof; and authorizes the Mayor or Mayor's designee to execute same and to exercise the provisions contained therein.

The foregoing resolution was offered by Commissioner **Sally A. Heyman**, who moved its adoption. The motion was seconded by Commissioner **Carlos A. Gimenez** and upon being put to a vote, the vote was as follows:

Bruno A. Barreiro, Chairman	**aye**		
Barbara J. Jordan, Vice-Chairwoman	**aye**		
Jose "Pepe" Diaz	**absent**	Audrey M. Edmonson	**aye**
Carlos A. Gimenez	**aye**	Sally A. Heyman	**aye**
Joe A. Martinez	**aye**	Dennis C. Moss	**aye**
Dorrin D. Rolle	**aye**	Natacha Seijas	**aye**
Katy Sorenson	**aye**	Rebeca Sosa	**aye**
Sen. Javier D. Souto	**absent**		

The Chairperson thereupon declared the resolution duly passed and adopted this 2nd day of December, 2008. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: **Kay Sullivan**
Deputy Clerk

Approved by County Attorney as to form and legal sufficiency.

Henry N. Gillman

Contract to Award
DESIGN CRITERIA FOR THE REPLACEMENT OF A 60-INCH SANITARY SEWAGE FORCE MAIN FROM CENTRAL DISTRICT WASTEWATER TREATMENT PLANT TO MIAMI BEACH AND DESIGN CRITERIA FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM
PORT ISLAND TO FISHER ISLAND
EARTH TECH CONSULTING, INC.
PROJECT NO. E07-WASD-09

BUDGET PROJECT AND DESCRIPTION:	9650241-CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS 9650181-WATER SYSTEM MAINTENANCE AND UPGRADES
FUNDING SOURCE:	FUTURE WASD REVENUE BONDS WASTEWATER CONNECTION CHARGES WATER RENEWAL AND REPLACEMENT FUND
INDEX CODES:	EW623, 2009S, 2011S and EW 221

ASSISTANT DIRECTOR, ENGINEERING:
EDUARDO A. VEGA, P.E. — DATE 9/11/2008

DEPT. BUDGET OFFICER
PEDRO VELAR — DATE 9/11/2008

ASSISTANT DIRECTOR, FINANCE
DIANE CAMACHO — DATE 9/14/08

DEPUTY DIRECTOR, OPERATIONS
JOSEPH A. RUIZ, JR. — DATE 9/15/08

Proposed FY 2008-09

STRATEGIC AREA: Neighborhood and Unincorporated Area Municipal Services
DEPARTMENT: Water and Sewer

******* FUNDED PROJECTS *******
(dollars in thousands)

WATER MAIN EXTENSIONS **PROJECT # 9651051**

DESCRIPTION: Construct water main extensions funded from the special construction fund, including special taxing districts

LOCATION: Systemwide
Systemwide
ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT LOCATED: Systemwide
DISTRICT(s) SERVED: Systemwide

REVENUE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Water Special Construction Fund	3,918	0	0	0	0	0	0	0	3,918
TOTAL REVENUE:	**3,918**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,918**
EXPENDITURE SCHEDULE:	**PRIOR**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**FUTURE**	**TOTAL**
Planning and Design	52	32	88	37	37	37	37	37	357
Construction	516	318	876	370	370	370	370	371	3,561
TOTAL EXPENDITURES:	**568**	**350**	**964**	**407**	**407**	**407**	**407**	**408**	**3,918**

WATER SYSTEM FIRE HYDRANT INSTALLATION **PROJECT # 9653461**

DESCRIPTION: Install fire hydrants and construct related system improvements

LOCATION: Systemwide
Systemwide
ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT LOCATED: Systemwide
DISTRICT(s) SERVED: Systemwide

REVENUE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Fire Hydrant Fund	12,549	2,549	2,562	2,573	2,584	2,594	2,603	2,613	30,627
TOTAL REVENUE:	**12,549**	**2,549**	**2,562**	**2,573**	**2,584**	**2,594**	**2,603**	**2,613**	**30,627**
EXPENDITURE SCHEDULE:	**PRIOR**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**FUTURE**	**TOTAL**
Planning and Design	734	424	375	251	251	251	251	251	2,788
Construction	7,333	4,235	3,744	2,506	2,506	2,506	2,506	2,503	27,839
TOTAL EXPENDITURES:	**8,067**	**4,659**	**4,119**	**2,757**	**2,757**	**2,757**	**2,757**	**2,754**	**30,627**

WATER SYSTEM MAINTENANCE AND UPGRADES **PROJECT # 9650181**

DESCRIPTION: Maintain and develop existing water system facilities, structures, and equipment

LOCATION: Systemwide
Systemwide
ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT LOCATED: Systemwide
DISTRICT(s) SERVED: Systemwide

REVENUE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Water Renewal and Replacement Fund	18,496	12,351	13,000	9,000	13,000	10,000	14,000	9,916	99,763
TOTAL REVENUE:	**18,496**	**12,351**	**13,000**	**9,000**	**13,000**	**10,000**	**14,000**	**9,916**	**99,763**
EXPENDITURE SCHEDULE:	**PRIOR**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**FUTURE**	**TOTAL**
Planning and Design	1,108	1,700	1,183	819	1,183	910	1,274	902	9,079
Construction	11,063	16,976	11,817	8,181	11,817	9,090	12,726	9,014	90,684
TOTAL EXPENDITURES:	**12,171**	**18,676**	**13,000**	**9,000**	**13,000**	**10,000**	**14,000**	**9,916**	**99,763**

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BUDGET PROJECT 9650181

Project Title: 9650181-WATER SYSTEM MAINTENANCE AND UPGRADES

Project Desc: Maintain and develop existing water system facilities, structures, and equipment

Project($$ in 000's)	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE
Expenditures	12,171,000	18,676,000	13,000,000	9,000,000	13,000,000	10,000,000	14,000,000	9,916,00
Revenue	18,496,000	12,351,000	13,000,000	9,000,000	13,000,000	10,000,000	14,000,000	9,916,00

Project Type: Capital [Update Type]

CDPWeb Project Milestones ($ IN 000'S)

Milestone:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE
Planning/Design	1,108,000	1,700,000	1,183,000	819,000	1,183,000	910,000	1,274,000	902,00
Construction	11,063,000	16,976,000	11,817,000	8,181,000	11,817,000	9,090,000	12,726,000	9,014,00

CDPWeb Project Revenue ($ IN 000'S)

Revenue:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE
Water Renewal and Rep	18,496,000	12,351,000	13,000,000	9,000,000	13,000,000	10,000,000	14,000,000	9,916,00

CIIS Site Funding Info

SITE / Location:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE
68600-Various Locations	18,496,000	12,351,000	13,000,000	9,000,000	13,000,000	10,000,000	14,000,000	

[Add GEO Coded Site] [PROJECT SITES]

[EXIT]

Current Contracts for Project 9650181

Dept	ContractNo	Contract Name	RTA Budget Allocation	Award Budget Allocation	CIIS Award
WS	E07-WASD-09	Design criteria for the replac	$400,000.00	$0.00	$4,000,000.00
WS	E07-WASD-09	Design criteria for the replac	$0.00	$400,000.00	$4,000,000.00
		Total Allocated:	$400,000.00	$400,000.00	

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Proposed FY 2008-09

STRATEGIC AREA: Neighborhood and Unincorporated Area Municipal Services
DEPARTMENT: Water and Sewer

******* FUNDED PROJECTS *******
(dollars in thousands)

CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS **PROJECT # 9650241**

DESCRIPTION: Construct a force main crossing Bear Cut, a force main in Flagler St from SW 37 Ave to SW 10 Ave, and a force main from Miami Beach to the Central District Wastewater Treatment Plant

LOCATION: Wastewater System - Central District Area
Systemwide

DISTRICT LOCATED: Systemwide
ESTIMATED ANNUAL OPERATING IMPACT: Minimal
DISTRICT(s) SERVED: Systemwide

REVENUE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Wastewater Connection Charges	2,933	270	10,000	2,519	0	0	0	0	15,722
WASD Revenue Bonds Sold	2,055	0	0	0	0	0	0	0	2,055
Future WASD Revenue Bonds	0	0	1,000	19,451	21,000	20,000	0	0	61,451
TOTAL REVENUE:	**4,988**	**270**	**11,000**	**21,970**	**21,000**	**20,000**	**0**	**0**	**79,228**

EXPENDITURE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Planning and Design	177	183	1,092	2,027	1,911	1,820	0	0	7,210
Construction	1,767	1,831	10,908	20,243	19,089	18,180	0	0	72,018
TOTAL EXPENDITURES:	**1,944**	**2,014**	**12,000**	**22,270**	**21,000**	**20,000**	**0**	**0**	**79,228**

CORROSION CONTROL FACILITIES IMPROVEMENTS **PROJECT # 9653381**

DESCRIPTION: Construct corrosion control facilities and force mains; renovate structures at wastewater treatment plants and pump stations; and restore sewer mains

LOCATION: Systemwide
Systemwide

DISTRICT LOCATED: Systemwide
ESTIMATED ANNUAL OPERATING IMPACT: Minimal
DISTRICT(s) SERVED: Systemwide

REVENUE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Wastewater Renewal Fund	0	0	750	250	0	0	0	0	1,000
WASD Revenue Bonds Sold	12,668	0	0	0	0	0	0	0	12,668
Future WASD Revenue Bonds	0	0	1,853	1,931	1,569	0	0	0	5,353
TOTAL REVENUE:	**12,668**	**0**	**2,603**	**2,181**	**1,569**	**0**	**0**	**0**	**19,021**

EXPENDITURE SCHEDULE:	PRIOR	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	FUTURE	TOTAL
Planning and Design	956	124	310	198	143	0	0	0	1,731
Construction	9,551	1,236	3,094	1,983	1,426	0	0	0	17,290
TOTAL EXPENDITURES:	**10,507**	**1,360**	**3,404**	**2,181**	**1,569**	**0**	**0**	**0**	**19,021**

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BUDGET PROJECT 9650241

Project Title: 9650241-CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS

Project Desc: Construct a force main crossing Bear Cut, a force main in Flagler St from SW 37 Ave to SW 10 Ave, and a force main from Miami Beach to the Central District Wastewater Treatment Plant

Project($$ in 000's)	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE:	Tc
Expenditures	1,944,000	2,014,000	12,000,000	22,270,000	21,000,000	20,000,000	0	0	79,228,(
Revenue	4,988,000	270,000	11,000,000	21,970,000	21,000,000	20,000,000	0	0	79,228,(

Project Type: Capital Update Type

CDPWeb Project Milestones ($ IN 000'S)

Milestone:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE:	Tc
Planning/Design	177,000	183,000	1,092,000	2,027,000	1,911,000	1,820,000	0	0	7,210,(
Construction	1,767,000	1,831,000	10,908,000	20,243,000	19,089,000	18,180,000	0	0	72,018,(

CDPWeb Project Revenue ($ IN 000'S)

Revenue:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE:	Tc
Wastewater Connection	2,933,000	270,000	10,000,000	2,519,000	0	0	0	0	15,722,(

CIIS Site Funding Info

SITE / Location:	Prior:	08-09:	09-10:	10-11:	11-12:	12-13:	13-14:	FUTURE:	Tc
68603-Wastewater System - Central District	4,988,000	270,000	11,000,000	21,970,000	21,000,000	20,000,000	0	0	79,228,(

Add GEO Coded Site PROJECT SITES

EXIT

Current Contracts for Project 9650241

Dept	ContractNo	Contract Name	RTA Budget Allocation	Award Budget Allocation	CIIS Award
WS	E07-WASD-09	Design criteria for the replac	$4,000,000.00	$0.00	$4,000,000.00
WS	E07-WASD-09	Design criteria for the replac	$0.00	$4,000,000.00	$4,000,000.00
WS	S-742	Installation of 16-Inch H.D.P.	$0.00	$1,916,951.35	$1,697,228.50
WS	S-742	Installation of 16-Inch H.D.P.	$1,900,000.00	$0.00	$1,697,228.50
		Total Allocated:	$5,900,000.00	$5,916,951.35	

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2007 - 2013 CAPITAL BUDGET / MULTI - YEAR PLAN

WASTEWATER PROJECTS

1009. CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS

Commission District(s) 3 & 6

	Budget/ Estimate Cost	Prior to 2006 - 2007	FY 2006 - 2007	Total Prior	FY 2007 - 2008	FY 2008 - 2009	FY 2009 - 2010	FY 2010 - 2011	FY 2011 - 2012	FY 2012 - 2013	Future	Total	Bond. Issue
		Prior			Projections								
	79,227,677												
REVENUES													
		0	0	0	0	0	17,480,616	0	43,970,000	0	0	61,450,616	Future WASD Revenue Bonds
		2,932,646	0	2,932,646	0	270,222	10,000,000	2,519,384	0	0	0	15,722,252	Plant Expansion Fund - Wastewater
		2,054,809	0	2,054,809	0	0	0	0	0	0	0	2,054,809	WASD Revenue Bonds Sold
TOTAL		**4,987,455.0**	**0**	**4,987,455**	**0.0**	**270,222**	**27,480,616**	**2,519,384**	**43,970,000**	**0**	**0**	**79,227,677**	
EXPENDITURES													
		0	0	0	0	0	0	17,480,616	21,000,000	21,970,000	1,000,000	61,450,616	Future WASD Revenue Bonds
		377,067	0	377,067	325,801	2,200,000	10,000,000	2,819,384	0	0	0	15,722,252	Plant Expansion Fund - Wastewater
		150,801	1,700,000	1,850,801	204,008	0	0	0	0	0	0	2,054,809	WASD Revenue Bonds Sold
TOTAL		**527,867.9**	**1,700,000**	**2,227,868**	**529,809.0**	**2,200,000**	**10,000,000**	**20,300,000**	**21,000,000**	**21,970,000**	**1,000,000**	**79,227,677**	

WASTEWATER PROJECTS

1009. CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS

Commission District(s) 3 & 6

	Prior			Projections								
Budget/ Estimate Cost	Prior to 2006 - 2007	FY 2006 - 2007	Total Prior	FY 2007 - 2008	FY 2008 - 2009	FY 2009 - 2010	FY 2010 - 2011	FY 2011 - 2012	FY 2012 - 2013	Future	Total	Bond Issue

.100044 S 60" FORCE MAIN FROM MIAMI BEACH TO CDWWTP

Commission District(s) 5,7

Sub-Project Budget / Estimated 72,775,616

REVENUES

	0	0	0	0	0	17,480,616	0	40,000,000	0	0	57,480,616	Future WASD Revenue Bonds
	2,505,394	0	2,505,394	0	270,222	10,000,000	2,519,384	0	0	0	15,295,000	Plant Expansion Fund - Wastewater
TOTAL	**2,505,394**	**0**	**2,505,394**	**0**	**270,222**	**27,480,616**	**2,519,384**	**40,000,000**	**0**	**0**	72,775,616	

EXPENDITURES

	0	0	0	0	0	0	17,480,616	20,000,000	20,000,000	0	57,480,616	Future WASD Revenue Bonds
	345,807	0	345,807	129,809	2,000,000	10,000,000	2,819,384	0	0	0	15,295,000	Plant Expansion Fund - Wastewater
TOTAL	**345,807**	**0**	**345,807**	**129,809**	**2,000,000**	**10,000,000**	**20,300,000**	**20,000,000**	**20,000,000**	**0**	72,775,616	

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2007 - 2013 CAPITAL BUDGET / MULTI - YEAR PLAN

WATER PROJECTS

1067. WATER SYSTEM MAINTENANCE AND UPGRADES

Commission District(s) COUNTYWIDE

	Budget/ Estimate Cost	Prior to 2006 - 2007	FY 2006 - 2007	Total Prior	FY 2007 - 2008	FY 2008 - 2009	FY 2009 - 2010	FY 2010 - 2011	FY 2011 - 2012	FY 2012 - 2013	Future	Total	Bond Issue
		Prior			Projections								
	84,432,714												
REVENUES													
		8,000,000	11,289,000	19,289,000	4,171,000	9,890,833	9,640,833	9,646,375	10,140,833	10,826,920	10,826,920	84,432,714	Water Renewal & Replacement Fund
TOTAL		**8,000,000.0**	**11,289,000**	**19,289,000**	**4,171,000.0**	**9,890,833**	**9,640,833**	**9,646,375**	**10,140,833**	**10,826,920**	**10,826,920**	**84,432,714**	
EXPENDITURES													
		0	11,289,000	11,289,000	12,171,000	9,890,833	9,640,833	9,646,375	10,140,833	10,826,920	10,826,920	84,432,714	Water Renewal & Replacement Fund
TOTAL		**0.0**	**11,289,000**	**11,289,000**	**12,171,000.0**	**9,890,833**	**9,640,833**	**9,646,375**	**10,140,833**	**10,826,920**	**10,826,920**	**84,432,714**	

.100793 W WATER SYSTEM UPGRADES

Commission District(s) COUNTYWIDE

Sub-Project Budget / Estimated **84,432,714**

REVENUES												
	8,000,000	11,289,000	19,289,000	4,171,000	9,890,833	9,640,833	9,646,375	10,140,833	10,826,920	10,826,920	84,432,714	Water Renewal & Replacement Fund
TOTAL	**8,000,000**	**11,289,000**	**19,289,000**	**4,171,000**	**9,890,833**	**9,640,833**	**9,646,375**	**10,140,833**	**10,826,920**	**10,826,920**	**84,432,714**	
EXPENDITURES												
	0	11,289,000	11,289,000	12,171,000	9,890,833	9,640,833	9,646,375	10,140,833	10,826,920	10,826,920	84,432,714	Water Renewal & Replacement Fund
TOTAL	**0**	**11,289,000**	**11,289,000**	**12,171,000**	**9,890,833**	**9,640,833**	**9,646,375**	**10,140,833**	**10,826,920**	**10,826,920**	**84,432,714**	

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MIAMI-DADE COUNTY

MEMORANDUM

DATE: May 8, 2008

TO: Johnny Martinez, Jr., P.E., Director
Office of Capital Improvements

FROM: Penelope Townsley, Director
Small Business Development

SUBJECT: Compliance Review
Design/Build Project No. E07-WASD-09
Design Criteria for the Replacement of the 54-Inch Sanitary Sewage Force Main from Southern Miami Beach to the Central District Wastewater Treatment Plant and Design Criteria for the Replacement of a 20-Inch Water Main from Port Island to Fisher Island

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Department of Small Business Development (SBD) has completed its review of the above-referenced project for compliance with the Community Business Enterprise (CBE-A/E) Program for Architectural and Engineering Services. The contract measure established for this project is a 26% CBE sub-consultant goal.

The Construction Contracts Section of the Miami-Dade Office of Capital Improvements has submitted proposals from Earth Tech Consulting, Inc. (#1), Jordan, Jones, & Goulding, Inc. (#3), PB Americas, Inc. (#4), HDR Engineering, Inc. (#5), and URS Corporation (#6) for compliance review.

Earth Tech Consulting, Inc. (#1) submitted the required Schedule of Participation that listed CBE sub-consultants Geosol, Inc. to perform Drilling Subsurface Investigations & Seismographic, Geotechnical & Materials Engineering Services and Environmental Engineering-Contamination Assessment & Monitoring at 15%, Robayna and Associates, Inc. to perform Surveying and Mapping-Land Surveying at 5%, and Cardozo Engineering, Inc. to perform W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, W & S Sewer Systems-Major Water & Sewer Pumping Facilities, and General Civil Engineering at 6%. The Letters of Intent submitted were in agreement with the Schedule of Participation. Earth Tech Consulting, Inc. is in compliance with the CBE Participation Provisions.

Jordan, Jones, & Goulding, Inc. (JJG) (#3) submitted a proposal which did not include the required form "Schedule of Participation" (CBE 101); however, included were Letters of Intent submitted by Civil Works, Inc. to perform Highway Systems-Traffic Engineering Studies, Port & Waterway Systems-Engineering Design, and W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems at 3%, Nadic Engineering Services, Inc. to perform Drilling Subsurface Investigations & Seismographic and Geotechnical & Materials Engineering Services at 7%, CES Consultants, Inc. to perform Highway Systems-Traffic Engineering Studies, W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, and Engineering Construction Management at 13%, Leiter, Perez & Associates, Inc. to perform Surveying and Mapping-Land Surveying at 6%, and Cardozo Engineering, Inc. to perform W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems and W & S Sewer Systems-Major Water & Sewer Pumping Facilities at 2%. The CBE Participation Provisions, Section E.2.a.i., states: "Respondents must submit a Schedule of Participation (Form CBE 101) at the time of proposal submission identifying all CBE-A/Es to be utilized to meet the subconsultant goal, the professional service designation of work each will perform, and the percentage of such work." A legal opinion rendered by the County Attorney's Office on May 8, 2008 states the following: "The letter of interest did not specify the percentage participation of each CBE firm nor did it identify the scope of work each was to perform." Also stated in the legal opinion was: "In addition, JJG's submittal included an organizational chart. While the chart provided some details regarding the scope of work each CBE was to perform, neither the chart nor any other document signed by or on behalf of JJG in its submittal details the percentage of the total project represented by each CBE's participation. Because JJG's submittal does not demonstrate concurrence between the prime proposer and each of the CBE subconsultants as to the percentage of the total project represented by each CBE's participation, it is the determination of this office that JJG's submittal is nonresponsive."

PB Americas, Inc. (#4) submitted the required Schedule of Participation that listed CBE sub-consultants HR Engineering Services, Inc. to perform Drilling Subsurface Investigations & Seismographic, Geotechnical & Materials Engineering Services, and General Civil Engineering at 10%, Manuel G. Vera & Associates, Inc. to perform Surveying and Mapping-Land Surveying at 6%, Nova Consulting, Inc. to perform Port & Waterway Systems-Engineering Design, W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, W & S Sewer Systems-Major Water & Sewer Pumping Facilities, Environmental Engineering-Contamination Assessment & Monitoring, General Civil Engineering, and Engineering Construction Management, also at 10%, and Cardozo Engineering, Inc. to perform W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems at 1%. The Letters of Intent submitted for Manuel G. Vera, Nova Consulting, and Cardozo Engineering were in agreement with the Schedule of Participation; however, the Letter of Intent submitted for HR Engineering listed them to perform Geotechnical & Materials Engineering Services at 10%. In a clarification letter to the Department of Small Business Development, PB Americas confirmed that HR Engineering would perform Geotechnical & Materials Engineering Services at 10%. PB Americas, Inc. is in compliance with the CBE Participation Provisions.

HDR Engineering, Inc. (#5) submitted the required Schedule of Participation that listed CBE sub-consultants BCC Engineering, Inc. to perform Highway Systems-Traffic Engineering Studies, W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, General Civil Engineering, and Engineering Construction Management at 12%, BND Engineers, Inc. to perform W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, W & S Sewer Systems-Major Water & Sewer Pumping Facilities, Environmental Engineering-Contamination Assessment & Monitoring, General Civil Engineering, and Engineering Construction Management at 10%, and Nova Consulting, Inc. to perform Port & Waterway Systems-Engineering Design, W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, W & S Sewer Systems-Major Water & Sewer Pumping Facilities, Environmental Engineering-Contamination Assessment & Monitoring, General Civil Engineering, and Engineering Construction Management at 4%. The Letters of Intent submitted were in agreement with the Schedule of Participation. HDR Engineering, Inc. is in compliance with the CBE Participation Provisions.

URS Corporation (#6) submitted the required Schedule of Participation that listed CBE sub-consultants Chen and Associates Consulting Engineers, Inc. to perform W & S Sewer Systems-Water Distribution and Sanitary Sewage Collection and Transmission Systems, W & S Sewer Systems-Major Water & Sewer Pumping Facilities, and Engineering Construction Management at 18%, J. Bonfill & Associates, Inc. to perform Surveying and Mapping-Land Surveying at 6%, and Kaderabek Company to perform Drilling, Subsurface Investigations & Seismographic Services, also at 6%. The Letters of Intent submitted were in agreement with the Schedule of Participation. URS Corporation is in compliance with the CBE Participation Provisions.

Please note that SBD staff only reviewed and addressed compliance with the CBE-A/E program. The Construction Contracts Section of the Miami-Dade Office of Capital Improvements is responsible for any other issues that may exist.

Should you have any questions or need any additional information, please do not hesitate to contact Vivian O. Walters, Jr. at (305) 375-3138.

cc: Luisa Millan-Donovan, OCI
Traci Adams-Parish, SBD
File

RECEIVED
DEPT. BUSINESS DEV.

2008 MAY -8 PM 1:40

MEMORANDUM

MIAMI-DADE COUNTY

To: Penelope Townsley, Director
Small Business Development

Date: 8 May 2008

From: John McInnis
Assistant County Attorney

Subject: Project No. E07-WASD-09

This office has been asked whether a proposal submitted by Jordan Jones & Goulding, Inc., ("JJG"), in response to the solicitation for the above-named project are "responsive" within the meaning of Miami-Dade County's community business enterprise program for architects and engineers (CBE-A/E), section 2-10.4.01, Code of Miami-Dade County. The Board of County Commissioners has established a 26% CBE goal for design component of this design-build project. .

The bid documents, including the ordinance and participation provisions promulgated thereunder, require all respondents to submit a schedule of participation (SOP) and letter of intent (LOI) at the time of proposal submittal. The schedule of participation must list all CBEs to be utilized to meet the established goal, the professional service designation of the work each listed CBE is to perform, and the percentage of the total project such work represents. The SOP must be signed by the prime proposer. ***CBE Participation Provisions, E(2)(a)(i).*** Proposers are also required to submit a letter of intent from each CBE listed on the schedule of participation by 4:00 p.m. on the second business day following proposal submission. The letter of intent must be signed by the representative of the CBE subconsultant, and must indicate the CBE's capacity and intent to perform the designated professional service and the percentage of the total project represented by such work. ***CBE Participation Provisions, E(2)(a)(vi).*** The purpose of the joint SOP and LOI requirements is to provide assurances to the County that if the proposal is accepted, the prime proposer and each CBE subconsultant are in agreement as to the professional service designation of the work the CBE is to perform and the percentage of the total project such work represents.

Your department has advised that JJG submitted a proposal, which did not include the required SOP. JJG's submittal included a letter of interest listing 5 CBE subconsultants (CES Consultants, Inc., Leiter, Perez & Associates, Inc., Nadic Engineering Services, Inc., Civil Works, Inc., and Cardozo Engineering, Inc.) performing various scopes of work for a total CBE participation of 31%. The letter of interest did not specify the percentage participation of each CBE firm nor did it identify the scope of work each was to perform. JJG's submittal also included 5 LOIs, one for each of the above-named CBEs. Each of the LOIs identified the scopes of work and the percentage participation and was signed by the CBE subconsultant named therein. In addition, JJG's submittal included an organizational chart. While the chart provided some details regarding the scope of work each CBE was to perform, neither the chart nor any other document signed by or on behalf of JJG in its submittal details the percentage of the total project represented by each CBE's participation. Because JJG's submittal does not demonstrate concurrence between the prime proposer and each of the CBE subconsultants as to the percentage of the total project represented by each CBE's participation, it is the determination of this office that JJG's submittal is nonresponsive.

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DBD
DEPARTMENT OF BUSINESS DEVELOPMENT

Dept. of Business Development

Project Worksheet

Project/Contract Title:	DESIGN CRITERIA FOR THE REPLACEMENT OF THE 54-INCH SANITARY SEWAGE FORCE MAIN FROM S. MIAMI BEACH TO THE CENTRAL DIST WASTEWATER TREATMENT PLANT AND DESIGN CRITERIA FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM PORT ISLAND TO FISHER ISLAND (SIC 871)	**RC Date:**	12/19/2007 1-02 11/07/2007
Project/Contract No:	E07-WASD-09	**Funding Source:**	**Item No:**
Department:	WATER & SEWER DEPARTMENT	WATER & SEWER REVENUES	
Estimated Cost of Project/Bid:	$4,000,000.00		**Resubmittal Date(s):**
Description of Project/Bid:	TO ESTABLISH A CONTRACT TO EMPLOY AN ENGINEERING FIRM TO PROVIDE DESIGN CRITERIA PROFESSIONAL SERVICES. THESE SERVICES WILL INCLUDE THE DESIGN CRITERIA FOR A 60-INCH SANITARY SEWAGE FORCE MAIN FROM THE COUNTY'S CENTRAL DISTRICT WASTEWATER TREATMENT PLANT TO MIAMI BEACH AND FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM PORT ISLAND TO FISHER ISLAND		

Contract Measures Recommendation

Measure	Program	Goal Percent
Goal	CBE	26.00%

Reasons for Recommendation

This project meets all the criteria set forth in A.O. 3-32, Section V.
An "Availability Study" was conducted by Small Business Development on October 30, 2007 in an effort to increase the CBE goal. Technical category 15.01 was polled in this process reflecting the minimum requirements as stipulated by WASD. Five (5) CBEs responded expressing an interest and provided a list of (related) previous work experience; WASD reviewed these responses and concurred with an increase from 20% to 26% CBE goal.
Reasons for resubmittal: Change in title; 3.02A was increased; 6.01& 10.05 were decreased (CBE goal remains the same).
SIC 871 - Architectural and Engineering Services

Analysis for Recommendation of a Goal

Subtrade	Cat.	Estimated Value	% of Items to Base Bid	Availability
W & S SEWER SYS-WATER DIST & SANITARY SEWAGE COLL	CBE	$400,000.00	10.00%	45
SURVEYING AND MAPPING-LAND SURVEYING	CBE	$240,000.00	6.00%	12
ENVIRONMENTAL ENG-CONTAMINATION ASSESS & MONITOR	CBE	$120,000.00	3.00%	14
ENGINEERING CONSTRUCTION MANAGEMENT	CBE	$80,000.00	2.00%	70
GENERAL CIVIL ENGINEERING	CBE	$200,000.00	5.00%	55
	Total	$1,040,000.00	26.00%	

Living Wages: YES [ ] NO [X]

Responsible Wages: YES [ ] NO [X]

Ordinance 90-143 is applicable to all construction projects over $100,000 that do not utilize Federal Funds

REVIEW COMMITTE RECOMMENDATION

Tier 1 Set Aside _____

Set Aside _____ **Level 1** _____ **Level 2** _____ **Level 3** _____

Trade Set Aside (MCC) _____ **Goal** 26% **Bid Preference** _____

No Measure _____ **Deferred** _____ **Selection Factor** _____

[signature] 12·19·07 [signature]

Chairperson, Review Committee Date County Manager Date

DBDR0096 v 2006101

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Dept. of Business Development

Project Worksheet

Project Contract Title:	DESIGN CRITERIA FOR A 60-INCH SANITARY SEWAGE FORCE MAIN FROM THE CENTRAL DISTRICT WASTEWATER TREATMENT PLANT TO MIAMI BEACH AND FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM PORT ISLAND TO FISHER ISLAND (SS 871)	RC Date:	11/07/2007 1-01
Project Contract No:	E07-WASD-09	Funding Source:	Item No:
Department:	WATER & SEWER DEPARTMENT	WATER & SEWER REVENUES	
Estimated Cost of Project/Bid:	$4,000,000.00		Resubmittal Date(s):
Description of Project/Bid:	TO ESTABLISH A CONTRACT TO ENGAGE AN ENGINEERING FIRM FOR PROFESSIONAL SERVICES. THESE SERVICES WILL INCLUDE THE DESIGN CRITERIA FOR A 60-INCH SANITARY SEWAGE FORCE MAIN FROM THE CENTRAL DISTRICT WASTEWATER TREATMENT PLANT TO MIAMI BEACH AND FOR THE REPLACEMENT OF A 20-INCH WATER MAIN FROM PORT ISLAND TO FISHER ISLAND		

Contract Measures Recommendation

Measure	Program	Goal Percent
Goal	CBE	26.00%

Reasons for Recommendation

This project meets all the criteria set forth in A.O. 3-32, Section V.

An "Availability Study" was conducted by Small Business Development on October 30, 2007 in an effort to increase the CBE goal. Technical category 15.01 was polled in this process reflecting the minimum requirements as stipulated by WASD. Five (5) CBEs responded expressing an interest and provided a list of (related) previous work experience. WASD reviewed these responses and concurred with an increase from 20% to 26% CBE goal.

SIC 871 - Architectural and Engineering Services

Analysis for Recommendation of a Goal

Subtrade	Cat.	Estimated Value	% of Items to Base Bid	Availability
W & S SEWER SYS-WATER DIST & SANITARY SEWAGE COLL	CBE	$400,000.00	10.00%	45
SURVEYING AND MAPPING-LAND SURVEYING	CBE	$240,000.00	6.00%	12
ENVIRONMENTAL ENG-CONTAMINATION ASSESS & MONITOR	CBE	$120,000.00	3.00%	14
ENGINEERING CONSTRUCTION MANAGEMENT	CBE	$80,000.00	2.00%	70
GENERAL CIVIL ENGINEERING	CBE	$200,000.00	5.00%	55
	Total	$1,040,000.00	26.00%	

Living Wages: YES [ ] NO [X]

Responsible Wages: YES [ ] NO [X]

Ordinance 99-153 is applicable to all construction projects over $100,000 but do not include Federal Funds

REVIEW COMMITTEE RECOMMENDATION

Tier 1 Set Aside _____

Set Aside _____ **Level 1** _____ **Level 2** _____ **Level 3** _____

Trade Set Aside (MCC) _____ **Goal** 26% **Bid Preference** _____

No Measure _____ **Deferred** _____ **Selection Factor** _____

Chairperson, Review Committee — Date: 11-07-07

County Mayor — Date

DBD
DEPARTMENT OF
BUSINESS DEVELOPMENT

MIAMI DADE COUNTY
A&E Firm History Report
From: 09/30/2003 **To:** 09/30/2008

FIRM NAME: EARTH TECH, INC. D/B/A EARTH TECH CONSULTING, INC.
3750 NW 87th Ave, Suite 300
Miami, FL 33178

PRIMES

PROJECT #	CONTRACT	DEPT.	MEASURES	AWARD DATE	AWARD AMOUNT	PAID TO PRIME AS OF	REQ TO DATE	DATE REPORTED	SUBCONTRACTORS
E04-WASD-05	1	WS	GOAL CBE 25%	03/06/2006	$2,750,000.00	$1,067,320.15 11/29/2006	$0.00		* CES CONSULTANTS, INC. - $26,154.89 * GENSYM CORPORATION - $0.00 * LEITER, PEREZ & ASSOCIATES, INC. - $0.00 * NOVA CONSULTING, INC. - $38,247.61
HYDRAULIC COMPUTER MODELING (SIC 871)					$2,750,000.00				
E07-WASD-05 (A)	1	WS	GOAL CBE 25%	12/04/2007	$6,050,000.00	$32,589.10 07/03/2008	$0.00		* A.D.A. ENGINEERING, INC. - $0.00 * CES CONSULTANTS, INC. - $0.00 * STRAIGHTLINE ENGINEERING, INC. - $0.00
CONSTRUCTION ENGINEERING AND INSPECTION SERVICES FOR THE SOUTH DISTRICT WASTEWATER TREATMENT PLANT (SDWWTP) HIGH LEVEL DISINFECTION (HLD)					$6,050,000.00				

Total Award Amount	**$8,800,000.00**
Total Change Orders Approved by BCC	**$2,425,000.00**
	$11,225,000.00
Total Change Orders Approved After Requested Date Range	**$0.00**
Total Change Orders Pending	**$0.00**
	$11,225,000.00

HG

* Indicates closed or expired contracts

Change Orders without dates are pending BCC approval

Find Contracts With Search String ==> | Projects | Goto Bottom | Exit

OFFICE OF CAPITAL IMPROVEMENTS
CAPITAL IMPROVEMENTS INFORMATION SYSTEM
Tuesday, September 23, 2008

All Contracts for FEIN 952661922
Earth Tech Consulting, Inc.

DST	DPT	Type	Contract	Name	Location / Contractor	Estimated Completion Date	Total Award	Last Status Date	% Complete / Status *
0	DE	PSA	E01-DERM-01-4	Environmental Engineering Consultants for Planning A	Earth Tech Consulting, Inc.	11/2/2003	$1,500,000	3/9/2005	100% / Complete
0	DE	PSA	E01-DERM-04, EP-40	Consultants for Civil Engineering Consulting Service	Earth Tech Consulting, Inc.	12/18/2003	$500,000	6/7/2005	100% / Complete
0	WS	PSA	E01-WASD-05, Project 2	Program Management Services for Needs Assessment Pro	Earth Tech Consulting, Inc.	1/27/2013	$1,400,000	5/29/2008	95% / On Hold
30	WS	PSA	E04-WASD-05	Hydraulics Computer Modeling	Earth Tech Consulting, Inc.	8/1/2009	$2,500,000	4/30/2008	71.6% / On Schedule
12	WS	PSA	E06-WASD-02,GOB	Design of 36-inch Water Main to be located along NW	Earth Tech Consulting, Inc.	N/A	$1,250,000	7/29/2008	0% / Cancelled
8	WS	PSA	E07-WASD-05	Construction Engineering & Inspection Services for t	Earth Tech Consulting, Inc.	N/A	$5,500,000	4/23/2008	0% / On Schedule
8	WS	PSA	E07-WASD-05 (A)	Construction Engineering & Inspection Services for t	Earth Tech Consulting, Inc.	N/A	$5,500,000	4/22/2008	0% / On Schedule
30	WS	PSA	E07-WASD-09	Design criteria for the replacement of the 54-inch S	Earth Tech Consulting, Inc.	N/A	$4,000,000	5/8/2008	0% / N/A
					Totals:	8	$22,150,000		

* Contracts with Green Name are PSA Agreements
Yellow Status=Inactive Contract

Contracts Status View | Exit | Projects | Goto Top

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Capital Improvements Information System

Contractor Evaluations Report

Dept	Contract	Type	Contractor / Architect Name	Date	Rater	Period	Rate
DE	E01-DERM-04, EP-40	PSA	Earth Tech Consulting, Inc.	2/25/2006	Keith Ng	Project conclusion or closeout	3.0
DE	E01-DERM-01-4	PSA	Earth Tech Consulting, Inc.	3/1/2006	Keith Ng	None	3.0
WS	E01-WASD-05, Project 2	PSA	Earth Tech Consulting, Inc.	7/21/2006	Rafael J. Ballesteros	Project conclusion or closeout	4.0
WS	E01-WASD-05, Project 2	PSA	Earth Tech Consulting, Inc.	8/9/2006	Sylvia Gonzalez	Project conclusion or closeout	4.0
WS	E04-WASD-05	PSA	Earth Tech Consulting, Inc.	10/15/2007	Sylvia Gonzalez	Project conclusion or closeout	2.9

Evaluation Count: 5 Contractors: 1 Average Evaluation: 3.4

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NON-EXCLUSIVE PROFESSIONAL SERVICES AGREEMENT
BETWEEN
MIAMI-DADE COUNTY
AND
EARTH TECH CONSULTING, INC.

Agreement No. 08ETCI006

THIS NON-EXCLUSIVE PROFESSIONAL SERVICES AGREEMENT is made and entered into this _____ day of _____, 2008, by and between Miami-Dade County, a political subdivision of the State of Florida, hereinafter referred to as the "COUNTY", and EARTH TECH CONSULTING, INC. a Florida corporation authorized to do business in the State of Florida with offices in Miami-Dade County, hereinafter referred to as the "ENGINEER".

For and in consideration of the mutual agreements hereinafter contained, the COUNTY hereby retains the ENGINEER and the ENGINEER hereby covenants to provide the professional services described herein in connection with the Design Criteria for the replacement of the 54-inch Sanitary Sewage Force Main from Miami Beach to the Central District Wastewater Treatment Plant (CDWWTP) and Design Criteria for the replacement of a 20-inch Water Main from Port Island to Fisher Island - hereinafter referred to as the "Project".

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1. COUNTY OBLIGATIONS AND AUTHORIZATION TO PROCEED: The COUNTY agrees that its Miami-Dade Water and Sewer Department, hereinafter referred to as the "Department", shall furnish to the ENGINEER any plans or other data available in the COUNTY files pertaining to the work to be performed under this Agreement. Information shown on such plans or data shall be that which has been made available to the COUNTY, and shall be provided to the ENGINEER without guarantee regarding its reliability and accuracy; the ENGINEER shall be responsible for independently verifying such information if it shall be used by the ENGINEER to accomplish the work undertaken pursuant to this Agreement.

The ENGINEER shall submit a proposal upon the Director's request prior to the issuance of a task authorization to proceed. No payment shall be made for the ENGINEER's time or service in connection with the preparation of any such proposal. The Director or his designee shall confer with the ENGINEER before any authorization to proceed is issued to discuss and agree upon the scope, time for completion, and fee for services to be rendered pursuant to the task orders, subject to the conditions of this Agreement. No payment shall be made for the ENGINEER's time on services in connection with the preparation of any such proposal.

The Director of the Miami-Dade Water and Sewer Department, hereinafter referred to as the "Director", or his designee, shall issue written task order authorizations to proceed to the ENGINEER for each section of the work to be performed hereunder. In case of emergency, the COUNTY, through the Director, reserves the right to issue oral authorizations to the ENGINEER with the

understanding that written authorization shall follow within ten (10) working days. If no written authorization is issued within that time, the ENGINEER shall cease work and submit an invoice for work completed.

2. PROFESSIONAL SERVICES: Upon receipt of authorization to proceed from the Director, the ENGINEER agrees to perform professional services associated with the requested work in accordance with the negotiated terms of the applicable written task order authorization to proceed. The services under this Agreement shall be performed by the ENGINEER during hours which generally correspond but are not necessarily limited to those office hours of the Department. Said services will require a design criteria package for the replacement of the 54-inch sanitary sewage force main from Miami Beach to the CDWWTP and for the design criteria package for the replacement of a 20-inch water main from Port Island to Fisher Island. The proposed replacement pipelines will need to be designed, constructed and placed into service prior to the decommissioning of the existing pipeline which needs to be removed from service and properly abandoned prior to the start of the Miami Harbor (Government Cut) Federal Navigation Project.

The engineering project will require a variety of technical services including permitting, surveying, subsurface investigation, land rights acquisitions, developing contract documents, post design services during construction and project coordination services on an as needed basis and any supportive task ancillary to the primary scope of services. In addition, the ENGINEER will prepare the design criteria package with the best available technology for the replacement of the 54-inch diameter sanitary sewage force main and 20-inch water main. Additional services will include the following: evaluating sanitary conveyance alternatives, finalizing preliminary route selection and methodology of installation; permitting for the construction and future operation of the facilities; site investigations; surveying; geotechnical and geophysical services; maintenance of traffic on land and harbor; hydraulic analysis; coordination with other utilities; assistance with securing "land rights" through the County's General Services Administration, County Attorney's Office, any other governmental agencies and/or municipalities', other professional consultants and a significant public involvement campaign; preparation of design reports; preparation of contract documents, design drawings and specifications; preparation of cost estimates and project schedules; provide assistance as needed during contract procurement and construction phases of the project . Once the "land rights" have been secured, permits obtained and technical issues finalized, the MDWASD intends to have the selected consultant develop contract documents to a level sufficient for the procurement and award of a design/build contract for the proposed replacement of the 54-inch diameter sanitary sewage force main from Miami Beach to the CDWWTP located on Virginia Key and for the replacement of a 20-inch water main from Port Island to Fisher Island.

Task Order One (Exhibit B) – The ENGINEER is to complete the following tasks under Task Order One for the replacement of the 54-inch force main from CDWWTP to Miami Beach and for the replacement of the 20-inch water main from Port Island to Fisher Island:

Task 1.1	Collect and Review Data
1.1.1	Data Collection
1.1.2	Initial Coordination Meeting, Work Plan and Kick-Off Meeting
Task 1.2	Identify, Evaluate & Provide Final Alignment and Project Parameters
1.2.1	Meeting with Stakeholders and Permitting Agencies
1.2.2	Connection Points and Project Parameters
1.2.3	Preliminary Baseline Survey
1.2.4	Initial Geotechnical Investigation
1.2.5	Finalize Construction Considerations
1.2.6.	Finalize and Recommend Construction Methodology and Vertical Alignment
1.2.7	Preliminary Permitting Requirements and Environmental Site Assessment
1.2.8	Risk Assessment
1.2.9	Finalize and Recommend Horizontal Alignment
1.210	Paired Matrix Comparison
1.211	Water Main Replacement Recommendation Report
Task 1.3	Assistance to Secure Land Rights
1.31	Request Legal Records along Selected Alignment
1.3.2	Final Land Requirements for Selected Alignment
1.3.3	Assistance to Secure Land Rights
Task 1.4	Public Involvement
1.4.1	Public Information
1.4.2	Stakeholder/Community Involvement Workshops

The total compensation for Task Order One is $1.2 million and the work should be completed within 300 calendar days once the Notice to Proceed has been issued. Any modification(s) made to Task Order One must be approved by the Miami-Dade Water and Sewer Department (WASD) Director or his designee. Additional task orders as authorized by the WASD Director will be forthcoming.

3. ENGINEER'S RESPONSIBILITIES: In connection with professional services to be rendered pursuant to this Agreement, the ENGINEER agrees to:
   A. Use that degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions.
   B. Maintain an adequate staff of qualified personnel on the work at all times to ensure its completion within the term specified in the applicable task order authorization to proceed.
   C. Comply with the federal, state and local laws or ordinance applicable to the work.

D. Cooperate fully with the COUNTY in the scheduling and coordination of all phases of the work.

E. Report the status of the work to the Director upon request and hold pertinent data, and other products open to the inspection of the Director or designee at any reasonable time and during normal business hours.

F. Submit for COUNTY review design computations, sketches, and other data representative of the work's progress at the percentage stages of completion which may be stipulated in the applicable authorization to proceed. Submit for COUNTY approval the final work products upon incorporation of any modifications requested by the COUNTY during any previous review.

G. Confer with the COUNTY at any time during the further development and implementation of improvements for which the ENGINEER has provided design or other services as to interpretation of plans and other documents, correction of errors and omissions and preparation of any necessary plan thereof. The ENGINEER shall not be compensated for the correction of errors and omissions on the part of the ENGINEER.

H. Prior to final approval of the work by the Director, complete a preliminary check of any construction documents which require a permit or other approval from a county, city, state, or federal agency from which a permit or other approval is required.

I. Use computer and networking hardware, software and firmware standards as approved by the Information Technology (IT) Division of the Department. IT staff must be involved in the design phase of an application and in developing the testing, training and acceptance criteria of the application before it is placed into production. All applications and/or systems to be transferred to the COUNTY must have adequate end user and systems support documentation and as part of the design process for a project, any system needs should be identified and will require the approval of IT. All electronic data performed or produced in the performance of this agreement shall be transferred in an approved media and format by IT.

J. All systems developed by the ENGINEER pursuant to this Agreement shall become the property of the COUNTY.

K. Application design, operation and security shall follow the COUNTY and WASD IT standards. Costs incurred to comply with these if the system is developed outside these parameters will be the burden of the consultant.

L. The COUNTY reserves the right to require background checks on consultant staff working on sensitive WASD infrastructure information, especially GIS layers. The Department may request non-disclosure agreements to be signed regarding infrastructure information and shall hold the consultant responsible for the security of this data.

M. All consultant staff wishing to gain access to work via the COUNTY network will require a network ID and password issued within the guidelines set forth for security. This ID will be terminated after use on the project, or if not signed-on to the network after 10 days.

4. TASK AUTHORIZATION: TIME FOR COMPLETION: The services to be rendered by the ENGINEER for each section of the work shall commence upon receipt of a written task order authorization to proceed from the Director or his designee subsequent to the execution of this Agreement, and be completed within the time stated in the authorization to proceed. Task assignment negotiations must be concluded within 21 calendar days from the date of the initial task order meeting between the department and consultant. Should negotiations and price proposal submittal not be provided within this time frame, the Office of Capital Improvements (OCI) shall be notified by the department to intervene, in an effort to resolve any delays.

5. DELAY IN PERFORMANCE: No claim for damages or any claim other than for an extension of time shall be made or asserted against the COUNTY by reason of any delays. The ENGINEER shall not be entitled to an increase in this Agreement sum or payment or compensation of any kind from the COUNTY or direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency, arising because of delay, disruption, interference or hindrance from any cause whatsoever; provided, however, that this provision shall not preclude recovery or damages by the ENGINEER for hindrances or delays due solely to fraud, bad faith or active interference on the part of the COUNTY or its agents. Otherwise, the ENGINEER shall be entitled only to extensions of this Agreement time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided below.

The time to perform this Agreement shall be extended only if the ENGINEER is delayed in performing any obligation under this Agreement due to a force majeure or inevitable accident or occurrence, the ENGINEER shall request in writing a time extension from the Director within ten (10) days of said force majeure or inevitable accident or occurrence. Failure to make such written request within the specified time shall be a ban on the ability of the ENGINEER to bring any civil action for either compensable or non-compensable time extension. For the purpose of this Paragraph, force majeure shall mean an act of God which includes but is not limited to sudden, unexpected or extraordinary forces of nature such as hurricanes, floods, washouts, storms, fires, earthquakes, landslides, epidemics, explosions or other forces of nature. Inevitable accidents or occurrences shall mean those which are unpreventable by the ENGINEER and shall include but not be limited to strikes, lockouts, other industrial disturbances, wars, blockades, acts of public enemies or terrorism, insurrections, riots, federal, state, county and local governmental restraints, military action, civil disturbances, explosions, conditions in federal, state, county and local permits, bid protests, manufacturing and delivery delays, unknown or unanticipated soil, water or ground conditions and cave-ins, and contract default by the COUNTY's other consulting and design engineers and contractors. Provision of the above specified notice shall be a condition precedent to maintenance of a claim for delay.

Such acts or events do not include inclement weather (except as noted above) or the acts or omissions of subconsultants, material men, suppliers, or their subcontractors, unless such acts or omissions are otherwise encompassed by the definition set forth above.

6. COMPENSATION: The COUNTY agrees to pay and the ENGINEER agrees to accept a fee representing full compensation for the performance of the services specified herein. The ENGINEER shall submit monthly invoices for all work in progress using a format and procedure provided by the Department and in accordance with the Prompt Payment Ordinance. Invoices shall be submitted within 120 days of the performance of the service being billed. The COUNTY shall not pay invoices that are not properly submitted within that period. Additionally, the COUNTY may withhold payment of any invoices from the ENGINEER if the COUNTY determines that the ENGINEER submitted and received payment of an inaccurate invoice, without limitation to any other legal or equitable remedies. Fees and other compensation will be computed in accordance with one or a combination of the methods outlined below as specified in a written task authorization:

A. Fee as a Multiple of Direct Salary Cost and Fixed Hourly Rate:

(1) The fee for professional services rendered by the ENGINEER's employees, principals excluded, shall be computed based on the direct salary cost, as reported to the Internal Revenue Service, excluding bonuses or awards if applicable, for the time of said employee engaged directly in the work, times a negotiated multiplier of 2.85 for office employees, 2.4 for the ENGINEER's employees working in COUNTY offices and 2.1 for all field employees excluding surveying. This fee shall constitute full compensation to the ENGINEER for costs incurred in the performance of the work such as salaries, overhead, fringe benefits, operating margin and all other costs not covered by reimbursable expenses.

(2) For personnel required to be paid overtime, compensation for overtime work considered necessary and authorized in advance by the Director shall be computed with a multiplier of 1.1 times the overtime rate and number of hours (1.1 x overtime rate x number of hours). Principals shall not receive additional compensation for performance of overtime work

(3) The ENGINEER shall be compensated at the flat rate of $125.00 per hour for the time of a Principal engaged directly in the work. This rate shall not be subject to the negotiated multiplier.

B. Lump Sum Fee: The fee for any requested portion of work may, at the option of the DEPARTMENT, be a lump sum mutually agreed upon by the COUNTY and the ENGINEER and stated in the written authorization to proceed.

C. Reimbursable Expenses: The ENGINEER may be compensated for certain work related expenditures not covered by fees for engineering services, provided such expenditures are previously authorized by the Director or his designee in writing. Reimbursable expenses may include:

1) Expenses for laboratory tasks and analyses, permitting fees, printing and reproduction costs, rental or purchase of specialized equipment and instruments necessary for the efficient performance of the work, provided that such equipment and instruments become the property of the COUNTY upon work completion.
2) Expenses for travel, except that ENGINEER shall claim no more in expenses for travel, transportation, and subsistence than would be allowed an "authorized person" pursuant to the terms of Chapter 112.061, Florida Statutes and the COUNTY'S Administrative Orders 6-1 and 6-3, as presently written or hereafter amended. No such expenses shall be approved without the prior written consent of the Director. For the purposes of this section, the principal place of business shall be considered the ENGINEER's local corporate headquarters. Failure to obtain such prior authorization shall be grounds for nonpayment of such expenses. To be compensated, the ENGINEER shall maintain accurate records in a format and procedure provided by the Department and the ENGINEER shall submit said records with their invoices.
3) Items not listed shall be reviewed on a case-by-case basis and shall be approved in advance by the Director or his designee
4) Reimbursable expenses of the ENGINEER and approved subconsultants shall be reimbursed on a direct cost basis.
5) The ENGINEER shall be required to submit original receipts of all reimbursable expenses

D. Maximum Compensation The total of all payments to the ENGINEER pursuant to this Agreement shall not exceed four million dollars ($4,000,000). No minimum amount of compensation is guaranteed to the ENGINEER.

E. Contingency Allowance Accounts: Pursuant to County Code 2-8.1, an Allowance Account of 10% of the Basic Services Maximum Compensation as stated in Paragraph 6.D. above is permissible to be used by the Department for unforeseen conditions necessitating additional design. Before any extra work is begun a task authorization from the Department Director shall be given to the Engineer. The Engineer shall have no entitlement to any of these funds. The COUNTY retains all rights to these funds, may expend these funds at its sole discretion, and any funds not expended from this Contingency Allowance Account remains the property of the COUNTY.

F. Certification of Wage Rates In Accordance with Florida Statute 287.055.: The ENGINEER hereby certifies and agrees that wage rates and other factual unit costs, as submitted in support of the compensation provided in this paragraph, are accurate, complete and current as of the date of this Agreement. It is further agreed that said compensation shall be adjusted to exclude any significant costs where the COUNTY shall determine that the price of services was increased due to inaccurate, incomplete or unclear wage rates or other factual unit costs. All such compensation adjustments shall be made within one (1) year from the date of final billing or acceptance of the work by the COUNTY, whichever is later.

7. METHODS OF PAYMENT: The COUNTY agrees to make monthly or partial payments to the ENGINEER, in accordance with Prompt Payment Ordinance No. 94-40, currently in effect or as amended in the future, for all authorized work performed during the previous calendar month or other mutually agreed invoicing period. The ENGINEER is responsible to submit invoices that do not contain charges that are more than 120 days old. In the case where disallowed charges are found, the COUNTY may return the entire invoice for correction and resubmittal. The ENGINEER agrees to provide all records necessary to substantiate payment requests to the COUNTY. Payments shall be made in accordance with the following methods:

A. Time and/or Material for Professional Fees and/or Reimbursable Expenses.

(1) The ENGINEER shall submit the invoice in a format provided by the Department. Each invoice shall reference the particular authorization to proceed that authorized the services and shall include a status report describing work completed.

(2) With each invoice, the ENGINEER shall submit a "Monthly Utilization Report" form in accordance with the Small Business Development's requirements. Invoices shall not be considered valid without said form.

(3) The amount of the invoice submitted shall be comprised of the amounts due for all services performed and reimbursable expenses incurred during the previous calendar month or other mutually agreed invoicing period to date in connection with authorized work. The amounts due for professional services and reimbursable expenses shall be calculated in accordance with Paragraph 6.A. and 6.C. hereof, respectively. Invoiced reimbursable expenses must be substantiated by original receipts and other documentation as necessary.

B. Lump Sum Fee

(1) The ENGINEER shall submit the invoice in a format provided by the Department. Each invoice shall reference the particular task order authorization to proceed which authorized the services and shall include a status report describing work completed.

(2) With each invoice, the ENGINEER shall submit a "Monthly Utilization Report" form in accordance with the Small Business Development's requirements. Invoices shall not be considered valid without said form.

(3) The amount due on the invoice shall be calculated by applying the percentage of the total work completed to date to the authorized lump sum and subtracting any previous billings.

(4) Payments shall be calculated on a percentage of work completed.

8. CHANGE OF PRINCIPAL AND/OR PROJECT MANAGER: Norman C. Anderson and Franklin A. Torrealba, P.E. shall be the ENGINEER'S Principal and Project Manager, respectively. If the COUNTY or the ENGINEER requests a change of the Principal or the Project Manager, the party initiating said change shall make the request in writing and said request shall be received by the other party at least thirty (30) days prior to any such change. The Director reserves the right to approve the replacement Principal or Project Manager.

9. SCHEDULE OF WORK: The Department shall have the sole right to determine on which units or sections of the work the ENGINEER shall proceed and in what order. The written task order authorization to proceed issued by the Director shall cover in detail the scope, time for completion and compensation for the engineering services requested in connection with each unit or section of work.

10. RIGHT OF DECISIONS: All services shall be performed by the ENGINEER to the satisfaction of the Director who shall decide all questions, difficulties, and disputes of whatever nature which may arise under or by reason of this Agreement, the prosecution and fulfillment of the services hereunder, and the character, quality, amount and value thereof. The Director's decisions upon all claims, questions and disputes shall be final, conclusive and binding upon the parties hereto unless determined by a court of competent jurisdiction to be fraudulent, arbitrary, capricious, so grossly erroneous as to necessarily imply bad faith or not supported by substantial evidence.

11. OWNERSHIP OF DOCUMENTS: All notes, correspondence, documents, designs, drawings, renderings, calculations, specifications, models, photographs, reports, surveys, investigations, and any other documents and copyrights thereto for Services performed or produced in the performance of this Agreement, whether in paper or other hard copy medium or in electronic medium, except with respect to copyrighted standard details and designs owned by the ENGINEER or owned by a third party and licensed to the ENGINEER for use and reproduction, shall become the property of the COUNTY. However, the COUNTY may grant an exclusive license of the copyright to the ENGINEER for reusing and reproducing copyrighted materials or portions thereof as authorized by the COUNTY in advance and in writing. In addition, the ENGINEER shall not disclose, release, or make available any document to any third party without prior written approval from COUNTY. The ENGINEER shall warrant to the

COUNTY that he/she has been granted a license to use and reproduce any standard details and designs owned by a third party and used or reproduced by the ENGINEER in the performance of this Agreement. Nothing contained herein shall be deemed to exclude any document from Chapter 119 of the Florida Statutes. When each individual task authorization of work requested pursuant to this Agreement is complete, one signed and sealed paper copy of all final documents which are in electronic form shall be delivered to the Director. All drawings shall be AutoCAD format in a version acceptable to the Department. All documents other than drawings shall be in a print ready electronic format acceptable to the Department. All electronic delivery/submittal shall be submitted on CD or other electronic media acceptable to the Department. Directions shall be included with the transmittal and electronically in the root directory of the electronic media.

12. NOTICES: Any notices, reports or other written communications from the ENGINEER shall be considered delivered when posted by certified mail or delivered in person to the Director. Any notices, reports or other communications from the COUNTY to the ENGINEER shall be considered delivered when posted by certified mail to the ENGINEER at the last address left on file with the COUNTY or delivered in person to said ENGINEER or the ENGINEER's authorized representative.

13. AUDIT RIGHTS: The COUNTY reserves the right to audit the records of the ENGINEER related to this Agreement at any reasonable time and during normal business hours during the performance of the work included herein and for a period of five (5) years after final payment under this Agreement. The ENGINEER agrees to provide any records necessary to substantiate payment requests to the COUNTY, including audited financial statements. In the event an audit undertaken pursuant to this section reveals improper, inadvertent, or mistaken payments to the ENGINEER, the ENGINEER shall remit such payments to the COUNTY. The COUNTY shall retain all legal and equitable rights with respect to recovery of payments.

14. SUBCONSULTANTS:

A. The ENGINEER shall utilize the following firms as subconsultants: Geosol, Inc. (CBE); Robayna and Associates, Inc. (CBE); Cardozo Engineering, Inc. (CBE); Lockwood Andrews & Newnam, Inc.; Consulting Engineering & Science, Inc., Machado/Garcia-Serra, LLC, Margueritte W. Ramos and Associates, and Dr. Sauer Corporation. Should the ENGINEER need to replace a CBE subconsultant under this agreement a written consent of the Director or his designee and approval from Small Business Development shall be required. In addition, the ENGINEER shall not subconsult, assign or transfer to others work performed under this Agreement without the written consent of the Director or his designee. The ENGINEER shall not allow the subconsultant to utilize, assign or transfer work to others for work performed under this Agreement without the written consent of the Director or his designee. When applicable and upon receipt of

such consent in writing by the Director, the ENGINEER shall cause the names of the firms responsible for the major portions of each separate specialty of the work to be inserted in the pertinent documents or data. Nothing contained in this Agreement shall create any contractual relationship between the COUNTY and the subconsultants.

B. In addition, and as applicable, the ENGINEER agrees to comply with Miami-Dade County Ordinance 01-103 and Administrative Order 3-32 regarding the Community Business Enterprise (CBE) program. The COUNTY has established a participation goal of 26% based on the total amount of compensation authorized under this Agreement. The ENGINEER shall be responsible to submit to the COUNTY a Monthly Utilization Report on or before the tenth working day following the preceding month.

15. PROMPT PAYMENT TO SMALL BUSINESS SUBCONSULTANTS: The ENGINEER agrees to comply with Section 2-8.1.4 of the Code of Miami-Dade County, requiring the ENGINEER to issue prompt payment to all small business contractors and to have dispute resolution procedures in place in the event of disputed payments to small businesses. Failure of the ENGINEER to issue prompt payment to small businesses, or to adhere to its dispute resolution procedures, may be cause for suspension, termination, and debarment.

16. WARRANTY: The ENGINEER certifies and agrees that no companies or persons, other than bona fide employees working solely for the ENGINEER or the ENGINEER's subconsultants, have been retained or employed to solicit or secure this Agreement or have been paid or guaranteed payment of any fees, commissions, percentage fees, gifts or any other considerations contingent upon or resulting from the award or making of this Agreement. The ENGINEER also certifies and agrees that no COUNTY personnel, whether a full-time or part-time employee, has or shall be retained or employed in any capacity, by the ENGINEER or the ENGINEER's subconsultants, to accomplish the work contemplated under the terms of this Agreement. The COUNTY shall not pay the ENGINEER for any work performed by COUNTY employees.

17. TERMINATION OF AGREEMENT: It is expressly understood and agreed that the Director may terminate this Agreement, in total or in part, without cause or penalty, by ten (10) days prior written notification or by declining to issue the written task order authorization, as provided herein in which event the COUNTY's sole obligation to the ENGINEER shall be payment, in accordance with Paragraph 6, for those units or sections of work previously authorized. Such payment shall be determined on the basis of the hours or percentage of work performed by the ENGINEER up to the time of termination. In the event partial payment has been made for professional services not performed, the ENGINEER shall return such sums to the COUNTY within ten (10) days after receipt of written notice that said sums are due. Upon such termination, the COUNTY may, without penalty or other

obligation to the ENGINEER, elect to employ other persons to perform the same or similar services.

18. DURATION OF AGREEMENT: This Agreement shall remain in full force and effect for a period of six (6) years after its date of execution (although actual completion of the services may extend beyond such term and shall be subject to the same terms and conditions set forth in this Agreement, including but not limited to indemnification and insurance) or until the completion of the professional engineering services contemplated herein, and as specified in the authorization to proceed or until depletion of the funds allocated to pay the cost of the services described herein, whichever occurs first. This Agreement may be terminated by mutual consent of the parties hereto, or as otherwise provided herein. The performance of specifically and properly authorized services that may extend beyond this Agreement's effective term shall be compensated in accordance with Paragraph 6 hereof.

19. DEFAULT: If the ENGINEER fails to comply with the provisions of this Agreement, the Director may declare the ENGINEER in default by ten (10) days prior written notification. In such event, the ENGINEER shall only be compensated for any professional services completed as of the date written notice of default is served. In the event partial payment has been made for incomplete professional services, the ENGINEER shall return such sums to the COUNTY within ten (10) days after receipt of written notice that said sums are due. At the Director's discretion, the ENGINEER shall not be compensated for professional services that have been performed but not completed by the time the Director declares a default. In the event the COUNTY prevails in litigation to enforce or defend the provisions of this or any other Paragraph of this Agreement, the COUNTY shall be compensated by the ENGINEER for reasonable attorney's fees and court costs.

20. INDEMNIFICATION AND INSURANCE: Pursuant to section 725.08 of the Florida Statutes, the ENGINEER shall indemnify and hold harmless the County and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the ENGINEER and other persons employed or utilized by the ENGINEER in the performance of this Agreement.

The ENGINEER shall pay all claims and losses in connection therewith and shall pay all costs, judgments and attorney's fees for such claims which are finally determined to have been caused by the ENGINEER's negligence, recklessness or intentionally wrongful conduct of the ENGINEER. The ENGINEER expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the ENGINEER shall in no way limit the responsibility to indemnify and hold harmless and defend the COUNTY or its officers, employees, agents and instrumentalities as herein provided.

The ENGINEER, including subconsultants, shall not commence any work pursuant to this Agreement until all insurance required under this Section has been obtained and such insurance has been approved by the COUNTY's Risk Management Division of General Services Administration. The ENGINEER shall maintain insurance coverage during the term of this Agreement which meet the requirements outlined below:

A. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work in an amount not less than $300,000 combined single limit per occurrence for bodily injury and property damage.

B. Professional Liability Insurance in the amount of $1,000,000 per claim.

C. Commercial General Liability Insurance, on a comprehensive basis, in an amount not less than $300,000 combined single limit per occurrence for bodily injury and property damage. Miami-Dade County must be shown as additional insured with respect to this coverage.

D. Workers' Compensation Insurance for all employees of the ENGINEER as required by Chapter 440.

All insurance policies must be issued by companies authorized to do business under the laws of the State of Florida; with the following qualifications: The companies must be rated no less than "B" as to management and no less than "Class V" as to strength by the latest edition of Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the Risk Management Division, or,

The companies must hold a valid Florida Certificate of Authority as shown in the latest "List of All Insurance Companies Authorized or Approved to Do Business in Florida", issued by the State of Florida Department of Insurance and be members of the Florida Guaranty Fund.

The ENGINEER shall furnish certificates of insurance to the Department's Chief of Intergovernmental Affairs Section, Suite 435, 3071 S.W. 38th Avenue, Miami, Florida, 33146 prior to the commencement of operations, which certificates shall clearly indicate that the ENGINEER has obtained insurance in the type, amount, and classification as required for strict compliance with this Paragraph 20. The certificate shall indicate that no material change or cancellation of this insurance shall be effective without thirty (30) days written advance notice to Miami-Dade County, c/o the Manager of Risk Management Division.

Compliance with the foregoing requirements shall not relieve the ENGINEER of the liabilities and obligations under this Section or under any other portion of this

Agreement, and the COUNTY shall have the right to inspect the original insurance policies.

21. ORDINANCES: The ENGINEER agrees to abide by and be governed by Miami-Dade County ordinances which may have a bearing on the work contemplated hereunder, including but not necessarily limited to the following:

A. Ordinance No. 72-82 (Conflict of Interest), as amended, and Ordinance No. 77-13 (Financial Disclosures), as amended, which are incorporated herein by reference, as if fully set forth herein in connection with the ENGINEER'S obligations hereunder. The ENGINEER shall comply with the financial disclosure requirements of Ordinance No. 77-13 by filing within thirty (30) days of the execution of this Agreement one of the following with the Miami-Dade County Elections Department, P. O. Box is 521550, Miami, FL 33152 :

(1) A source of income statement;
(2) A current certified financial statement;
(3) A copy of the ENGINEER's Current Federal Income Tax Return.

The ENGINEER further agrees to comply with the requirements of applicable County, State and Federal Ordinances, Resolutions and/or Regulations, including, but not limited to the list below. The ENGINEER shall execute the related affidavits, attached hereto as Exhibit "A".

(1) Ordinance No. 90-133, Miami-Dade County Disclosure Affidavit;
(2) Ordinance No. 91-22, Certification Regarding Lobbying;
(3) Ordinance No. 91-142, Family Leave, as amended by Ordinance No. 92-91, superseded by Ordinance No. 93-118; modified by Resolution Nos. 1499-91 and R-183-00
(4) Ordinance No. 92-15, Drug-Free Workplace;
(5) Ordinance No. 92-27, Lobbyist Registration for Oral Presentation;
(6) Ordinance No. 93-129, Debarment Disclosure Affidavit;
(7) State of Florida Statutes 287.133(3) (a) on Public Crimes Affidavit;
(8) Ordinance No. 94-34, Criminal Record Affidavit
(9) Ordinance No. 95-178, Delinquent or Currently Due Fees or Taxes;
(10) Ordinance No. 97-215, Inspector General (IG);
(11) Ordinance No. 99-152, False Claims;
(12) Ordinance No. 99-162, Payments to County are not in arrears;
(13) Ordinance No. 01-96, Code of Business Ethics Affidavit;
(14) Resolution No. 1634-93, Quarterly Reports (Miami-Dade County Work);
(15) Resolution No. 113-94, Quarterly Reports (Private Sector Work);
(16) Disability Nondiscrimination Affidavit; (Resolution No.385-95 Americans with Disabilities Act of 1990).
(17) Resolution No. 516-96 and Administrative Order No. 3-20, Independent Private Sector Inspector General (IPSIG);

(18) Resolution No. 744-00, requiring the continued engagement of critical personnel in contracts for Professional Services for the duration of the Project;
(19) Resolution No. 185-00, Domestic Violence Leave
(20) Administrative Order 3-39, Architectural and Engineering Selection Process

The ENGINEER further agrees to comply with any other ordinances or resolutions of the COUNTY that may become effective prior to the execution of this Agreement by both parties.

22. PROPRIETARY INFORMATION: Notwithstanding any other provisions of this Agreement or any provisions in a particular authorization to proceed, all of ENGINEER's proprietary computer programs or software, developed by ENGINEER outside of this Agreement shall remain the exclusive property of the ENGINEER, and shall not be disclosed to third parties, unless otherwise required by law. The ENGINEER shall provide the necessary licensing agreements to enable to the COUNTY to use proprietary property, including but not limited to computer programs or software.

23. AFFIRMATIVE ACTION PLAN: In accordance with Ordinance No. 82-37, the ENGINEER must have an Affirmative Action Plan filed and approved by Miami-Dade County's Small Business Development's (SBD). The Plan is hereby incorporated as a contractual obligation of the ENGINEER to Miami-Dade County.

24. EQUAL OPPORTUNITY: The ENGINEER shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, sexual orientation, marital status, physical handicap, or national origin. The ENGINEER shall take affirmative actions to insure that applicants are employed and that employees are treated during their employment without regard to their race, religion, color, sex, age, sexual orientation, marital status, physical handicap or national origin. Such actions shall include, but shall not be limited to the following: employment; upgrading, transfer or demotion; recruitment or recruitment advertising; layoff or termination; rates of pay or other form of compensation and selection for training, including apprenticeship. The ENGINEER agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this Equal Opportunity Clause.

THE ENGINEER shall comply with all applicable provisions of the Civil Rights Acts of 1964; Executive Order 11246 of September 24, 1965 as amended by Executive Order 11375; Executive Order 11625 of October 13, 1971; the Age Discrimination in Employment Act, effective June 12, 1968; the rules and regulations, and relevant orders of the Secretary of Labor; Florida Statutes

112.041, 112.042 and 112.0113; and Miami-Dade County Ordinance No. 75-46, effective June 28, 1975.

During the performance of this Agreement, the ENGINEER agrees to state in all solicitations or advertisements for employees placed by or on behalf of the ENGINEER that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, age, sexual orientation, marital status, physical handicap or national origin. If requested to do so, the ENGINEER shall furnish all information and reports required by Executive Order 11246, as amended by Executive Order 11375 and by rules, regulations and orders of the Secretary of Labor, and will permit access to its books, records and accounts by the COUNTY, and compliance review agencies for purposes of investigation to ascertain compliance with such rules and regulations and orders. The ENGINEER further agrees that he will comply with the requirements of the Americans with Disabilities Act.

25. OFFICE OF THE COUNTY INSPECTOR GENERAL: According to Section 2-1076 of the Code of Miami-Dade County, Miami-Dade County has established the Office of the Inspector General (IG) which may, on a random basis, perform audits, inspections, and reviews of all County/Trust contracts. This random audit is separate and distinct from any other audit by the County. To pay for the functions of the Office of the Inspector General, any and all payments to be made to the ENGINEER under this contract will be assessed one quarter (1/4) of one (1) percent of the total amount of the payment, to be deducted from each progress payment as the same becomes due unless, as stated in the Special Conditions, this Contract is federally or state funded where federal or state law or regulations preclude such a charge. The ENGINEER shall in stating its agreed process be mindful of this assessment, which will not be separately identified, calculated or adjusted in the proposal or bid form. The audit cost shall also be included in all change orders and all contract renewals and extensions.

The Miami-Dade Office of Inspector General is authorized to investigate County affairs and empowered to review past, present and proposed County and Public Health Trust programs, accounts, records, contracts and transactions. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of witnesses and monitor existing projects and programs. Monitoring of an existing project or program may include a report concerning whether the project is on time, within budget and in conformance with plans, specifications and applicable law. The Inspector General shall have the power to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process including but not limited to project design, bid specifications, proposal submittals, activities of the ENGINEER, its officers, agents and employees, lobbyists, County and Public Health Trust staff and elected officials to ensure compliance with contract specifications and to detect fraud and corruption.

Upon ten (10) days written notice to the ENGINEER shall make all requested records and documents available to the Inspector General for inspection and copying. The Inspector General shall have the right to inspect and copy all documents and records in the ENGINEER's possession, custody or control which in the Inspector General's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements from and with successful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, proposal and contract documents, back-change documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records and supporting documentation for the aforesaid documents and records.

The ENGINEER shall make available at its office at all reasonable times the records, materials, and other evidence regarding the acquisition (bid preparation) and performance of this contract, for examination, audit, or reproduction, until three (3) years after final payment under this contract or for any longer period required by statute or by other clauses of this contract. In addition:

1. If this contract is completely or partially terminated, the ENGINEER shall make available records relating to the work terminated until three (3) years after any resulting final termination settlement; and

2. The ENGINEER shall make available records relating to appeals or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

The provisions in this section shall apply to the ENGINEER, its officers, agents, employees, subcontractors and suppliers. The ENGINEER shall incorporate the provisions in this section in all subcontracts and all other agreements executed by the ENGINEER in connection with the performance of this contract.

Nothing in this section shall impair any independent right to the County to conduct audits or investigative activities. The provisions of this section are neither intended nor shall they be construed to impose any liability on the County by the ENGINEER or third parties.

Exception: The above application of one quarter (1/4) of one percent fee assessment shall not apply to the following contracts: (a) IPSIG contracts; (b) contracts for legal services; (c) contracts for financial advisory services; (d) auditing contracts; (e) facility rentals and lease agreements; (f) concessions and other rental agreements; (g) insurance contracts; (h) revenue-generating contracts; (i) contracts where an IPSIG is assigned at the time the contract is approved by the Trust; (j) professional service agreements under $1,000; (k) management agreements; (l) small purchase orders as defined in Miami-Dade County

Administrative Order 3-2; (m) federal, state and local government-funded grants; and (n) interlocal agreements. Notwithstanding the foregoing, the Trust may authorize the inclusion of the fee assessment of one-quarter (1/4) of one percent in any exempted contract at the time of award.

Nothing contained above shall in any way limit the powers of the Inspector General to perform audits on all Trust contracts including, but not limited to, those contracts specifically exempted above.

26. INDEPENDENT PRIVATE SECTOR INSPECTOR GENERAL: The ENGINEER is hereby directed to the requirements of AO 3-20 and R-516-96; the County shall have the right but not the obligation to retain the services of an independent private-sector inspector general (IPSIG) who may be engaged to audit, investigate, monitor, oversee, inspect and review the operations, activities and performance of the ENGINEER and County in connection with this agreement. The scope of services performed by an IPSIG may include, but are not limited to, monitoring and investigating compliance with Contract Specifications; project costs; and investigating and preventing corruption and fraud.

The IPSIG may perform its services at all levels of the contracting and procurement process including but not limited to project design, establishment of bid specifications, bid submittals, activities of ENGINEER, its officers, agents and employees, lobbyists, county staff and elected officials.

Upon (10) ten days written notice to ENGINEER from an IPSIG, the ENGINEER shall make all requested records and documents available to the IPSIG for inspection and copying. The IPSIG shall have the right to examine all documents and records in the ENGINEER's possession, custody or control which in the IPSIG's sole judgment pertain to performance of the agreement, including but not limited to original estimate files, bid and change order estimates, worksheets, proposals and agreements from and with successful and unsuccessful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, bid and contract documents, back-charge document, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records, and supporting documentation for the aforesaid documents and records.

27. DOMESTIC LEAVE: Pursuant to Ordinance No. 99-5, the ENGINEER certifies its compliance with the Domestic Leave Ordinance, providing domestic violence leave to its employees. In addition, the ENGINEER understands that failure to meet the terms and conditions of the ordinance shall constitute a default of the subject Agreement and may be cause for suspension, termination and debarment, in accordance with the terms of this Agreement and the debarment procedures of the COUNTY.

28. PERFORMANCE EVALUATIONS: Performance evaluations of the services rendered under this Agreement shall be performed by the Department and shall be utilized by the COUNTY as evaluation criteria for future solicitations.

29. ETHICS COMMISSION: Pursuant to Section 2-11.1 (w) of the Code of Miami-Dade County, the Commission on Ethics and Public Trust has jurisdiction over contractors and vendors. The ENGINEER acknowledges that pursuant to Section I of the Lobbyist Rules adopted by the Ethics Commission, the County Mayor or the Board of County Commissioners may void any agreement where a lobbying violation has occurred.

30. ASSIGNMENT OF AGREEMENT: This Agreement shall not be transferred, assigned or otherwise conveyed to any other party without the express written consent of the Director.

31. ENTIRETY OF AGREEMENT: This writing embodies the entire Agreement and understanding between the parties hereto, and there are no other agreements and understandings, oral or written with reference to the subject matter hereof that are not merged herein and superseded hereby.

32. MODIFICATION: No alteration, change, or modification of the terms of this Agreement shall be valid unless made in writing, signed by all parties hereto, and approved by the COUNTY.

33. GOVERNING LAW: This Agreement, regardless of where executed, shall be governed by and construed according to the laws of the State of Florida, and venue shall be in Miami-Dade County, Florida.

34. SECURITY RESTRICTIONS: Access to the COUNTY's sites are restricted. The ENGINEER is subject to Article IX, Chapter 32 of the Miami-Dade County Code (Ordinance No. 02-68). In the event the ENGINEER needs access to the COUNTY's property, the ENGINEER agrees to comply with the security ordinance and any other requirements by the COUNTY relating to security which may include background checks, the use of photo identification badges and limited access to the COUNTY's property. Prior to commencing work, the ENGINEER shall meet with a MDWASD security personnel to submit required information and discuss security relating to the project. Subconsultants are also required to comply with the restrictions and it shall be the responsibility of the ENGINEER to ensure that the subconsultants comply with security ordinance and all restrictions.

35. SANCTIONS FOR CONTRACTUAL VIOLATIONS: Notwithstanding any other penalties for the ENGINEER and/or subconsultants that may be found to have discriminated in violation of Article VII of Chapter 11A of the Code, the COUNTY may terminate this Agreement or require the termination or cancellation of the subconsultants' agreements. In addition, a violation by the

ENGINEER and/or subconsultants, or failure to comply with the Administrative Order (A.O.) 3-39 may result in the imposition of one or more of the sanctions listed in the A.O. The COUNTY additionally retains all rights sanctioned it by Ordinance or Statute and may avail itself of any remedy of law or equity in the event of a breach of this Agreement.

36. SEVERABILITY: If any Section of this Agreement is found to be null and void, the other Sections shall remain in full force and effect.

37. SUSTAINABLE BUILDING PROGRAM: The primary mechanism for determining compliance with the program shall be the U. S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Rating System. All construction projects are required to meet the standards delineated in Ordinance 07-65 and Implementing Order 8-8. Compliance shall be determined by completing a formal certification process with the U.S. Green Building Council, or as otherwise directed by the County's Sustainability Manager.

- New Construction: All new construction projects shall be required to attain "Silver" or higher level rating under the LEED-NC Rating System.

- Major Renovations & Remodels: All major renovations/remodels shall attain "Certified" or higher level rating under the LEED-NC Rating System.

- Non-major Renovations/Remodels: All non-major renovations/remodels begun shall attain "Certified" or higher level rating under the appropriate LEED Rating System such as LEED-NC, LEED-EB or LEED-CI.

- Renovations, remodels, and other building upgrades not meeting the above criteria are encouraged to incorporate the maximum number of LEED-approved green building practices as are feasible from a practical and fiscal perspective; however, LEED certification will not be required.

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IN WITNESS WHEREOF the parties hereto have executed this Agreement by their duly authorized officers on the date first written above.

ATTEST:

HARVEY RUVIN,
CLERK OF THE BOARD

By:_____

MIAMI-DADE COUNTY, FLORIDA BY ITS BOARD OF COUNTY COMMISSIONERS

By: _____
County Mayor

WITNESSETH:

Earth Tech Consulting, Inc.
Firm Name (Place Corporate Seal)

_____
Signature

By: _____
President

Celeste Diaz-Consul
Printed Name

Frank Goery
Printed Name

_____
Signature

Andrea Corredor
Printed Name

Approved as to form
and legal sufficiency.

_____
Assistant County Attorney

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EXHIBIT "A"
AFFIDAVITS
Agreement Number 08ETCI006

I, Thomas J. Maxwood, as the duly authorized representative of
Affiant

Earth Tech Consulting, Inc. being first duly sworn

state: Earth Tech Consulting, Inc.
Name of Engineer

The full legal name and business address of the ENGINEER transacting business with Miami-Dade County is: Earth Tech Consulting, Inc., 3750 NW 87 Avenue, Suite 300, Miami, FL 33178

Federal Employer Identification Number 95-2661922

and does solemnly swear and certify to the following affidavits that are required and made a part of this agreement.

1. FAMILY LEAVE PLAN
ORDINANCE NO. 91-142 (Sec. 11 A-29 et Seq. of the County Code)

The provision of Miami-Dade County Ordinance No. 91-142, Section 2, "FAMILY LEAVE", apply to every employer which meets either or both of the following conditions:

Has in the regular course of business more that fifty (50) employees working in Miami-Dade County for each working day during each of twenty (20) or more weeks in the current preceding calendar year;

Does business with Miami-Dade County and has at least fifty (50) employees for each working day during each of twenty (20) or more weeks in the current or preceding calendar year.

(Check the appropriate box)

_____ Does not meet either of the above listed conditions.

__X__ Meets one or both of the above listed conditions; and it is familiar with and will abide by the requirements of Ordinance No. 91-142.

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2. MIAMI-DADE COUNTY EMPLOYMENT DISCLOSURE ORDINANCE NO. 90-133 amending (Sec. 2-8.1 (d)(2) of the County Code)

1. If the contract or business transaction is with a Corporation, the full legal name and business address shall be provided for each officer and director and each stockholder who holds directly or indirectly five percent (5%) or more of the corporation's stock. If the contract or business transaction is with a partnership, the full legal name and business address shall be provided for each partner. If the contract or business transaction is with a trust, the full legal name and address shall be provided for each trustee each beneficiary. All such names and addresses are:
   See Attachment "A"

2. The full legal names and business address of any other individual (other than subcontractors, materialmen, suppliers, laborers, or lenders) who have, or will have, any interest (legal, equitable, beneficial or otherwise) in the contract or business transaction with Miami-Dade County are:
   N/A

3. Does the entity (Prime Consultant) have a collective bargaining agreement with its employees?

   No

4. As an attachment the Prime Consultant shall include a schedule of wage rates (including overtime) to be paid employees performing work under this Contract. It shall also include the health care benefits to be paid to employees performing work under this Contract.

5. As an attachment the Prime Consultant shall submit a current breakdown of their work force as to race, national origin and gender.

6. Any person who willfully fails to disclose the information required herein, or who knowingly discloses false information in this regard, shall be punished by a fine of up to five hundred dollars ($500.00), or by imprisonment in the County jail for up to sixty (60) days, or both at the discretion of the Court.

3. ANNUAL DRUG-FREE WORKPLACE Ordinance No. 92-15(Sec. 2-8.1.2 (b) of the County Code)

The engineer certifies that as of the commencement date of this Agreement with Miami-Dade County it shall provide a drug-free workplace for its employees, and

1. will provide a written statement to each employee, notifying the employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, as defined in Section 893.02(4) Florida Statutes in the contracting entity's workplace (s) is prohibited and specifying the actions the contracting entity will take

against employees for violation of such prohibition. Such written statement shall also inform the employee of:

(a) the dangers of drug abuse in the workplace;

(b) the contracting entity's policy of maintaining a drug-free environment at all of its workplaces, including but not limited to all locations where employees perform any task relating to any portion of the above contract;

(c) any available drug counseling, rehabilitation, and employee assistance programs; and

(d) the penalties that may be imposed upon employees for drug abuse violations

2. will require each employee to sign a copy of the written statement referred to in paragraph 1 above to acknowledge receipt of the written statement and advice as to specifics of such policy. The contracting entity covenants to retain the statements signed by its employees. The contracting entity covenants to post in a prominent place at all of its workplaces a written statement of its policy containing the foregoing elements a through d;

3. will notify each employee in the statement required by paragraph 1 above that as a condition of employment the employee will:
(a) abide by the terms of the statement; and
(b) notify the contracting entity of any criminal drug statute convection for a violation occurring in the workplace no later than five 5 days after such conviction;

4. will notify the County within ten (10) days after receiving notice under paragraph 3 above from an employee or otherwise receiving actual notice of such conviction;

5. will impose appropriate personnel action against such employees referred to in paragraph 4 above up to and including termination; or require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State or local health, law enforcement, or other appropriate agency;

6. will make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 through 5 of this affidavit. The Engineer entity will certify annually, on or before the anniversary date of the professional services agreement that it is in compliance with the provisions of Ordinance 92-15.

4. DISABILITY NONDISCRIMINATION
Article 1, Section 2.8.1.5 Resolution R182-00 amending R385-95

The ENGINEER is in compliance with and agrees to continue to comply with, and assume that any subcontractor, or third party contractor under this project complies with all applicable requirements of the laws listed below including, but not limited to, those provisions pertaining to employment, provision of programs and services, transportation, communications, access to facilities, renovations, and new construction in the following laws:

The Americans with Disabilities Act of 1990 (ADA), Pub.L. 101-336-104 Stat 327.42 U.S.C. 12101-12213 and 47 U.S.C. Sections 225 and 611 including Title I, Employment, Title II, Public Services; Title

III, Public Accommodations and Services Operated by Private Entities; Title IV telecommunications; and Title V, Miscellaneous Provisions.

The Rehabilitation Act of 1973, 29 U.S.C. Section 794.

The Federal Transit Act, as amended 49 U.S.C. Sections 1612.

The Fair Housing Act as amended, 42 U.S.C. Section 3601-3631.

5. MIAMI-DADE COUNTY DEBARMENT DISCLOSURE ORDINANCE 93-129

The ENGINEER or his agents, officers, principals, stockholders, subconsultants or their affiliates are not debarred by Miami-Dade County.

6. SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES ON PUBLIC CRIMES

1. understand that a "public entity crime" as defined in Paragraph 287.133(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

2. I understand that "Convicted" or "Conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1,1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contedere.

3. I understand that an "affiliate" as defined in Paragraph 287.133 (1) (a), Florida Statutes, means:
   1) A predecessor or successor of a person convicted of a public entity crime: or
   2) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

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4. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

5. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies).

__X__ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agent who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies)

____ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order)

____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order)

____ The person or affiliate has not been placed on the convicted vendor list (Please describe any action taken by or pending with the Department of General Services)

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7. CRIMINAL RECORD
ORDINANCE NO. 94-34

The ENGINEER, as of the date of the execution of this Agreement:

__X__ has not been convicted of a felony during the past ten (10) years, nor does it, as of the date of bid or proposal submission, have an officer, director or executive who has been convicted of a felony during the past ten (10) years.

_____ has been convicted of a felony during the past (10) years, or as of the date of bid or proposal submission, has an officer, director or executive who has convicted of a felony during the past ten (10) years.

8. DELINQUENT OF CURRENTLY DUE FEES OR TAXES
ORDINANCE NO. 95-178

Except for small purchase orders and sole source contracts, convention and your is development taxes, all delinquent and currently due fees or taxes - including but not limited to real and property taxes, utility taxes and occupational licenses taxes - which are collected in the normal course by the Miami-Dade County Tax Collector as well as Miami-Dade County issued parking tickets for vehicles registered in the name of the ENGINEER been paid.

9. DOMESTIC VIOLENCE LEAVE AND REPORTING
Article 8, Section 11A-60 11A-67 of the County Code

In compliance with Miami-Dade County Resolution Number 185-00, the ENGINEER certifies that its compliance with the Domestic Leave Ordinance No. 99-5; codified at 11A-60 et. Seq. of the Miami-Dade County Code, providing domestic violence leave to their employees. In addition, I understand that failure to meet the terms and conditions of the ordinance shall constitute a default of the subject contract and may be cause for suspension, termination and debarment, in accordance with the terms of the contract and the debarment procedures of the County.

10. PAYMENTS TO COUNTY ARE NOT IN ARREARS
ORDINANCE NO. 99-162

In compliance with Miami-Dade County Ordinance Number 99-162, the ENGINEER is not in arrears on any payment under a contract, promissory note or other loan document with the COUNTY either directly or indirectly by which the ENGINEER has a controlling interest. In addition, I understand that failure to meet the terms and conditions of any obligation or repayment schedule shall constitute a default of the subject contract and may be cause for suspension, termination and debarment, in accordance with the terms of the contract and the debarment procedures of the County.

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11. CODE OF BUSINESS ETHICS AFFIDAVIT
(ORDINANCE 01-96)
[DADE COUNTY CODE SEC. 2-8.1(i)]

The Engineer, as of the date of execution of this Agreement,

Has adopted a code of business ethics and will comply with all applicable governmental rules and regulations including, among others, the Miami-Dade County Conflict of Interest and Code of Ethics Ordinance and the Miami-Dade County False Claims Ordinance.

Failure to comply with the requirements of the above Ordinance as included in the contract specifications shall render the contract voidable, and subject violators to debarment, in accordance with the terms of the contract and debarment procedures of Miami-Dade County, of those persons or entities who knowingly violate this policy or falsify information.

I have carefully read this entire eight page document, made a part of this Agreement as Exhibit "A" and certify that the information provided is true and accurate.

STATE OF FLORIDA)
) SS
COUNTY OF DADE)

Sworn to and subscribed before me at Miami-Dade County, Florida this 27 day of August 2008, by Thomas J. Wise Jr. on behalf of Earth Tech Consulting, Inc.

_✓_ Who is personally know to me
___ Who produced identification
Type of Identification: _____

Mary L. Roberts
Signature of Notary Public
State of Florida at Large

Signature of Affidavit

Mary L. Roberts
Print, type or stamp name of notary public

MARY L. ROBERTS
Comm# DD0359157
Expires 10/1/2008
Bonded thru (800)432-4254
Florida Notary Assn., Inc

Legal Name & Title

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Attachment A

Earth Tech, Inc.

Directors

Alan P. Krusi
Eric Chen
Wes Shimoda

Officers

Charles S. Alpert	Vice President and Assistant Secretary
Alan P. Krusi	President
William E. Garrett	Assistant Secretary

MIAMI-DADE WATER AND SEWER DEPARTMENT

TASK ORDER 1

Collect and Review Data, Finalize Pipeline Alignment and Project Details, Assist to Acquire Land Rights and Public Outreach Effort

SCOPE OF SERVICES

Design Criteria for the Replacement of the 20" Water Main

From Port Island to Fisher Island

September 17, 2008

Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146

Prepared By:

3750 NW 87th Avenue
Suite 300
Doral, FL 33178
Phone: (305) 592-4800

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List of Acronyms

CDWWTP	Central District Wastewater Treatment Plant
DERM	Department of Environmental Regulation Management
PI	Port Island
FI	Fisher Island
FIH	Fisher Island Holdings
FIC	Fisher Island Club
FICA	Fisher Island Community Association
FDEP	Florida Department of Environmental Protection
FWC	Florida Fish and Wildlife Conservation Commission
FSHPO	Florida State Historic Preservation Commission
GSA	General Services Administration
HOA	Home Owner Association
MDPWD	Miami-Dade Public Works Department
MDWASD	Miami-Dade Water and Sewer Department
NOAAFS	National Oceanic and Atmospheric Administration Fisheries Service
PIP	Public Involvement Program
ROW	Right of Way
SFWMD	South Florida Water Management District
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWC	United States Fish and Wildlife Commission

MIAMI-DADE WATER AND SEWER DEPARTMENT

TASK ORDER 1 – Collect and Review Data, Finalize Pipeline Alignment and Project Details, Assist to Acquire Land Rights and Public Outreach Effort

SCOPE OF SERVICES

Design-Build Criteria for the Replacement of the 20" Water Main

From Port Island to Fisher Island

INTRODUCTION

The Miami-Dade Water and Sewer Department (MDWASD) has previously performed a significant amount of engineering work and has requested that Earth Tech Consulting, Inc. (Earth Tech, an operating company of AECOM Technology Corp) expand on the existing information and prior recommendations; perform additional work that is necessary to address remaining details, and finalize the water main alignment; confirm that permits can be obtained and that the project is technically feasible to construct; and assist MDWASD as necessary to secure the land rights required for the project along the final recommended pipeline alignment.

The existing 20-inch water main is in conflict with the proposed Phase 3 Miami Harbor (Government Cut) Federal Navigation Project, which will deepen the harbor/channel. The existing 20-inch water main provides water service from Port Island to Fisher Island and continues onward to Virginia Key.

As such, the replacement water main must be designed, constructed and placed into service prior to the decommissioning of the existing 20-inch water main, which needs to be removed from service and properly abandoned prior to the start of the dredging and deepening of Government Cut. Earth Tech will prepare a design/build criteria package for the replacement of the existing 20-inch water main that runs from Port Island (PI) to Fisher Island (FI).

The success of this Project demands for a comprehensive understanding of its key requirements and issues as listed below:

- Stakeholder Coordination
- Environmental Impacts and Mitigation
- Property Rights and Easements Acquisition
- Preliminary Route Analysis and Selection

- Technical (Preliminary) Engineering
- Construction Methodology
- Risk Assessment
- Project Permitting (Task 2)
- Prepare Design-Build Criteria Package (Task 2)
- Procurement Phase Support (Task 3)
- Limited Construction Support Services (Task 4)

DESCRIPTION OF SERVICES

In order to finalize the specific route alignment through MDWASD's proposed corridor and secure the necessary land rights, Earth Tech will collect and review all previously available information; meet with stakeholders as necessary; perform additional engineering work to identify, evaluate and recommend a final water main alignment including connection points, land rights and other project specific details. Earth Tech will ascertain that the project can be permitted, that it is technically feasible to construct, and will identify and assist the MDWASD to obtain the necessary land rights. The scope of services for the project will be completed by **Earth Tech** and their sub-consultants: **Lockwood, Andrews & Newnam, Inc. (LAN), Dr. Sauer Corporation, Consulting Engineering Science, Inc. (CES), Cardozo Engineering, Inc. , Robayna and Associates , Geosol, Inc. , Machado|García-Serra, LLC (MGS), and Margueritte W. Ramos & Associates (MRA).**

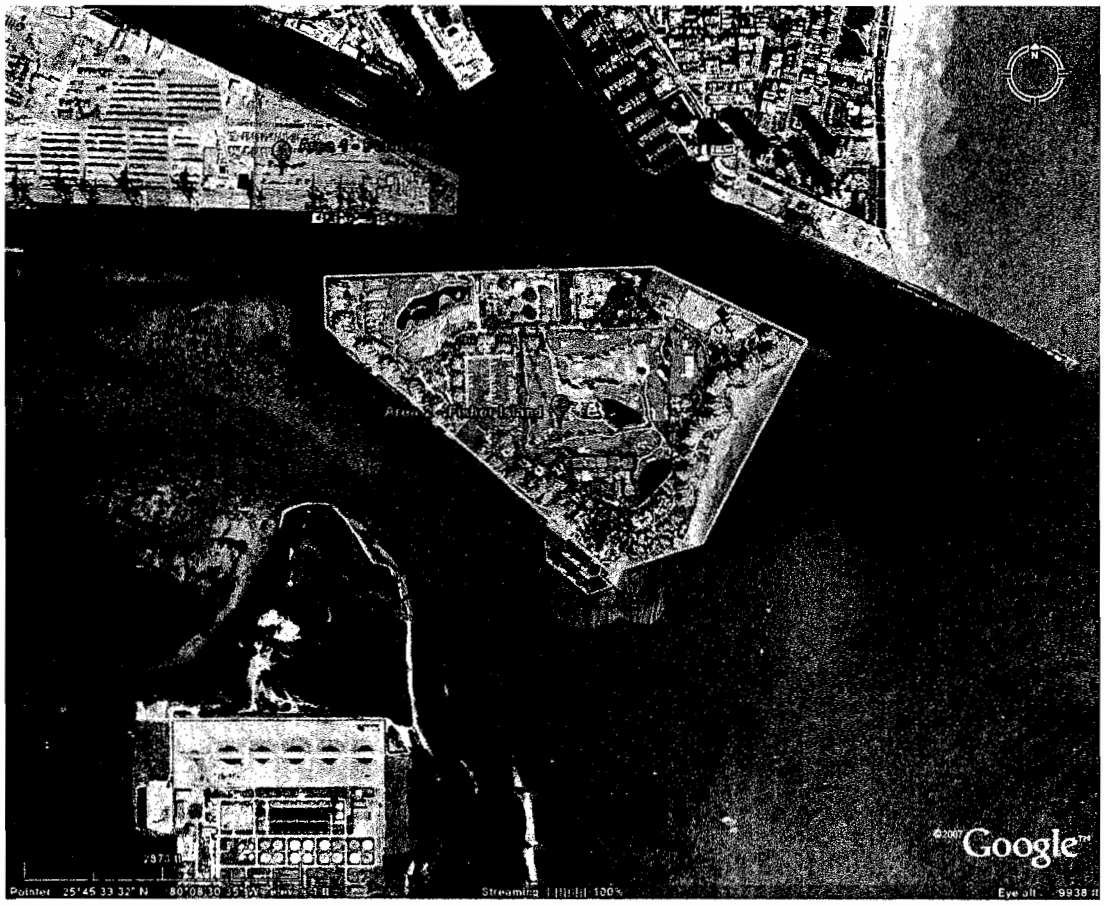
The objective of Task Order 1 is to accomplish the preliminary engineering for the design-build construction of the replacement 20-inch water main between PI and FI. The preliminary engineering services will investigate and evaluate the existing utility conflicts, environmental issues, geotechnical conditions, availability of Right-of-Way (ROW), acquisition of ROW Letters of Intent, crossing locations, construction methods, permitting, regulatory issues, impacts to the adjacent communities, and recommend and finalize a preferred route for the installation of the replacement 20-inch water main, based on available information and data obtained under this task order.

Earth Tech will compile existing data, assess the information, evaluate MDWASD's recommended corridor and ability to secure the necessary land rights for the various study areas **(Figure 1)** belonging to MDWASD's proposed corridor and recommend the most viable water main alignment alternative to MDWASD for approval. Throughout the process, Earth Tech will meet with the various stakeholders, permitting agencies, and MDWASD to discuss the alternatives and submit a Task Order 1 report detailing the considerations that were the basis of recommending and selecting the preferred horizontal and vertical alignments.

The Task Order 1 preliminary engineering will provide a final alignment to route the replacement of the 20-inch water main. This assessment will be performed specifically for the study areas 1 and 2 defined below and depicted in **Figure 1**.

- **Area 1:** Port Island
- **Area 2:** Fisher Island

Figure 1 – Water Main Replacement Project Areas



Task Order 1 has been divided into the following subtasks. Each of these subtasks details the specific Scope of Services.

Subtask	Description
1.1	Collect and Review Data
1.2	Identify, Evaluate & Provide Final Alignment and Project Parameters
1.3	Assistance to Secure Land Rights
1.4	Public Involvement Program

TASK 1.1 COLLECT AND REVIEW DATA

Earth Tech will request, collect and review existing available data that is pertinent to the Project. Available information may include, but is not limited to site geography, mappings, surveys, legal records, plat documents, easements, property ownership records, aerial photography, as-built records, borings, geophysical, and water quality. MDWASD staff has performed recent work which proposes an alignment and connection points, and these documents will be collected, reviewed and organized for future easy access.

1.1.1 Data Collection

Earth Tech will perform the following services under the Data Collection subtask:

- Earth Tech will request, collect and review existing readily available previous studies, data and information, such as:
    - Up to three (3) site field reconnaissance visits to review site conditions, familiarize with Project area and possible impacts to stakeholders and utilities. Obtain site photographs of existing site conditions noting such items as business activities, schools, pavement condition, green areas, canals, and major drainage structures, etc
    - Review of Aerial Photography to establish preliminary corridors
    - Available Geotechnical Information from USACE, MDWASD, FDOT, FPL, Marina and/or building construction in the area with readily available soil boring and geotechnical data and/or reports
    - Water Quality Certifications (WQC) Data from the USACE
    - Available planned and proposed projects in the vicinity of the Project area
    - Secure design ticket from "Florida Sunshine One Call"
    - As-builts drawings for applicable above ground and below ground infrastructure including nearby buildings and structures, power, telephone, cable, gas, railway lines, fiber optics, drainage, water and sewer, and roadway. Requests will be made to entities including MDWASD, AT&T, FPL, NUI Gas, Comcast, DERM, MDPWD, City of Miami, City of Miami Beach, and FI as per Florida Sunshine One Call Ticket
    - Applicable as-builts of adjacent buildings, marinas, seawalls, pilings, etc. from Miami Beach, Fisher Island, Miami Dade County, and/or City of Miami
    - Available Port of Miami, Fisher Island, and other Agencies and Municipalities plans of future development and growth to be considered in the design process

- Research and identify applicable ordinances (noise, dust, construction working hours, etc.) that are enforced by the City of Miami and FI that can potentially impact the construction methods and schedules

- Available information on existing business and ownership arrangements with the Port of Miami, Fisher Island, and other Agencies and Municipalities in the vicinity of the project.

- Verify whether the project is located within an active school zone and or a community work force program

Deliverable: Summary list of documents, information and data collected, and organized accordingly.

1.1.2 Initial Coordination Meeting, Work Plan and Kick-Off Meeting

An initial coordination meeting to include the 54-inch force main replacement part of the Project will be scheduled in order to obtain and discuss the wealth of information and knowledge that the MDWASD and its previous consultants have completed. The Project approach will also be discussed and agreed upon all parties.

After closely coordinating with the Department, Earth Tech will prepare a Draft Work Plan that will include the following:

- Introduction
- Project Issues
- Task Approach
- Work Breakdown Structure
- Task Schedule and Key Milestones
- Conclusions and Recommendations
- Project Team Members and their Responsibilities
- Communication Procedures
- MDWASD Responsibilities

The Draft Work Plan will be provided to MDWASD seven (7) days prior to the kick-off meeting for discussion during the kick-off meeting.

A two (2) hour kick-off meeting with MDWASD staff will be held to review the Draft Work Plan and discuss the task requirements, schedule, budget, and specific roles and responsibilities for Earth Tech and the MDWASD staff assigned to the Project.

Based on comments received at the kick-off meeting from the MDWASD, Earth Tech will finalize and issue the Final Work Plan seven (7) days after the kick-off meeting. The Work Plan will be accepted as final if no comments are received from MDWASD within seven (7) days of issuing the Final Work Plan.

Deliverables: Draft and Final Work Plan, Meeting Agendas, and Meeting minutes.

TASK 1.2 IDENTIFY, EVALUATE & PROVIDE FINAL ALIGNMENT AND PROJECT PARAMETERS

This subtask entails the review, interpretation and analysis of the collected data from Sub-Task 1.1 and will be supported by the additional data collection and information from the survey subtask, geotechnical subtask, ROW subtask, PIP subtasks and the various utilities, municipalities and other stakeholders, ROW jurisdictions, permitting and regulatory authorities, to develop the decision matrixes for the evaluation of the final force main alignment and construction alternatives, and the final proposed project construction method selection.

Earth Tech will perform the additional work necessary to identify and evaluate specific parameters for up to three (3) alternative alignments that include the connection to the existing water main at PI and FI.

1.2.1 Meeting with Stakeholders and Permitting Agencies

Earth Tech understands that government and permitting stakeholders must be involved during the study, design, and construction; therefore, during the Sub-Task 1.1 data collection and assessment, Earth Tech will contact major government stakeholders and permitting agencies to inform them of the Project, request information and note their concerns. This will be conducted via meetings. A maximum of 31 meetings are anticipated. All meetings will be documented and a summary prepared.

Listed below is a summary of anticipated meetings or conferences to be held in person or by teleconference in **close coordination with the 54-inch fore main replacement Project** (Appendix A – Details Time per Meeting) with the various entities during the 20-inch Water Main Project:

- USACE – 2 Meetings
- USCG – 1 Meeting
- USFWS – 1 Meeting
- NOAAFS – 1 Meeting
- USEPA – 1 Meeting
- FDEP – 2 Meetings
- FWC – 1 Meeting
- FSHPO – 1 Meeting
- DERM – 2 Meetings
- MDPWD – 1 Meeting
- Port of Miami – 2 Meetings
- GSA – 1 Meeting
- Biscayne Bay Pilots – 2 Meetings
- City of Miami – 2 Meetings
- District 5 Commissioner– 1 Meeting
- FIH – 2 Meetings
- FIC – 2 Meetings
- FICA – 2 Meetings
- Various Utilities – 4 Meetings

1.2.2 Alternative/Location Connection Points and Project Parameters

Earth Tech will coordinate with the stakeholders and permitting agencies, and evaluate the technical and Project data with experts from the Team in order to prepare, review, evaluate and finalize the technical as well as other considerations relevant to the successful completion of the Project. The various Project considerations to be evaluated and summarized in the report are as follows

- Each Alternative at Every Location will be Evaluated
- Community Outreach
- Maintenance of Roadway and Waterway Traffic, Noise, and Access
- Connection Points at PI and FI and all Related Items
- Identify Utility Conflicts
- Environmental Impact Considerations / Phase I ESA
- Environmental and Management of Soils (Contaminated/Spoil Material)
- Permit Requirements for both Horizontal and Vertical Alignments
- Hydraulic Equivalence of 20-inch Water Main per MDWASD
- Design-Build Criteria Specification
- Operation and Maintenance of Project Facilities
- Cost (Opinion of Probable Project Costs)
- CPM Schedule
- Land Acquisition Issues
- Approval in Principle by Non-Permitting Agencies and Other Stakeholders

Deliverable: Summary of notes and collected technical information, evaluation for each alternative at every location.

1.2.3 Preliminary Survey Work to Evaluate Options

Earth Tech in conjunction with Robayna & Associates (Robayna) will perform selective/partial survey work to evaluate options in the proposed MDWASD alignment.

Initial survey and data investigation will include the following:

- Identify existing ROW and easements along the corridor to evaluate alternatives

- Research, identify, and locate survey control points through GPS, plat monuments in the proximity of the selected alignment
- Identify and plot existing utility information and major structures
- Compute Corridor Alignment Geometry
- Set key points on alignments and tie into control points.
- Research and plot existing record plats along the alignment
- Plot legal descriptions, existing County plats and recorded ROW for all of the properties within the identified selected horizontal alignment. (This information will be obtained from Miami-Dade County records through formal requests, visits to the MDPWD's ROW Division office and electronic orders will be used to obtain this data

Deliverable: Special purpose survey map of utilities, ROW, building/structures and easement information certified by Professional Surveyor and Mapper.

1.2.4 Initial Geotechnical Investigation

The scope of geotechnical explorations for subsurface projects is determined by past contract experience, risk assessment and budgetary concerns. Earth Tech will conduct an initial geotechnical investigation to develop sufficient geologic data to select the alignment and to provide an initial preliminary cost estimate of the Project construction methods.

The initial geotechnical investigation proposed by Earth Tech and its subconsultants, Dr. G. Sauer Corporation (Dr. Sauer) and Geosol, Inc. (Geosol), includes two (2) landside borings to a depth of 150-feet along a 50-ft +/- wide corridor in the proposed alignment at the locations detailed in **Figure 2**. In addition to the soil samples, soil testing and geotechnical interpretation, the boring cores and geotechnical information collected in Sub-Task 1.1 will also be analyzed and evaluated in order to determine the preferred strata for the vertical alignment to select the appropriate construction methodology and provide basic input for the risk management assessment.

In order to complete the initial geotechnical investigation, Dr. Sauer and Geosol have prepared detailed scopes of work and fee estimates for this Sub-Task that Earth Tech will manage, coordinate and perform QA/QC.

- Earth Tech's Fee Estimate reflects the various items described in both Dr Sauer's and Geosol's scope of work for which an Earth Tech Geotechnical Engineer will be participating in
- Appendix B2 – Geosol's Scope of Work and Fee Estimate
- Appendix B3 – Dr. Sauer's Scope of Work and Fee Estimate

Deliverables: Subsurface Investigation Work Plan, Initial Geotechnical Investigation Data Memorandum including boring data, Selected Methodology Memorandum, Construction Considerations Memorandum.

Figure 2 - Proposed Initial Geotechnical Study Boring Locations

1.2.5 Evaluate Construction Considerations

Earth Tech will also complete an evaluation of the general construction condition issues that need to be considered in parallel with the Project, ROW and easements available and acquirable, as well as the construction methodologies being evaluated. These general conditions will be developed as the scope of the proposed construction methods and alignments are selected, evaluated and finally, recommended. The following general condition construction issues will be developed, reviewed and evaluated through the preliminary engineering process:

- Safety
- Tunnel/Trenchless Construction
- Shaft Construction

- Pipeline Construction / Connections
- Power Availability
- Handling, Treatment, Disposal of Tunnel & Shaft Spoils
- Handling, Treatment and Discharge of Tunnel Water
- Protection of Existing Structures
- Constructability – Egress/Ingress, Crews, Staging, Access Dock, etc.

In order to complete the recommendation for a construction method, Dr. Sauer has prepared a detailed scope of work and fee estimate (Appendix B2) for this Sub-Task, which Earth Tech will coordinate and perform QA/QC.

Deliverable: Memorandum summarizing construction of facilities and alternatives evaluated.

1.2.6 Finalize and Recommend Horizontal Alignment

The collected data, survey, ROW, geotechnical and site visit data will be reviewed and analyzed to develop an understanding of the existing site conditions. This data will be used to develop the various alternatives and finalize the horizontal alignment for the design and construction of the 20-Inch water main replacement.

The proposed water main alternatives will rely heavily on the ROW and property available and acquirable.

Having assessed the data and developed a comprehensive understanding of ROW availability and needs of the project, Earth Tech will summarize the properties impacted by the alignments for which easements and ROW may need to be acquired. Surface and sub-surface easements must be considered.

Earth Tech understands that the availability and ability to acquire ROW and easements for the Project is the critical variable in finalizing the horizontal alignment, and the need to closely coordinate with MDWASD and Project stakeholder in order to present a final alignment. The alignments prepared and reviewed will include cost, schedule, impact, permitting and other criteria so that when the alignments are presented to the stakeholders, there is sufficient information to justify a particular alignment.

This information will furthermore be incorporated into the paired comparison decision matrix as criteria and weighted by the various stakeholders (if approved by MDWASD) or MDWASD.

Once the alternate land portion alignments and ROW are identified, the alignment can be adjusted based on the geotechnical information and methodologies discussed in the following sections.

Deliverable: Memorandum proposing final horizontal alignment and alternatives evaluated

1.2.7 Finalize and Recommend Construction Methodology and Vertical Alignment

Geotechnical information collected from previous reports and explorations, along with the data collected from the proposed two (2) borings collected in Subtask 1.2.4 will provide information on subsurface soil and water characteristics at different depths and which soils will offer less risk to mine through. This information will be evaluated by Earth Tech's Team to develop a vertical cross section for the proposed alignments that will represent the various soils types. In addition, the pros and cons for the various construction methodologies for this particular Project will be completed for the following methodologies:

- Horizontal Directional Drill
- Small Diameter Micro Tunnel Boring (Up to 84-in Diameter)
    - Shallow Pipe Jacking
    - Shallow Liner/Carrier Pipe

To complete the recommendation for a construction method, Earth Tech and Dr. Sauer have prepared a detailed scope of work and fee estimate for this Sub-Task, which Earth Tech will coordinate and perform QA/QC. Specific scope of work/fee schedules are attached in Appendix B2 (Dr. Sauer) and noted on Appendix A (ET - Proposal Fee Schedule)

Deliverable: Memorandum summarizing vertical alignment and construction methodology for each location/alignment evaluated.

1.2.8 Preliminary Permitting Requirements and Environmental Site Assessment

Earth Tech along with Consulting Engineering Science, Inc. (CES) will identify the permitting requirements from agencies that have regulatory jurisdiction over the 20-Inch Water Main Project. CES has recently permitted a similar type project, and in doing so, it has developed the following process that will facilitate the permitting process and will ensure that permits can be obtained.

In order to complete the preliminary permitting requirements and Environmental Site Assessment, CES prepared detailed scopes of work and fee estimates (Appendix B4) for this Sub-Task, which Earth Tech will manage, coordinate and perform QA/QC. In addition, this scope of work by CES also addresses the meetings with agencies, participation in workshops, and assisting in the evaluation and preliminary engineering process.

The proposal by CES (Appendix B4) describes the tasks necessary in Task Order 1, which will allow for Earth Tech to evaluate the permitting requirements and confirm that permits can be obtained, and if necessary, the conditions set forth by the agencies for permit approvals.

The following items will be completed by CES in order to approach the permitting agencies with the information required for the permits and will need to complete the following data collection and reports necessary.

Deliverables: Biological Site Characterization Report, Phase I Environmental Site Assessment, and Summary or Permit Requirements Report for Corridor Area shown in Figure 1.

1.2.9 Risk Assessment

Subsurface construction involves multiple unknowns and limited information, and requires that an evaluation of the construction methodology, as well as the vertical and horizontal alignment be reviewed by subsurface design and construction experts that can identify, quantify and summarize the risk management and allocations issues of the Project.

Dr. Sauer and Earth Tech will prepare a risk assessment for the alternatives so that these risks can be presented to the stakeholders (if approved by MDWASD), MDWASD and agencies while incorporating the risk management issues into the selection process and/or matrix.

Dr. Sauer and Earth Tech will host a workshop that will cover in detail the different risk factors for a job of this magnitude. It is also important that the MDWASD becomes familiar and understands the Project risks so that during the alternative evaluation, the owner can assess the level of risk for each alternative or criteria.

The risk management workshop should be attended by key team experts, MDWASD, key stakeholders and permitting agency representatives (if approved by MDWASD) and MDWASD supplied VE consultants. Alfred Moergeli, a recognized expert in the field of risk management will moderate and document the findings from the workshop. This process will include:

:

- Introduce risk management - explaining the risk management methodology & process procedure
- Perform a preliminary hazard analysis on alignments and construction methods - Identify areas where risks are apparent and address severity of risks
- Develop a Risk Register (list of risks)
- Develop a Risk Management Plan - identify the schedule and cost impacts of each risk as well as probability of risk

Dr. Sauer has prepared a detailed scope of work and fee estimates (Appendix B2) for this Sub-Task.

Deliverable: Risk Management Workshop, Risk Register, and Risk Management Plan.

1.2.10 Paired Matrix Comparison

Earth Tech understands the complex local stakeholder considerations for a project of this scope that must to be evaluated and analyzed. In addition to the ROW/Easement and construction cost risks, other local factors carry a significant weight on the decision as to why a proposed alignment, methodology or even horizontal alignment was selected. A paired matrix is a tool used to bring the intangible and tangible issues together for the evaluation of alternatives. Earth Tech will develop with MDWASD the paired matrix comparison criteria that are to be considered for the project final recommendation.

Once the criteria are determined, key stakeholders (if approved by MDWASD), agencies and MDWASD will each provide input as to which criteria are most important. This will result in weighting factors that once the alternatives are evaluated, will give certain criteria more importance over another. Once this has been finalized, the cost impact of each criterion is factored in and the matrix is used to eliminate alternatives until the highest ranked alternative that meets most of the conditions necessary for a successful completion of the Project is selected.

To complete this task, Earth Tech will coordinate with MDWASD, the major stakeholders (if approved by MDWASD) and permitting agencies (as approved by MDWASD) and host a Workshop in which the major stakeholders and permitting agencies will attend to accomplish the following:

- Develop 10 project specific Criteria for the 3 alternatives
- The 10 Criteria will be weighed (Importance)
- Complete paired comparison for the 3 alternatives

Deliverable: Completed final paired comparison matrix evaluation and summary report.

1.2.11 Water Main Replacement Recommendation Report

Earth Tech will present the final ranking of alternatives, and recommend one alignment to MDWASD for the completion of this Project.

Earth Tech will attend one meeting to supply a copy of final recommendation report documents, and one coordination of VE comments meeting in coordination with the 54-inch Force Main, with the MDWASD supplied VE consultant who will review the available and acquirable ROW and ability to record easements, the evaluation of the vertical and horizontal alignment, the construction methodology risk evaluation, the stakeholder and agency input and the project summary schedule and opinion of probable cost for completion of the project with the least number of concerns and disturbances, and provide review results.

The recommendation will provide detail on the following components:

- Summary of evaluated alternatives

- Results of decision matrix
- Detailed easement requirements for selected alignment and estimated costs
- Summary of ROW to be used and/or acquired and estimated cost
- Special purpose survey of alignment options and baseline survey for selected alignment
- Description of connection points for PI and FI Identifying locations, ROW/easements, Operation and Maintenance, and methodology issues
- Final depth of replacement water main
- Final construction method detailing the following:
    - Equipment type
    - Sizes (casing diameter, carrier pipe diameter, lengths, shaft diameters and depths, etc.)
    - Locations of shafts and proposed alignment
    - Construction support methods
    - Dewatering
    - Disposal
    - Opinion of Probable Project Cost
    - Overall summary project schedule
    - Others
- Stakeholder coordination documents (meeting minutes, memorandums, letters, etc.)

Deliverable: "Draft Engineering Report and Recommendation", Document preparation and two meetings with VE to supply documents and to review VE review results, "Final Engineering Report and Recommendation"

TASK 1.3 ASSISTANCE TO SECURE LAND RIGHTS

Based on the selected alignment, Earth Tech will assist the MDWASD to secure the necessary land rights to design, permit, construct and maintain the water main in service.

1.3.1 Request Legal Records along Selected Alignment

Using researched information Earth Tech and Robayna will identify parcels where rights of way are necessary for the proposed force main corridor and will include the following steps:

- Identify potential parcels on the path of the selected corridor alignment (estimated at about 4 platted parcels)
- Obtain documents dedicated by deed through MDCPWD Right of Way Division and/or the City of Miami Beach.
- Earth Tech will procure "name only" title search to identify other existing rights of way or easements.
- Prepare parcel survey of properties, setting corners and locating improvements on the parcels.
- Compute potential taking and prepare legal description for easement acquisition.
- Prepare a certified sketch, for each right of way taking, showing the legal description geometry tied to the corridor alignment horizontal control.

Robayna has prepared a detailed scope of work and fee estimates (Appendix B5) for this Sub-Task.

Deliverable: Certified sketch, for each easement/ROW taking, showing the legal description geometry tied to the corridor alignment horizontal control.

1.3.2 Final Land Requirements for Selected Alignment

Earth Tech will collect property data, assess the information, perform an alternative analysis from the ROW perspective, and recommend a plan of action to secure the necessary easements and probable ROW for the construction (**permanent and temporary**) of the water main. Earth Tech will also collect information from the MDWASD for the MDWASD proposed alignment and commence verification of the information in close coordination with efforts being completed in Subtask 1.3.1.

In order to finalize the ROW, the following will be completed:

- Attend up to one (1) of the workshops in subtask 1.4 to address the ROW Issues at the meetings
- Meetings with property owners (up to 4) may be required in order to have a signed Letter of Intent
- Assist MDWASD in the preparation of documents necessary for the acquisition of subterranean easements
- Estimate value of proposed subterranean easements to be acquired

- Estimate value of existing 20-inch water main easements to be possibly abandoned

- Complete spreadsheet of property owners willing to negotiate /donate/ or deny Easement

- Coordination with MDWASD (Mrs. Liliana Rainey-Lacau / Real Estate Officer)

- Obtain acquisition requirements from individual owners (Letter of Intent

Deliverable: Signed and Unsigned Letters of Intent

1.3.3 Assistance to Secure Land Rights

Earth Tech will provide assistance securing land rights to the level of effort described below:

- Coordination with the MDWASD

    - The MDWASD will coordinate directly with GSA with coordination and assistance from Earth Tech. GSA will be responsible for acquiring the properties.

    - Earth Tech will also submit to MDWASD sample tunnel easement documents prepared for other projects and the process for assigning a value to the underground tunnel easement.

- Preparation of Documents and Sketches

    - Earth Tech will prepare the legal documents and sketches necessary for the land rights acquisition process in order to secure the land rights (up to 4 properties) and transfer to MDWASD

Deliverable: Provide copies and coordination including legal descriptions and sketches, deed information, titles for applicable properties, letter of intent, minutes/notes from discussions/correspondence with property owners.

TASK 1.4 PUBLIC INVOLVEMENT

Earth Tech along with Machado Garcia-Serra (MGS) and Margueritte Ramos and Associates (MRA), will develop a proactive Public Involvement Program (PIP) approach to address the concerns of the stakeholders and keep them informed throughout the duration of the project. The Task Order 1 PIP services detailed herein will be provided throughout the duration of this task only, but will be accomplished to harmonize with the PIP activities of each preceding task order and as required by the MDWASD.

Earth Tech's PIP activities are detailed in Appendix A and PIP fees for the subconsultants are detailed in Appendix B1 – B5.

1.4.1 Public Information

As part of the preliminary engineering, public involvement input will help determine which options are viable through the proposed evaluation matrix. Earth Tech's experience has been that stakeholder understanding of the project benefits and involvement in reviewing the options helps create public "buy-in" for the project. To accomplish this, with the Department's approval, Earth Tech will:

- Notify agencies and municipalities in writing that MDWASD will be constructing a new water main in the vicinity in which they have jurisdiction
- Prepare and compile stakeholder opinion surveys for informational and selection-decision process purposes
- Prepare display boards, PowerPoint presentations, and renderings to demonstrate the project options and issues
- Producing flyers and brochures for Workshops and mailings to discuss the reasons for the project, and the benefits that will accrue to the City of Miami Beach, Fl and other stakeholders from this Project
- A Project website will be developed and maintained as needed by Earth Tech to provide access to updated information on the Project that can be used both during the preliminary engineering and subsequently through the project procurement and construction phases that will include:
    - Website name and address
    - Web Hosting at 20 Gigabytes
    - Web Page Development including directory of project personnel with email links, online press center, agendas and minutes, archive of previous agendas and minutes, polling capability, traffic advice, concerns or nuisance reporting, public calendar, logo, and site tools (date, site search, outside links, site search engine, map and visitor counter)
    - Secure access for specific team members and public access to selected areas
    - Monthly updates to website
- Project status and Project information to be distributed through local magazines, newspapers and monthly letters
- Public Information and Web Site security clearance and privacy rules will require the approval of the County and the MDWASD

1.4.2 Stakeholder/Community Involvement Workshops

Earth Tech will Consulting work directly with the MDWASD and its Public and Governmental Affairs Section throughout the duration of the Task Order 1 route selection process to ensure that public concerns are understood, considered and addressed.

The Team's approach to dealing with the impacted communities/stakeholders will entail engaging them in person, through media, and using the internet to help them understand and appreciate the value of the project, to present amicable solutions to the inconveniences, and always forewarning them of delays and direct impacts such as traffic detours.

Earth Tech's public involvement effort will capitalize on the community's active nature through the following:

- Coordinate, prepare for and facilitate an initial Workshop for Community Stakeholders to provide information regarding the project, its benefits and associated issues, and to document community stakeholder concerns

- Coordinate, prepare for and facilitate a public workshop to share project technical and community stakeholder information with the City of Miami

- Coordinate, prepare for and facilitate a public workshop to share project technical and community stakeholder information with FIP

- Coordinate, prepare for and facilitate a contractor outreach program

    - Prepare and submit project information to industry publications

    - Host a workshop and presentation to inform contractors of the project and for MDWASD to assess the interest of contractors that may bid on the Project.

- Coordinate, prepare for and facilitate a final workshop for Community Stakeholders to inform them of the next phases, final project alignment, construction methodology, and answer any additional questions and concerns from the Stakeholders

Notes: Earth Tech will identify venues for hosting workshops, provide one (1) facilitator and one (1) support staff to assist the MDWASD in presenting, hosting and/or guiding the workshop. The Team will prepare the necessary public outreach (detailed in subtask 1.4.1) information for stakeholders, residents and agencies to be informed of the specific workshop. Close coordination and approval by MDWASD's Governmental and Public Affairs Division will be followed. The criteria used in developing the alternatives will be presented to the Stakeholders and Agencies for support and approval, and meeting minutes will be prepared. Appendix A (Proposal Fee Schedule) identifies team members attending workshops, hours per workshop and the number of workshops. Attendance by Earth Tech Team subconsultants is detailed in their specific scope of work/fee schedules attached (Appendix B1 – B5) and noted in Appendix A (Proposal Fee Schedule).

ASSUMPTIONS

The task order is based on the following assumptions:

1. Requested information is to be made available by the MDWASD within two (2) weeks of a written request, if available

2. Earth Tech will obtain clearance through the already established procedures from MDWASD's Plans Review Section to be allowed unrestricted access to data and information sources, if available

3. MDWASD staff will review and respond with comments to information provided by Earth Tech within a two week, up to a maximum four week period, unless otherwise specified

4. All meetings and workshops will be held at MDWASD's office, unless otherwise specified. MDWASD will be responsible for ensuring suitable rooms are available, the required equipment is available and the room has conferencing capabilities

5. Stakeholders and agencies provide the MDWASD and Earth Tech available information within specified time

6. As requested by the MDWASD, Earth Tech has used the central route (Figure 1) MDWASD's as the basis for the preparation of this Task Order

7. Website development and updates will comply with the County's and the MDWASD's security and privacy requirements

8. Monthly Invoices will be submitted as a percent complete basis for each task/sub-task.

9. As per MDWASD, the proposed water main is to be 20-inch in diameter or hydraulic equivalent

COMPENSATION

The total lump sum compensation for Task Order No. 1 (20-inch Water Main) is $277,423.19. See attached breakdown in "Appendix A". A further breakdown of subconsultant fees, schedules and scope of work descriptions are provided in "Appendix B1 – B5".

SCHEDULE

Project schedule for Task Order 1 is attached.

Appendix A

TASK ORDER 1

Proposal Fee Schedule

Miami-Dade Water and Sewer Department

Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities

Proposal Fee Schedule

Design Build Criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island

Appendix A

Earth Tech Team Staff Legend

A	Hans Antonsen (ET)
B	Franklin A. Torrealba, PE (ET), Rodrigo Pinto PE (LAN)
C	Pat Murray, PE (ET), Susan Day (ET), Rafael Ortega, PE (LAN)
D	Derek Zbitty, PE (ET), Tuoi Chi, PE (LAN)
E	William A. Dahlquist, PE (ET), Will Dunham, PE (ET), Claire Thiriet (ET), Mitchell Rabinowitz, PE (LAN), William Wiltshire, PE (LAN), William Wagner, PE (CE)
F	Roger Williams, PE (ET), Madeleine Rancis, PE (LAN), Antonio Torres-Perdomo (CE)
G	Mariceli Puchals (ET), Richard Crew (LAN), Vivian Knight (CE)
H	Andrzej Cortazar (ET), Daisy Ruffetti (LAN)

			Management, Design, Planning, QA/QC											Subconsultants - Scope and Fees per Specific Task						PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-in WATER MAIN REPLACEMENT AND 24-in FORCE MAIN REPLACEMENT			
		Personnel	A	B	C	D	E	F	G	H				I	J	K	L	M					
TASK	WORK ACTIVITY	Key Roles	Project Principal in Charge	Project Manager	Task Management - Technical Advisors	Quality Assurance/ Quality Control	Sr. Engineer / Sr. Professional	Engineer / Professional	Jr. Engineer / CADD Technician / Field Technician	Support Staff/ Administration	TOTAL DAYS	LABOR COST	4% OTHER DIRECT COSTS (TITLE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTION, MATERIALS, ETC.)	Machado Davila - Sentz / Marquette Ramos & Associates	Geraci, Inc.	Dr. G. Sauer Corporation	Corral/Ng. Engineering & Science, Inc.	Robayna & Asociados, Inc.	TOTAL FEE	REPLACEMENT OF 20-in WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-in WATER MAIN	REPLACEMENT OF 24-in FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 24-in FORCE MAIN
		Rate (Direct Salary)	$125.00	$67.00	$70.00	$60.00	$45.00	$35.00	$30.00	$25.00													
		Overhead Multiplier	1.00	2.85	2.85	2.85	2.85	2.85	2.85	2.85													
		Fully Burdened Rate	$1,000.00	$1,527.50	$1,596.00	$1,368.00	$1,026.00	$866.40	$684.00	$570.00													
		Personnel Assigned																					
TASK 1.2 - IDENTIFY, EVALUATE & PROVIDE FINAL ALIGNMENT AND PROJECT PARAMETERS																							
1.2.1	Meetings with Stakeholders and Permitting Agencies (34)																						
1	USACE - 2 Meetings			0.50			0.50			0.50	1.50	$ 1,582	$ 62						$ 1,624	30%	$ 487	70%	$ 1,137
2	USCG - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
3	USFWS - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
4	NOAAFS - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
5	USEPA - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
6	FDEP - 2 Meetings			0.50			0.50			0.50	1.50	$ 1,563	$ 62						$ 1,624	30%	$ 487	70%	$ 1,137
7	SFWMD - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
8	FWC - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
9	FDSHPO - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
10	DERM - 2 Meeting			0.50			0.50			0.25	1.25	$ 1,419	$ 57						$ 1,476	30%	$ 443	70%	$ 1,033
11	MDPWD - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
12	Port of Miami - 3 Meetings			0.75			0.75			0.50	2.00	$ 2,200	$ 88						$ 2,288	30%	$ 686	70%	$ 1,602
13	DSA - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	30%	$ 244	70%	$ 568
14	Biscayne Bay Pilots - 2 Meetings			0.50			0.50			0.25	1.25	$ 1,419	$ 57						$ 1,476	30%	$ 443	70%	$ 1,033
15	City of Miami - 2 Meetings			0.50			0.50			0.25	1.25	$ 1,419	$ 57						$ 1,476	25%	$ 369	75%	$ 1,107
16	City of Miami Beach - 4 Meetings			1.00			1.00			0.25	2.25	$ 2,596	$ 108						$ 2,804	20%	$ 561	80%	$ 2,243
17	District 4 Commissioner - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	0%	$ -	100%	$ 812
18	District 5 Commissioner - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	50%	$ 406	50%	$ 406
19	District 7 Commissioner - 1 Meeting			0.25			0.25			0.25	0.75	$ 781	$ 31						$ 812	0%	$ -	100%	$ 812
20	South Point HOAs - 4 Meetings			1.00			1.00			0.50	2.50	$ 2,639	$ 114						$ 2,852	0%	$ -	100%	$ 2,852
21	FIH - 2 Meetings			0.50			0.50			0.50	1.50	$ 1,582	$ 62						$ 1,624	30%	$ 487	70%	$ 1,137
22	FIC - 2 Meetings			0.50			0.50			0.50	1.50	$ 1,582	$ 62						$ 1,624	30%	$ 487	70%	$ 1,137
23	FICA - 2 Meetings			0.50			0.50			0.50	1.50	$ 1,582	$ 62						$ 1,624	30%	$ 487	70%	$ 1,137
24	Various Utilities - 4 Meetings			1.00			1.00			0.50	2.50	$ 2,639	$ 114						$ 2,852	30%	$ 856	70%	$ 2,067
	Subtotal 1.2.1		0.00	10.75	0.00	0.00	10.75	0.00	0.00	6.00	29.50	$ 32,011.20	$ 1,280.45	$ -	$ -	$ -	$ 4,476.77	$ -	$ 37,768		$ 9,786.83		$ 28,002.59

Miami-Dade Water and Sewer Department

Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities

Proposal Fee Schedule

Design Build Criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island

Appendix A

Earth Tech Team Staff Legend

A	Norm Anderson (ET)
B	Franklin A. Torrente, PE (ET), Rodrigo Pigna PE (LAN)
C	P.K Murray, PE (ET), Balan Dey (ET), Rafael Ortega, PE (LAN)
D	Derek Zlody, PE (ET), Tuan Chu, PE (LAN)
E	William A. Redstan, PE (ET), Mark Dorsman, PE (ET), Claire Thorne (ET), Werner Rabreiter, PE (LAN), William Wiebking, PE (LAN), William Wagner, PE (CE)
F	Roger Williams, PE (ET), Mackenzie Rencsk, PE (LAN), Antonio Torres-Perron (CE)
G	Maricela Fuentes (ET), Richard Crow (LAN), Vivian Knight (CE)
H	Andres Corredor (ET), Darby Romero (LAN)

TASK	WORK ACTIVITY	Key Roles	Management, Design, Planning, QA/QC: Project Principal in Charge (A)	Project Manager (B)	Task Management - Technical Advisors (C)	Quality Assurance/ Quality Control (D)	Sr. Engineer / Sr. Professional (E)	Engineer / Professional (F)	Jr. Engineer / CADD Technician / Field Technician (G)	Support Staff/ Administration (H)	TOTAL DAYS	LABOR COST	4% OTHER DIRECT COSTS (TELE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTION, MATERIALS, ETC.)	Subconsultants - Scope and Fees per Specific Task: Mesharbi Garcia-Serra / Marguerite Pettus & Associates (I)	Geosen, Inc. (J)	Dr. G. Sauer Corporation (K)	Consulting Engineering & Science, Inc. (L)	Rotaphe & Associates, Inc. (M)	TOTAL FEE	PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-IN WATER MAIN REPLACEMENT AND 54-IN FORCE MAIN REPLACEMENT: REPLACEMENT OF 20-IN WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-IN WATER MAIN	REPLACEMENT OF 54-IN FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 54-IN FORCE MAIN
		Assigned Staff	$125.00	$97.00	$70.00	$60.00	$45.00	$38.00	$30.00	$25.00													
		Duration (Months)	1.00	2.85	2.85	2.85	2.85	2.85	2.85	2.85													
		Labor Rate (Hours)	$1,000.00	$1,527.80	$1,596.00	$1,368.00	$1,026.00	$865.40	$684.00	$570.00													
		Key Roles																					
TASK 1.1 - COLLECT AND REVIEW DATA																							
1.1.1	Data Collection																						
1	Up to 3 Site Visits			1.00	1.00		1.00				3.00	$ 4,160	$ 166						$ 4,316	30%	$ 1,295	70%	$ 3,021
2	Review Aerial Photography						0.50		1.00		1.50	$ 1,187	$ 48						$ 1,245	30%	$ 373	70%	$ 871
3	Available Geotechnical Information from other projects in vicinity			0.25			0.50	1.00		1.00	2.75	$ 2,331	$ 93						$ 2,425	30%	$ 727	70%	$ 1,697
4	MDWASD Previous Government Cut Studies and Information		1.00	0.75	1.50		1.50	0.50		0.50	5.75	$ 5,797	$ 272						$ 7,069	30%	$ 2,121	70%	$ 4,948
5	City of Miami Beach Proposed Pump Station Design, as-builts and Utility Information				0.50		1.00				1.50	$ 1,424	$ 73						$ 1,897	30%	$ 569	70%	$ 1,328
6	Planned and Proposed Projects in Vicinity			0.25			1.75		1.00		3.00	$ 2,881	$ 114						$ 2,976	30%	$ 893	70%	$ 2,083
7	Ensure Design Ticket and Utility Engineering								0.25		0.25	$ 171	$ 7						$ 178	30%	$ 53	70%	$ 124
8	As-built Information for Above and Below Ground Structures						1.00	3.00			4.00	$ 3,825	$ 145						$ 3,770	30%	$ 1,131	70%	$ 2,639
9	As-built Information from Municipalities' PW Department (Buildings, Seawalls, Etc.)						1.00	3.00			4.00	$ 3,825	$ 145						$ 3,770	30%	$ 1,131	70%	$ 2,639
10	Research and Identify Ordinances						0.50		1.00		1.50	$ 1,197	$ 48						$ 1,245	30%	$ 373	70%	$ 871
11	Verification of Construction Conditions - Community Warehouse/School Zones, etc.			0.25			0.25		0.50		1.00	$ 880	$ 39						$ 1,020	30%	$ 306	70%	$ 714
12	Assemble Information for future growth of Stakeholder Infrastructure/Facilities						0.50		2.00		2.50	$ 1,881	$ 76						$ 1,956	30%	$ 587	70%	$ 1,369
		Subtotal 1.1.1	1.00	2.50	3.00	0.00	8.00	7.50	4.75	1.50	30.75	$ 30,440.00	$ 1,220.80	$ -	$ -	$ 11,692.24	$ -	$ -	$ 43,758		$ 13,150.56		$ 30,607.44
1.1.2	Initial coordination Meeting, Work Plan and Kick-off Meeting																						
1	Initial Coordination Meeting		0.25	1.00			1.00			0.50	2.75	$ 3,069	$ 124						$ 3,212	30%	$ 964	70%	$ 2,248
2	Work Plan and Kick Off Meeting		0.50	1.50	1.00		7.50			0.50	5.00	$ 8,211	$ 248						$ 6,490	30%	$ 1,936	70%	$ 4,522
		Subtotal 1.1.2	0.75	2.50	1.00	0.00	2.50	0.00	0.00	1.00	7.75	$ 9,300.00	$ 372.00	$ -	$ -	$ -	$ -	$ -	$ 9,672		$ 2,901.60		$ 6,770.40

Miami-Dade Water and Sewer Department
Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities
Proposal Fee Schedule
Design Build Criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island
Appendix A

Earth Tech Team Staff Legend

A	Nora Anderson (ET)
B	Franklin A. Tomasino, PE (ET), Rodrigo Pigna PE (LAK)
B	Pat Murray, PE (ET), Eudan Dey (ET), Rafael Ortega, PE (LAK)
D	Derek Zoby, PE (ET), Tuan Chi, PE (LAK)
E	William A. Yarbrough, PE, (ET), Ira McClenahan, PE, (ET), Claire Thorne (ET), Werner Rehnstrad, PE (LAK), William Wiltshire, PE (LAK), William Wagner, PE (CE)
F	Roger Williams, PE (ET), Madeleine Rabelo, PE (LAK), Antonio Torres-Perdin (CE)
G	Marlene Fuentes (ET), Richard Crow (LAK), Vivian Knight (CE)
H	Andres Corredor (ET), Daisy Pumiero (LAK)

TASK	WORK ACTIVITY	Personnel Key Roles	Management, Design, Planning, QA/QC A Project Principal In Charge	B Project Manager	C Task Management - Technical Advisors	D Quality Assurance/ Quality Control	E Sr. Engineer / Sr. Professional	F Engineer / Professional	G Jr. Engineer / CADD Technician / Field Technician	H Support Staff/ Administration	TOTAL DAYS	LABOR COST	4% OTHER DIRECT COSTS (TITLE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTION, MATERIALS, ETC.)	Subconsultants - Scope and Fees per Specific Task I Machado Garcia-Serra / Marguerite Ramos & Associates	J Geosol, Inc.	K Dr. G. Sauer Corporation	L Consulting Engineering & Science, Inc	M Robayna & Associates, Inc.	TOTAL FEE	PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-IN WATER MAIN REPLACEMENT AND 54-IN FORCE MAIN REPLACEMENT: REPLACEMENT OF 20-IN WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-IN WATER MAIN	REPLACEMENT OF 54-IN FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 54-IN FORCE MAIN
		Rate/Unit Cost ($/hr)	$125.00	$97.00	$70.00	$80.00	$45.00	$35.00	$30.00	$25.00													
		Overhead Multiplier	1.00	2.85	2.85	2.85	2.85	2.85	2.85	2.85													
		Labor Cost ($/hr)	$1,000.00	$1,527.60	$1,596.00	$1,368.00	$1,026.00	$855.40	$684.00	$570.00													
		Assigned Hours																					
1.3.2	Alternatives Identification and Public Involvement																						
	1 Community Outreach, Coordination and Impacts			2.00			2.00				4.00	$ 6,167	$ 204						$ 5,311	20%	$ 1,062	80%	$ 4,246
	2 Environmental Impacts			0.25	1.00		1.00				2.25	$ 3,004	$ 120						$ 3,124	20%	$ 625	80%	$ 2,499
	3 Environmental and Management of Soils			0.25			1.00	2.00			3.25	$ 3,141	$ 125						$ 3,266	20%	$ 653	80%	$ 2,613
	4 Connection Points at Miami Beach, Fisher Island and CDWWTP / Ownership			0.50	1.00		2.00		2.00		5.50	$ 5,790	$ 231						$ 6,011	20%	$ 1,202	80%	$ 4,809
	5 Permit Requirements			0.25			1.00				1.25	$ 1,408	$ 56						$ 1,464	20%	$ 293	80%	$ 1,171
	6 Proposed Easements and ROW			0.25	1.00		1.00				2.25	$ 3,004	$ 120						$ 3,124	20%	$ 625	80%	$ 2,499
	7 Geotechnical Information			0.25	2.00		1.00				3.25	$ 4,600	$ 184						$ 4,784	20%	$ 957	80%	$ 3,827
	8 Design Criteria Book			0.25	2.00		2.00				4.25	$ 5,428	$ 223						$ 5,651	20%	$ 1,170	80%	$ 4,681
	9 Operation and Maintenance of Facilities			0.25	1.00		1.00				2.25	$ 3,004	$ 120						$ 3,124	20%	$ 625	80%	$ 2,499
	10 Division of Probable Construction Costs			0.50			2.00	1.00	4.00		7.50	$ 6,416	$ 257						$ 6,675	20%	$ 1,335	80%	$ 5,340
	11 Schedule			0.50			1.00	2.00			3.50	$ 3,533	$ 141						$ 3,684	20%	$ 737	80%	$ 2,931
	12 Hydraulic Equivalence of 60-inch Force Main / 20-inch Water Main			0.25	1.00			1.00			2.25	$ 3,844	$ 154						$ 2,998	20%	$ 592	80%	$ 2,368
	13 Summary of Notes and Preliminary Project Considerations		1.00	1.50	0.75	0.75	2.00	1.50	2.00	2.00	11.50	$ 11,374	$ 455						$ 11,829	20%	$ 2,366	80%	$ 9,463
	Subtotal 1.3.2		1.00	7.00	9.75	0.75	17.00	9.50	8.00	2.00	53.00	$ 59,833.20	$ 2,393.33	$ -	$ -	$ -	$ 2,646.29	$ -	$ 53,732		$ 12,746.96		$ 50,985.42
1.3.3	Coordination, Assessment and Selection of Preferred Route and Site																						
	1 Preliminary Survey Work to Evaluate Options			1.00			4.00		1.00		6.00	$ 6,216	$ 263						$ 6,566	10%	$ 657	90%	$ 5,911
	Subtotal 1.3.3		0.00	1.00	0.00	0.00	4.00	0.00	1.00	0.00	6.00	$ 6,216.00	$ 262.62	$ -	$ -	$ -	$ -	$ 67,113.48	$ 63,642		$ 9,364.17		$ 47,313.63
1.3.4	Control Point, Bathymetric and Geotechnical Investigations																						
	1 Initial Geotechnical Investigation			0.50	1.00	1.50		1.50	1.00		1.00	6.50	$ 7,387	$ 296						$ 7,683	20%	$ 1,536	80%	$ 6,154
	Subtotal 1.3.4		0.00	1.00	1.50	0.00	1.50	1.00	0.00	1.00	6.00	$ 7,387.00	$ 295.86	$ -	$ -	$ 274,716.00	$ 20,831.04	$ -	$ 303,230		$ 60,681.79		$ 242,897.15
1.3.5	Tunnel Construction Considerations																						
	1 Safety			0.50	0.75		1.00				2.25	$ 2,987	$ 119						$ 3,106	30%	$ 932	70%	$ 2,174
	2 Tunnel/Trenchless			0.25	0.75		1.00	1.00			3.00	$ 3,474	$ 139						$ 3,613	30%	$ 1,083	70%	$ 2,527
	3 Shaft Construction				0.75		1.00	1.00			2.75	$ 3,089	$ 124						$ 3,213	30%	$ 964	70%	$ 2,249
	4 Pipeline Construction and Connection Points			0.25	0.75		3.00	1.00	1.00		6.00	$ 6,207	$ 248						$ 6,456	30%	$ 1,937	70%	$ 4,519
	5 Power Availability				0.50		1.00	1.00	1.00		3.50	$ 3,374	$ 135						$ 3,509	30%	$ 1,053	70%	$ 2,457
	6 Handling, Treatment and Disposal of Tunnel and Shaft Spoils			0.25	0.75		0.50	1.50			3.00	$ 3,393	$ 136						$ 3,527	30%	$ 1,058	70%	$ 2,469
	7 Handling, Treatment and Discharge of Tunnel Water				0.50		0.50	1.50			2.50	$ 2,611	$ 104						$ 2,715	30%	$ 815	70%	$ 1,901
	8 Protection of Existing Structures			0.25	0.50		1.00	1.00	1.00		3.75	$ 3,758	$ 150						$ 3,907	30%	$ 1,172	70%	$ 2,735
	9 Constructability - Egress/Ingress			0.25	0.50		1.50	1.00	1.00		4.25	$ 4,268	$ 171						$ 4,440	30%	$ 1,332	70%	$ 3,108
	10 Recommend Construction and Considerations of Facilities Memorandum		1.00	1.50	1.00	0.50	2.00	1.00	1.00	1.75	9.75	$ 10,171	$ 407						$ 10,578	30%	$ 3,173	70%	$ 7,405
	Subtotal 1.3.5		1.00	3.25	6.75	0.50	12.50	10.00	5.00	1.75	49.75	$ 43,326.20	$ 1,733.13	$ -	$ -	$ 19,562.88	$ -	$ -	$ 64,622		$ 19,387.26		$ 45,235.94
1.3.6	Master Plan Recommendations																						
	1 Evaluate Alternatives in Miami Beach / Sowa Point			0.50	1.50		4.00	2.00	1.00		9.00	$ 9,678	$ 387						$ 10,066	0%	$ -	100%	$ 10,066
	2 Evaluate Alternatives in Government Cut			0.50	0.75		3.00	2.00	1.00		7.25	$ 7,468	$ 299						$ 7,754	30%	$ 2,326	70%	$ 5,428
	3 Evaluate Alternatives in Fisher Island			0.50	1.50		5.00	2.00	1.00		10.00	$ 10,704	$ 428						$ 11,133	20%	$ 2,227	80%	$ 8,906
	4 Evaluate Alternatives in Ivory Cut			0.50	0.75		2.00	2.00	1.00		6.25	$ 6,430	$ 257						$ 6,687	0%	$ -	100%	$ 6,687
	5 Evaluate Alternatives in Virginia Key			0.50	0.50		2.00	2.00	1.00		6.00	$ 6,031	$ 241						$ 6,272	0%	$ -	100%	$ 6,272
	6 Evaluate Alternatives in Port of Miami			0.50	0.50		2.00	2.00	1.00		6.00	$ 6,031	$ 241						$ 6,272	90%	$ 5,645	10%	$ 627
	7 Develop Five (5) Horizontal FM Alignments / Develop Three (3) Wet Alignments			1.00	0.75	1.00	4.00	3.00	6.00		15.75	$ 14,900	$ 596						$ 15,496	30%	$ 4,649	70%	$ 10,847
	8 Summarize ROW Needs (Advantages/Disadvantages) / Recommend Securing Process				0.75		4.00				4.75	$ 8,301	$ 212						$ 5,513	20%	$ 1,103	80%	$ 4,410
	9 Recommend Final Horizontal Alignment and ROW/Easements to be Acquired Memorandum		1.50	2.00	1.00	1.00	2.50	2.50	3.00	2.00	14.50	$ 14,794	$ 592						$ 15,349	20%	$ 3,070	80%	$ 12,279
	Subtotal 1.3.6		1.50	5.00	8.00	2.00	28.50	17.50	14.00	2.00	79.50	$ 81,288.60	$ 3,251.54	$ -	$ -	$ -	$ -	$ -	$ 84,540		$ 19,018.40		$ 65,521.74

Miami-Dade Water and Sewer Department

Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities

Proposal Fee Schedule

Design Build Criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island

Appendix A

Earth Tech Team Staff Legend

A	Kishi Anderson (ET)
B	Phanelle A. Tonnelle, PE (ET), Rodrigo Figna PE (LAK)
C	Pat Murray, PE (ET), Eileen Day (ET), Rafael Ortega, PE (LAK)
D	Dana Zdaly, PE (ET), Tuck Chu, PE (LAK)
E	William A. Raffetti, PE (ET), Mark Dufresne, PE (ET), Clark Thiele (ET), Werner Rabusiski, PE (LAK), William Wilsmire, PE (LAK), William Wagner, PE (CE)
F	Roger Williams, PE (ET), Madeleine Rankin, PE (LAK), Adelina Torres-Perdo (CE)
G	Mariceia Puentes (ET), Richard Cote (LAK), Vivian Knight (CE)
H	Andrea Comesky (ET), Daisy Punero (LAK)

TASK	WORK ACTIVITY	Key Roles	Management, Design, Planning, QA/QC: Project Principal in Charge	Project Manager	Task Management - Technical Advisors	Quality Assurance/ Quality Control	Sr. Engineer / Sr. Professional	Engineer / Professional	Jr. Engineer / CADD Technician / Field Technician	Support Staff/ Administration	TOTAL DAYS	LABOR COST	4% OTHER DIRECT COSTS (TITLE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTIBLE MATERIALS, ETC.)	Subconsultants - Scope and Fees per Specific Task: Hachadoo Gerdis-Setta / Marguerite Ramos & Associates	Geosol, Inc.	Dr. G. Sever Corporation	Consulting Engineering & Science, Inc.	Rosayna & Associates, Inc.	TOTAL FEE	PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-IN WATER MAIN REPLACEMENT AND 54-IN FORCE MAIN REPLACEMENT: REPLACEMENT OF 20-IN WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-IN WATER MAIN	REPLACEMENT OF 54-IN FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 54-IN FORCE MAIN
		Key Roles (Typical)	$125.00	$97.00	$70.00	$60.00	$45.00	$38.00	$30.00	$25.00													
		Overhead Multiplier	1.00	2.85	2.85	2.85	2.85	2.85	2.85	2.85													
		Loaded Rate ($/hr)	$1,000.00	$1,027.80	$1,056.00	$1,368.00	$1,026.00	$868.40	$684.00	$570.00													
1.2.7	Review and Recommend Connection Methodology & Vertical Alignment																						
	1 Open Cut				0.50		1.00	1.00	0.50		3.00	$ 3,032	$ 121						$ 3,154	30%	$ 946	70%	$ 2,208
	2 Horizontal Directional Drill				0.50		2.00	1.00	0.50		4.00	$ 4,068	$ 162						$ 4,221	30%	$ 1,266	70%	$ 2,955
	3 Small Diameter Micro Tunnel				0.75		3.00	1.50	1.00		6.25	$ 6,288	$ 200						$ 6,500	30%	$ 1,953	70%	$ 4,556
	4 Large Diameter Tunnel				0.75		3.00	1.50	1.00		6.25	$ 6,288	$ 200						$ 6,500	30%	$ 1,953	70%	$ 4,556
	5 Shafts				0.75		3.00	1.50	1.00		6.25	$ 6,288	$ 200						$ 6,500	30%	$ 1,953	70%	$ 4,556
	6 Recommend Final Vertical Alignment and Methodology Memorandum		1.00	1.50	1.50	1.50	2.00	1.50	1.00	2.00	12.00	$ 12,913	$ 517						$ 13,430	30%	$ 4,029	70%	$ 9,401
	Subtotal 1.2.7		1.00	1.50	4.75	1.50	14.00	8.00	5.00	2.00	37.74	$ 36,779.60	$ 1,401.16	$	$	$ 36,230.80	$	$	$ 99,581		$ 29,868.42		$ 69,692.97
1.2.8	Coordinate Geotechnical and QA/QC Requirements (Phase I)																						
	1 Preliminary Permitting Requirements / Biological Site Characterization / Phase I ESA			1.25			2.00		0.50	0.50	4.25	$ 4,666	$ 184				$ 18,522.06		$ 23,394				
	Subtotal 1.2.8		0.00	1.25	0.00	0.00	2.00	0.00	0.50	0.50	4.25	$ 4,666.00	$ 183.94	$	$	$	$ 18,522.06	$	$ 23,394		$ 4,318.82		$ 17,274.24
1.3.6	Risk Assessment																						
	1 Risk Assessment Preparation and Workshop		0.50	1.00			1.00				2.50	$ 3,564	$ 122						$ 3,176	15%	$ 476	85%	$ 2,699
	Subtotal 1.3.6		0.50	1.00	0.00	0.00	1.00	0.00	0.00	0.00	2.50	$ 3,563.60	$ 122.14	$	$	$ 26,941.80	$	$	$ 30,218		$ 4,332.93		$ 25,884.91
1.3.10	Permit Application Preparation																						
	1 Failed Mains Completion Workshop Preparation		0.50	1.00	2.50		2.50		1.00	1.00	8.50	$ 8,837	$ 393						$ 10,230	30%	$ 3,069	70%	$ 7,161
	Subtotal 1.3.10		0.50	1.00	2.50	0.00	2.50	0.00	1.00	1.00	8.50	$ 8,836.60	$ 393.44	$	$	$	$	$	$ 10,230		$ 3,068.93		$ 7,161.04
1.3.11	Final Report Submittal (Water Replacement Report and Union Report)																						
	1 Draft WM & FM Engineering Report and Recommendation		0.75	1.50	1.00	1.00	5.00	2.00	6.00	4.00	21.25	$ 19,252	$ 770						$ 20,022	30%	$ 6,007	70%	$ 14,015
	2 Prepare for and attend two VE Meetings		0.50	1.00	0.50		1.00	1.00			4.00	$ 4,716	$ 186						$ 4,901	30%	$ 1,472	70%	$ 3,435
	3 Final WM & FM Engineering Report and Recommendation		0.50	1.00	0.50	0.50	6.00	6.00	2.00	2.25	18.75	$ 17,618	$ 701						$ 18,318	30%	$ 5,495	70%	$ 12,751
	Subtotal 1.3.11		1.75	3.50	2.00	1.50	12.00	9.00	8.00	6.25	44.00	$ 41,484.70	$ 1,656.39	$	$	$	$	$ 8,734.40	$ 52,975		$ 15,883.56		$ 37,014.94

Miami-Dade Water and Sewer Department

Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities

Proposal Fee Schedule

Design Build Criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island

Appendix A

Earth Tech Team Staff Legend

A	Mark Anderson (ET)
B	Francisco A. Torrealba, PE (ET), Rodrigo Flores PE (LAN)
C	Pat Murray, PE (ET), Ruben Ortiz (ET), Rafael Ortega, PE (LAN)
D	Dmitry Zitsky, PE (ET), Tyler Orie, PE (LAN)
E	William A. Ratcliff, PE (ET), Mark Dorman, PE (ET), Chris Trone (ET), Warner Reinstrup, PE (LAN), Wilson Wilshire, PE (LAN), William Wagner, PE (CE)
F	Roger Williams, PE (ET), Madonna Ramos, PE (LAN), Antonio Torres-Perdomo (CE)
G	Heriberto Fuentes (ET), Richard Orbe (LAN), Vivian Knight (CE)
H	Andres Comesar (ET), Dany Romero (LAN)

			Management, Design, Planning, QA/QC											Subconsultants - Scope and Fees per Specific Task									
		Personnel	A	B	C	D	E	F	G	H				I	J	K	L	M		PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-IN WATER MAIN REPLACEMENT AND 54-IN FORCE MAIN REPLACEMENT			
TASK	WORK ACTIVITY	Key Roles	Project Principal in Charge	Project Manager	Task Management - Technical Advisors	Quality Assurance/ Quality Control	Sr. Engineer / Sr. Professional	Engineer / Professional	Jr. Engineer / CADD Technician / Field Technician	Support Staff/ Administration	TOTAL DAYS	LABOR COST	4% OTHER DIRECT COSTS (TITLE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTION, MATERIALS, ETC.)	Machado Garde-Sarte / Marguerite Ramos & Associates	Geosol, Inc.	Dr. G. Sauer Corporation	Consulting Engineering & Science, Inc.	Robayna & Associates, Inc.	TOTAL FEE	REPLACEMENT OF 20-IN WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-IN WATER MAIN	REPLACEMENT OF 54-IN FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 54-IN FORCE MAIN
		Earth Tech (ET)	$125.00	$87.00	$70.00	$60.00	$45.00	$36.00	$30.00	$25.00													
		Carlos Alvarez	1.00	2.85	2.85		2.85	2.85	2.85	2.85													
		Local Sub-Consultants	$1,000.00	$1,527.60	$1,596.00	$1,368.00	$1,026.00	$683.40	$684.00	$570.00													
		Miami-Dade Water and Sewer Department																					
TASK 1.3 - ASSISTANCE TO SECURE LAND RIGHTS																							
1.3.1	Request Legal Research along MDWASD Proposed Alignment (54" + 4% + 24 properties @ $200/Title)			1.00			1.00				2.00	$ 2,554	$ 9,903						$ 11,456	20%	$ 2,291	80%	$ 9,165
	2 Procure Title Search (Up to 44 Properties)			1.00		1.00	5.00			1.00	8.00	$ 8,885	$ 264						$ 9,936	20%	$ 1,786	80%	$ 7,152
	Subtotal 1.3.1		0.00	2.00	0.00	1.00	6.00	0.00	0.00	1.00	10.00	$ 11,149.20	$ 9,246.97	$ -	$ -	$ -	$ -	$ 37,203.66	$ 47,599		$ 11,619.76		$ 46,079.01
1.3.2	Public Participation for Easement Acquisition																						
	1 Meetings with Property Owners (up to 44)			0.75	1.50		10.00				12.25	$ 13,900	$ 662						$ 14,562	10%	$ 1,456	90%	$ 12,917
	2 Preparation of Necessary Subsurface Easement/ROW Taking Documents			0.25			3.00		2.00		5.25	$ 4,928	$ 193						$ 5,021	10%	$ 502	90%	$ 4,519
	3 Determine Property Value / Subsurface Easement Values			0.50			3.00				3.50	$ 3,843	$ 164						$ 3,995	10%	$ 400	90%	$ 3,596
	4 Determine value of existing Easements to be abandoned (20-in WM and 54-in WM)						1.00				1.00	$ 1,026	$ 41						$ 1,067	10%	$ 107	90%	$ 960
	5 Coordination with MDWASD			0.25			2.00				2.25	$ 2,434	$ 97						$ 2,531	10%	$ 253	90%	$ 2,278
	6 Obtain Letter of Intent			0.75	0.75		10.00				11.50	$ 12,603	$ 504						$ 13,107	10%	$ 1,311	90%	$ 11,796
	Subtotal 1.3.2		0.00	2.50	2.25	0.00	29.00	0.00	2.00	0.00	35.75	$ 38,832.00	$ 1,641.28	$ -	$ -	$ -	$ -	$ -	$ 40,273		$ 4,027.33		$ 36,246.61
1.3.3	Coordination with City of Miami, FL Various Local Entities																						
	1 Prepare and Submit ROW Documents (memos, minutes, etc.)						1.00				1.00	$ 1,026	$ 41						$ 1,067	10%	$ 107	90%	$ 960
	2 Limited Support for MDWASD			1.00	1.50		7.00				9.50	$ 11,104	$ 444						$ 11,548	10%	$ 1,155	90%	$ 10,393
	3 Assemble and Submit Legal Documents						4.00				4.00	$ 4,104	$ 164						$ 4,268	10%	$ 427	90%	$ 3,841
	Subtotal 1.3.3		0.00	1.00	1.50	0.00	12.00	0.00	0.00	0.00	14.50	$ 16,233.60	$ 649.34	$ -	$ -	$ -	$ -	$ -	$ 16,883		$ 1,688.29		$ 15,194.65
TASK 1.4 - PUBLIC INVOLVEMENT																							
1.4.1	Public Involvement Program (PIP)																						
	1 Outreach notification and updates to agencies, stakeholders and municipalities			0.50			4.00			3.00	7.50	$ 8,979	$ 263						$ 9,241	30%	$ 2,052	70%	$ 4,789
	2 Prepare and compile surveys			0.50			1.00			1.00	2.50	$ 2,360	$ 94						$ 2,454	30%	$ 736	70%	$ 1,718
	3 Display Board Preparation, Presentation Materials, Renderings, Etc		0.50	0.50			1.50		5.00		7.50	$ 8,233	$ 240						$ 8,472	30%	$ 1,942	70%	$ 4,530
	4 Flyers, Brochures for Informational Purposes for Residents/Stakeholders of Project Area			0.50			1.00		2.00	2.00	5.50	$ 4,298	$ 172						$ 4,470	30%	$ 1,341	70%	$ 3,129
	5 Develop Website and Maintain for up to 12 Months			0.50			2.00				2.50	$ 2,816	$ 113						$ 2,928	30%	$ 878	70%	$ 2,050
	6 Project Status/Information distribution to local magazines, newspapers and monthly issues			0.50			2.00				2.50	$ 2,816	$ 113						$ 2,928	30%	$ 879	70%	$ 2,050
	Subtotal 1.4.1		0.50	3.00	0.00	0.00	11.50	0.00	7.00	6.00	28.00	$ 31,889.60	$ 1,000.97	$ 33,845.80	$ -	$ -	$ -	$ -	$ 69,836		$ 17,891.82		$ 41,744.87

Miami-Dade Water and Sewer Department

Task Order 1 - Project Management, Preliminary Engineering, Public Involvement, Stakeholder Coordination, Permitting and Righ-of-Way Activities

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Appendix A

			Management, Design, Planning, QA/QC											Subconsultants - Scope and Fees per Specific Task							PROJECT BREAKDOWN PER SCOPE OF WORK FOR THE 20-IN WATER MAIN REPLACEMENT AND 54-IN FORCE MAIN REPLACEMENT			
		Personnel	A	B	C	D	E	F	G	H			4%	I	J	K	L	M					
TASK	WORK ACTIVITY	Key Roles	Project Principal in Charge	Project Manager	Task Management - Technical Advisors	Quality Assurance/ Quality Control	Sr. Engineer / Sr. Professional	Engineer / Professional	Jr. Engineer / CADD Technician / Field Technician	Support Staff/ Administration	TOTAL DAYS	LABOR COST	OTHER DIRECT COSTS (TITLE SEARCHES, FACILITY RENTAL, TRAVEL, REPRODUCTION, MATERIALS, ETC.)	Machado Garcia-Serra / Marquardt Ramos & Associates	Geosol, Inc.	Dr. G. Sauer Corporation	Consulting Engineering & Science, Inc.	Robayna & Associates, Inc.	TOTAL FEE	REPLACEMENT OF 20-IN WATER MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 20-IN WATER MAIN	REPLACEMENT OF 54-IN FORCE MAIN - PERCENT SPLIT	TOTAL FEE FOR REPLACEMENT OF 54-IN FORCE MAIN
		Labor Category	$125.00	$67.00	$70.00	$80.00	$45.00	$36.00	$30.00	$25.00													
		Multiplier	1.00	2.85	2.85	2.85	2.85	2.85	2.85	2.85													
		Labor Cost/Day	$1,000.00	$1,527.60	$1,596.00	$1,368.00	$1,026.00	$866.40	$684.00	$570.00													
1.4.1	Subconsultant Coordination (Title Searches, Facility Rental, Travel, Reproduction, Materials, etc.)																						
	1 Coordinate, Prepare and Attend Initial Stakeholder Workshop		0.50	0.75	0.75		1.30	2.00	3.00	1.50	8.80	$ 8,608	$ 240						$ 8,848	30%	$ 2,655	70%	$ 6,194
	2 Coordinate, Prepare and Attend Community Stakeholder Workshop for Miami Beach			0.50	0.50		0.75	1.00	0.50	0.75	4.00	$ 3,987	$ 139						$ 4,126	30%	$ 1,238	70%	$ 2,888
	3 Coordinate, Prepare and Attend Community Stakeholder Workshop for Fisher Island			0.75	0.75		0.75	1.00	0.50	0.75	4.50	$ 4,748	$ 190						$ 4,938	30%	$ 1,481	70%	$ 3,457
	4 Coordinate, Prepare and Attend Community Workshop City of Miami			0.75			0.75	1.00	0.50	0.75	3.75	$ 3,691	$ 142						$ 3,833	30%	$ 1,150	70%	$ 2,683
	5 Coordinate, Prepare and Attend Contractor Outreach Workshop			0.75	0.50		1.00			0.75	3.00	$ 3,397	$ 136						$ 3,533	30%	$ 1,060	70%	$ 2,473
	6 Coordinate and Attend Risk Assessment Workshop			0.75			2.00				2.75	$ 3,198	$ 128						$ 3,326	30%	$ 998	70%	$ 2,328
	7 Coordinate and Attend Permit Comparison Decision Matrix Workshop			0.75	0.75		1.00				2.50	$ 3,189	$ 128						$ 3,503	30%	$ 1,051	70%	$ 2,452
	8 Coordinate, Prepare and Attend Final Recommendation Workshop		0.50	0.75	0.50		1.00	2.00	1.50	1.50	7.75	$ 7,044	$ 283						$ 7,367	30%	$ 2,210	70%	$ 5,157
	9 Summarize and Prepare Workshop Issues, Concerns, Developments, Agreements, etc.		0.50	1.50			2.00			1.50	5.50	$ 5,688	$ 238						$ 5,926	30%	$ 1,778	70%	$ 4,148
	Subtotal 1.4.1		1.50	7.25	3.75	0.00	10.25	7.00	6.00	7.00	43.25	$ 43,520.40	$ 1,740.82	$ 61,449.28	$ -	$ 8,940.60	$ 2,790.71	$ -	$ 108,442		$ 32,544.63		$ 76,027.47
	(*) Subconsultant DOCs (Title & Research, not to Exceed)													$ -	$ -	$ 18,706.00	$ 12,867.90	$ 2,880.00	$ 33,788	25%	$ 8,449.48	75%	$ 25,346.63
	Subtotal 1.4.1 with DOCs		1.50	7.25	3.75	0.00	10.25	7.00	6.00	7.00	43.25	$ 43,520.40	$ 1,740.82	$ 61,449.28	$ -	$ 27,646.60	$ 15,658.61	$ 2,880.00	$ 142,230		$ 40,994.11		$ 101,374.10
	Subtotal 1.4.1 with DOCs and Geotechnical Contingency		1.50	7.25	3.75	0.00	10.25	7.00	6.00	7.00	43.25	$ 43,520.40	$ 1,740.82	$ 61,449.28	$ 39,600.00	$ 27,646.60	$ 15,658.61	$ 2,880.00	$ 202,230		$ 40,994.11		$ 101,374.10

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A	Norm Anderson (ET)
B	Franklin A. Torrealba, PE (ET), Rodrigo Pigna PE (LAN)
C	Pat Murray, PE (ET), Susan Day (ET), Rafael Ortega, PE (LAN)
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E	William A. Rathbun, PE (ET), Mark Dunman, PE (ET), Claire Trahal (ET), Werner Reinefeld, PE (LAN), William Wilshire, PE (LAN), William Wagner, PE (CE)
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* Geotechnical Contingency for Down Time ($18,700 = 16.70 Hours x $1000/day) due to reasons Outside of Geosol's Control, such as Weather and Unauthorized Stop of Work, etc. (To Be Approved by MDWASD) / Other Subconsultant DOCs.

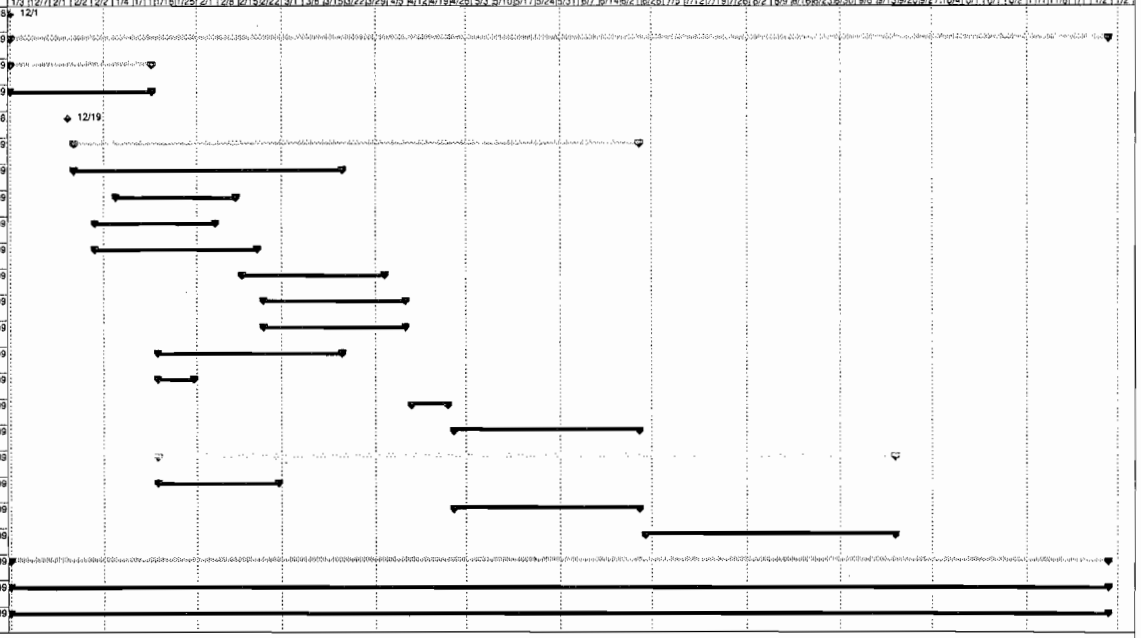
1 Sub Task 1.3 and Sub Task 1.4 have been estimated and will be invoiced on a Time and Materials Basis and with MDWASD's Prior Approval.

Schedule

TASK ORDER 1 - SCHEDULE

Design -Build Criteria for the Replacement of the 54" Force Main and 20" Water Main

ID	Task Name	Duration	Start	Finish
1	NOTICE TO PROCEED	0 days	Mon 12/1/08	Mon 12/1/08
2	TASK 1 - PRELIMINARY ENGINEERING AND RECOMMENDATION	260 days?	Mon 12/1/08	Fri 11/27/09
3	TASK 1.1 - COLLECT AND REVIEW DATA	35 days	Mon 12/1/08	Fri 1/16/09
4	Task 1.1.1 - Data Collection	35 days	Mon 12/1/08	Fri 1/16/09
7	Task 1.1.2 - Initial Coordination Meeting, Work Plan and Kick-Off Meeting	0 days	Fri 12/19/08	Fri 12/19/08
9	TASK 1.2 - IDENTIFY, EVALUATE & PROVIDE FINAL ALIGNMENT AND PROJECT PARAMETERS	135 days	Mon 12/22/08	Fri 5/29/09
10	Task 1.2.1 - Meeting with Stakeholders and Permitting Agencies	65 days	Mon 12/22/08	Fri 3/20/09
12	Task 1.2.2 Alternative / Connection Points and Project Parameters	30 days	Mon 1/5/09	Fri 2/13/09
14	Task 1.2.3 - Preliminary Survey Work to Evaluate Options	30 days	Mon 12/29/08	Fri 2/6/09
16	Task 1.2.4 - Initial Geotechnical Investigation	40 days	Mon 12/29/08	Fri 2/20/09
18	Task 1.2.5 - Evaluate Construction Considerations	35 days	Mon 2/16/09	Fri 4/3/09
20	Taks 1.2.6 - Finalize and Recommend Horizontal Alignment	35 days	Mon 2/23/09	Fri 4/10/09
22	Task 1.2.7 - Finalize and Recommend Construction Methodology and Vertical Alignment	35 days	Mon 2/23/09	Fri 4/10/09
24	Task 1.2.8 - Preliminary Permitting Requirements and Environmental Site Assessment	45 days	Mon 1/19/09	Fri 3/20/09
26	Taks 1.2.9 - Risk Assessment	10 days	Mon 1/19/09	Fri 1/30/09
28	Task 1.2.10 - Paired Matrix Comparisson	10 days	Mon 4/13/09	Fri 4/24/09
30	Task 1.2.11 - Force Main & Water Main Replacement Recommendation Report	45 days	Mon 4/27/09	Fri 6/26/09
32	TASK 1.3 - ASSISTANCE TO SECURE LAND RIGHTS	175 days	Mon 1/19/09	Fri 9/18/09
33	Task 1.3.1 - Request Legal Records along Selected Alignment	30 days	Mon 1/19/09	Fri 2/27/09
35	Task 1.3.2 - Final Land Requirements for Selected Alignment	45 days	Mon 4/27/09	Fri 6/26/09
37	Task 1.3.3 - Assisstance to Secure Land Rights	60 days	Mon 5/29/09	Fri 9/18/09
39	TASK 1.4 - PUBLIC INVOLVEMENT	260 days?	Mon 12/1/08	Fri 11/27/09
40	Task 1.4.1 - Public Information	260 days	Mon 12/1/08	Fri 11/27/09
42	Task 1.4.2 - Stakeholder / Community Involvement Workshops	260 days?	Mon 12/1/08	Fri 11/27/09



Project: Schedule.mpp
Date: Wed 9/17/08

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline

Appendix B1

TASK ORDER 1

Machado Garcia-Serra and Margueritte Ramos & Associates Proposal Fee Schedule

Machado I Garcia-Serra / Margueritte Ramos & Associates
Task Order 1 - Collect and Review Data, Finalize Pipeline Alignment and Project Details, Assist to Acquire Land Rights and Public Outreach Effort
Miimia-Dade Water & Sewer Department
Design criteria for the Replacement of the 54" FM from CDWWTP to Miami Beach & 20" WM Replacement from Port Island to Fisher Island
Appendix B1

TASK	WORK ACTIVITY	Key Roles	PIP - Task Manager / Coordination - Agencies	PIP - PR Director and Community Relations	PIP - Electronic Media	PIP - Print Media and Graphic Support	PIP - PR Director and Community Relations				
		Key Personnel	MGS	MGS	MGS	MGS/MRA	MRA	TOTAL HOURS	LABOR COST	OTHER DIRECT COSTS (VENUES, REPRODUCTION, MATERIALS, ODCs, ETC.)	TOTAL FEE
		Raw Labor ($/Hr)	$60.00	$50.00	$40.00	$30.00	$65.00	$32.00	$28.00	$24.00	
		Contract Multiplier	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	
		Labor Rate ($/Day)	$1,368.00	$1,140.00	$912.00	$684.00	$1,482.00	$729.60	$638.40	$547.20	
1.4.1	**Public Involvement Program (PIP)**										$ -
1	Monthly outreach notification/updates to agencies, stakeholders and municipalities		0.0	0.8		0.8	0.8	2.3	$ 2,480	$ 99	$ 2,480
2	Prepare and compile surveys up to 1,000 units		0.0	0.5		1.5	0.8	2.8	$ 2,708	$ 108	$ 2,708
3	Display Board Preparation, Presentation Materials, Renderings, Etc. (3 Boards)		0.0	0.8		0.8	0.8	2.3	$ 2,480	$ 99	$ 2,480
5	Flyers, Brochures for Informational Purposes for Residents/Stakeholders of Project Area		0.0	0.8		0.8	0.8	2.3	$ 2,480	$ 99	$ 2,480
6	Develop Website and Maintain for up to 12-Months		0.5	0.8	20.0		0.8	22.0	$ 20,891	$ 836	$ 20,891
7	Project Status/Information distribution to local magazines, newspapers and monthly letters		0.5	0.5		0.8	0.5	2.3	$ 2,508	$ 100	$ 2,508
	Subtotal 230		**1.0**	**4.0**	**20.0**	**4.6**	**4.3**	**33.8**	**$ 33,644.6**	**$ 1,341.8**	**$ 33,646**
1.4.2	**Stakeholder / Community Involvement Workshops - Meetings**										
1	Coordinate, Prepare and Attend Initial Stakeholder Workshop		0.5	2.0	1.0		2.0	5.5	$ 6,840	$ 5,000	$ 6,840
2	Coordinate, Prepare and Attend Initial Stakeholder Workshop for Miami Beach		0.2	0.5	1.0		1.0	2.7	$ 3,238	$ 5,000	$ 3,238
3	Coordinate, Prepare and Attend Initial Stakeholder Workshop for Fisher Island		0.2	1.0	1.0		1.0	3.2	$ 3,808	$ 5,000	$ 3,808
4	Coordinate, Prepare and Attend Initial Stakeholder Workshop City of Miami		0.2	0.5	1.0		0.0	1.7	$ 1,756	$ 5,000	$ 1,756
5	Coordinate, Prepare and Attend Contractor Outeach Workshop		0.0	0.0	0.0		0.0	0.0	$ -	$ -	$ -
6	Coordinate, Prepare and Attend Risk Assessment Workshop		0.0	0.0	0.0		0.0	0.0	$ -	$ -	$ -
7	Coordinate, Prepare and Attend Paired Comaprison Decision Matrix Workshop		0.0	0.0	0.0		0.0	0.0	$ -	$ -	$ -
8	Coordinate, Prepare and Attend Final Recommendation Workshop		0.2	2.0	1.0		1.0	4.2	$ 4,948	$ 5,000	$ 4,948
9	Summarize and Prepare Workshop issues, Concerns, Developments, Agreements, etc.		0.2	1.0	2.0	1.0	1.0	5.2	$ 5,404	$ 497.28	$ 5,404
	Subtotal 210		**1.5**	**7.0**	**7.0**	**1.0**	**6.0**	**22.6**	**$ 25,992**	**$ 25,497**	**$ 51,489.28**

Appendix B2

TASK ORDER 1

Geosol, Inc.

Scope of Work and Proposal Fee Schedule

TASK/COST PROPOSAL (PHASE A) - TASK 1
PROPOSED 54-INCH SANITARY SEWAGE FORCE MAIN AND 20-INCH WATER MAIN REPLACEMENT
GOVERNMENT CUT, MIAMI-DADE COUNTY, FLORIDA
PROPOSAL NO. P-208104-R3

TASK 1 (20-INCH WATER MAIN)	UNITS	#	UNIT RATE	TOTAL
1. FIELD INVESTIGATION				
Mobilization, Demobilization for Borings on Land (2 Borings to 150 Feet)				
Equipment Mobilization - Truck Mounted	each	3.0	$350.0	$1,050.0
Equipment Mobilization - Truck Mounted for ROCK CORING	each	2.0	$350.0	$700.0
Maintenance of Traffic (MOT) - (Assume 1 location for 150 ft Boring & for Rock Coring; Total 3 days)	day	3.0	$500.0	$1,500.0
Staff Engineer (Coordination for Cities of Miami and Miami Beach Permits for ROW)	hour	10.0	$85.0	$850.0
			Sub Total	**$4,100.00**
Site Reconnaissance, Utility Clearance, Boring Layout & Subsurface Exploration Coordination				
Engineering Technician	hour	10.0	$63.0	$630.0
			Sub Total	**$630.00**
Landside Borings				
Borings Standard Penetration per ASTM D-1586 (with casing)				
2 Borings (2 borings to 150 feet deep)				
Penetration Depth 0 to 50 Feet Deep	feet	100.0	$20.0	$2,000.0
Penetration Depth 51 to 75 Feet Deep	feet	50.0	$24.0	$1,200.0
Penetration Depth 76 to 100 Feet Deep	feet	50.0	$28.0	$1,400.0
Penetration Depth 101 to 150 Feet Deep	feet	100.0	$34.0	$3,400.0
Closing Holes with Grout (3-inch diameter)	feet	300.0	$8.0	$2,400.0
4-Inch Diameter Rock Coring per ASTM D-2113 - Assume 160 feet				
4-Inch Diameter Rock Coring Depth 0 to 50 Feet Deep	feet	50.0	$50.0	$2,500.0
4-Inch Diameter Rock Coring Depth51 to 75 Feet Deep	feet	30.0	$55.0	$1,650.0
4-Inch Diameter Rock Coring Depth 76 to 100 Feet Deep	feet	40.0	$65.0	$2,600.0
4-Inch Diameter Rock Coring Depth 101 to 150 Feet Deep	feet	40.0	$70.0	$2,800.0
Closing Holes with Grout (6-inch diameter)	feet	300.0	$12.0	$3,600.0
Wash drilling to depth of Rock Coring (adjacent to SPT Boring)				
Penetration Depth 0 to 50 Feet Deep	feet	100.0	$15.0	$1,500.0
Penetration Depth 51 to 75 Feet Deep	feet	50.0	$17.0	$850.0
Penetration Depth 76 to 100 Feet Deep	feet	50.0	$19.0	$950.0
Penetration Depth 101 to 150 Feet Deep	feet	100.0	$23.0	$2,300.0
Allowance for 6-inch Diameter Casing for Rock Coring	feet	290.0	$15.0	$4,350.0
Undistrubed Soil Sampling per ASTM D-15 (Assuming 1 Sample at each location)	each	2.0	$120.0	$240.0
			Sub Total	**$33,740.00**
Storage/Transport/Disposal of Excess Dredged Material/Additional Insurance				
Sample Storage (During Preparation of Design-Build Criteria Package RFP Only)	month	24.0	$100.0	$2,400.0
			Sub Total	**$2,400.00**
1. TOTAL FIELD INVESTIGATION				**$40,870.00**

TASK/COST PROPOSAL (PHASE A) - TASK 1
PROPOSED 54-INCH SANITARY SEWAGE FORCE MAIN AND 20-INCH WATER MAIN REPLACEMENT
GOVERNMENT CUT, MIAMI-DADE COUNTY, FLORIDA
PROPOSAL NO. P-208104-R3

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

2. LABORATORY PROGRAM

Laboratory Program

Soil Classification per ASTM D-3282 and D-2487	test	4.0	$96.0	$384.0
Photographs of Rock Core Samples - Engineering Technician	hour	8.0	$63.0	$504.0
Rock Sample Test Selection, Packaging and Shipping - Engineering Technician	hour	8.0	$63.0	$504.0
Grain Size Analysis (Full Gradation)	each	6.0	$64.0	$384.0
Material Finer than 200 Sieve per ASTM C-117	each	10.0	$45.0	$450.0
Hydrometer Analysis (ASTM D-422)	each	2.0	$120.0	$240.0
Moisture Content Test	each	15.0	$38.0	$570.0
Organic Content	each	2.0	$50.0	$100.0
Soil Specific Gravity per ASTM D-854	each	2.0	$60.0	$120.0
Corrosivity Testing	each	2.0	$144.0	$288.0
Triaxial Testing (ASTM D-2664-86)	each	4.0	$400.0	$1,600.0
Uniaixial Compressive Strength (ASTM D-2938-95)	each	15.0	$120.0	$1,800.0
Splitting Tensile (ASTM D-3967-95)	each	15.0	$120.0	$1,800.0
Cerchar Abrasivity	each	6.0	$150.0	$900.0
Thin Section Petrographic Analysis (ISRM Method)	each	6.0	$300.0	$1,800.0
			Sub Total	**$11,444.00**

2. TOTAL LABORATORY PROGRAM	**$11,444.00**

3. ENGINEERING AND TECHNICAL SERVICES

Engineering and Technical Services

Senior Engineer	hour	20.0	$160.0	$3,200.0
Professional Engineer	hour	50.0	$120.0	$6,000.0
Staff Engineer	hour	30.0	$85.0	$2,550.0
Staff Engineer (Visual Laboratory Rock Core Classification)	hour	10.0	$85.0	$850.0
C.A.D. Operator	hour	10.0	$70.0	$700.0
Clerical/Administrative	hour	10.0	$45.0	$450.0
			Sub Total	**$13,750.00**

3. ENGINEERING AND TECHNICAL SERVICES	**$13,750.00**

TOTAL GEOTECHNICAL FEES FOR TASK 1 THE PROJECT	**$66,064.00**

CONTINGENCY - Downtime Due to Reasons Outside of Geosol Control Including Weather/Unauthorized Stop of Work, etc.

Equipment and Personnel (CONTINGENCY - As required)	hour	5.35	$1,000.0	$5,350.0
			Sub Total	**$5,350.00**

Assumptions & Notes:

1. Rates are in general agreement with Miami-Dade County Rates Contract E06-PW-02.
2. It is recommended that a Staff Engineer from GEOSOL be retained to inspect the drilling operations for each test boring and rock coring. We recommend that MDWASD considers this suggestion due to the complexity of this project. The boring inspection can be performed assuming 100 feet of drilling per day (i.e. 7 days for Task 1) with a Staff Engineer at 10 hrs per day for a total sum of $5,950 for Task 1.

TASK/COST PROPOSAL (PHASE A) - TASK 2
PROPOSED 54-INCH SANITARY SEWAGE FORCE MAIN AND 20-INCH WATER MAIN REPLACEMENT
GOVERNMENT CUT, MIAMI-DADE COUNTY, FLORIDA
PROPOSAL NO. P-208104-R3

TASK 2 (54-INCH FORCE MAIN)	UNITS	#	UNIT RATE	TOTAL
1. FIELD INVESTIGATION				
Mobilization, Demobilization for Borings on Land (5 Borings to 300 Feet				
Equipment Mobilization - Truck Mounted (5 different sites)	each	5.0	$350.0	$1,750.0
Equipment Mobilization - Truck Mounted for ROCK CORING	each	5.0	$350.0	$1,750.0
Maintenance of Traffic (MOT) - (Assume 1 location for 300 ft Boring & for Rock Coring; Total 3 days)	day	3.0	$500.0	$1,500.0
Staff Engineer (Coordination for Cities of Miami and Miami Beach Permits for ROW)	hour	12.0	$85.0	$1,020.0
			Sub Total	**$6,020.00**
Landside Borings				
Borings Standard Penetration per ASTM D-1586 (with casing)				
5 Borings (5 borings to 300 feet)				
Penetration Depth 0 to 50 Feet Deep	feet	250.0	$20.0	$5,000.0
Penetration Depth 51 to 75 Feet Deep	feet	125.0	$24.0	$3,000.0
Penetration Depth 76 to 100 Feet Deep	feet	125.0	$28.0	$3,500.0
Penetration Depth 101 to 150 Feet Deep	feet	250.0	$34.0	$8,500.0
Penetration Depth 151 to 200 Feet Deep	feet	250.0	$38.0	$9,500.0
Penetration Depth 201 to 250 Feet Deep	feet	250.0	$43.0	$10,750.0
Penetration Depth 251 to 300 Feet Deep	feet	250.0	$46.5	$11,625.0
Closing Holes with Grout (3-inch diameter)	feet	1500.0	$8.0	$12,000.0
4-Inch Diameter Rock Coring per ASTM D-2113 - Assume 450 feet				
4-Inch Diameter Rock Coring Depth 0 to 50 Feet Deep	feet	0.0	$50.0	$0.0
4-Inch Diameter Rock Coring Depth51 to 75 Feet Deep	feet	75.0	$55.0	$4,125.0
4-Inch Diameter Rock Coring Depth 76 to 100 Feet Deep	feet	75.0	$65.0	$4,875.0
4-Inch Diameter Rock Coring Depth 101 to 150 Feet Deep	feet	75.0	$70.0	$5,250.0
4-Inch Diameter Rock Coring Depth 151 to 200 Feet Deep	feet	75.0	$80.0	$6,000.0
4-Inch Diameter Rock Coring Depth 201 to 250 Feet Deep	feet	75.0	$90.0	$6,750.0
4-Inch Diameter Rock Coring Depth 251 to 300 Feet Deep	feet	75.0	$100.0	$7,500.0
Closing Holes with Grout (6-inch diameter)	feet	450.0	$12.0	$5,400.0
Wash drilling to depth of Rock Coring (adjacent to SPT Boring)				
Penetration Depth 0 to 50 Feet Deep	feet	250.0	$15.0	$3,750.0
Penetration Depth 51 to 75 Feet Deep	feet	125.0	$17.0	$2,125.0
Penetration Depth 76 to 100 Feet Deep	feet	125.0	$19.0	$2,375.0
Penetration Depth 101 to 150 Feet Deep	feet	250.0	$23.0	$5,750.0
Penetration Depth 151 to 200 Feet Deep	feet	250.0	$25.0	$6,250.0
Penetration Depth 201 to 250 Feet Deep	feet	150.0	$30.0	$4,500.0
Penetration Depth 251 to 300 Feet Deep	feet	150.0	$35.0	$5,250.0
Allowance for 6-inch Diameter Casing for Rock Coring	feet	1300.0	$15.0	$19,500.0
Undistrubed Soil Sampling per ASTM D-15 (Assuming 3 samples)	each	3.0	$120.0	$360.0
			Sub Total	**$153,635.00**
Storage/Transport/Disposal of Excess Dredged Material/Additional Insurance				
Sample Storage (During Preparation of Design-Build Criteria Package RFP Only) - Assumed under Task 1	month	0.0	$100.0	$0.0
			Sub Total	**$0.00**
1. TOTAL FIELD INVESTIGATION				**$159,655.00**

TASK/COST PROPOSAL (PHASE A) - TASK 2
PROPOSED 54-INCH SANITARY SEWAGE FORCE MAIN AND 20-INCH WATER MAIN REPLACEMENT
GOVERNMENT CUT, MIAMI-DADE COUNTY, FLORIDA
PROPOSAL NO. P-208104-R3

TASK/COST PROPOSAL	UNITS	QUANTITY	TOTAL

2. LABORATORY PROGRAM

Laboratory Program

Soil Classification per ASTM D-3282 and D-2487	test	15.0	$96.0	$1,440.0
Photographs of Rock Core Samples - Engineering Technician	hour	20.0	$63.0	$1,260.0
Rock Sample Test Selection, Packaging and Shipping - Engineering Technician	hour	14.0	$63.0	$882.0
Grain Size Analysis (Full Gradation)	each	12.0	$64.0	$768.0
Material Finer than 200 Sieve per ASTM C-117	each	15.0	$45.0	$675.0
Hydrometer Analysis (ASTM D-422)	each	2.0	$120.0	$240.0
Moisture Content Test	each	25.0	$38.0	$950.0
Organic Content	each	4.0	$50.0	$200.0
Soil Specific Gravity per ASTM D-854	each	4.0	$60.0	$240.0
Corrosivity Testing	each	4.0	$144.0	$576.0
Triaxial Testing (ASTM D-2664-86)	each	6.0	$400.0	$2,400.0
Uniaixial Compressive Strength (ASTM D-2938-95)	each	35.0	$120.0	$4,200.0
Splitting Tensile (ASTM D-3967-95)	each	35.0	$120.0	$4,200.0
Cerchar Abrasivity	each	12.0	$150.0	$1,800.0
Thin Section Petrographic Analysis (ISRM Method)	each	15.0	$300.0	$4,500.0
Free Swell (ISRM Method)	each	5.0	$350.0	$1,750.0
			Sub Total	**$26,081.00**

2. TOTAL LABORATORY PROGRAM	**$31,549.0**	**$26,081.00**

3. ENGINEERING AND TECHNICAL SERVICES

Engineering and Technical Services

Senior Engineer	hour	35.0	$160.0	$5,600.0
Professional Engineer	hour	75.0	$120.0	$9,000.0
Staff Engineer	hour	45.0	$85.0	$3,825.0
Staff Engineer (Visual Laboratory Rock Core Classification)	hour	30.0	$85.0	$2,550.0
C.A.D. Operator	hour	20.0	$70.0	$1,400.0
Clerical/Administrative	hour	12.0	$45.0	$540.0
			Sub Total	**$22,915.00**

3. ENGINEERING AND TECHNICAL SERVICES	**$22,915.00**

TOTAL GEOTECHNICAL FEES FOR THE PROJECT **$208,651.00**

CONTINGENCY - Downtime Due to Reasons Outside of Geosol Control Including Weather/Unauthorized Stop of Work, etc

Equipment and Personnel (CONTINGENCY - As required)	hour	13.35	$1,000.0	$13,350.0

Assumptions & Notes:
1. Rates are in general agreement with Miami-Dade County Rates Contract E06-PW-02.
2. It is recommended that a Staff Engineer from GEOSOL be retained to inspect the drilling operations for each test boring and rock coring. We recommend that MDWASD considers this suggestion due to the complexity of this project. The boring inspection can be performed assuming 100 feet of drilling per day (i.e. 24 days for Task 2) with a Staff Engineer at 10 hrs per day for a total sum of $20,400 for Task 2.

Appendix B3

TASK ORDER 1

Dr. G. Sauer Corporation

Scope of Work and Proposal Fee Schedule

DR. G. SAUER CORPORATION

TUNNEL DESIGN & CONSTRUCTION MANAGEMENT

NATM – WATERPROOFING – REHABILITATION – CONSULTING SERVICES

www.dr-sauer.com

560 Herndon Parkway, Suite 310 | Tel: (703) 707-0700 | washington@dr-sauer.com

Herndon, Virginia USA 20170-5240 | Fax: (703) 707-0703 | http://www.dr-sauer.com

Mr. Franklin Torrealba
Program Manager
EarthTech, Inc.
3750 NW 87th Avenue
Miami, Florida 33178

OFFICE:
Washington, DC
FILE:
4210 P001 Tunnel Design and Geotechnical Services
08-15-2008 WAM.doc
CODE:
LE/WAM/xt

15 August 2008

SUBJECT: **Proposed 20-inch Diameter Water Main Replacement from Port Island to Fisher Island and 54-inch Diameter Sanitary Sewage Force Main Replacement, from Miami Beach to Virginia Key WWTP, Miami-Dade County, Florida.**
Geotechnical and Tunnel Design Support Services

REFERENCE: Meeting in Miami on June 30th and July 1, 2008, Conference Call on July 08, 2008 and Personal Communications on 08/13/2008 and 8/14/2008.

Dear Mr. Torrealba:

Per the above referenced meetings, conference call, etc, the Dr. G. Sauer Corporation is pleased to submit the following:

SCOPE AND FEE
TASK ORDER 1
Geotechnical and Tunnel Design Services in support of the Water Main and Sewage Force Main Replacement Project in Miami-Dade County

1 Introduction

Miami-Dade County has requested proposals from entities to design the replacement of two existing water conveyance pipelines in Miami. The project consists of the replacement of a 20-inch water main from Port Island to Fisher Island and the replacement of a 54-inch sewage pipe from Miami Beach to Virginia Key Wastewater Treatment plant.

Miami-Dade has selected a team of firms including EarthTech for negotiations of an agreement to provide the requested design services. As part of the team Dr. G. Sauer Corporation (DSC) will serve as the Lead Geotechnical and Tunnel Engineer. In this role, DSC will provide services throughout different stages of the design as outlined below.

2 Subject

This submittal includes a scope of work, fees, staffing and schedule for geotechnical services, risk management, tunnel and shaft design drawings, cost estimate and construction schedule.

3 Commission

The services outlined in this submittal were discussed in the above referenced meeting with Mr. Franklin Torrealba, Mr. William Rathbun, EarthTech; Mr. Walter Mergelsberg, Mr. Harald Leiendecker, Dr. Sauer Corporation.

4 Professional Services provided under Task Order 1

4.1 Services under Subtask 1.1.1

- Review Data of approximately 8 existing geotechnical reports of studies in the project vicinity provided by MDWASD.

4.2 Services under Subtask 1.2.4

- Provide Geotechnical Services with the following scope:
  - Develop Subsurface Investigation Program and prepare a memorandum describing the work approach,
  - Coordination with Geosol for an initial exploration program consisting of 7 borings,
  - Review of drilled samples and rock cores at the storage facility in Miami.

4.3 Services under Subtask 1.2.5

- Participate in and provide QA/QC services on construction considerations prepared by others in the team.

4.4 Services under Subtask 1.2.7

- Establish vertical alignment for both tunnels for the MDWASD preferred alignment,
- Provide QA/QC services on the opinion of probable construction costs for the tunnels and shaft portion,
- Provide QA/QC services on the construction schedule for tunnels and shafts,
- Participate in and provide QA/QC services on the selection of construction methodology.

4.5 Services under Subtask 1.2.9

- Prepare and Lead a one-day Risk Management Workshop with the following scope:
  - Risk Register,
  - Risk Management Plan.

4.6 Services under Subtask 1.4.2

- Prepare and Attend Information and Alternative Discussion Workshop.

5 Schedule

DSC will commence design work immediately after acceptance of the submitted scope and fees.

6 Personnel

The design team of DSC will be supported by two recognized experts in the field: Alfred Moergeli (Risk Manager) and Prof. Luis Prieto (Expert). The following individuals from DSC will be assigned to the project:

Category	Personnel
Expert	Dr. Gerhard Sauer, P.E.
Program Manager	Walter Mergelsberg
Senior Tunnel Engineer	Thomas Schwind, Juergen Laubbichler, P.E.
Senior Design Engineer	Pamela Moran, P.E.
Geotechnical Leader	Harald Leiendecker, P.E.
Drafter	Hussein Mohamed

7 Service Locations

DSC plans to carry out the engineering services from our offices in Washington and New York as required.

8 Deliverables

The following documentation shall be furnished to EarthTech:

- Technical Reports,
- Risk Management Plan, Risk Register,
- Review Comments,
- Mark-ups of reviewed documents, including cost estimate and drawings, specifications, etc.

9 Engineering Fees

9.1 Fee

The costs for the services described in Section 4 are shown in Appendix A, using loaded labor rates. Fees for construction monitoring are not included in the estimate. However, we recommend the presence of one Senior Tunnel Engineer plus one experienced Field Engineer / Inspector per shift - budget to be established. Home office support will be provided on an hourly basis.

9.2 Rates

For time and tasks in addition to the work described in Section 4 of this proposal and limited to this phase of the work, we will use the following loaded hourly rates as a basis:

Dr. G. Sauer:	$ 325.66
Prof. L. Prieto:	$ 241.53
W. Mergelsberg:	$ 228.93
H. Leiendecker:	$ 157.58
P. Moran:	$ 174.99
T. Schwind:	$ 232.85
J. Laubbichler:	$ 247.41

A. Moergeli:	$ 250.00
Hussein Mohamed:	$ 100.80

9.3 Expenses

ODCs will be invoiced as time and materials not to exceed the estimated amount of $12,597 for air travel, lodging, reproduction, mail and express mail, transportation and meals.

10 Period of Validity

This submittal of rates and fees is valid until September 30, 2008.

11 Credits

DSC shall be given credit on all published materials depicted as follow unless otherwise agreed.

www.dr-sauer.com

We hope that this submittal is satisfactory to you. If you have any questions, please do not hesitate to call me at +1 703 707 0700-12 or email wmergelsberg@dr-sauer.com

Yours sincerely
For the Dr G Sauer Corporation

Walter Mergelsberg
President

Cc: DSC-W
Encl.: Summary Table Engineering Fee Proposal

Summary Table Engineering Fee Submittal For TASK ORDER 1

	Dr. G. Sauer	Luis Prieto	Walter Mergelsberg	Harald Leiendecker	Pamela Moran	Thomas Schwind	Juergen Laubbichler	Drafter	Alfred Moergeli	Total Hours	Total Dollars
	Expert	Expert	Program Manager	Geotechnical Leader	Senior Design Engineer	Senior Tunnel Engineer	Senior Tunnel Engineer		Risk Manager		
Subtask 1.1.1											
Review Data/Reports provided MDWASD	4	0	8	32	0	16	0	0	0	60	$ 11,902.24
Subtask 1.2.4											
Establish Geotechnical Investigation Program for MDWASD Alignment (Memorandum/Work Approach)	0	4	4	32	0	0	6	0	0	46	$ 8,408.86
Coordination with drilling company	0	0	0	32	0	0	4	0	0	36	$ 6,032.20
Inspect Drilling Cores/Samples and review and compare drill logs	4	4	0	20	0	0	4	0	0	32	$ 6,410.00
Subtask 1.2.5											
Prepare portion of Construction Considerations (Tunnel/Shaft Construction) and QA/QC other sections [1]	4	4	8	32	0	32	12	0	0	92	$ 19,562.88
Subtask 1.2.7											
Establish vertical alignment for MDWASD alternative (Memorandum)	4	0	8	32	0	40	8	0	0	92	$ 19,469.92
QA/QC of cost estimate of probable construction bid with owner contingency (tunnel and shafts)	4	0	0	8	24	0	12	0	0	156	$ 9,731.96
QA/QC of Schedule for tunnel and shafts	4	0	0	8	16	0	8	0	0	116	$ 7,342.40
Prepare geotech and tunneling portions of Selection/Finalization Methodology Report and QA/QC other sections [1]	4	4	8	40	0	40	12	0	0	108	$ 22,686.32
Subtask 1.2.9											
Prepare and Attend Risk Assessment Workshop (1-Day)	4	4	12	12	0	0	12	0	32	76	$ 17,875.80
Summarize and QA/QC Risk Assessment in Memorandum	0	0	4	8	0	0	4	0	16	32	$ 7,166.00
Subtask 1.4.2											
Prepare and Attend Information and Alternative Discussion Workshop	8	0	10	8	0	0	8	8	0	42	$ 8,940.90

[1] These efforts will be basis of the design report

Subtotal	$145,529.48
ODC[2]	$12,597.00
Total	$158,126.48

2) ODCs will be invoiced as time and materials not to exceed the estimated amount for (air travel, lodging, reproduction, mail and express mail, transportation and meals)."

Appendix B4

TASK ORDER 1

Consulting Engineering Science, Inc.

Scope of Work and Proposal Fee Schedule

CONSULTING ENGINEERING & SCIENCE, INC.

Civil Engineers Coastal Engineers Environmental Scientists

August 15, 2008

William A. Rathbun, P.E.
Earth Tech
3750 N.W. 87th Avenue - Suite 300
Miami, Florida 33178

Re: Replacement of the 54-inch Sanitary Sewer Force Main from Miami Beach to the CDWWTP and the Replacement of a 20-inch Water Main from Port Island to Fisher Island
E07-WASD-09

Dear Mr. Rathbun:

Consulting Engineering & Science, Inc. (CES) is pleased to submit this cost proposal to provide professional environmental services related to the above-referenced project.

TASK ORDER 1: COLLECT AND REVIEW DATA, FINALIZE PIPELINE ALIGNMENT AND PROJECT DETAILS, ASSIST TO ACQUIRE LAND RIGHTS AND PUBLIC OUTREACH EFFORT

Task 1.2.1 - MEETING WITH PERMITTING AGENCIES / PRELIMINARY PERMITTING REQUIREMENTS

a)Agency Coordination - CES will coordinate with regulatory agencies and the commenting agencies to identify key permitting issues (Miami-Dade County WASD, Miami-Dade County DERM, Florida FDEP, United States Army Corps of Engineers, South Florida Water Management District, United States Coast Guard, NOAA National Marine Fisheries Service, U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation, and Florida State Historic Preservation Officer). An estimated 12 meetings will be attended by CES and the regulatory agencies to ascertain permitting requirements. Minutes will be developed for each meeting.

Principal	10 hrs @$125.00/hr	=	$1,250.00
Sr. Scientist	30 hrs @ $37.74/hr x 2.85 (mult.)	=	$3,226.77
LUMP SUM FOR TASK 1.2.1		**=**	**$4,476.77**

TASK 1.2.2 - COMPARATIVE ANALYSIS OF ALTERNATIVES

Principal	10 hrs @$125.00/hr	=	$1,250.00
Sr. Scientist	6 hrs @ $37.74/hr x 2.85 (mult.)	=	$ 645.35
Env. Specialist	10 hrs @ $22.84/hr x 2.85 (mult.)	=	$ 650.94

LUMP SUM FOR TASK 1.2.2 = $ 2,546.29

Task 1.2.7 - ENVIRONMENTAL SITE ASSESSMENT

1. Biological Site Characterization - The proposed alternative routes traverse areas containing areas of potential environmental concern. Therefore, site assessments of Areas 1, 2 & 4 (Miami Beach, Fisher Island & Government Cut) and Areas 3 & 5(Virginia Key & Norris Cut) will be conducted and will include field assessments. The field assessments will include preliminary benthic surveys, as well as obtaining GPS coordinates, delineating vegetation of concern, ground truthing by foot, car, and/or boat, and photographing site conditions. A desktop investigation will also be conducted which will include an initial investigation into potential cultural features. A report will be provided that includes the field data together with a recommendation as to the least environmentally impacting route. In addition, environmental reports will also be provided (Wetland Assessment, Essential Fish Habitat, and Threatened/Endangered Species Impact Analysis)

Principal	6 hrs @$125.00/hr	=	$ 750.00
Sr. Scientists	60 hrs @$37.74/hr x 2.85 (mult.)	=	$ 6,453.54
Env. Specialists	60 hrs @$22.84/hr x 2.85 (mult.)	=	$ 3,905.64
CADD Technician	8 hrs @$27.29/hr x 2.85 (mult.)	=	$ 622.21

LUMP SUM FOR BIOLOGICAL SITE CHARACTERIZATION = $11,731.39

2. Phase I Contamination Assessment - A Phase I Contamination Assessment will be conducted for Areas 1, 2 & 3 (Miami Beach, Fisher Island, Virginia Key) and the Port of Miami. The assessment will include a review of DERM's GIS database and files; FDEP's Storage Tank database; EPA's Superfund Sites' database (CERCLIS); historical aerials; and site visit(s). A Phase I Report will be prepared that will summarize these findings.

Principal	4 hrs @$125.00/hr	=	$ 500.00
Sr. Scientists	10 hrs @$37.74/hr x 2.85 (mult.)	=	$ 1,075.59
Env. Specialist	54 hrs @$22.84/hr x 2.85 (mult.)	=	$ 3,515.08

LUMP SUM FOR PHASE I CONTAMINATION ASSESSMENT = $ 5,090.67

Task 1.4.2 - STAKEHOLDER/COMMUNITY INVOLVEMENT WORKSHOPS

This task will include 3 workshops.

Principal:	12 hrs @$125.00/hr	=	$ 1,500.00
Sr. Scientist:	12 hrs @$37.74/hr x 2.85 (mult.)	=	$ 1,290.71
LUMP SUM FEE FOR TASK 1.4.2		=	**$ 2,790.71**

TOTAL LUMP SUM FEES FOR TASK ORDER 1	=	**$26,635.83**
ODCs (Mileage, Reproduction, Boat and Scuba Rental, Trimble Unit)	=	**$ 2,500.00**
ESTIMATED BUDGET FOR TASK ORDER 1	=	**$29,135.83**

On behalf of Consulting Engineering & Science, we wish to express our appreciation for the opportunity to be of service to you.

Should you have any questions, please call.

Very truly yours,

CONSULTING ENGINEERING & SCIENCE, INC.

Jeffry H. Marcus, Ph.D.
Vice President

(1004)

ACCEPTED BY EARTH TECH

By:_____

Date:_____

Appendix B5

TASK ORDER 1

Robayna & Associates, Inc.

Scope of Work and Proposal Fee Schedule

ROBAYNA & ASSOCIATES, INC
SCOPE OF WORK FOR GOVERNMENT CUT WM AND FM PROJECT

TASKS 1.2.3/1.2.11 Preliminary Survey Work to Evaluate Options/ Survey Work required for Forcemain/Watermain Replacement Recommendation Report

a. Identify existing right of way along alternative routes. Provide Special Purpose Routes Survey, R-O-Ws, Utilities, Plat Recorded Easements, and any client identified easements, to designer for evaluation of alternatives in order to define route for the proposed corridor alignment.
b. Selective partial topographic survey to locate major structures, including buildings, major power lines, etc, along alternative routes.
c. Based on the proposed corridor alignment agreed by all parties. Research, identify, and locate survey control points thru GPS, plat monuments in the proximity of the alignment
d. Compute Corridor Alignment Geometry based on 1-c
e. Set key points on baseline and tie into control points using GPS surveying.
f. Research and plot existing record plats along the alignment
g. Obtain documents dedicated by deed thru MDCPWD Right of Way Division and/or the City of Miami Beach, City of Miami.
h. Procure title search if necessary thru Prime Consultant to identify other existing rights of way or easements.
i. Prepare right of way map, tied to horizontal control for the alignment geometry, certified by Professional Surveyor and Mapper. Right of way map will be prepared using AutoCAD 2008.
j. Stake the location of preliminary borings by Geotechnical Consultant both on land as needed
k. Coordinate with Prime Consultant and Client in providing any additional information necessary to firm up of the proposed corridor alignment.

Data Collection - Utility Location along Alternative Routes

l. Identify utility Companies servicing the area.
m. Request as-built information to all Utility Companies.
n. Compile and plot on plan view as-built information on R-O-W maps.

TASK 1.3.1 Assistance to Secure Land Rights

o. Identify potential parcels on the path of the corridor alignment (estimated at about 44 platted parcels)
p. Prepare detailed parcel survey of properties, setting corners and locating all improvement on the parcels.

q. Compute potential taking and prepare legal description for easement acquisition.
r. Prepare certify sketch, for each right of way taking, showing the legal description geometry tied to the corridor alignment horizontal control.

ROBAYNA AND ASSOCIATES, INC.
GOVERNMENT CUT LINE REPLACEMENT PROJECT
SURVEYING UTILITY ENGINEERING

		DESCRIPTION / PERSONNEL & RATES		3-Men Crew per day $ 1,148.45	4-Men Crew per day $ 1,380.20	3-Men GPS Crew per day $ 1,457.45	4-Men GPS Crew per day $ 1,689.20	Sounding Crew per day $ 2,020.00	Draftperson per hour $ 77.25	Surv. Comp. / field Supervison per hour $ 87.55	Principal Surveyor per hours $ 154.50	Boat rentall per day (estimated) $ 175.00	TOTAL
1		**Initial survey and data investigation**											
	a	Identify existing right of way along alternative routes. Provide Special Purpose Routes Survey (R-O-Ws, Utilities, and Plot Recorded Easements) to designer for evaluation of alternatives in order to define route for the proposed corridor alignment.								24	6		
	b	Selective Partial Topographic Survey to locate major structures along alternative routes			4								
	c	Based on the selected alignment agreed by all parties. Research, identify, and locate survey control points thru GPS, plat monuments in the proximity of the alignment.				2	2			32	6		
	d	Compute Corridor Alignment Geometry based on 1-C								20	4		
	e	Set key control points on baseline and tie into control points using GPS surveying. (2 points on the beach, 2 points on Fisher Island & 2 points Virginia Key)				1	2			20	4		
	f	Research and plot existing record plats along the alignment							80	28	8		
	g	Obtain documents dedicated by deed thru MDCPWD Right of Way Division and/or the City of Miami Beach.								6			
	h	Procure title search if necessary thru Prime Consultant to identify other existing rights of way or easements And plot the same.	Earthtech Procures Title						32	6	2		
	i	Prepare right of way map, tied to horizontal control for the alignment geometry, certified by Professional Surveyor and Mapper. Right of way map will be prepared using AutoCAD 2008.							120	18	4		
	j	Stake the location of preliminary borings by Geotechnical Consultant land side (7)			2.5					2	1	0	
	k	Coordinate with Prime Consultant and Client in providing any additional information necessary to firm up of the proposed corridor alignment								10	8		
		TOTALS ITEM # 1	TOTALS	4	2.5	3	4	0	232	166	43	0	
			AMOUNTS	$ 4,593.78	$ 3,450.50	$ 4,140.60	$ 5,829.80	$ -	$ 17,922.00	$ 14,533.30	$ 6,643.50	$ -	**$ 57,113.48**

	DESCRIPTION / PERSONNEL & RATES	Principal $ 125.00	Staff Engineer $ 30.00	CADD $ 22.00	TOTAL
	UTILITY ENGINEERING				
a	Identify utilities servicing the area, prepare map	1	12	20	33
b	Send letters requesting as-built information & coordinate with utilities	1	20	0	21
c	As you obtain as-builts, plot horizontal alignment of utilities to reconcile them with visible utility information obtained during the topographic survey (topographic survey to be completed under task order 2)	1	32	42	75
	TOTAL HOURS	3	64	62	129
	MULTIPLIER	1	2.85	2.85	
	TOTAL	**$ 375.00**	**$ 5,472.00**	**$ 3,887.40**	**$ 9,734.40**

		DESCRIPTION / PERSONNEL & RATES		3-Men Crew per day $ 1,148.45	4-Men Crew per day $ 1,380.20	3-Men GPS Crew per day $ 1,457.45	4-Men GPS Crew per day $ 1,689.20	Sounding Crew per day $ 2,020.00	Draftperson per hour $ 77.25	Surv. Comp. / field Supervison per hour $ 87.55	Principal Surveyor per hours $ 154.50	Boat rentall per day (estimated) $ 175.00	TOTAL
2		**Using researched information identify parcels where rights of way is necessary for corridor.**											
	a.	Identify potential parcels on the path of the corridor alignment (estimated at about 44 platted parcels)								16	10		
	b	Prepare detailed parcel survey of properties, setting corners and locating all improvement on the parcels (based in up to 44 parcels).			10				72	8	5		
	c	Compute potential taking and prepare legal description for easement acquisition.								88	7		
	d	Prepare certify sketch, for each right of way taking, showing the legal description geometry tied to the corridor alignment horizontal control.							44		8		
		TOTALS ITEM # 2	TOTALS	0	10	0	0	0	116	112	30	0	
			AMOUNTS	$ -	$ 13,802.00	$ -	$ -	$ -	$ 8,961.00	$ 9,805.60	$ 4,635.00	$ -	**$ 37,203.60**

TOTAL $ 104,051.48