


Memorandum



Date: December 20, 2018

To: Gary Hartfield, Division Director
Internal Services Department, Small Business Development

From: Milton L. Collins, Associate Director 
Miami-Dade Aviation Department, Minority Affairs Division

Subject: Contract Measures Request:
MIA West Cargo Fuel Tender Facility Relocation Project
Project Number: MDAD-P256E

RECOMMENDATION:

This is a request for Small Business Development (SBD) to approve the subject project in order for the Department to proceed with the approval to receive a Project Worksheet for the MIA West Cargo Fuel Tender Facility Relocation Project, MDAD Project No. MDAD-P256E.

The Minority Affairs Division and the Contractor's staff have evaluated the subject project and recommend an SBE/Construction Program Goal of 14%, and an SBE/Goods & Services Program Goal of .06% as listed on the attached breakdown and description of services attached. The Community Workforce Program (CWP) breakdown is attached for the required goal.

The Estimate of Probable Construction Cost for this project is \$16,700,000.00. The Term of project construction under contract is expected to be 39 calendar weeks (273 calendar days) after receipt of Notice to Proceed from MDAD.

SCOPE OF WORK:

Work of this Contract comprises construction of a 9-bay fuel tender loading rack and related facilities to replace the existing fuel tender facility which will be demolished as part of the MIA Taxiways RS&T Pavement Rehabilitation Project No. P256A. The scope of construction work includes the following construction activities:

1. Demolish existing pavements, monitoring wells and structures in the project construction site.
2. Remove the top 42-inches of soil within the project limits, temporarily stockpile, test and properly dispose of this material.
3. Provide clearing, grubbing and grading for the project site.
4. Construct a new 9-bay canopied fuel tender facility with 8 bays to load jet fuel into aircraft refueler trucks up to 17,500 gallons in capacity, and 1 bay to offload, bulk load and dispense diesel.
5. Construct a new 3-hour fire rated operator's building.
6. Construct a new 2-hour fire rated jet fuel filtration building and provide new filter/separator vessels, pressure surge protection, pressure and flow control valves, piping and accessories.
7. Provide twin double wall jet fuel piping the existing 12"/16" underground double wall jet fuel pipes to the new filtration building and to the new fuel tender loading bays.

SCOPE OF WORK (continued):

- a. Provide leak detection, high point vents, low point drains, and valve pits.
- b. Provide lateral underground double wall jet fuel piping to the loading bays, and piping and equipment at the bays.
8. Remove existing low point drain pits and replace with two new low point drain pits.
9. Provide cathodic protection for all new underground jet fuel piping.
10. Relocate an existing 10,000-gallon aboveground red diesel storage tank, related equipment, and the bulk truck loading and dispensing assemblies.
11. Construct a new tank foundation and provide new underground double wall and aboveground single wall piping and leak detection from the diesel bay to the tank.
12. Provide a drainage system, paving and markings.
13. Provide a new emergency generator and related accessories and generator's concrete pad.
14. Provide new electrical, communications, grounding, bonding, lighting and lightning protection systems for the new fuel tender facility, filtration building, operator's building and the relocated red diesel storage tank and dispensing facilities.
15. Provide new utilities for the new facilities.
16. Provide NFPA compliant fire suppression and fire alarm system.
17. Provide closed circuit television (CCTV) security system to monitor the new fuel tender facility.
18. Provide dewatering as necessary to install underground piping and utilities. Obtain all required dewatering permits prior to dewatering. Dispose of the water at a licensed waste disposal facility offsite.
19. Remove all unsuitable, organic and/or contaminated soil and dispose of as indicated.
20. Test and commission the new facilities.
21. Provide as-built topographical survey of the new fuel tender facility, including all underground utilities, aboveground equipment, tanks, buildings, structures, fixtures, and all other new installations comprising this project.

SPECIALIZED WORK AND CONSTRAINTS:

The Contractor shall be a Florida Licensed Mechanical Contractor and a Florida Licensed Pollutant Storage System Specialty Contractor with a minimum of five years' experience in the construction of underground aviation hydrant fuel systems. In addition, the Contractor shall have experience in construction of aviation fuel loading/offloading facilities. All fuel related construction must be performed by such an experienced Contractor and subcontractors.

SPECIALIZED WORK AND CONSTRAINTS (continued):

In addition to construction underground double wall fuel piping and connecting to existing underground jet fuel distribution pipelines inside the airport (MIA), other highly specialized components of this project will be:

- a) A large prefabricated fuel tender canopy structure that will require to be erected by a subcontractor specialized in construction of large canopy installations.
- b) A control system and fuel accounting system specifically designed to monitor and control for the fuel tender operations and account for fuel tender transactions.
- c) Fire alarm and fire suppression system to protect the fuel tender and buildings.
- d) Closed circuit television system for site security.
- e) Emergency fuel shut-off system to shut down fuel flow in the event of a fuel related emergency.
- f) NFPA and Miami-Dade Fire Rescue approved emergency generator system to operate the fuel tender during power outages.
- g) Electrical systems requiring explosion-proof components.
- h) Underground power and communications duct banks in highly congested areas of underground utilities.
- i) Communications system with interfacing with the airport's communications to Airside Operations and the Fire Department.
- j) Maintenance of traffic during construction in coordination with Airside Operations and RS&T project management to prevent impacting airside operations and RS&T project construction.
- k) Concrete paving meeting FAA specifications.

The West Cargo Fuel Tender construction will take place on a site that is environmentally impacted and under remediation order from RER-DERM. All soils excavated from the site will have to be staged, sampled and tested for contamination, and contaminated soils properly disposed of. The environmental excavation, and soil staging, sampling and testing needs to be done by a contractor or subcontractor experienced in site environmental remediation, as the work will require a more complex planning, coordination and execution that with a normal project earthwork, as well as coordinating with, and preparing reports to, RER-DERM.

The West Cargo Fuel Tender construction must strictly adhere to the schedule and must be coordinated with the RS&T taxiways project construction. The fuel tender construction must be completed and the facility commissioned into service by the time the existing fuel tender facility is demolished by the RS&T project for taxiway construction. Liquidated damages of \$7,284 per day will be assessed for delays in fuel tender construction and commissioning, as such delays would in turn impact the taxiways project construction.

Contract Measures Request:
MIA West Cargo Fuel Tender Facility Relocation Project
Project Number: MDAD-P256E
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The magnitude of liquidated damages emphasizes the need for bidders to be qualified and experienced in projects of similar scope and complexity as the fuel tender project.

Please advise if further information is needed to complete this process.

Attachments

c: L. Johnson, SBD
J. Powell, MDAD
C. Corrales, MDAD
Project File

MDAD's CONTRACT MEASURES AND ANALYSIS WORKSHEET

To: Gary Hartfield, Division Director
Internal Services Department, Small Business Development

From: Milton L. Collins, Associate Director
Miami-Dade Aviation Department
Minority Affairs Division



PROJECT/CONTRACT TITLE: MIA West Cargo Fuel Tender Facility Relocation Project

PROJECT/CONTRACT NUMBER: Project No. MDAD-P256E

DEPARTMENT: Miami Dade Aviation Department

ESTIMATED OF PROBABLE CONSTRUCTION COST: \$16,700,000.00

FUNDING SOURCE: MDAD Funds

DESCRIPTION OF PROJECT/BID:

Work of this Contract comprises construction of a 9-bay fuel tender loading rack and related facilities to replace the existing fuel tender facility which will be demolished as part of the MIA Taxiways RS&T Pavement Rehabilitation Project No. P256A. The scope of construction work includes construction activities which are on the Recommendation of Contract Measures Recommendation Memorandum request attached.

CONTRACT MEASURES RECOMMENDATION:

Measures: SBE-Con – 14%
SBE-G/S – 0.6%
SBE-CWP – 10%

REASONS FOR RECOMMENDATION:

Analysis of the factors contained in Implementing Order #3-22 indicates that an SBE-Construction Program Goal and Implementing Order #3-41 indicates that an SBE-Goods & Services Program Goals are appropriate for this contract. Also, Implementing Order #3-376 indicates that a CWP Program Goal is also applicable to this project.

MIA WEST CARGO FUEL TENDER RELOCATION - PROJECT P256E
 SCHEDULE OF BID ITEMS AND ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK
 12/14/18

LINE NO.	ITEM	DESCRIPTION	U/M	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)	LABOR PERCENTAGE	LABOR COST	MATERIAL COST
1	1505-01	MOBILIZATION	LS	1	398,493.57	398,493.57	30%	118,848.07	272,645.50
2	01562-5-01.1	STAKED SILT FENCE	LF	1,930	3.00	5,850.00	20%	1,170.00	4,680.00
3	01562-5-01.2	GEOTEXTILE FABRIC	SY	50	15.00	750.00	20%	150.00	600.00
4	01570-5-01.1	MAINTENANCE OF TRAFFIC	LS	1	389,493.57	389,493.57	30%	116,848.07	272,645.50
5	P-151-4.1	DEMOLITION OF BITUMINOUS PAVEMENT (UP TO 6-INCHES)	SY	6,905	10.00	69,050.00	25%	17,262.50	51,787.50
6	P-151-4.2	DEMOLITION OF CONCRETE PAVEMENT (UP TO 15-INCHES THICK)	SY	1,551	25.00	38,775.00	25%	9,693.75	29,081.25
7	P-151-4.3	CLEARING AND GRUBBING	SY	689	4.00	2,756.00	35%	936.60	1,799.40
8	P-151-4.4	DEMOLITION OF UNDERGROUND UTILITY PIPING (6-INCHES TO 36-INCHES)	LF	180	231.00	41,580.00	50%	20,790.00	20,790.00
9	P-151-4.5	REMOVE ABANDONED OIL WATER SEPARATOR	LS	1	25,000.00	25,000.00	60%	15,000.00	10,000.00
10	P-151-4.6	REMOVE ABANDONED METER VAULT	LS	1	2,000.00	2,000.00	60%	1,200.00	800.00
11	P-151-4.8	REMOVE ABANDONED VALVE RISER	CY	4,653	8.00	37,224.00	35%	13,045.20	24,226.80
12	P-152-4.1	ON-SITE EXCAVATION - CONTAMINATED SOIL TO DEPTH OF 42-INCHES	SY	3,994	2.00	7,988.00	35%	2,795.80	5,192.20
13	P-152-4.2	PROOF ROLLING	CY	669	18.00	12,042.00	35%	4,214.70	7,827.30
14	P-152-4.3	OFF-SITE BORROW	TON	334	12.00	4,008.00	35%	1,402.80	2,605.20
15	P-152-4.4	ON-SITE BORROW	CY	689	6.00	4,134.00	35%	1,452.60	2,681.40
16	P-152-4.5	EMBANKMENT	CY	100	150.00	15,000.00	40%	6,000.00	9,000.00
17	P-153-7.1	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	CY	3,994	7.00	27,958.00	35%	9,785.30	18,172.70
18	P-154-5.1	STABILIZED SUBGRADE (12-INCHES THICK)	CY	466	15.00	6,990.00	35%	2,446.50	4,543.50
19	P-160-4.1	TEMPORARY STOCKPILING OF SUSPECTED AND ENR SOIL WITHOUT BERMING/LINING	CY	4,633	20.00	93,180.00	35%	32,613.00	60,567.00
20	P-160-4.2	TEMPORARY STOCKPILING OF SUSPECTED AND ENR SOIL WITH BERMING/LINING	TON	932	40.00	37,280.00	35%	13,048.00	24,232.00
21	P-160-4.3	TRANSPORTATION/DISPOSAL OF NON-HAZARDOUS SOIL AT A LANDFILL	TON	9,319	35.00	326,165.00	35%	114,157.75	212,007.25
22	P-160-4.4	TRANSPORTATION/DISPOSAL OF HAZARDOUS SOIL AT AN APPROVED HAZARDOUS WASTE DISPOSAL FACILITY	TON	932	340.00	316,880.00	35%	110,908.00	205,972.00
23	P-160-4.5	REMOVAL/DISPOSAL OF FREE FLOATING HYDROCARBON PRODUCT	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
24	P-160-4.6	REMOVAL/DISPOSAL OF FREE FLOATING HYDROCARBON PRODUCT	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
25	P-160-4.7	SKIMMING/TRANSPORTATION/DISPOSAL OF OILS	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
26	P-160-4.8	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE LESS THAN 300 GPM	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
27	P-160-4.9	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE 300 GPM	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
28	P-160-4.10	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE 500 GPM	EA	500	41.00	20,500.00	85%	17,425.00	3,075.00
29	P-211-5.1	LIMEROCK BASE COURSE (12-INCHES THICK)	SY	3,994	21.00	83,874.00	10%	8,387.40	75,486.60
30	P-501-8.1	PORTLAND CEMENT CONCRETE PAVEMENT - NON-REINFORCED (12-INCH THICK)	SY	2,752	90.00	247,890.00	15%	37,152.00	210,738.00
31	P-501-8.2	PORTLAND CEMENT CONCRETE PAVEMENT - REINFORCED (12-INCH THICK)	SY	1,242	140.00	173,880.00	15%	26,082.00	147,798.00
32	P-602-5.1	BITUMINOUS PRIME COAT	SY	1,381	8.00	11,048.00	25%	2,762.00	8,286.00
33	P-603-5.1	BITUMINOUS TACK COAT	SY	1,036	4.00	4,144.00	10%	414.40	3,729.60
34	P-609-5.1	BITUMINOUS MATERIAL - SST	TON	1,398	7.00	9,786.00	25%	2,446.50	7,339.50
35	P-609-5.2	AGGREGATE - SST	TON	26	75.00	1,950.00	25%	487.50	1,462.50
36	P-620-5.1	PAVEMENT PAINTING FINAL (NON-REFLECTIVE)	SF	150	3.00	450.00	25%	112.50	337.50
37	P-702-5.3.1	10-INCH DUCTILE IRON WATER PIPE CLASS 53 (A/R SIDE) AND FITTINGS	LF	101	488.00	49,288.00	25%	12,322.00	36,966.00
38	P-702-5.3.2	10X10 INCH TAPPING SLEEVE AND VALVE ASSEMBLY	EA	1	14,676.00	14,676.00	35%	5,136.60	9,539.40
39	P-702-5.3.3	10-INCH DOUBLE DETECTOR CHECK VALVE ASSEMBLY	EA	1	25,947.00	25,947.00	35%	9,081.45	16,865.55
40	P-702-5.3.4	10-INCH POST INDICATOR VALVE ASSEMBLY	EA	1	11,338.00	11,338.00	35%	3,969.30	7,368.70
41	P-702-5.3.5	10-INCH GATE VALVE WITH BOX	EA	2	9,230.00	18,460.00	35%	6,461.00	11,999.00
42	P-702-5.3.6	2-INCH REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY	EA	1	1,617.00	1,617.00	35%	565.95	1,051.05
43	P-702-5.3.7	2-INCH TYPE "K" COPPER WATER PIPE AND FITTINGS	LF	369	217.50	79,982.50	25%	19,520.63	59,561.88
44	P-702-5.3.8	2-INCH CORPORATION STOP	EA	1	2,159.00	2,159.00	35%	755.65	1,403.35
45	P-702-5.3.9	2-INCH GATE VALVE	EA	1	2,090.00	2,090.00	35%	710.50	1,379.50
46	P-702-5.3.10	1 1/4-INCH TYPE "K" COPPER WATER PIPE AND FITTINGS	LF	45	216.00	9,720.00	25%	2,430.00	7,290.00
47	P-702-5.3.11	1 1/4-INCH CORPORATION STOP	EA	1	1,943.00	1,943.00	35%	680.05	1,262.95
48	P-702-5.3.12	1 1/4-INCH REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY	EA	1	1,463.00	1,463.00	35%	522.55	970.45
49	P-702-5.3.13	1 1/4-INCH GATE VALVE	EA	1	1,218.00	1,218.00	35%	428.30	791.70
50	P-702-5.3.14	6-INCH DUCTILE IRON PIPE CLASS 53 AND FITTINGS	LF	16	397.50	6,360.00	25%	1,550.00	4,810.00
51	P-702-5.3.15	6-INCH GATE VALVE WITH BOX	EA	1	2,492.00	2,492.00	35%	872.20	1,619.80
52	P-702-5.3.16	6-INCH FIRE HYDRANT - AIRFIELD SERVICE ROAD	LS	1	9,455.00	9,455.00	35%	3,309.25	6,145.75
53	P-702-5.3.17	12-INCH DUCTILE IRON PIPE CLASS 53 AND FITTINGS	LF	250	393.00	98,250.00	25%	24,562.50	73,687.50
54	P-702-5.3.18	12-INCH GATE VALVE WITH BOX	EA	1	9,224.00	9,224.00	35%	3,228.40	5,995.60
55	P-702-5.3.19	12-INCH TAPPING SLEEVE AND VALVE ASSEMBLY	EA	1	6,638.00	6,638.00	35%	2,316.00	4,322.00
56	P-704-5.1.1	4-INCH DUCTILE IRON PIPE AND FITTINGS SANITARY SEWER LATERAL	LF	24	461.00	11,064.00	25%	2,785.50	8,278.50
57	P-704-5.1.2	4-INCH DUCTILE IRON PIPE CLEANOUT	EA	1	3,690.00	3,690.00	35%	1,291.50	2,398.50
58	P-713-5.2	MONITORING WELL - CLOSURE IN PLACE OF EXISTING	EA	2	500.00	1,000.00	15%	150.00	850.00
59	D-701-5.1	12-INCH DIP CLASS 53 PIPE STORM DRAIN	LF	368	180.00	66,240.00	15%	9,936.00	56,304.00

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60	D-701-5-2	8-INCH DIP CLASS 53 PIPE STORM DRAIN	LF	121	\$ 140.00	\$ 16,940.00	15%	\$ 2,541.00	\$ 14,399.00
61	D-701-5-3	12-INCH X 8-INCH DIP CLASS 53 WYE	EA	9	\$ 5,000.00	\$ 45,000.00	15%	\$ 6,750.00	\$ 38,250.00
62	D-701-5-4	8-INCH - 45 DEGREE DIP CLASS 53 BEND	EA	3	\$ 1,500.00	\$ 4,500.00	35%	\$ 1,575.00	\$ 2,925.00
63	D-701-5-5	12-INCH 11.25 DEGREE DIP CLASS 53 BEND	EA	3	\$ 2,000.00	\$ 6,000.00	35%	\$ 2,100.00	\$ 3,900.00
64	D-751-5-1	STORM DRAIN MANHOLE NO. 3	EA	1	\$ 35,000.00	\$ 35,000.00	25%	\$ 8,750.00	\$ 26,250.00
65	D-751-5-2	12-INCH X 8-INCH FLOOR DRAIN	EA	9	\$ 5,000.00	\$ 45,000.00	25%	\$ 11,250.00	\$ 33,750.00
66	F-162-5-1	CHAIN LINK FENCE 16 FEET + 1 FOOT OUTRIGGERS	LF	46	\$ 50.00	\$ 2,300.00	35%	\$ 805.00	\$ 1,495.00
67	F-162-5-2	REMOVE CHAIN LINK FENCE	LF	280	\$ 9.00	\$ 2,520.00	40%	\$ 1,008.00	\$ 1,512.00
68	FOOT 334-1	ASPHALT CONCRETE PAVEMENT - TYPE 9C-12.5	TON	1,151	\$ 130.00	\$ 149,630.00	70%	\$ 104,741.00	\$ 44,889.00
69	FOOT 822-1	CONCRETE SIDEWALK (6-INCH REINFORCED)	SY	650	\$ 45.00	\$ 29,250.00	50%	\$ 14,625.00	\$ 14,625.00
70	T-904-4-1	SODDING	SY	5,000	\$ 5.00	\$ 25,000.00	50%	\$ 12,500.00	\$ 12,500.00
71	S-1-1	CONCRETE CURB FOOT TYPE "D"	LF	721	\$ 16.00	\$ 11,536.00	40%	\$ 4,614.40	\$ 6,921.60
72	S-1-2	WHEEL STOPS (PRECAST CONCRETE)	EA	6	\$ 80.00	\$ 480.00	40%	\$ 192.00	\$ 288.00
73	S-2-1	BOLLARDS	EA	23	\$ 1,800.00	\$ 41,400.00	30%	\$ 12,420.00	\$ 28,980.00
74	L-110-5-1-1	2-1/4 INCH PVC DUCT CONCRETE ENCASED CONDUIT, EXCAVATION AND CONDUCTOR	LF	290	\$ 313.00	\$ 90,770.00	30%	\$ 27,231.00	\$ 63,539.00
75	L-110-5-1-2	2-1/4 INCH PVC DUCT CONCRETE ENCASED CONDUIT, EXCAVATION AND CONDUCTOR	LF	150	\$ 274.13	\$ 41,119.50	30%	\$ 12,335.85	\$ 28,783.65
76	133400-1	FUEL TENDER METAL CANOPY	LS	1	\$ 975,000.00	\$ 975,000.00	30%	\$ 292,500.00	\$ 682,500.00
77	P-610-1	CONCRETE PADS FOR ISOLATION VALVE PITS, MONITORING WELLS, LOW POINT DRAINS, HIGH POINT VENTS, AND MISCELLANEOUS STRUCTURES	LS	1	\$ 75,000.00	\$ 75,000.00	30%	\$ 22,500.00	\$ 52,500.00
78	P-610-2	FILTER BUILDING STRUCTURE, ARCHITECTURAL FINISHES, LIGHTING, MECHANICAL AND PLUMBING	LS	1	\$ 300,000.00	\$ 300,000.00	50%	\$ 150,000.00	\$ 150,000.00
79	3300-1	DIESEL TANK FOUNDATION, GENERATOR PAD AND OTHER STRUCTURES	LS	1	\$ 56,000.00	\$ 56,000.00	30%	\$ 16,800.00	\$ 39,200.00
80	P-511-1	FUEL TENDER CONTROL AND FUEL ACCOUNTING SYSTEM	LS	1	\$ 300,000.00	\$ 300,000.00	60%	\$ 180,000.00	\$ 120,000.00
81	P-711-1	EXISTING JET FUEL PIPELINES DRAIN DOWN AND RETURN TO SERVICE	EA	2	\$ 25,000.00	\$ 50,000.00	50%	\$ 25,000.00	\$ 25,000.00
82	P-711-2	REMOVE EXISTING UNDERGROUND LOW POINT DRAIN PITS AND REPLACE WITH NEW LOW POINT DRAIN PITS	EA	2	\$ 40,000.00	\$ 80,000.00	50%	\$ 40,000.00	\$ 40,000.00
83	P-711-3	UNDERGROUND 1271/6" DOUBLE WALL JET FUEL PIPE AND FITTINGS	LF	1200	\$ 740.00	\$ 888,000.00	50%	\$ 444,000.00	\$ 444,000.00
84	P-711-4	UNDERGROUND 1271/6" DOUBLE WALL JET FUEL PIPE CONNECTION TO EXISTING 1271/6" DOUBLE WALL JET FUEL PIPE	EA	2	\$ 10,000.00	\$ 20,000.00	50%	\$ 10,000.00	\$ 10,000.00
85	P-711-5	UNDERGROUND 1271/6" ISOLATION VALVE PITS	EA	2	\$ 110,000.00	\$ 220,000.00	50%	\$ 110,000.00	\$ 110,000.00
86	P-711-6	UNDERGROUND 1071/4" DOUBLE WALL JET FUEL PIPE AND FITTINGS	LF	150	\$ 710.00	\$ 106,500.00	50%	\$ 53,250.00	\$ 53,250.00
87	P-711-7	UNDERGROUND 871/2" DOUBLE WALL JET FUEL PIPE AND FITTINGS	LF	100	\$ 690.00	\$ 69,000.00	50%	\$ 34,500.00	\$ 34,500.00
88	P-711-8	UNDERGROUND 871/2" DOUBLE WALL JET FUEL PIPE AND FITTINGS	LF	350	\$ 650.00	\$ 227,500.00	50%	\$ 113,750.00	\$ 113,750.00
89	P-711-9	UNDERGROUND LOW POINT DRAIN PITS ON NEW JET FUEL PIPE	EA	4	\$ 30,000.00	\$ 120,000.00	50%	\$ 60,000.00	\$ 60,000.00
90	P-711-10	UNDERGROUND HIGH POINT VENTS ON NEW JET FUEL PIPE	EA	4	\$ 30,000.00	\$ 120,000.00	50%	\$ 60,000.00	\$ 60,000.00
91	P-711-11	FILTER BUILDING ABOVEGROUND SINGLE WALL JET FUEL PIPE, FITTINGS, VALVES AND EQUIPMENT	LS	1	\$ 270,000.00	\$ 270,000.00	50%	\$ 135,000.00	\$ 135,000.00
92	P-711-12	FUEL TENDER LOADING ISLANDS ABOVEGROUND SINGLE WALL FUEL PIPE, FITTINGS, VALVES AND EQUIPMENT	EA	8	\$ 150,000.00	\$ 1,200,000.00	50%	\$ 600,000.00	\$ 600,000.00
93	P-711-13	UNDERGROUND 37/4" DOUBLE WALL FIBERGLASS DIESEL PIPE AND FITTINGS	LF	900	\$ 200.00	\$ 180,000.00	50%	\$ 90,000.00	\$ 90,000.00
94	P-711-14	UNDERGROUND 27/4" DOUBLE WALL FIBERGLASS DIESEL PIPE AND FITTINGS	LF	400	\$ 150.00	\$ 60,000.00	50%	\$ 30,000.00	\$ 30,000.00
95	P-711-15	ABOVEGROUND SINGLE WALL DIESEL FUEL PIPE AND FITTINGS FOR RELOCATED DIESEL STORAGE TANK	LS	1	\$ 10,000.00	\$ 10,000.00	50%	\$ 5,000.00	\$ 5,000.00
96	P-711-16	ABOVEGROUND SINGLE WALL DIESEL FUEL PIPE, FITTINGS, VALVES AND EQUIPMENT FOR DIESEL LOADING/UNLOADING ISLAND	LS	1	\$ 65,000.00	\$ 65,000.00	50%	\$ 32,500.00	\$ 32,500.00
97	P-712-1	CONTROL VALVE MANUFACTURER'S FIELD ENGINEER TO SET/TEST/ADJUST/COMMISSION CONTROL VALVES	LS	1	\$ 10,000.00	\$ 10,000.00	50%	\$ 5,000.00	\$ 5,000.00
98	P712-2	RELOCATION, TESTING AND COMMISSIONING OF EXISTING 10,000 GAL DIESEL STORAGE TANK	LS	1	\$ 15,000.00	\$ 15,000.00	85%	\$ 12,750.00	\$ 2,250.00
99	P-713-1	INSTALLATION OF GROUNDWATER MONITORING WELLS	EA	35	\$ 2,000.00	\$ 70,000.00	15%	\$ 10,500.00	\$ 59,500.00
100	P-715-1	JET FUEL PIPING CLEANING AND INSPECTION	LS	1	\$ 10,000.00	\$ 10,000.00	50%	\$ 5,000.00	\$ 5,000.00
101	P-715-2	JET FUEL PIPING PNEUMATIC PRESSURE TESTING	LS	1	\$ 15,000.00	\$ 15,000.00	50%	\$ 7,500.00	\$ 7,500.00
102	P-715-3	JET FUEL PIPING FIRST FILL WITH OWNER FURNISHED JET A FUEL	LS	1	\$ 10,000.00	\$ 10,000.00	50%	\$ 5,000.00	\$ 5,000.00
103	P-715-4	JET FUEL PIPE HYDROSTATIC PRESSURE TESTING OF PIPING WITH OWNER FURNISHED JET A FUEL	LS	1	\$ 25,000.00	\$ 25,000.00	50%	\$ 12,500.00	\$ 12,500.00
104	P-715-5	SOAK TEST OF JET FUEL PIPING WITH OWNER FURNISHED JET A FUEL	LS	1	\$ 15,000.00	\$ 15,000.00	50%	\$ 7,500.00	\$ 7,500.00
105	P-715-6	FLUSHING OF JET FUEL PIPING WITH OWNER FURNISHED JET A FUEL	LS	1	\$ 75,000.00	\$ 75,000.00	50%	\$ 37,500.00	\$ 37,500.00
106	P-715-7	JET FUEL PIPING SYSTEM COMMISSIONING	LS	1	\$ 100,000.00	\$ 100,000.00	50%	\$ 50,000.00	\$ 50,000.00
107	P-728-1	INSTALLATION OF CATHODIC PROTECTION SYSTEM	LS	1	\$ 75,000.00	\$ 75,000.00	50%	\$ 37,500.00	\$ 37,500.00
108	P-730-1	FILTERSEPARATOR AND ACCESSORIES UNITS	EA	2	\$ 150,000.00	\$ 300,000.00	50%	\$ 150,000.00	\$ 150,000.00
109	P-730-2	FILTERSEPARATOR PLATFORM AND STAIRS	LS	1	\$ 50,000.00	\$ 50,000.00	50%	\$ 25,000.00	\$ 25,000.00
110	P-730-3	INSTALLATION OF LIGHTNING PROTECTION AND GROUNDING SYSTEMS	LS	1	\$ 75,000.00	\$ 75,000.00	30%	\$ 22,500.00	\$ 52,500.00
111	16000-1	DISCONNECTION AND REMOVAL OF ELECTRICAL EQUIPMENT FOR EXISTING DIESEL TANK	LS	1	\$ 12,419.00	\$ 12,419.00	30%	\$ 3,725.70	\$ 8,693.30
112	16000-2	RELOCATION AND RECONNECTION OF ELECTRICAL EQUIPMENT FOR EXISTING DIESEL TANK	LS	1	\$ 172,426.80	\$ 172,426.80	30%	\$ 51,727.98	\$ 120,698.82
113	16000-3	POWER SYSTEM DUCT BANKS, PANELS, TRANSFORMERS, METERS, RACKS AND ALL INCIDENTALS	LS	1	\$ 300,000.00	\$ 300,000.00	30%	\$ 90,000.00	\$ 210,000.00
114	16000-4	TELECOMMUNICATION SYSTEM DUCT BANKS, PANELS, RACKS AND ALL INCIDENTALS	LS	1	\$ 150,000.00	\$ 150,000.00	30%	\$ 45,000.00	\$ 105,000.00

MIA WEST CARGO FUEL TENDER RELOCATION - PROJECT P256E
 SCHEDULE OF BID ITEMS AND ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK
 12/14/18

LINE NO.	ITEM	DESCRIPTION	U/M	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)	LABOR PERCENTAGE	LABOR COST	MATERIAL COST
115	16000-5	LIGHTING SYSTEM DUCT BANKS, FIXTURES, SWITCHES, AND ALL INCIDENTALS	LS	1	75,000.00	\$ 75,000.00	30%	\$ 22,500.00	\$ 52,500.00
116	16000-6	CONTROL SYSTEM DUCT BANKS, PANELS, RACKS, AND ALL INCIDENTALS	LS	1	150,000.00	\$ 150,000.00	30%	\$ 45,000.00	\$ 105,000.00
117	16000-7	TELECOMMUNICATION SERVICE TO OPERATOR'S BUILDING	LS	1	5,000.00	\$ 5,000.00	60%	\$ 3,000.00	\$ 2,000.00
118	16200-1	STANDBY EMERGENCY GENERATOR	LS	1	1,000,000.00	\$ 1,000,000.00	30%	\$ 300,000.00	\$ 700,000.00
119	16975-1	EMERGENCY FUEL SHUTOFF SYSTEM	LS	1	75,000.00	\$ 75,000.00	50%	\$ 37,500.00	\$ 37,500.00
120	16780-1	CCTV SYSTEM	LS	1	200,000.00	\$ 200,000.00	50%	\$ 100,000.00	\$ 100,000.00
121		FIRE PROTECTION AND FIRE ALARM SYSTEM	LS	1	950,000.00	\$ 950,000.00	60%	\$ 570,000.00	\$ 380,000.00
122		OPERATOR'S BUILDING STRUCTURE, ARCHITECTURAL FINISHES, LIGHTING, MECHANICAL AND PLUMBING	LS	1	\$ 932,670.40	\$ 932,670.40	35%	\$ 326,434.64	\$ 606,235.76
123	01050-1	AS-BUILT SURVEY	LS	1	10,000.00	\$ 10,000.00	75%	\$ 7,500.00	\$ 2,500.00
124						\$ 13,762,106.14		\$ 5,600,710.74	\$ 8,161,395.40
125		SUBTOTAL				\$ 1,376,210.61		\$ 560,071.07	\$ 816,139.54
126		SUBTOTAL ALL WORK (SPECIALTY AND GENERAL)				\$ 15,138,316.75		\$ 6,150,781.81	\$ 8,977,534.94
127		GENERAL ALLOWANCE ACCOUNT (10%)				\$ 1,513,831.68		\$ 615,078.18	\$ 897,753.49
128		DEDICATED INSPECTOR GENERAL AUDIT ACCOUNT (0.25%)				\$ 37,845.79		\$ 15,401.95	\$ 22,443.84
129		ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK				\$ 16,689,994.22		\$ 6,792,261.95	\$ 9,897,732.27
130		ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK (ROUNDED TO NEAREST \$100K)				\$ 16,700,000.00		\$ 6,800,000.00	\$ 9,900,000.00
						TOTAL COST		LABOR COST	MATERIAL COST
						ALL WORK		ALL WORK	ALL WORK

MIA WEST CARGO FUEL TENDER RELOCATION - PROJECT P256E
ESTIMATE OF GOODS AND SERVICES 0.5%

LINE NO.	ITEM	DESCRIPTION	U/M	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)	LABOR PERCENTAGE	LABOR COST	MATERIAL COST
1		Cleaning, Printing, Transportation, Food Truck				\$ 69,780.00			
2									
3						\$ 69,780.00			
4						\$ 69,780.00			
5						\$ 6,978.00			
6						\$ 174.45			
7						\$ 76,932.45			
8									
9									
		SUBTOTAL ALL WORK							
		GENERAL ALLOWANCE ACCOUNT (10%)							
		DEDICATED INSPECTOR GENERAL AUDIT ACCOUNT (0.25%)							
		ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK							
		ESTIMATE OF PROBABLE CONSTRUCTION COST - ALL WORK (ROUNDED TO NEAREST \$100K)							
		TOTAL COST ALL WORK							

Goods & Services Percentage of Total Work

0.50%

MIA WEST CARGO FUEL TENDER RELOCATION - PROJECT P258E
ESTIMATE OF COMMUNITY WORK FORCE PROGRAM
12/20/18

LINE NO.	ITEM	DESCRIPTION	UM	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)	LABOR PERCENTAGE	LABOR COST	MATERIAL COST
1	01562-5-01-1	STAKED SILT FENCE	LF	1,950	3.00	5,850.00	20%	\$ 1,170.00	\$ 4,680.00
2	01562-5-01-2	GEOTEXTILE FABRIC	SY	50	15.00	750.00	20%	\$ 150.00	\$ 600.00
3	P-151-4-1	DEMOLITION OF BITUMINOUS PAVEMENT (UP TO 6-INCHES)	SY	6,905	10.00	69,050.00	25%	\$ 17,262.50	\$ 51,787.50
4	P-151-4-2	DEMOLITION OF CONCRETE PAVEMENT (UP TO 15-INCHES THICK)	SY	1,551	23.00	35,672.50	25%	\$ 8,918.125	\$ 26,754.375
5	P-151-4-3	CLEARING AND GRUBBING	LF	669	4.00	2,676.00	35%	\$ 936.60	\$ 1,739.40
6	P-151-4-4	DEMOLITION OF UNDERGROUND UTILITY PIPING (6-INCHES TO 36-INCHES)	LS	180	231.00	41,580.00	50%	\$ 20,790.00	\$ 20,790.00
7	P-151-4-5	REMOVE ABANDONED METER VAULT	LS	1	25,000.00	25,000.00	60%	\$ 15,000.00	\$ 10,000.00
8	P-151-4-6	REMOVE ABANDONED VALVE RISER	LS	1	2,000.00	2,000.00	60%	\$ 1,200.00	\$ 800.00
9	P-151-4-8	REMOVE ABANDONED VALVE RISER	LS	1	2,000.00	2,000.00	60%	\$ 1,200.00	\$ 800.00
10	P-152-4-2	PROOF ROLLING	SY	3,994	1,000.00	3,994,000.00	80%	\$ 3,195,200.00	\$ 800,000.00
11	P-152-4-3	OFF-SITE BORROW	TON	669	18.00	12,042.00	35%	\$ 4,214.70	\$ 7,827.30
12	P-152-4-4	ON-SITE BORROW	CY	334	12.00	4,008.00	35%	\$ 1,402.80	\$ 2,605.20
13	P-152-4-5	EMBANKMENT	CY	669	6.00	4,014.00	35%	\$ 1,402.80	\$ 2,605.20
14	P-153-7-1	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	CY	100	150.00	15,000.00	40%	\$ 6,000.00	\$ 9,000.00
15	P-154-5-1	STABILIZED SUBGRADE (12-INCHES THICK)	SY	3,994	7.00	27,958.00	35%	\$ 9,785.30	\$ 18,172.70
16	P-160-4-3	TRANSPORTATION/DISPOSAL OF NON-HAZARDOUS SOIL AT A LANDFILL	TON	932	40.00	37,280.00	35%	\$ 13,048.00	\$ 24,232.00
17	P-160-4-4	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE LESS THAN 300 GPM	TON	9,319	35.00	326,165.00	35%	\$ 114,157.75	\$ 212,007.25
18	P-160-4-8	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE 300 GPM	TON	2,000	25.00	50,000.00	60%	\$ 30,000.00	\$ 20,000.00
19	P-160-4-9	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE 500 GPM	TON	1,000	30.00	30,000.00	60%	\$ 18,000.00	\$ 12,000.00
20	P-160-4-10	DEWATERING/TREATMENT OF CONTAMINATED GROUNDWATER HOURLY UNIT FLOW RATE 500 GPM	TON	500	35.00	17,500.00	60%	\$ 10,500.00	\$ 7,000.00
21	P-211-5-1	UMEROCK BASE COURSE (12-INCHES THICK)	SY	3,994	21.00	83,874.00	10%	\$ 8,387.40	\$ 75,486.60
22	P-602-5-1	BITUMINOUS PRIME COAT	GAL	1,381	8.00	11,048.00	25%	\$ 2,762.00	\$ 8,286.00
23	P-603-5-1	BITUMINOUS TACK COAT	GAL	1,036	4.00	4,144.00	10%	\$ 414.40	\$ 3,729.60
24	P-609-5-1	BITUMINOUS MATERIAL - SST	GAL	1,398	7.00	9,786.00	25%	\$ 2,446.50	\$ 7,339.50
25	P-609-5-2	AGGREGATE - SST	TON	26	75.00	1,950.00	25%	\$ 487.50	\$ 1,462.50
26	P-620-5-1	PAVEMENT PAINTING FINAL (NON-REFLECTIVE)	LF	150	3.00	450.00	25%	\$ 112.50	\$ 337.50
27	F-162-5-1	CHAIN LINK FENCE (8 FEET + 1 FOOT OUTRIGGER)	LF	46	50.00	2,300.00	35%	\$ 805.00	\$ 1,495.00
28	F-162-5-2	REMOVE CHAIN LINK FENCE	LF	280	9.00	2,520.00	40%	\$ 1,008.00	\$ 1,512.00
29	FDOT 324-1	ASPHALT CONCRETE PAVEMENT - TYPE SP-12.5	TON	1,151	130.00	149,630.00	70%	\$ 104,741.00	\$ 44,889.00
30	FDOT 522-1	CONCRETE SIDEWALK (6-INCH REINFORCED)	SY	650	45.00	29,250.00	50%	\$ 14,625.00	\$ 14,625.00
31	T-904-4-1	SODDING	SY	1,785	5.00	8,925.00	50%	\$ 4,462.50	\$ 4,462.50
32	S-1-1	CONCRETE CURB FDOT TYPE 'D'	LF	721	16.00	11,536.00	40%	\$ 4,614.40	\$ 6,921.60
33	S-1-2	WHEEL STOPS (PRECAST CONCRETE)	EA	6	90.00	540.00	30%	\$ 216.00	\$ 324.00
34	S-2-1	BOLLARDS	EA	23	1,800.00	41,400.00	30%	\$ 12,420.00	\$ 28,980.00
35	L-110-5-1.1	2x4-6 INCH PVC DUCT CONCRETE ENCASED CONDUIT EXCAVATION AND CONDUCTOR	LF	290	313.00	90,770.00	30%	\$ 27,231.00	\$ 63,539.00
36	L-110-5-1.2	2x4-6 INCH PVC DUCT CONCRETE ENCASED CONDUIT EXCAVATION AND CONDUCTOR	LF	150	274.13	41,119.50	30%	\$ 12,335.85	\$ 28,783.65
37	P-610-1	VENTS, AND MISCELLANEOUS STRUCTURES	LS	1	75,000.00	75,000.00	30%	\$ 22,500.00	\$ 52,500.00
38	P-610-2	FILTER BUILDING STRUCTURE, ARCHITECTURAL FINISHES, LIGHTING, MECHANICAL AND PLUMBING	LS	1	300,000.00	300,000.00	50%	\$ 150,000.00	\$ 150,000.00
39	3300-1	DIESEL TANK FOUNDATION, GENERATOR PAD AND OTHER STRUCTURES	LS	1	56,000.00	56,000.00	30%	\$ 16,800.00	\$ 39,200.00
40	P-713-1	INSTALLATION OF GROUNDWATER MONITORING WELLS	EA	35	70,000.00	2,450,000.00	15%	\$ 367,500.00	\$ 2,082,500.00
41	13100-1	INSTALLATION OF LIGHTNING PROTECTION AND GROUNDING SYSTEMS	LS	1	75,000.00	75,000.00	30%	\$ 22,500.00	\$ 52,500.00
42	16000-1	DISCONNECTION AND REMOVAL OF ELECTRICAL EQUIPMENT FOR EXISTING DIESEL TANK	LS	1	12,419.00	12,419.00	30%	\$ 3,725.70	\$ 8,693.30
43	16000-2	RELOCATION AND RECONNECTION OF ELECTRICAL EQUIPMENT FOR EXISTING DIESEL TANK	LS	1	172,426.60	172,426.60	30%	\$ 51,727.98	\$ 120,698.62
44	01050-1	AS-BUILT SURVEY	LS	1	10,000.00	10,000.00	75%	\$ 7,500.00	\$ 2,500.00
45						1,975,724.10		\$ 758,934.83	\$ 1,216,789.27
46						197,572.41		\$ 75,893.48	\$ 121,678.93
47						2,173,256.51		\$ 834,828.31	\$ 1,338,428.20
48						5,433.24		\$ 2,087.07	\$ 3,346.17
49						2,595,059.40		\$ 920,396.22	\$ 1,674,663.18
50						2,400,000.00		\$ 1,000,000.00	\$ 1,400,000.00
51									

GENERAL WORK

LABOR COST

MATERIAL COST