

Date: February 9, 2017

- To: Gary Hartfield, Division Director Small Business Development Division Internal Services Department
- From: Alejandro Martinez-Esteve, RA, LEED AP Manager, Capital Improvements Section Department of Transportation and Public Works
- Subject: Notice of Construction Project: Miscellaneous Construction Contracts (MCC) Program: MCC 7360 Plan - CICC 7360-0/08 Request for Price Quotation (RPQ) No. 20160301 Capital Water Control Infrastructure Improvements Multiple Sites

# RECOMMENDATION

The Department of Transportation and Public Works (DTPW) Capital Improvements staff completed its review of the scope of work for the subject RPQ. Based on the analysis, DTPW; recommends a 13.55% Small Business Enterprise Subcontractor Goal (SBE-Const) participation, based on the construction trades available to be subcontracted. The total estimated cost is \$737,428.00. The project was previously advertised on August 26, 2016 under RPQ #20160237 through the MCC 7040 Plan, and no bids were received. The 10% Community Workforce Program (CWP) remains applicable to this project.

#### BACKGROUND

The project includes maintenance, repair, and upgrade to existing Flood Control Structures and Telemetry Systems by providing all required mechanical and electrical work.

If any additional information is needed, please call Elva Reyes at (305) 375-1889.

AM/er

Attachments (2)

Cc:

Laurie Johnson, ISD Jhonnatan Escalante, ISD Bassam Moubayed, DTPW Alfredo Munoz, PE, DTPW Alex Barrios, DTPW Elva Reyes, DTPW Dianah Coakley, DTPW Project File DTPW

- To: Gary Hartfield, Director Internal Services Department Small Business Development Division
- From: Alejandro Martinez-Esteve, RA, LEED AP. Manager, Capital Improvements Section Department of Transportation and Public Works

Date: Thursday, February 9, 2017

Department: Department of Transportation and Public Works

Contract Type: Multiple Trade

Request for Price Quotation (RPQ) No.: 20160301

Re-submittal: Yes;

⊠No

Project Title: Capital Water Control Infrastructure Improvements Multiple Sites

Standard Industrial Code (SIC): Heavy Construction

Estimated Total Construction Cost: \$737,728.00

Funding Source: GOB

Bonding Requirements: Bid Bond– Yes Performance Bond- Yes

Method of Award: Line Item

Detailed Scope of Work:

Work under this Contract includes furnishing all supervision, labor, materials, tools and equipment, and performing all operations required to construct the Work in accordance with the Contract Documents.

The proposed improvements for the Flood Control Structures are as follows:

• At NW 12 Street and NW 117 Avenue; include motorizing the existing flood gate and the integration of the motor controls into the SCADA system which will allow for remote monitoring and control of the structure. This project will provide for better water management, and will increase the level of service for public and private residents within the Snapper Creek Canal Basin.

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- At NW 25 Street and NW 117 Avenue; include motorizing the existing flood gate and the integration of the motor controls into the SCADA system which will allow for remote monitoring and control of the structure. This project will provide for better water management, and will increase the level of service for public and private residents within the North Line Canal Basin.
- At NW 58 Street and NW 117 Avenue; include the re-design of the Water Control Structure to include new headwalls, operator pad, motorized gates, extension of existing culverts, and integration of the motor controls into the SCADA system which will allow for remote monitoring, and the automated and remote control of said structure. This project will provide for better water management, and will increase the level of service being provided to public and private residents within the Dressels Canal Basin.

#### Improvements for Control Panel, Remote Site Repair and Other Services:

The basic scope of services will consist of the following:

- The Contractor will replace electrical controls panels (CP) at two locations. All materials and labor will be included under this contract.
- The Contractor will replace existing equipment on the attached list of remote sites.
- The Contractor will modify existing equipment and install anti-vandalism devices on the remote sites. See attached.
- The Contractor will install a RTU system and its ancillary equipment at a location to remotely operate a weir.
- All materials and labor will be covered under this contract.
- Proprietary SCADA equipment to be purchased from Emerson Process Management Power & Water Solutions. Please contact Roger Labrecque, Senior Account Executive, System Sales for Water Automation Solutions, Emerson Process Management at 860-778-3672 or roger.labrecque@emerson.com.

TASK A – Control Panel Replacement (NE 26 AVE P.S. & Sunswept Isles C.S.)

- 1. During the bid process all potential bidders are encouraged to attend a field meeting at the two locations in order to perform an inventory of the control panels and its parts.
- 2. The Contractor will prepare all necessary specifications, drawings, and manuals for the replacement of the control panels based on the following criteria:
  - The control panels must be compatible with exist equipment. The cabinets must be NEMA 4X rated. Please note no asbuilt information exists.

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- The control panels must include properly sized Noren NEMA 4X Air-to-Air Flush-Mount Cabinet cooler.
- 3. Provide all additional spare parts and training as necessary.
- 4. The existing telemetry controls are to be incorporated into the new control panel.
- 5. The Contractor is to obtain all necessary building permits.
- TASK B -- Remote Site Repair and Other Services
  - 1. The Contractor will visit four remote canal sites and take an inventory of the existing equipment.
  - 2. The Contractor will obtain and install new; Emerson RTU's with radios, solar panels, rain gauges, wiring, cabinets, antennas, and any additional hardware needed to reestablish functionality. Existing functionality includes upstream and downstream water levels measurement taken by either a submersible transmitter or an ultra-sonic transmitter as specified in the attachment and rainfall data. Existing equipment removed will provided to the County.
  - 3. The Contractor is to provide all programing to the remote stations telemetry system as necessary to reestablish connection to the County stormwater network.
  - The Contractor will elevate the RTU panels/cabinets, solar panels, and other pertinent equipment to a minimum of 20 feet above the ground using the existing pole and provide barriers to climbing. A product cut sheet provided.
  - 5. All materials and work will be included under this contract.
  - 6. The Contractor will provide the list of spare parts as specified in the attachment.
- TASK C Midway Area Flood Gate RTU Installation
  - 1. The Contractor will visit the Midway Area Flood Gate located just south of NW 7 ST in the median along NW 82 AVE and perform a site survey.
  - 2. The Contractor will install an Emerson remote telemetry unit (RTU); to include a 30 foot concrete pole, antenna, pressure transducers upstream and downstream of the weir, and the necessary programming for the system. See attached detail.
  - 3. The Contractor will program the RTU to open and close the sluice gate located on the weir, to monitor the limit switches, and monitor the water levels.

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#### Required Contractor's Certification:

At the time of Bid and pursuant to the requirements of Section 10-3 of the Code of Miami-Dade County, Florida and these Solicitation and Contract Documents, the Bidder must hold a valid, current, and active:

- a. Certificate of Competency from the County's Construction Trades Qualifying Board as a General Engineering Contractor. The specialty contractor shall subcontract with a qualified contractor any work which is incidental to the specialty but is specified in the aforementioned Code as being the work of other than that of the Engineering Specialty for which certified; or
- b. Certification, as a general contractor, provided by the State of Florida Construction Industry Licensing Board, pursuant to the provisions of Section 489.115 of the Florida Statutes

Additional Information:

Permits, Licenses, Experience Requirement and Certifications

Permits that are issued by the DTPW for construction within the public right-of-way, as well as additional permits, which may be required by other municipalities or agencies, including those required for tree removal, will be the responsibility of the Contractor.

Experience Requirement:

The Bidder must demonstrate that it has full-time personnel with the necessary experience to perform the Project's Scope of Work. This experience shall include work in successfully completed projects performed by the identified personnel whose bulk of work performed in the Public Right-of-Way is similar in detail to the Project's Scope of Work described in these Solicitation Documents. Demonstrate the experience requirement by:

- a. Providing a detailed description of at least three (3) projects similar in detail to the Project's Scope of Work described in these Solicitation Documents and in which the Bidder's identified personnel is currently engaged or has completed within the past five years. List and describe the aforementioned projects and state whether the work was performed for the County, other government clients, or private entities. The description must identify for each project:
  - 1) The identified personnel and their assigned role and responsibilities for the listed project
  - 2) The client name and address including a contact person and phone number for reference
  - 3) Description of work
  - 4) Total dollar value of the contract
  - 5) Contract duration
  - 6) Statement or notation of whether Bidder's referenced personnel is/was employed by the prime contractor or subcontractor, and
  - 7) For completed projects, provide letters of certification of final acceptance or similar project closure documentation issued by the client and available Contractor's performance evaluations; or

RPQ No.: 20160301

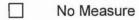
RPQ Title: Capital Water Control Infrastructure Improvements Multiple Sites

The County reserves the right to request additional information and/or contact listed persons pertaining to bidder's experience.

DTPW Areas recommended for SBE-Const Subcontractor Goal:

- Concrete: 1.28%
- Electrical: 11.71%
- Landscape: 0.34%
- Paving Marking: 0.22%

Contract Measure Recommendation:



- Set-Aside: Level I
- CWP: As Applicable

Reason for Recommendation:

This is a Multiple Trade project; none of the primary trade related work can be subcontracted as per the Miscellaneous Construction Contract (MCC) specifications. All areas to be subcontracted require special licenses and/or certifications. Additionally, some categories of work are highly specialized and require special equipment that is typically owned and/or leased by the contractor.

#### Comments:

The project was originally advertised through the MCC 7040 Plan under the RPQ #20160237, and no bids were received. The 10% Community Workforce Program (CWP) remains applicable to this project.

SBE-Const Prime History of similar Contracts/Projects for previous three years: None

Scope of Work History Summary: None

Areas used to meet subcontractor goal (Awarded Contractor): Not Applicable

Similar Projects previously submitted for SBD Action: None

SBE-Const Goal / Project No. / Amount achieved: Not Applicable

# DEPARTMENT INPUT CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

Check applicable Ordinance(s): 90-143 Responsible Wage and Benefits

🖾 03-237 (formerly 03-1) Community Workforce Program

#### PROJECT INFORMATION See attachment

Contract/Project/\*Work Order No.: <u>20160301</u> \*Reference corresponding project number when submitting a work order

Contract/Project Title: Capital Water Control Infrastructure Improvements Multiple Sites

Description/Scope of Work: See Attached

Estimated Cost: \$737,428.00 Funding Source: GOB

Location of Project: (street address or beginning and ending points) i.e. See Attached

# PROJECT ANALYSIS FOR GOAL RECOMMENDATION

Engineer/Department or Agency's estimated required workforce for Project Work Order ::

| Trade/Skills Required | Est. # of workforce required per trade | Est. # of total days to complete job |
|-----------------------|----------------------------------------|--------------------------------------|
| Supervisor            | 1                                      | 365                                  |
| Foremen               | 1                                      | 365                                  |
| Operator              | 1                                      | 365                                  |

Comments: <u>Please note the estimated number of days to complete the job may not be equal to actual amount of days indicated above</u>. In addition, respective employees utilized for various scopes of work throughout the duration of the contract.

# PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CSBE) See attachment

| Sub-Trade | Est. Cost | % of Item to Base Bid | Availability |  |
|-----------|-----------|-----------------------|--------------|--|
|           | \$        | %                     |              |  |
|           | \$        | %                     |              |  |
|           | \$        | %                     |              |  |

# RECOMMENDATION

Set-Aside: Level 1 Level 2 Level 3 Trade Set-Aside Sub-Contractor Goal Workforce Goal No Measure

Basis for Recommendation: <u>Based on the analysis, the Department of Transportation and Public Works (DTPW)</u> recommends 13.55% <u>Small Business Enterprise (SBE-Const)</u> Subcontractor Goal participation, based on construction trade areas available to be subcontracted. The 10% of Community Workforce Program (CWP) is applicable to this project.

Date submitted to DBD: <u>02-09-2017</u> Contact Person: <u>Elva Rosa Reyes or Alejandro Martinez-Esteve</u> Telephone No.: 305 375 2930

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Revised 1/15/03

# CAPITAL WATER CONTROL INFRASTRUCTURE IMPROVEMENTS MULTIPLE SITES

#### LOCATIONS:

- NW 12 Street and NW 117 Avenue Flood Control Structure Telemetry Upgrade.
- NW 25 Street and NW 117 Avenue Flood Control Structure Telemetry Upgrade.
- NW 58 Street and NW 117 Avenue Flood Control Structure Reconstruction.
  <u>Task A</u>
- NE 26 Avenue and NE 204 Terrace
- NE 24 Avenue and 207 Street
  Task B
- SW 107 Avenue and SW 344 Street
- 136 foot West of SW 117 Avenue and SW 344 Street
- SW 328 Street and SW 117 Avenue (NE corner) Task C
- NW 7 Street and NW 82 Avenue (Midway Area)

#### PROJECT #20160301

#### Scope of Work:

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- At NW 12 Street and NW 117 Avenue include motorizing the existing flood gate and the integration of the motor controls into the SCADA system which will allow for remote monitoring and control of the structure. This project will provide for better water management and will increase the level of service for public and private residents within the <u>Snapper Creek Canal Basin</u>.
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- At **NW 58 Street and NW 117 Avenue** will include the re-design of the Water Control Structure to include new headwalls, operator pad, motorized gates, extension of existing culverts, and integration of the motor controls into the SCADA system which will allow for remote monitoring, automated and remote control of said structure. This project will provide for better water management and will increase the level of service being provided to public and private residents within the <u>Dresses' Canal Basin</u>.

# Scope of Work for Services of Control Panel, Remote Site Repair and Other Sevices.

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- The control panels must be compatible with exist equipment. The cabinets must be NEMA 4X rated. Please note no asbuilt information exists.
- The control panels must include properly sized Noren NEMA 4X Air-to-Air Flush-Mount Cabinet cooler.

3. Provide all additional spare parts and training as necessary.

- 4. The existing telemetry controls are to be incorporated into the new control panel.
- 5. The Contractor is to obtain all necessary building permits.

#### TASK B – Remote Site Repair and Other Services

1. The Contractor will visit four remote canal sites and take an inventory of the existing equipment.

2. The Contractor will obtain and install new; Emerson RTU's with radios, solar panels, rain gauges, wiring, cabinets, antennas, and any additional hardware needed to reestablish functionality. Existing functionality includes upstream and downstream water levels measurement taken by either a submersible transmitter or an ultra-sonic transmitter as specified in the attachment and rainfall data. Existing equipment removed will provided to the County.

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4. The Contractor will elevate the RTU panels/cabinets, solar panels, and other pertinent equipment to a minimum of 20 feet above the ground using the existing pole and provide barriers to climbing. A product cut sheet provided.

5. All materials and work will be included under this contract.

6. The Contractor will provide the list of spare parts as specified in the attachment.

# TASK C - Midway Area Flood Gate RTU Installation

1. The Contractor will visit the Midway Area Flood Gate located just south of NW 7 ST in the median along NW 82 AVE and perform a site survey.

2. The Contractor will install an Emerson remote telemetry unit (RTU); to include a 30 foot concrete pole, antenna, pressure transducers upstream and downstream of the weir, and the necessary programming for the system. See attached detail.

3. The Contractor will program the RTU to open and close the sluice gate located on the weir, to monitor the limit switches, and monitor the water levels.

If any changes are required due to conflict of design and or field conditions, the Engineer will make the final determination.

The Contractor and all subcontractors, under this Contract, are prohibited from performing any work, other than specified in the Contract and/or directed by the Engineer, within the limits of the project site, without prior written notification to the Engineer. This includes any work for private or commercial entities.

**Contract Duration Time: 365 days** 

Funding Source: GOB

Total Cost Estimate: \$737,428.00

# ATTACHMENT

# Task A

# **Control Panel Replacement**

<u>Remote Site Locations</u>

| Name                                      | Address                                               |  |  |  |
|-------------------------------------------|-------------------------------------------------------|--|--|--|
| NE 26 <sup>th</sup> AVE                   | NE 26 <sup>th</sup> AVE and NE 204 <sup>th</sup> TERR |  |  |  |
| Sunswept Isles Salinity Control Structure | 2445 NE 207 <sup>th</sup> ST                          |  |  |  |

# Task B

| Name                     | Address                                           |
|--------------------------|---------------------------------------------------|
| F.C.C. & SW 107 AVE      | SW 107 AVE & SW 344 ST<br>(Headwater & Tailwater) |
| SW 117 AVE & F.C.C.      | 1360FT West of SW 117 AVE & SW 344 ST             |
| NORTH CANAL & SW 117 AVE | SW 328 ST & SW 117 AVE (NE corner)                |

OLD CARD SOUND

# MISCELLANEOUS EQUIPMENT (Please note these items will be obtained by the contractor and deliver to DTPW personnel)

3 Emerson RTU's with radios (Control Wave or better)

3 Rain Gauges (ALLWEATHER, INC {Model 6011} or Approved Equal)

3 Ultra Sonic Transmitters (Hycontrol Limited {Microflex LR} or Approved Equal)

3 Submersible Level Transmitter (SOR Series 510 or Approved Equal)

3 Solar Panels and Assembly

3 Yagi Antennas

Cost Estimate 02/08/2017

#### Project Name: Capital Water Control Infrastructure Improvements Multiple Sites

Project #20160301

| ITEM #       | DESCRIPTION                                                                                                                                                                                       | UNIT     | UNIT PRICE   | Qty.  | <b>Total Price</b> |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|-------|--------------------|
| 102-2-1B     | HAULING OR TRANSPORTING Dredged sediments to an approved lined landfill<br>facility.                                                                                                              | Ton.     | \$80.00      | 10    | \$800.00           |
| 102-74-1     | BARRICADES - (Temporary - Types I, II, VP & Drum)                                                                                                                                                 | E.A./Day | \$0.60       | 1,200 | \$720.00           |
| 102-76A      | ADVANCE WARNING ARROW PANEL                                                                                                                                                                       | E.A./Day | \$15.00      | 360   | \$5,400.00         |
| 102-77       | HIGH INTENSITY FLASHING LIGHTS (TEMPORARY, TYPE "B")                                                                                                                                              | E.A./Day | \$1.00       | 360   | \$360.00           |
| 102-99       | VARIABLE MESSAGE SIGN (Temporary)                                                                                                                                                                 | E.A./Day | \$21.00      | 180   | \$3,780.00         |
| 104-10-3     | Sediment Barrier                                                                                                                                                                                  | L.F.     | \$5.00       | 400   | \$2,000.00         |
| 104-18       | Inlet Protection System                                                                                                                                                                           | E.A.     | \$73.00      | 5     | \$365.00           |
| 104-11A      | FLOATING TURBIDITY BARRIER                                                                                                                                                                        | L.F.     | \$16.00      | 75    | \$1,200.00         |
| 110-1-1B     | CLEARING AND GRUBBING                                                                                                                                                                             | L.S.     | \$13,000.00  | 1     | \$13,000.00        |
| 110-3D       | BUILDING DEMOLITION                                                                                                                                                                               | LS       | \$10,000.00  | 1     | \$10,000.00        |
| 120-1-2      | REGULAR EXCAVATION (This item is contingent upon the actual field conditions and may be increased or decreased as directed by the Engineer in suitable soil areas)                                | C.Y.     | \$15.00      | 100   | \$1,500.00         |
| 120-6-2      | EMBANKMENT- (Borrow material from contractor's own source, includes grading)                                                                                                                      | C.Y.     | \$55.00      | 275   | \$15,125.00        |
| 327-7-01     | MILLING, 1" AVERAGE DEPTH                                                                                                                                                                         | S.Y.     | \$5.20       | 928   | \$4,825.60         |
| 334-2-13-1   | Hot Mix Asphalt, Traffic C, SP-9.5                                                                                                                                                                | Ton.     | \$150.00     | 191   | \$28,650.00        |
| 400-1-15     | CLASS I CONCRETE [(Miscellaneous) (Collars, pipe plugs, structure plugs etc.) (This<br>item is contingent upon field conditions and may be increased decreased or eliminated<br>by the Engineer)] | C.Y.     | \$130.00     | 20    | \$2,600.00         |
| 400-4-22     | Endwalls                                                                                                                                                                                          | LS       | \$120,000.00 | 1     | \$120,000.0        |
| 430-175-284A | Elliptical Corlix Corrugated Aluminum Pipe 84", (10 Gauge)(Includes bands every 20 ft.)                                                                                                           | LF       | \$120.00     | 50    | \$6,000.00         |
| 145-1-2      | Stacked Canal Stabilization                                                                                                                                                                       | LS       | \$1,350.00   | 1     | \$1,350.00         |
| 460-6-1A     | Platform                                                                                                                                                                                          | LS       | \$11,600.00  | 1     | \$11,600.00        |
| 460-60       | 84" x 84" Slide Gate                                                                                                                                                                              | EA       | \$14,596.97  | 2     | \$29,193.94        |
| 460-5-5484   | MANATEE GATES - (Pipe diameters 54" to 84", or equivalent)                                                                                                                                        | EA       | \$6,000.00   | 2     | \$12,000.00        |
| 522-1(1)     | CONCRETE SIDEWALK [4" THICK, 3,000 P.S.I. CONCRETE AT 28 DAYS (Includes the cost of pedestrian ramps and sidewalk curbs)                                                                          | SY       | \$50.00      | 135   | \$6,750.00         |
| 527-2        | DETECTABLE WARNING ON WALKING SURFACE                                                                                                                                                             | SF       | \$40.00      | 25    | \$1,000.00         |
| 530-1        | RIP RAP (SAND CEMENT)                                                                                                                                                                             | CY       | \$380.00     | 22    | \$8,360.00         |
| 538-1        | REMOVE AND RESET EXIST. GUARDRAIL, (Complete including post and hardware as required)                                                                                                             | LF       | \$75.00      | 100   | \$7,500.00         |
| 575-2A       | SODDING-St Augustine, or match existing, includes watering and maintenance.<br>Contingent item based on field conditions, may be increased, or decreased by the<br>engineer.                      | S.Y.     | \$6.00       | 300   | \$1,800.00         |
| 639-1-021    | ELECTRICAL POWER SERVICE (FPL)                                                                                                                                                                    | LS       | \$61,738.00  | 1     | \$61,738.00        |
| 685-118B     | TELEMETRY SYSTEM                                                                                                                                                                                  | LS       | \$120,469.00 | 1     | \$120,469.0        |
|              | Control Panel, Remote Site Repair and Other Services                                                                                                                                              |          |              |       |                    |
| 448-73-3     | Control Panel Replacement                                                                                                                                                                         | LS       | \$30,000.00  | 1     | \$30,000.00        |
| 685-118-01   | Remote Site Repair and Other Services                                                                                                                                                             | LS       | \$57,026.40  | 1     | \$57,026.40        |
| 685-118-02   | Floodgate RTU Installation                                                                                                                                                                        | LS       | \$22,500.00  | 1     | \$22,500.00        |
| 685-118-03   | Miscellaneous Equipment                                                                                                                                                                           | LS       | \$48,682.50  | 1     | \$48,682.50        |
|              | PAVING MARKING                                                                                                                                                                                    |          |              |       |                    |
| 706-1-12     | REFLECTIVE PAVEMENT MARKERS (class B, mono or bi-directional, all colors)                                                                                                                         | EA       | \$5.50       | 100   | \$550.00           |
| 711-11-123   | THERMOPLASTIC (White) (Solid) (12")                                                                                                                                                               | LF       | \$2.70       | 100   | \$270.00           |
| 711-11-221   | THERMOPLASTIC (Yellow) (Solid) (6")                                                                                                                                                               | LF       | \$1.60       | 200   | \$320.00           |
|              |                                                                                                                                                                                                   |          |              |       | \$637,435.44       |
| 999          | CONTINGENCY ALLOWANCE (10% OF BASE ESTIMATE)                                                                                                                                                      | L.S.     | \$ 63,743.54 | 1     | \$63,743.54        |
| 101.1        | Mobilization                                                                                                                                                                                      | L.S.     | \$ 500.00    | 7     | \$3,500.00         |
| 102-1M       | MAINTENANCE OF TRAFFIC (Including traffic cones, temporary signs, flag men,<br>etc.) (Shall not exceed 2% of Contract Sub-total Amount)                                                           | L.S.     | \$ 12,748.71 | 1     | \$12,748.71        |
| 102-10A      | OFF-DUTY LAW ENFORCEMENT OFFICER (Engineer's Discretion)                                                                                                                                          | L.S.     | \$ 3,000.00  | _1    | \$3,000.00         |
| 102-104      |                                                                                                                                                                                                   |          |              |       |                    |