

PORT ST. LUCIE CITY COUNCIL
AGENDA ITEM REQUEST

COUNCIL ITEM 13G
DATE 9/10/12

Meeting Date: September 10, 2012.

Public Hearing Ordinance Resolution Motion

Item: #20120023, CO #1, Southport Water Mains (SP WM) Replacements, add North Area 6, and 90 days

Recommended Action:

- 1) Approve Change Order #1 to Contract #20120023 with Culpepper & Terpening Engineers, Inc. for \$139,290.00 for the Design Services for the project to replace the SP WM in North Area 6 and to add 90 calendar days.

Exhibits: Department memo attached - yes

Copies of the Change Order, and firm proposal

Summary Explanation/Background Information: The City has determined that it is necessary to replace the water transmission mains in targeted areas within the City. Culpepper & Terpening Engineers, Inc., is pre-qualified for this type of service under Master Contract #20100050 and was the design engineer for Phase I of the Southport Water Main Replacement project. Therefore, to ensure an expedited project staff recommends awarding the attached change order.

The need for the above is:

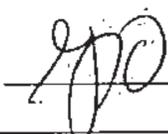
Purchase is a replacement

Purchase was not budgeted.

Estimated Testing Expense: \$139,290.00

Department requests expenditure from the following:

Fund	447	Pipe Replacement
Cost Center	3316	Utility-Improvements O/T Bldgs.
Object Code	563004	Improvements-Design
Project	Y1206	Water Main Replacement Project

Director of OMB concurs with award:  City Manager concurs with award: 

Department requests _____ minutes to make a presentation.

Submitted by: *Jesus Merejo*

Title: Director of Utilities

Date Submitted: **RECEIVED**

AUG 31 2012

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Cheryl Shanaberger, OMB Deputy Director
FROM: Jesus A. Merejo, Utility Director
SUBJECT: Southport Water Main Replacements, PSLUSD Project #25.0006
Culpepper & Terpening, Inc. Contract #20120023,
Change Order #1 – North Area 6
DATE: August 20, 2012

Project Description: This project is to perform additional design engineering to prepare construction plans for use by the City in the construction of water main replacements in the area referenced as North Area 6 as shown on the attached map. Also part of this proposal is the construction engineering services to assist the City staff during the actual construction of this portion of the project.

Background: The Southport area, which we are currently targeting to continue our program to replace the GDU-era potable water supply facilities, is essentially fully developed and thus presents multiple problems associated with retrofitting the old infrastructure. This project added or increased issues as compared to previous water and sewer expansion system projects such as increased areas of sidewalk and curbing, more trees in the roadway and in some areas, higher than normal water tables.

The design, field engineering and customer relations expertise gained by Culpepper & Terpening in past similar projects and so far on this project is invaluable and would be of great benefit to the City as we proceed to replace those old water mains in North Area 6 as shown on the map attached. Moreover, engaging experienced consultants to perform the project engineering, and assistance with construction oversight would allow the City to efficiently and expeditiously complete the work.

Therefore, it is recommended that the Council approve the attached change order documents with Culpepper & Terpening, Inc.

Recommendation: Please consider this memo as a request from the Utility Systems Department for the City Council to consider the approval of Change Order #1 for Culpepper & Terpening, Inc. in the amount of \$139,290.00 for an additional duration of 90 calendar days.

Justification: This firm has a good history of similar projects with the City and the work has been determined by City staff to require resources and time that the City does not currently have at our disposal.

Funding: Funds are available in 447-3316-563004-Y1206.

If there are any questions, please contact Laney Southerly at 873-6442.

c: Daniel Segui
Jeanette Thompson
Jeff Labigang
Attachments

CHANGE ORDER

No.: Change Order # 1

PROJECT: City of Port St. Lucie

DATE OF ISSUANCE: _____

OWNER: City of Port St. Lucie
121 SW Port St. Lucie Boulevard
Port St. Lucie, Florida 34984

OWNER's Project No.: 25.0006

CONTRACTOR: Culpepper & Terpening, Inc.

ENGINEER: City of Port St. Lucie

ENGINEER's Project #: 25.0006

CONTRACT FOR: Southport Water Main Replacements - Phase 2

You are directed to make the following changes in the Contract Documents.

Description: City of Port St. Lucie Contract No. 20120023

Purpose of Change Order:

1. Increase contract time and amount to allow for design, bidding and construction of the proposed additional work to be considered Phase 2 (Unit 5, Blossom Avenue, Mantua Street, and Village Green Drive)
2. All other contract provisions/addenda remain in full force & effect.

See Attached Memos & Price Proposals

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIME:
Original Contract Price \$ <u>610,200.00</u>	Original Contract Time Start <u>567</u> <u>December 11, 2011</u> days or date
Previous Change Orders \$ <u>-</u>	Net change from previous Change Orders <u>0</u> days
Contract Price prior to this Change Order \$ <u>610,200.00</u>	Contract Time prior to this Change Order End <u>June 30, 2013</u> days or date
Net Increase (Decrease) of this Change Order \$ <u>139,290.00</u>	Net Increase (Decrease) of this Change Order <u>90</u> days
Contract Price with all approved Change Orders \$ <u>749,490.00</u>	Contract Time with all approved Change Orders End <u>September 28, 2013</u> days or date

RECOMMENDED:

APPROVED:

By _____
Engineer

by _____
City

City Project Manager: Port St. Lucie Utility Systems Department (the "PSLUSD")
Mr. Laney Southerly, P.E.
City of Port St. Lucie
121 SW Port St. Lucie Blvd.
Port St. Lucie, Florida 34984
Telephone (772)873-6400, Fax: (772)871-7615
Email lsoutherly@cityofpsl.com

Scope of Work

The scope of work for this project includes Design, Permitting and Construction Administration for the construction of replacement water mains, varying in sizes from 6" up to 12" in diameter. The project will include transmission mains, lot services, fire hydrants, valves, fittings, miscellaneous appurtenances and abandonment of the existing water mains. The design and permitting shall include upgrading the existing facility to meet current fire protection codes, and shall include the associated hydraulic modeling.

The Engineer shall utilize the City's Basemap for preparation of the Construction Documents.

The Engineer shall coordinate with the public and/or private utilities to locate the proposed improvements. When applicable the Engineer shall assist the City in submitting permit applications for the proposed utility relocations with applicable regulatory agencies.

The Construction Contract will be negotiated and awarded using the City's Standard Procurement Process. Construction plans, Specifications and Documents shall be prepared and provided to the City for use in the bidding and award phase of the project.

The specific scope of services shall be as follows:

PHASE 1: PLANNING DESIGN SERVICES

Not In Contract

PHASE 2: PRELIMINARY DESIGN SERVICES

Task 2.1: Design Survey

The Engineer shall provide field surveying services to locate conflicts. Current conflict locates needed are estimated to be 50.

Task 2.2: Project Coordination

The Engineer shall assist the City with project coordination and project schedules.

The Engineer shall conduct weekly project design meetings to facilitate the management and coordination of the Project. The Engineer shall assist the City with preparation of meeting

agendas, publishing meeting minutes to keep the project stakeholders informed of the development of the project. Progress plans shall be updated and posted to a web based file management system (i.e. Basecamp) to allow real time access to the plan development.

Task 2.3: Preliminary Design Drawings

The Engineer shall update the City's hydraulic model of the area to insure that the water mains are sized to accommodate the required fire flow demands. Upsizing, if necessary of existing water mains shall be approved by the City.

The Plans shall be prepared on 24" x 36" plan sheets using a 50 scale. The plans shall be prepared in AutoCAD software compatible with the City's Specifications. The plan preparation shall comply with the City's Design Standards.

The Preliminary Design Plan submittal shall include the following components:

- Key Sheet (Preliminary)
- Sequence of Construction (Preliminary)
- Overall Utility Plan @ 200 scale (Preliminary)
- Plan Sheets @ 50 Scale (Preliminary)

The submittal documents shall also include the following:

- Engineer's Estimate of Probable Construction Cost
- Utility Verification Plan submittal to all affected utility providers

PHASE 3: FINAL DESIGN SERVICES

Task 3.1: Construction (100% Plan) Submittal

The Engineer shall provide the City with the Construction (100%) Plans.

The construction drawings shall be prepared using a 50 Scale on 24" x 36", plan sheets with conceptual details of crossing conflicts. Crossing conflicts will be shown as a "bubble" insert on the plan sheet. Profile views will only be provided for aerial and underground crossings of major canals or water bodies. The plans shall be prepared in AutoCAD software compatible with the City's requirements. The plan preparation shall comply with the City's Design Standards.

The Final Design Plan submittal shall include the following components:

- Key Sheet (Final)
- General Notes (Final)
- Overall Utility Plan @ 200 scale (Final)
- Sequence of Construction (Final)
- Plan Sheets @ 50 Scale (Final)
- Specific Crossing Detail Sheets (Final)

- Storm Water Pollution Prevention Plan (Final)
- Potable Water Details (Final) (Only if not in the existing City Utility Details)
- Update to the Engineer's Estimate of Probable Construction Cost commensurate with the development of the 100% plan information.
- City Review Response. Engineer shall prepare a written response to the City plan review of the Preliminary Plan submittal.

Task 3.2: Construction Documents

The Engineer shall prepare the standard technical specifications and special provisions required for inclusion in the City's Bid Documents. The technical specification and special provision shall be prepared in the standard City format of said Bid Documents and include the descriptions of each individual bid item.

Task 3.3: Project Permitting

The project shall be permitted through the PSLUSD. The facilities are to be owned, operated and maintained by the PSLUSD. Engineer shall provide the technical information required to allow the PSLUSD to self permit the instillation of the potable water replacement improvements. The permitting is anticipated to occur in 3 separate submittals, Unit 5, Blossom Avenue and Mantua Street, Village Green Drive, North of Walton Road. In addition the Engineer shall prepare and submit the technical information to FDOT for permitting along Port St. Lucie Boulevard for the potable water replacement improvements.

The following permits are specifically not included:

- South Florida Water Management District - Environmental Resource Permits:
- South Florida Water Management District - Dewatering Permits:
- US Army Corps of Engineer's - Wetland Permits:
- Gopher Tortoise or Endangered Species - Permits
- Proprietary Utility Right of Way or Use Agreements

Deliverables

The Engineer shall be prepare and submit the following:

- One (1) hard copy of Final Design Drawings
- One (1) PDF copy of Final Design Drawings
- One (1) AutoCAD copy of Final Drawings
- Six (6) sets of full sized (24 x 36") signed and sealed 100% "Approved for Construction" Drawings
- One (1) PDF copy of 100% "Approved for Construction" Drawings
- One (1) AutoCAD copy of 100% "Approved for Construction" Drawings

PHASE 4: CONSTRUCTION CONTRACT SERVICES

Task 4.1 Bidding and Negotiations

The Engineer shall assist the City in advertising for and obtaining bids or proposals for the Project.

PHASE 5: CONSTRUCTION SERVICES

Task 5.1: General Services during Construction

The Engineer will provide Construction Administration assistance to the City throughout the duration of the construction of the project. Resident Project Representation will be provided concentrating on the mainline crews. The City will be responsible for inspections other than the mainline crews. The services to be provided during construction are based upon twelve (12) weeks mainline construction duration.

The Engineer will assist the City in regularly scheduled construction progress meetings as a construction scheduling tool. Critical elements and dates will be monitored with the contractor as construction progresses, so that avoidable delays can be anticipated and adjustments made.

The Engineer shall provide a part time Senior Project Representative, a Resident Project Representative, Project Engineer and Clerical Support during the construction.

Task 5.2: Resident Project Representation

The Engineer shall provide daily Construction Observation Services during the construction of the improvements and shall assist with interpretations of, and report on issues related to the construction plans and contract documents. Engineering services shall be provided for contract management support during the procurement process, review of construction documents and plans, coordination and daily field observation and documentation of construction activities, schedule monitoring, pay item tracking and monthly progress payments, coordination of progress meetings and other project related meetings as necessary, and review of as-built drawings by others to facilitate construction final payment and close-out.

The Engineer shall assist the City with the following construction related services:

1. Review and become familiar with contract documents (construction plans, specifications, bid documents, permits, etc.)
2. Conduct the pre-construction meeting and prepare response to questions if necessary.
3. Assist the City with any public involvement efforts necessary for the project.
4. Review the following Contractor supplied documents for consistency with the bid documents, plans and specifications prior to site mobilization:
 - A) Construction Project Schedule
 - B) Shop Drawings

- C) Product Specifications
 - D) Dewatering Plan
 - E) NPDES Construction Notification
 - F) Utility Coordination Documentation
5. Coordination of daily site observation by Engineer's Resident Inspector, with the following tasks performed:
 - A) Review contractor's planned activities for the day
 - B) Coordinate testing of materials
 - C) Summarize personnel and equipment present
 - D) Observe construction materials staged onsite
 - E) Observe and monitor offsite property impacts
 - F) Observe and monitor erosion control measures
 - G) Observe and monitor maintenance of traffic
 - H) Perform periodic checks of contractor's compliance with contract specification requirements
 - I) Photo document site as needed
 - J) Document and summarize resolution of any problems, issues, contract interpretations, etc.
 - K) Complete Daily Work Reports
 - L) Document pay item quantities for constructed/installed materials
 - M) Coordinate with City inspectors as to the City's schedule.
 6. Review and coordinate response for any written Contractor Requests for Information (RFIs) provided to Engineer.
 7. Review and provide recommendations to the City on any change orders necessary to complete intent of project scope.
 8. Review and provide recommendations to the City on the Contractor's Monthly Pay Request.
 9. Conduct progress meetings with City and Contractor personnel to discuss construction progress and issues.
 10. Review and provide the City with recommendations and resolution on any claim issue provided to Engineer by the Contractor.
 11. Conduct initial walk-through inspection of project with pertinent stakeholders and provide City with punch list input for correction of any deficient items.
 12. Conduct final walk-through inspection of project with the City to ensure correction of any deficient items noted on punch list.

DELIVERABLES

The Engineer shall assist the City with the following:

1. A Construction Completion Package (1 hard copy) for the City's records. The package will include the following:
 2. Daily work reports.
 3. Documentation of progress meetings, and any other pertinent project meetings with dates and notes.
 4. Documentation of field decisions which caused any deviation from the plans and/or specifications.
 5. Documentation of testing results provided to Engineer by the City's testing firm.

6. Documentation of progress payments and final payment to the Contractor.
7. Copies of all RFIs and responses, and change order requests provided by the contractor.
Copies of all executed changes to the contract.
8. Copy of the initial inspection and punch list developed.
9. Copy of the final inspection along with the dates of resolution of the Punch list items.
10. Copy of all other permit satisfactions.
11. All other project records as developed.
12. Prepare CD/DVD containing electronic copy of deliverables in PDF format.

PHASE 6: POST CONSTRUCTION SERVICES

Not In Contract

**SECTION II
TIME OF PERFORMANCE**

Contract period shall commence July 30, 2013, and terminate November 30, 2013 encompassing 120 calendar days:

**SECTION III
COMPENSATION**

This is a Time and Expense Contract. The total amount to be paid by the City to the Engineer is based on actual time spent on this project with an estimated amount of \$139,290.00. All Estimated Fee Amounts are Not to Exceed amounts. The City will not pay for out-of-pocket expenses and any reimbursable expense.

The Engineering fees for the services outlined in Section I are as follows:

PHASE 1: PLANNING DESIGN SERVICES

No Fee

PHASE 2: PRELIMINARY DESIGN SERVICES

Task 2.1: Design Survey:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	2	\$	175.00	\$	350.00
Project Surveyor	4	\$	125.00	\$	500.00
Survey Field Crew	11	\$	125.00	\$	1,375.00
TOTAL				\$	<u>2,225.00</u>

Task 2.2: Project Coordination:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	47	\$	175.00	\$	8,225.00
Project Engineer	0	\$	125.00	\$	-
CADD Technician	0	\$	60.00	\$	-
Clerical	0	\$	40.00	\$	-
Principal Engineer	27	\$	195.00	\$	5,265.00
TOTAL				\$	13,490.00

Task 2.3: Preliminary Design Drawings:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	12	\$	175.00	\$	2,100.00
Project Engineer	30	\$	125.00	\$	3,750.00
CADD Technician	52	\$	60.00	\$	3,120.00
Principal Engineer	0	\$	195.00	\$	-
TOTAL				\$	8,970.00

PHASE 3: FINAL DESIGN SERVICES**Task 3.1: Construction (100% Plan) Submittal:**

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	12	\$	175.00	\$	2,100.00
Project Engineer	21	\$	125.00	\$	2,625.00
CADD Technician	56	\$	60.00	\$	3,360.00
Principal Engineer	0	\$	195.00	\$	-
TOTAL				\$	8,085.00

Task 3.2: Construction Documents:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	8	\$	175.00	\$	1,400.00
Project Engineer	12	\$	125.00	\$	1,500.00
Clerical	12	\$	40.00	\$	480.00
Principal Engineer	0	\$	195.00	\$	-
TOTAL				\$	3,380.00

Task 3.3: Project Permitting:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Project Manager	16	\$	175.00	\$	2,800.00
Project Engineer	14	\$	125.00	\$	1,750.00
CADD Technician	16	\$	60.00	\$	960.00
Clerical	0	\$	40.00	\$	-
Principal Engineer	0	\$	195.00	\$	-
TOTAL				\$	5,510.00

PHASE 4: CONSTRUCTION CONTRACT NEGOTIATIONS:

Task 4.1: General Services Construction:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Construction Manager	24	\$	175.00	\$	4,200.00
Project Engineer	0	\$	125.00	\$	-
Clerical	22	\$	40.00	\$	880.00
Principal Engineer	2	\$	195.00	\$	390.00
TOTAL					\$ 5,470.00

PHASE 5: SERVICES DURING CONSTRUCTION:

Task 5.1: General Services During Construction:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Construction Manager	158	\$	175.00	\$	27,650.00
Clerical	158	\$	40.00	\$	6,320.00
TOTAL					\$ 33,970.00

Task 5.2: Resident Project Representation:

	<u>Est. Hours</u>		<u>Rate</u>		<u>Est. Fee</u>
Senior Construction Inspector	16	\$	90.00	\$	1,440.00
Construction Inspector	542	\$	75.00	\$	40,650.00
TOTAL					\$ 42,090.00

PHASE 6: POST CONSTRUCTION SERVICES

Not In Contract

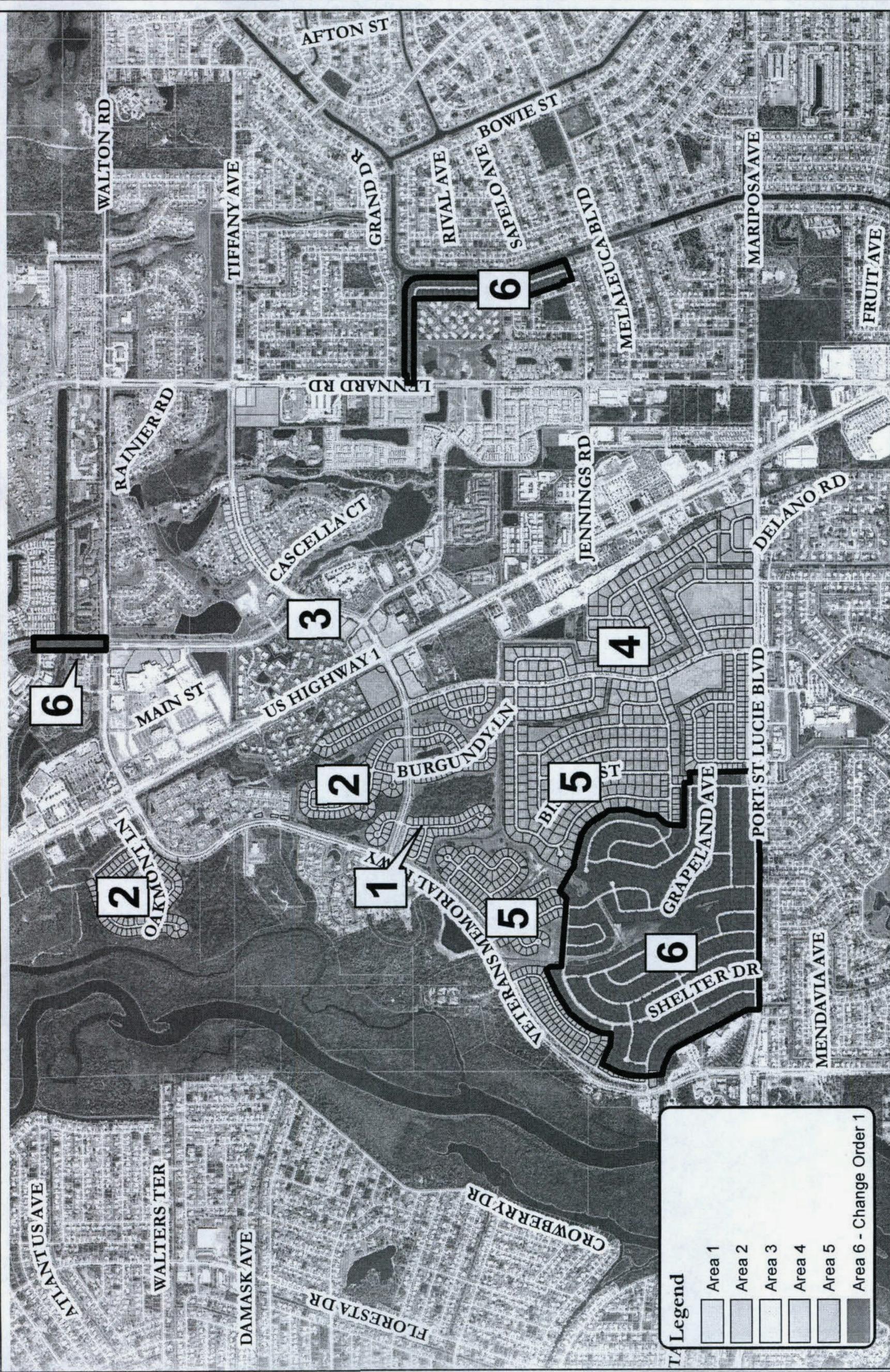
TASK 8: DIRECT EXPENSES

Task 8.1: Direct

Direct Expenses				\$	1,100.00
Self Diggs Testing				\$	15,000.00
TOTAL					\$ 16,100.00

TOTAL FEES \$139,290.00

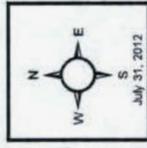
Total is a Not to Exceed amount that will be paid at actual time and expense



Legend

	Area 1
	Area 2
	Area 3
	Area 4
	Area 5
	Area 6 - Change Order 1

0 500 1,000 2,000 Feet 1 inch = 2,000 feet



PSLUSD WATER MAIN REPLACEMENT PROJECT
CHANGE ORDER NO. 1 - AREA MAP

C&T Job No: 11-308



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 CONSULTING ENGINEERS | LAND SURVEYORS
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