RESOLUTION NO. 16-112

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AWARDING THE BID OF SHORELINE FOUNDATION, INC. FOR REPAIRS AND IMPROVEMENTS AT ZERO DUVAL SEAWALL AND MALLORY SQUARE T-PIER, IN AN AMOUNT NOT TO EXCEED $1,418,469.00 IN ACCORDANCE WITH THE TERMS SPECIFIED IN ITB 002-16; AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT ON BEHALF OF THE CITY OF KEY WEST IN SUBSTANTIAL CONFORMANCE WITH DOCUMENTS CONTAINED IN THE BID PACKAGE, UPON ADVICE AND CONSENT OF THE CITY ATTORNEY; AUTHORIZING A WAIVER OF CODE OF ORDINANCES SECTION 2-845, TO AUTHORIZE THE CITY MANAGER TO ALLOCATE AN UNFORESEEN CONDITIONS ALLOWANCE AS NECESSARY; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City issued Invitation to Bid #002-16 for Repairs and Improvements at Zero Duval Seawall and Mallory Square T-Pier and five firms submitted responses on March 2, 2016; and

WHEREAS, city staff reviewed the responses, and CH2MHILL, the design and permitting engineer of record for the project, recommended award of the bid to the lowest responsive bidder, Shoreline Foundation, Inc.; and

WHEREAS, included in the contract award is an Unforeseen Condition Allowance in the amount of $125,000.00, and staff recommends the waiver of section 2-845 of the Code of Ordinances, to authorize the City Manager to allocate that Unforeseen Conditions Allowance as necessary.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the bid of Shoreline Foundation, Inc. for Repairs and Improvements at Zero Duval Seawall and the Mallory Square T-Pier, in an amount not to exceed $1,418,469.00, in accordance with ITB No.002-16, is hereby awarded.

Section 2: That the City Manager is authorized to execute a contract in substantial conformance with documents contained in the bid package on behalf of the City of Key West, upon advice and consent of the City Attorney.

Section 3: That section 2-845 of the Code of Ordinances is hereby waived, to allow the City Manager to allocate an Unforeseen Conditions Allowance of up to $125,000.00 as necessary.

Section 4: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the Presiding Officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 5th day of April, 2016.

Authenticated by the Presiding Officer and Clerk of the Commission on 6th day of April, 2016.

Filed with the Clerk on April 6, 2016.

Mayor Craig Cates	Yes
Commissioner Sam Kaufman	Yes
Commissioner Clayton Lopez	Yes
Commissioner Richard Payne	Yes
Commissioner Margaret Romero	Yes
Commissioner Billy Wardlow	Yes
Commissioner Jimmy Weekley	Yes

CRAIG CATES, MAYOR

ATTEST:

CHERYL SMITH, CITY CLERK

THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3700

MEMORANDUM

TO: Jim Scholl, City Manager

FROM: Jim Bouquet, P.E., Director of Engineering

CC: Greg Veliz, Assistant City Manager
Sarah Spurlock, Assistant City Manager

DATE: Revised March 28, 2016

SUBJECT: **Bid Award for Repairs and Improvements at Zero Duval and Mallory Square in the amount of $1,418,469.00 to Shoreline Foundation, Inc.**

ACTION STATEMENT:

Authorize the City Manager to execute a contract for construction of *Repairs and Improvements at Zero Duval Seawall and the Mallory Square T-Pier* in the amount of $1,418,469.00 to Shoreline Foundation, Inc. and provide for any necessary budget transfers/amendments. Waiving Key West Code Section 2-845 and authorize the City Manager to allocate the Unforeseen Conditions Allowance as necessary.

BACKGROUND:

CH2M Hill, under Resolution 12-168, substantially completed the design and permitting for the Repairs at Zero Duval and Mallory Square T-Pier. The projects were placed on hold while awaiting grant funding. Subsequently, the City Commission (Resolution 14-266) accepted $762,000 in Florida Department of Transportation (FDOT) Joint Participation Agreement grant funding for the Mallory Square portion of the project. With grant funding now available, CH2M Hill (under Resolution 15-138) updated/finalized a single set of bid documents (dated January 2016) encompassing both the Zero Duval Seawall and the Mallory Square T-Pier projects. The project was subsequently bid as Invitation to Bid (ITB) 002-16.

The following base bids for construction were received:

Shoreline Foundation, Inc.	$1,618,469.00
Orion Marine Construction, Inc.	$2,028,628.00
Douglas N. Higgins, Inc.	$2,121,400.00
American Bridge	$2,143,000.00
Inland Construction & Engineering, Inc.	$2,772,000.00

The formal bid tabulation dated March 2, 2016 is attached.

Bids received were reviewed by CH2M Hill (see attached recommendation letter dated March 9, 2016 and cost estimate dated March 10, 2016) and City staff. Based on this review, Shoreline Foundation, Inc. is recommended for contract award in the amount of:

Lump Sum Base Bid Zero Duval:	$815,694.00
Lump Sum Base Bid Mallory:	$562,775.00
Permit Allowance:	$ 40,000.00
Total Contract Award	**$1,418,469.00**

An Unforeseen Condition Allowance of $125,000.00 is recommended by CH2M Hill to address possible unforeseen conditions (e.g., unsuitable soils, buried structures, petroleum contamination, etc.) and conflicts (e.g., underground utilities) encountered during construction. City Manager execution of change orders necessary to allocate this allowance in accordance with the ITB requires waiving Key West Code Section 2-285. This code section limits the City Manager's authority to approve change orders to 5% of the contract price or $25,000.00, whichever is less. Allowing the City Manager to approve up to $125,000.00 will provide for timely processing of change requests for unforeseen conditions, minimizing project delays in this time critical project and mitigating contractor general conditions charges to the City.

Staff is not recommending inclusion of the Concrete and Utility Allowance ($75,000) due to budgetary constraints and that adequate project contingency should be available via the Unforeseen Conditions Allowance. Staff reserves the option to exercise Add Alternate No. 1 to replace timber piles at a later date following procurement of additional permits.

PURPOSE & JUSTIFICATION:

This project supports Goal #4 of the 2011 Key West Strategic Plan, specifically: *Long term sustainability of the City's hard assets*.

The seawall bulkhead and stormwater outfall pipe located at Zero Duval are in poor condition and undermining of the adjacent roadway is occurring. Under this project component, the bulkhead will be replaced, outfall repaired (including tide valve installation) and roadway stabilized.

The northern section of the T-Pier is cracked due to cruise ship movement while docked. This action is compromising the integrity of the entire pier. This project component will remove the damaged section of pier and construct a new section designed to withstand cruise ship action

Approval of this Task Order will facilitate construction to commence late April 2016 and conclude November 2016. Work has been coordinated with effected parties including Ports (cruise ship schedules), Fury Watersports (tenant at Zero Duval), Ocean Key and the Pier House.

FINANCIAL IMPACT:

This project will be funded as Project EN1002 Zero Duval Seawall Replacement/Mallory Pier Fender Rearrangement under account #101-1900-519-6300. The available funds of $1,745,873.00 include

the $762,000 FDOT grant. Additionally, $85,000.00 for repairs to the stormwater outfall will be funded from Project ST1301, Storm Flow Way Maintenance, under account #402-3802-538-6500.

RECOMMENDATION:

Staff recommends authorizing the City Manager to execute a contract for construction of *Repairs and Improvements at Zero Duval Seawall and the Mallory Square T-Pier* in the amount of $1,418,469.00 to Shoreline Foundation, Inc. and provide for any necessary budget transfers/amendments. Also, recommend waiving Key West Code Section 2-845 and authorize the City Manager to allocate the Unforeseen Conditions Allowance as necessary.

INTEROFFICE MEMORANDUM

To: L. Kreed Howell, Engineering Project Manager

CC: James Bouquet, Director of Engineering
Sue Snider, Purchasing

From: Cheri Smith, City Clerk Ag for CS.

Date: March 2, 2016

Subject: **REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE; BID 002-16**

The following bids were opened Wednesday, March 22, 2016 at 3:00 p.m. in response to the above referenced project.

1.	American Bridge 5411 West Tyson Avenue Tampa, FL 33611	Total: Alt. Bid:	$2,143,000.00 $2,700.00
2.	Douglas N. Higgins, Inc. 3390 Travis Pointe Road Suite A Ann Arbor, MI 48108	Total: Alt. Bid:	$2,121,400.00 $9,600.00
3.	Inland Construction & Engineerings, Inc. 309 East 11th Street Panama City, FL 32401	Total: Alt. Bid:	$2,772,000.00 $9500.00
4.	Orion Marine Construction, Inc. 5440 Tyson Avenue Tampa, FL 33611	Total: Alt. Bid:	$2,028,628.00 $5,568.00
5.	Shoreline Foundation, Inc. 2781 SW 56th Avenue Pembroke Park, FL 33023	Total: Alt. Bid:	$1,618,469.00 $3,971.00

CS/amb
Bid 002-16 Repairs & improvements at 0 duval and Mallory sq.

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www.ch2m.com

March 9, 2016

Mr. James Bouquet, P.E.
Engineering Director
City of Key West
3140 Flagler Avenue
Key West, FL 33040

Re: Contractor Recommendation of Award for
Repairs and Improvements at Zero Duval and Mallory Square

Dear Mr. Bouquet:

Five (5) bids were received for the subject contract on March 2, 2016 and are summarized in the attached Bid Results Summary Tables 1 and 2. All bids included a signed proposal and all required forms, as listed in the Bidder's Checklist, specification 00 44 00.

The apparent low bidder, Shoreline Foundation Inc. has identified recent construction experience working on similar projects in Florida as well as Texas and Pennsylvania. Select references provided as part of Shoreline's Bid were contacted by Casey Long, and a summary of the discussions are included as Attachment 1.

Based on Bid reviews, and conversations with references (attachment 1) we see no reason to preclude that the City award the *Repairs and Improvements at Zero Duval and Mallory Square* contract to **Shoreline Foundation Inc.**, in the amount of **$1,618,469.00.** Note that this total does not include the Additive Alternate/Timber Piles **$3,971** each. If the city chooses to move forward with all four (4) possible piles, the contract award amount presented to the City Commission for award would need to be **$1,634,353.00.**

Please call me if you have any questions or need additional information.

Sincerely,

CH2M HILL

Sean McCoy, P.E.

cc: File

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Table 1: Bid Results Summary

BIDDER	Total Lump Sum (A and B)	Unforeseen Conditions Allowance (C)	Permit Allowance (D)	Concrete & Utility Allowance (E)	TOTAL BASE BID (A-E)	Additive Alternate Bid (ea)	Total Base Bid w/ Add Alt
Douglas N. Higgins, Inc.	*$1,881,400.00*	*$125,000.00*	*$40,000.00*	*$75,000.00*	*$2,121,400.00*	*$9,600.00*	*$2,131,000.00*
American Bridge Company	*$1,903,000.00*	*$125,000.00*	*$40,000.00*	*$75,000.00*	*$2,143,000.00*	*$2,700.00*	*$2,145,700.00*
Shoreline Foundation INC.	*$1,378,469.00*	*$125,000.00*	*$40,000.00*	*$75,000.00*	*$1,618,469.00*	*$3,971.00*	*$1,622,440.00*
Inland Const & Eng INC.	*$2,532,000.00*	*$125,000.00*	*$40,000.00*	*$75,000.00*	*$2,772,000.00*	*$9,500.00*	*$2,781,500.00*
Orion Marine Construction INC	*$1,788,628.00*	*$125,000.00*	*$40,000.00*	*$75,000.00*	*$2,028,628.00*	*$5,568.00*	*$2,034,196.00*

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Table 2: Bid Form Comparison

	Item	D.N. Higgins	American Bridge Company	Shoreline Foundation	Inland Const & Engineering INC	Orion Marine Const INC
A.	Zero Duval					
1	Mobilization	$80,000.00	$125,000.00	$59,326.00	$135,000.00	$124,597.00
2	Demolition	$40,000.00	$10,000.00	$33,922.00	$40,000.00	$80,805.00
3	Wooden Deck Demo/Re	$35,000.00	$90,000.00	$59,314.00	$200,000.00	$142,441.00
4	Sheet Piles	$180,000.00	$150,000.00	$115,382.00	$350,000.00	$113,226.00
5	Tie Backs and Walers	$150,000.00	$135,000.00	$168,612.00	$187,000.00	$187,392.00
6	Concrete Cap	$74,000.00	$85,000.00	$93,503.00	$250,000.00	$80,952.00
7	Backfill/Flowable Fill	$52,000.00	$50,000.00	$56,803.00	$145,000.00	$103,555.00
8	Drainage Pipe Ext n Repair	$210,000.00	$100,000.00	$204,362.00	$180,000.00	$101,375.00
9	Misc General	$70,000.00	$30,000.00	$13,421.00	$50,000.00	$4,766.00
10	Proj Close / Demob	$15,000.00	$5,000.00	$11,049.00	$35,000.00	$12,471.00
	Subtotal "A"	**$906,000.00**	**$780,000.00**	**$815,694.00**	**$1,572,000.00**	**$951,580.00**
B.	Mallory					
1	Mobilization	$90,000.00	$250,000.00	$48,526.00	$120,000.00	$177,040.00
2	Demolition	$11,000.00	$75,000.00	$37,286.00	$50,000.00	$66,798.00
3	Piling	$583,900.00	$380,000.00	$208,306.00	$450,000.00	$307,320.00
4	Concrete	$187,000.00	$378,000.00	$227,701.00	$250,000.00	$246,423.00
5	Fenders	$3,500.00	$15,000.00	$16,859.00	$15,000.00	$8,832.00
6	Misc General	$50,000.00	$20,000.00	$13,048.00	$40,000.00	$3,113.00
7	Proj Close / Demob	$50,000.00	$5,000.00	$11,049.00	$35,000.00	$27,522.00
	Subtotal "B"	**$975,400.00**	**$1,123,000.00**	**$562,775.00**	**$960,000.00**	**$837,048.00**
C.	Unforeseen Conditions	$125,000.00	$125,000.00	$125,000.00	$125,000.00	$125,000.00
D.	Permit Allowance	$40,000.00	$40,000.00	$40,000.00	$40,000.00	$40,000.00
E.	Conc & Util. Allowance	$75,000.00	$75,000.00	$75,000.00	$75,000.00	$75,000.00
	Total Base Bid (A-E)	**$2,121,400.00**	**$2,143,000.00**	**$1,618,469.00**	**$2,772,000.00**	**$2,028,628.00**
	Add Alt New Timber Piles (EA)	$9,600.00	$2,700.00	$3,971.00	$9,500.00	$5,568.00
	Extended Total (A-E + Add Alt)	**$2,131,000**	**$2,145,700**	**$1,622,440**	**$2,781,500.00**	**$2,034,196.00**

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Attachment 1:

Reference Verification Summary

Pursuant to our discussion, I had a conversation with Gary Ledford in our Canaveral office regarding Shoreline Foundation and their work on the Cruise Terminal 10 project at Canaveral. Based upon my discussions with Gary, he indicated that the end product prepared by Shoreline was of reasonable quality and the contractor delivered the project per the plans and specifications. He indicated that the contractor required a little more supervision than normal to ensure that they were staying on schedule as well as thinking ahead on various pieces and parts of the work. There were a couple items that he indicated the contractor struggled with technically however, in the end they followed through and completed the work correctly.

I also had a conversation with Tom Lundeen, the Chief Engineer at the Port of Palm Beach, regarding the Slip No. 3 Project. He too indicated that the project was completed to reasonable quality, however also indicated that the project as a whole, required supervision to make sure that the project was staying on schedule. The administrative side was a little slow to keep up with the pace and he has yet to close out the project because of paperwork he still needs. He indicated that the contractor did good work, however did require supervision at various stages throughout the work more than other Marine contractors.

Based upon these recommendations and discussion with our Cost Estimator, I see no reason to preclude award to Shoreline Foundation; however recommend that the City be made aware that this Contractor may require additional hand-holding, possibly more than they may want to provide.

Sincerely,

Casey Long

Repairs and Improvements

At

Zero Duval and Mallory Square

City of Key West, FL

BASIS OF ESTIMATE

Estimate ID:	16-009
Project Name:	Repairs and improvements at Zero Duval and Mallory Sq.
Class Estimate:	Class 1 for a 100% Design Submittal
Requested By:	Casey Long/CH2M HILL/West Palm Beach
Estimated By:	Jorge Abisambra/CH2M HILL/TPA
Estimator Phone:	813-281-7922
Estimated QC By:	Casey Long/CH2M HILL/WPB
Estimate Date:	March 10th, 2016

Jorge Abisambra /TPA
Estimator

Purpose of Estimate

The purpose of this estimate is to provide the engineer's opinion on the probable cost for the City of Key West Repairs and Improvements to Zero Duval and Mallory Square, located in Key West, Florida.

General Project Description

Develop construction documents for competitive bidding of the proposed bulkhead repair and pile supported mooring dolphin and associated upland improvements. The improvements at Zero Duval include the partial demolition of the existing facilities in the area, the construction of a new steel sheet pile bulkhead, concrete cap, and soil anchors. Site restoration and restoration of the existing timber dock will also be required. The construction at Mallory Square involves the partial demolition of the T-Pier structure, installation of concrete drilled shafts, the construction of a new dolphin and structure, and re-installation of an existing fender.

Project Purpose and Need

This estimate is based on the new design by CH2MHILL offices in West Palm Beach and Jacksonville

Overall Costs

The following is a summary breakdown of the costs including contingency and escalation with an accuracy range per the AACE standard guidelines for a class 1 estimate. See Appendix "A" for cost estimate summary, Appendix "B" for bid item breakdown. At this level of 100% design a +10% and -5% accuracy contingency is recommended. The estimate range is as follows:

Low Range	Estimate Range	High Range
-5%	**Total:** $1,644,374.00	+10%
$1,562,155.00		$1,808,811.00

Project Schedule

The estimate is based on working 5 days a week, 10 hour day shifts (5-10's). The estimate also assumes that the work will be carried out in the second half of 2016. No detail P-6 schedule is provided.

Markups/Allowances

The following typical contractor and owner's markups where applied to the Cost Estimate:

Contractor Indirect Cost	12%
Profit Mark Up	18%
Subcontracts Mark Up	18%
Contractor's Contingency	3.0%
Project Construction Contingency	15%
Builder's Risk	0.75%
Payment and Performance Bond	12/1000

These markups and allowances represent the contractor's normal cost of doing business, the engineer's cost to provide oversight on behalf of the owner during the work, and an amount to cover the uncertainties for the work. Definitions for each category are provided below:

- **CONTRACTOR INDIRECT COST:** Indirect costs: are also known as fixed costs. These costs are not directly related to a particular function or product. Indirect costs include taxes, administration, and personnel. Indirect costs are frequently referred to as general overhead expenses (for example, rent and utilities) of running a business, and general and administrative expenses (for example, officers' salaries, accounting department costs and personnel department costs, maintenance of equipment, support from the home office).
- **PROFIT MARKUP:** This factor involves how much money the contractor wants to make. It is based on general market conditions, competition, risk involved, weather conditions, and logistic involved.
- **SUBCONTRACTS MARKUP**: This markup is applied by the prime contractor to subcontractors who will provide special support.
- **CONTRACTOR CONTINGENCY:** A contingency is applied to the overall project to account for uncertainties in completing the project. The percent uncertainty is defined in general accordance with ASTM E2516-11 *Cost Estimate Classification System* for a Class 1 estimate.
- **ENGINEERING DESIGN AND CONTRUCTION SUPPORT:** This fee covers engineering and construction above those cost covered by the Project Management Consultant (PMC). It covers cost to provide review of contractor submittals and provides oversight on behalf of the owner during setup and performance of the test pile program.

Escalation Rate

There is a 2 year escalation applied to this estimate on materials (1.5%/year); 1% on equipment and subcontracts (1.00%/year). Labor rates were manually changed to current labor rates applicable in Florida

Market Conditions

Costs are based on market conditions in the U.S. The current market conditions are drastically affecting the construction market. This is based upon recent bids in the U.S., and comparisons with Engineer's Estimates. Bids can be very erratic. Despite the estimator's best practices and adjustments, bids are being driven by current market conditions.

Estimate Classification

This cost estimate prepared is considered a Class 4 estimate, as defined by the American Association of Cost Engineering (AACE). It is considered accurate to -5% to +10%, based upon CH2M HILL engineering services.

The estimate is based on material, equipment, and labor pricing as of March 2016.

Estimate Methodology

This cost estimate is considered a **Cost-based estimate,** with portion of it being **a Historical bid-based estimate** based on an inspection condition report.

Historical bid-based methods are commonly used to develop Engineer's Estimates, and are appropriate when a design has advanced to the point where the quantification of units of work is possible. These methods apply historical unit costs to counts or measures of work items to determine a total cost for the item or project. Techniques such as historical bid pricing, historical percentage, and cost based estimating are also used to determine unit prices.

Cost-based estimate methods do not rely on historical bid data, but rather are based on determining, for an item or set of items, the contractor's cost for labor, equipment, materials and specialty subcontractor effort (if appropriate) needed to complete the work. A reasonable amount for contractor overhead and profit is then added. This method is preferable on unique projects or where geographical influences, market factors, and volatility of material prices can cause the use of historical bid-based methods to be unreliable. Also, since contractors generally utilize a cost-based estimating approach to prepare bids, this method can provide more accurate and defensible costs to support the decision for contract award/rejection and to support any future price negotiations with the contractor after contract award.

Quantity take offs and assumptions: A detailed takeoff was performed by CH2M HILL in April of 2015 from the supplied set of drawings in the reference document.

The crew productivity was assumed from typical experiences, and prices were quoted by specialty suppliers or taken from historical real projects recently executed in Florida.

Cost Resources

The following is a list of the various cost resources used in the development of the cost estimate.

- CH2M HILL historical data
- R.S. Means
- Estimator judgment
- Specialty vendors and suppliers

Labor Costs

Labor unit prices reflect a burdened rate, including workers compensation, FICA, unemployment taxes, Fringe Benefits, small tools & supplies, and travel allowance. Labor rates are based upon Florida and Texas Gulf Coast costs and per diem for specialty crafts when applicable.

Major Assumptions

The estimate is based on the assumption that the work will be done on a competitive bid basis, and the contractor will have a reasonable amount of time to complete the work by working five (5) days a week at 10 hours per day.

This estimate should be evaluated for market changes after 90 days of the issue date. It is assumed that most of the materials will be purchased and shipped locally. This estimate also assumes that all work will be executed by a local contractor under competitive bid conditions. Additional assumptions are as follows:

- Local sales taxes of 6.5% are applicable.
- Design and owner's risk of 15%
- Mobilization of a local contractor will from as far as Miami, including local contractors.
- The contractor shall accommodate emergency egress from the work area at all times. Contractor will have access and control of construction site during construction.
- Owner will coordinate with contractor and provide adequate notification when it is necessary to perform operations within the construction area.
- Contractor will accommodate owner access in the construction area in the event of an emergency.
- Specialty subcontractors will perform own relocation and improvements.
- Site access for the contractor and contractor staging areas are adequate for the contractor's needs.
- Estimate is based on bid-build delivery.

Excluded Costs

The cost estimate **excludes** the following costs:

- Soft costs for legal costs.
- Soft costs for design, construction management.
- No stand-by rate to cover the operational days was developed for the combination of crews on site if an unplanned standby happens.
- Material adjustment allowances above and beyond what is included at the time of the cost estimate.
- Builder's Risk premium.

Reference Documents

Reference documents prepared by CH2M HILL, dated 100% Submittal, June 4th, 2013.

Disclaimer

The opinions of cost (estimates) shown, and any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation and implementation from the information available at the time the opinion was prepared. The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. The recent increases or decreases in material pricing may have a significant impact which is not predictable and careful review or consideration must be used in evaluation of material prices. As a result, the final project costs will vary from the opinions of cost presented herein. Because of these factors, project feasibility, benefit/cost ratios, risks, and funding needs must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

APPENDIX A – Cost Estimate Summary

03/10/2016 14:44
16-113 Zero Duval & Mallory Square REV 2016
*** Jorge Abisambra

BID TOTALS

Biditem	Description	Quantity	Units	Unit Price	Bid Total
	ZERO DUVAL & MALLORY SQUARE REPAIRS IMPROVEMENTS				
2000100	Mobilization & Demobilization	1.000	LS	261,201.04	261,201.04
2000140	Environmental Protection & Turbidity Barrier	300.000	FT	79.08	23,724.00
	***Subtotal Mob & Demob & Turbidity Barrier				$284,925.04
	ZERO DUVAL REPAIRS AND IMPROVEMENTS				
2000150	Demolition and Removal at Zero Duval (DS-100)	1.000	LS	44,586.09	44,586.09
2000160	Wood Deck Demolition/Reconstruction	350.000	SF	365.66	127,981.00
2000166	Sheet Piling (AZ14-770)	48.000	LF	5,268.93	252,908.64
2000174	Bulkhead Concrete Cap	48.000	LF	1,620.52	77,784.96
2000176	Backfill/Flowable Fill	40.000	CY	776.14	31,045.60
2000178	Drainage Pipe Extension & Repair	1.000	EA	40,369.21	40,369.21
2000180	Outfall Valve	1.000	EA	8,199.62	8,199.62
2000182	Site Restoration & Misc. General	1.000	LS	17,331.76	17,331.76
	***Subtotal Zero Duval Repairs				$600,206.88
	MALLORY SQUARE REPAIRS AND IMPROVEMENTS				
2000190	Demolition and Removal of Work Area	1.000	LS	55,719.71	55,719.71
2000200	Piling 36" Diam Drilled Shaft	6.000	EA	58,933.71	353,602.26
2000210	Concrete Cap Mooring Dolphin	120.000	CY	2,276.49	273,178.80
2000220	Floating Fender: Remove, Store and Place Back	1.000	EA	15,930.38	15,930.38
	***Subtotal Mallory Square Repairs				$698,431.15
2000400	Project Close Out	1.000	LS	60,811.30	60,811.30
	***Subtotal All Construction				$1,644,374.37
	Bid Total ==========>				$1,644,374.37

**Notes:

APPENDIX B – Estimate Information Summary

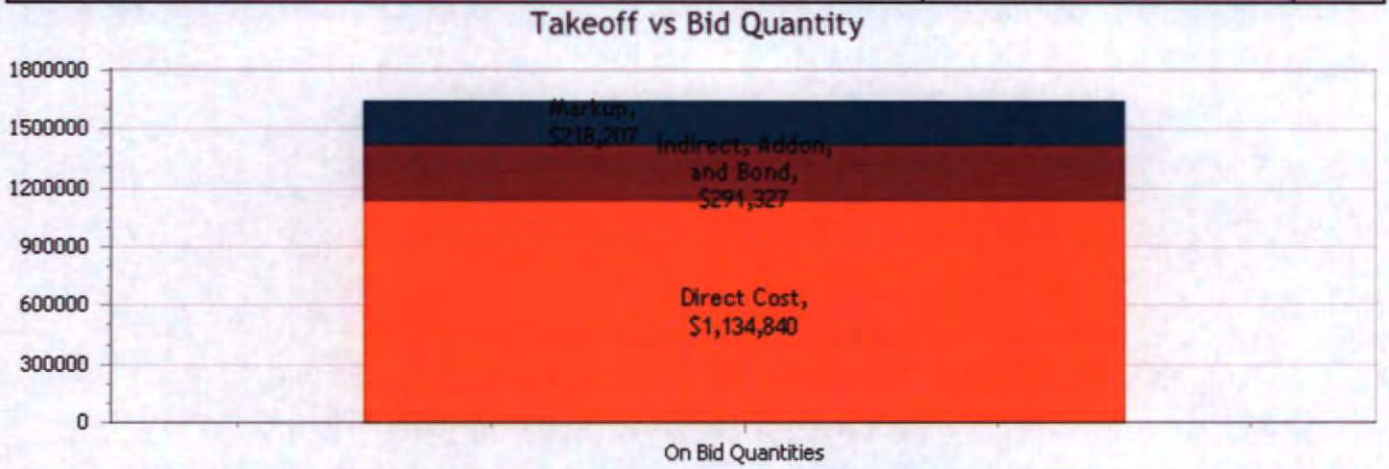
Estimate Recap Report

Project Information

Estimate:	16-113 - Zero Duval & Mallory Square REV 2016	**Bid Date:**	08/01/2014
Project:	439197	**Review Date:**	-
Estimator In Charge:	-	**Job Duration:**	4 months
Owner:	-	**State:**	FL
Engineer:	-	**Estimate Type:**	Estimate
Related Estimate:	-		

Estimate Summary

	On Bid Quantities	%
Direct Cost	1,134,840	69.01%
Indirect Cost	77,423	4.71%
Addons	194,172	11.81%
Bond	19,732	1.20%
Pass Through Cost	0	0.00%
Direct Markup	204,271	12.42%
Indirect Markup	13,936	0.85%
Markup Addons	0	0.00%
+ / - Adjustments	0	
Pass Through Adjustment	0	
Unbalancing Difference	0	0.00%
Rounding Difference	1	
Desired Bid	0.00	
Final Bid Total	1,644,374.37	100.00%
Final Markup (% Based on Cost)	218,207	15.30%



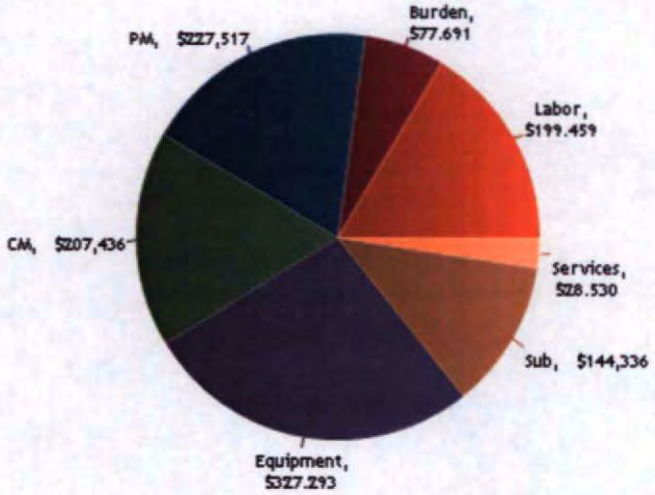
Other Totals

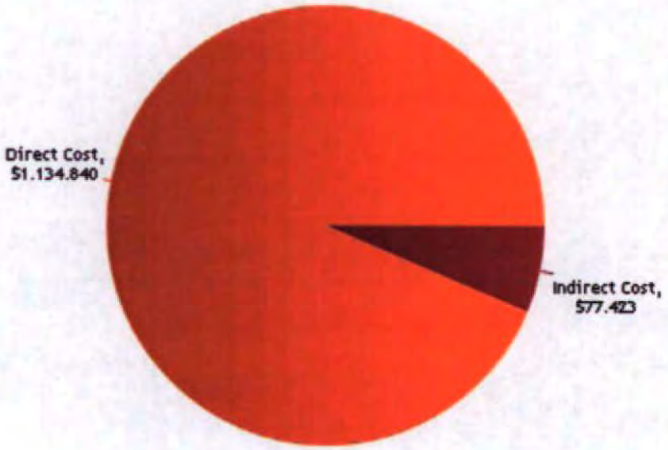
Total Sales Tax	$21,869
Total Escalation	$9,470
Labor % of Job Cost	19.43 %
Equipment % of Job Cost	22.95 %

Burden % of Direct Labor	27.92 %
Burden % of Indirect Labor	28.75 %
EOE % of Equipment	35.55 %
Current Minority %	0.00 %

Totals by Cost Type - Bid Quantities

	Direct	Indirect	Total	% of Total
Base Labor	172,055	27,405	199,459	16.45%
Burden	66,635	11,056	77,691	6.41%
Total Labor	238,690	38,461	277,151	22.86%
Inside Equipment	107,569	12,826	120,396	9.93%
Outside Equipment	80,342	10,208	90,550	7.47%
EOE	104,563	11,784	116,348	9.60%
Total Equipment	292,475	34,819	327,293	27.00%
Permanent Materials	227,517	0	227,517	18.77%
Construction Materials	203,293	4,143	207,436	17.11%
Subcontractors	144,336	0	144,336	11.91%
Services	28,530	0	28,530	2.35%
Design	0	0	0	0.00%
Quality	0	0	0	0.00%
Totals	1,134,840	77,423	1,212,262	100.00%





Sales Tax Summary

	Setup Tax %	Average Tax %	Total Taxes
Permanent Materials	6.50%	5.68%	12,051
Construction Materials	6.50%	2.10%	4,225
Inside Equipment	6.50%	0.00%	0
Outside Equipment	6.50%	6.50%	5,527
EOE	6.50%	0.01%	10
Subcontractors	0.00%	0.04%	56
Services	0.00%	0.00%	0
Design	0.00%	0.00%	0
Quality	0.00%	0.00%	0
Total Tax			21,869

Escalation Summary

	Average Escalation %	Total Escalation
Labor	0.00%	0
Inside Equipment	1.00%	1,192
Outside Equipment	0.00%	0
EOE	1.00%	1,150
Permanent Materials	1.50%	3,362
Construction Materials	1.00%	2,054
Subcontractors	1.20%	1,711
Services	0.00%	0
Design	0.00%	0
Quality	0.00%	0
Total Escalation		9,470

Labor Summary

	Direct	Indirect	Total
Hourly Labor (MH, MHS, MHR, MHRS)			
Manhours	4,463	750	5,213
Base Labor	156,413	24,914	181,327
Burden (Amount, % of Base Labor)	66,635	11,056	77,691
Premium	15,641	2,491	18,133
Total Labor	238,690	38,461	277,151
Daily Labor (DAY, DAYS, DY, DYS)			
None	0	0	0
Weekly Labor (WK, WKS, WEEK)			
None	0	0	0
Monthly Labor (MO, MON, MNTH, MMO, MMOS)			
None	0	0	0

Summary IS Current Last run 3/10/2016 2:43:00 PM

Balanced Markup Calculation

Spread IS Current Last run 3/10/2016 2:43:00 PM

	Cost	Markup %	Markup $
Labor	199,459	18.00%	35,903
Burden	77,691	18.00%	13,984
Permanent Materials	227,517	18.00%	40,953
Construction Materials	207,436	18.00%	37,338
Inside Equipment	120,396	18.00%	21,671
Outside Equipment	90,550	18.00%	16,299
EOE	116,348	18.00%	20,943
Subcontractors	144,336	18.00%	25,980
Services	28,530	18.00%	5,135
Design	0	18.00%	0
Quality	0	18.00%	0
Overrides	0	0.00%	0
Total	1,212,262	18.00%	218,207

Addons, Bond and Markup Summary Dependent on Bid Summary

	Total	%
Cost Addons		
Indirects	145,472	8.85 %
Builder's Risk	12,333	0.75 %
Conctractor Contigency	36,368	2.21 %
Bond		
Bond	19,732	1.20 %
Markup		
Resource Markup	218,207	13.27 %
Fee	0	0.00 %
Total Markup	218,207	13.27 %
Markup, Addons, and Bond Total	432,112	26.28 %

Key Indicators Dependent on Bid Summary

	Result	Formula
% Labor w.r.t. Total Cost	19.43%	Total Labor / Total Cost
% Markup on Labor	78.73%	Actual Markup By Bid Qty / Total Labor
% Markup on Lab && Eqp	36.10%	Actual Markup By Bid Qty / Total Labor + Equip $
% Direct / Indirect WrkHrs	595.00%	Direct Manhours / Indirect Manhours
Indirect Cost / Direct Cost	6.82%	Indirect Cost / Direct Cost
% Subs on Total Bid	8.78%	Total Subcontractors / Bid Total
% Sub on Total Cost	10.12%	Total Subcontractors / Total Cost
% Labor on Total Cost	0.19	Total Labor / Total Cost
% PM on Total Cost	0.16	Total Permanent Materials / Total Cost
% Equip on Total Cost	0.23	Total Equipment / Total Cost

Estimate Notes

```
************Estimate created on: 03/15/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12.zip (a backup) from 03/15/2012  10:42:38 AM

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************Estimate created on: 09/13/2012 by User#: 612 - John O'Reilly
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Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12HH.zip (a backup) from 09/13/2012  12:52:10 PM

************Estimate created on: 10/30/2012 by User#: 612 - John O'Reilly
Source estimate used: Y:\TBG-ENGI\EST\MASTER12PM

************Estimate created on: 10/31/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST BACKUPS\12-55A.zip (a backup) from 10/31/2012  1:01:03 PM

************Estimate created on: 01/08/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\12-060A

************Estimate created on: 07/03/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-002

************Estimate created on: 08/29/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-034

************Estimate created on: 03/10/2016 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-034A
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APPENDIX C – Cost and Price Summary

CH2MHILL
16-113
Jorge Abisambra

Zero Duval & Mallory Square REV 2016

ESTIMATE SUMMARY - COSTS & BID PRICES

Bid# / Client# / Bid Description	Quantity	Unit	Manhours	Direct Labor	Perm Matl	Constr Matl	Equip-Ment	Sub-Contr	Direct Total	Indirect Charge	Total Cost	Total Cost Unit Price	Markup	Balanced Bid Total	Balanced Bid Unit Price	Bid Price	Bid Total
ZERO DUVAL & MALLORY SQUARE REPAIRS IMPROVEMENTS																	
2000100 Mobilization & Demobilization	1.00	LS	300 / 300.00	16,188		38,796	22,057	103,224	180,264	46,276	226,540	226,540.42	34,661 / 15.3%	261,202	261,201.69	C 261,201.04	261,201.04
2000140 Environmental Protection & Turbidity Barr	300.00	FT	85 / 0.28	4,256		7,282	4,835		16,373	4,203	20,576	68.59	3,148 / 15.3%	23,725	79.08	79.08	23,724.00
ZERO DUVAL REPAIRS AND IMPROVEMENTS																	
2000150 Demolition and Removal at Zero Duval (DS-	1.00	LS	200 / 200.00	10,352	270	12,504	6,430	1,214	30,770	7,899	38,670	38,669.55	5,917 / 15.3%	44,586	44,586.09	44,586.09	44,586.09
2000160 Wood Deck Demolition/Reconstruction	350.00	SF	300 / 0.86	15,693		59,883	12,748		88,324	22,674	110,997	317.14	16,983 / 15.3%	127,980	365.66	365.66	127,981.00
2000166 Sheet Piling (AZ14-770)	48.00	LF	620 / 12.92	33,188	69,192	11,663	43,294	17,204	174,541	44,807	219,348	4,569.74	33,561 / 15.3%	252,909	5,268.93	5,268.93	252,908.64
2000174 Bulkhead Concrete Cap	48.00	LF	305 / 6.35	15,782	14,887	12,076	9,644	1,293	53,682	13,781	67,463	1,405.48	10,322 / 15.3%	77,785	1,620.52	1,620.52	77,784.96
2000176 Backfill/Flowable Fill	40.00	CY	75 / 1.88	3,882	8,345	6,787	2,411		21,426	5,500	26,926	673.14	4,120 / 15.3%	31,045	776.14	776.14	31,045.60
2000178 Drainage Pipe Extension & Repair	1.00	EA	153 / 152.50	7,891	7,816	1,752	4,822	5,579	27,860	7,152	35,012	35,012.25	5,357 / 15.3%	40,369	40,369.21	40,369.21	40,369.21
2000180 Outfall Valve	1.00	EA	25 / 25.00	1,294	3,243	318	804		5,659	1,453	7,112	7,111.54	1,088 / 15.3%	8,200	8,199.62	8,199.62	8,199.62
2000182 Site Restoration & Misc. General	1.00	LS	100 / 100.00	5,176		3,570	3,215		11,961	3,071	15,032	15,031.85	2,300 / 15.3%	17,332	17,331.76	17,331.76	17,331.76
MALLORY SQUARE REPAIRS AND IMPROVEMENTS																	
2000190 Demolition and Removal of Work Area	1.00	LS	200 / 200.00	11,012		8,600	18,842		38,454	9,872	48,326	48,325.75	7,394 / 15.3%	55,720	55,719.71	55,719.71	55,719.71
2000200 Piling 36" Diam Drilled Shaft	6.00	EA	1,000 / 166.67	55,058	71,036	22,807	94,211	921	244,033	62,646	306,680	51,113.25	46,923 / 15.3%	353,602	58,933.71	58,933.71	353,602.26
2000210 Concrete Cap Mooring Dolphin	120.00	CY	900 / 7.50	48,235	50,026	18,842	56,526	14,901	188,530	48,398	236,928	1,974.40	36,251 / 15.3%	273,179	2,276.49	2,276.49	273,178.80

ESTIMATE SUMMARY - COSTS & BID PRICES

Bid# / Client# / Bid Description	Quantity	Unit	Manhours	Direct Labor	Perm Matl	Constr Matl	Equip-Ment	Sub-Contr	Direct Total	Indirect Charge	Total Cost	Total Cost Unit Price	Markup	Balanced Bid Total	Balanced Bid Unit Price	Bid Price	Bid Total
2000220 Floating Fender: Remove, Store and Place	1.00	EA	50 50.00	2,753	2,702	828	4,711		10,994	2,822	13,816	13,816.43	2,114 15.3 %	15,930	15,930.38	15,930.38	15,930.38
2000400 Project Close Out	1.00	LS	150 150.00	7,929		26,114	7,925		41,968	10,774	52,742	52,741.69	8,070 15.3 %	60,811	60,811.30	60,811.30	60,811.30
Totals:			4,462	238,689	227,517	231,822	292,474	144,335	1,134,839	291,327	1,426,167 [1,426,168]		218,207	1,644,374			1,644,374.37 [15.3 %

Code between Balanced Bid & Bid Price: U=Unbalanced, F=Frozen, C=Closing Biditem (item to absorb unbalancing differences).
[bracketed numbers represent adjusted quantities]
** in front of the Biditem indicates a Non-Additive item

Markup % is shown as a percentage of cost

9000067	GENERAL EXPENSES		750	38,461		4,143	34,819		77,423						
9000125	Risk & Contingency		750	38,461		4,143	34,819		77,423						
Indirects		12.0000 % of TC								145,471					
Builder's Risk		0.7500 % of JB								12,332					
Contractor Contigency		3.0000 % of TC								36,367					
Bond from Summary Table										19,732					
INDIRECT TOTALS ==>			750	38,461		4,143	34,819		77,423	213,904				<= Subtotal	
Fee		% of TC													
Markup on Resource Costs													218,207		
MARKUP TOTALS ====>													218,207	<= Subtotal	
******** TOTAL	JOB =====>		5,212	277,150	227,517	235,965	327,293	144,335	1,212,262	213,904	1,426,167		218,207	1,644,374	1,644,374.37

Spread Indirects On TOTAL COST Spread Markups On TOTAL COST Spread Addons&Bonds On TOTAL COST

Bond Calculations
Selected Bond Table: A Description: Self-Perform

	Contract Amount	Rate per 1000	Bond Amount
First:	$ 10,000,000	12.00	$ 19,732.49

ESTIMATE SUMMARY - COSTS & BID PRICES

Bid#	Client# / Bid Description	Quantity	Unit	Manhours	Direct Labor	Perm Matl	Constr Matl	Equip-Ment	Sub-Contr	Direct Total	Indirect Charge	Total Cost	Total Cost Unit Price	Markup	------Balanced Bid------ Total	Unit Price	Bid Price	Bid Total
Next:	$	10,000.000		12.00	$ 0.00													
Next:	$	10,000.000		12.00	$ 0.00													
Next:	$	10,000.000		12.00	$ 0.00													
Next:	$	10,000.000		12.00	$ 0.00													
Remainder:				12.00	$ 0.00													
				Subtotal:	$ 19,732.49													
Time Threshold 1: 0		Extended Time Rate 1: 0.0000 %			$ 0.00													
Time Threshold 2: 0		Extended Time Rate 2: 0.0000 %			$ 0.00													
Length of Job: 4				Total Bond Amount:	$ 19,732.49													

-----Estimate Notes-----
Bid Date: 08/01/2014 Owner: Engineering Firm:
Estimator in Charge:

Desired Bid (if specified)= 0.00 Sort: Hold Acct: N Subitem: N NonAdd: N
Last Summary on 03/10/2016 at 2:43 PM.
Last Spread on 03/10/2016 at 2:43 PM.

APPENDIX D – Detail Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total

PARENT ITEM = 2000100
Description = Mobilization & Demobilization Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

```
Apdating valules from 2013 to 2016 in labor and materials.
labor use 3% ===>> F= P(1+3/100)^3= 1.0927 factor
```

Listing of Sub-Biditems of Parent Item 2000100:

BID ITEM = 2000110 Land Item SCHEDULE: 1 100
Description = Mobilization Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

219000 Misc Hauling/Trucking Quan: 1.00 LS Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
20 loads x 1 = 20 hours
```

5TRKFB	Trucking - Flat Bed		20.00 HR	125.000			2,500		2,500

516005 Barrier Quan: 160.00 FT Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
if barricades are 20 ft long then:
street: 96 ft + 32+ 24= 152 ft ===> say 160ft
$35.00/ft ===>> 160*35= $5,600.00

8 pieces
```

31TCPCBAR	Temp Precast Ba@106.5%		160.00 LF	35.000			6,024		6,024

540000 Temporary Construction Fence Quan: 160.00 LF Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
a 6 feet link fence will cost $9.00/ ft. then can be sold installed at $15/ft

if barricades are 20 ft long then:
street: 96 ft + 32+ 24= 152===> say 160 ft
```

31CHAINFENCE	Temporary Chain@106.5%		160.00 LF	15.000			2,582		2,582

890005 Pile Crew Mobilization Quan: 1.00 LS Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
mob crew from Tampa Bay area, assume 2 shifts.
```

MARPIL	Marine Piling & Demo Crew		20.00 CH	Prod:	2.0000 S		Lab Pcs:	5.00	Eqp Pcs: 18.00
3WELD	Weld Supplies (1 man-Stick		2.00 DA	70.000			141		141
8211050	Fuel, Oil, Grease 50g/d		2.00 DA	200.000				404	404
8CRANEC200	Crane Manitowoc 777 20	1.00	20.00 HR	200.743				4,055	4,055
8DRILLR	***DRILLS - ROCK***	1.00	20.00 HR	17.500				354	354
8MAC-A-10	Compressor 185 CFM	1.00	20.00 HR	3.000				64	64
8MBC-Z-1	Barge Carpenter 12'X40	2.00	40.00 HR	6.500				277	277
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	20.00 HR	55.000				1,172	1,172
8MBT-Z-12	Tug Push Boat 200 HP	1.00	20.00 HR	20.000				426	426
8MBW-Z-2	18' Aluminum Boat & O/	1.00	20.00 HR	3.000				64	64
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	20.00 HR	5.000				107	107
8MDH-A-7	DELMAG D19 HAMMER	1.00	20.00 HR	10.000				213	213
8MFD-A-1	FAIRLEADS	1.00	20.00 HR	0.100				2	2
8MGN-Z-11	Generator 10 KW	1.00	20.00 HR	3.000				64	64
8MLT-A-1	Light Tower, Genie	1.00	20.00 HR	3.500				75	75
8MPE-A-11	Extractor Pile	1.00	20.00 HR	5.000				107	107
8MVP-A-11	FORD F150 SUPERC 10	1.00	20.00 HR	6.500				138	138
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	20.00 HR	10.000				213	213
8MWM-C-1	Welder Diesel 400 AMP	1.00	20.00 HR	2.500				53	53
8PILE26	Vibro Hammer 150 TN	1.00	20.00 HR	80.944				1,635	1,635
9ADMS11	Subsistance Crew 5		2.00 DA	750.000			1,515		1,515

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000110				Land Item	SCHEDULE: 1	100					
Description =	Mobilization				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M165	M-Piledriver	1.00	20.00	MH	38.200	1,167					1,167
M170	M-Welder	1.00	20.00	MH	34.960	1,088					1,088
M190	M-Skilled Laborer	1.00	20.00	MH	31.960	947					947
OPCR100	Op Eng 1A- Crane 100-200	1.00	20.00	MH	36.580	1,128					1,128
$16,583.26	100.0000 MH/LS		100.00	MH	[3976.06]	5,506		1,656	9,421		16,583
890006	Upland Crew Mob				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			
this is a support crew upland											
MARLAN	Up Land Support Crew		10.00	CH	Prod: 1.0000 S		Lab Pcs:	5.00	Eqp Pcs:		4.00
8211050	Fuel, Oil, Grease 50g/d		1.00	DA	200.000			202			202
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00	HR	56.724			573			573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00	HR	64.705			654			654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00	HR	6.500			69			69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00	HR	10.867			110			110
9ADMS11	Subsistance Crew 5		0.10	DA	750.000		76				76
9ADMT08	Craft Subsistence ($120/D/		1.00	DA	480.000		485				485
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M195	M-Laborer	2.00	20.00	MH	30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00	MH	35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00	MH	35.390	549					549
$4,755.94	50.0000 MH/LS		50.00	MH	[1870.22]	2,588		561	1,607		4,756
960015	Rigging Supplies				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			
a Lump sum amount to renew rigging artifacts for the equipment											
31RIGGING	Rigging Supplie@106.5%		1.00	LS	10,000.000			10,757			10,757
=====> Item Totals:	2000110 - Mobilization										
$43,200.90	150.0000 MH/LS		150.00	MH	[5846.28]	8,094		24,079	11,028		43,201
43,200.900	1 LS					8,093.89		24,078.65	11,028.36		43,200.90
BID ITEM = 2000115				Land Item	SCHEDULE: 1	100					
Description =	Demobilization				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
219000	Misc Hauling/Trucking				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			
20 loads x 1 = 20 hours											
5TRKFB	Trucking - Flat Bed		20.00	HR	125.000			2,500			2,500
890005	Pile Crew Demoobilization				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			
mob crew from Tampa Bay area, assume 2 shifts.											
MARPIL	Marine Piling & Demo Crew		20.00	CH	Prod: 2.0000 S		Lab Pcs:	5.00	Eqp Pcs:		18.00
3WELD	Weld Supplies (1 man-Stick		2.00	DA	70.000		141				141
8211050	Fuel, Oil, Grease 50g/d		2.00	DA	200.000			404			404
8CRANEC200	Crane Manitowoc 777 20	1.00	20.00	HR	200.743			4,055			4,055
8DRILLR	***DRILLS - ROCK***	1.00	20.00	HR	17.500			354			354
8MAC-A-10	Compressor 185 CFM	1.00	20.00	HR	3.000			64			64
8MBC-Z-1	Barge Carpenter 12'X40	2.00	40.00	HR	6.500			277			277
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	20.00	HR	55.000			1,172			1,172
8MBT-Z-12	Tug Push Boat 200 HP	1.00	20.00	HR	20.000			426			426
8MBW-Z-2	18' Aluminum Boat & O/	1.00	20.00	HR	3.000			64			64

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000115				Land Item	SCHEDULE: 1		100				
Description =	Demobilization				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	20.00	HR	5.000				107		107
8MDH-A-7	DELMAG D19 HAMMER	1.00	20.00	HR	10.000				213		213
8MFD-A-1	FAIRLEADS	1.00	20.00	HR	0.100				2		2
8MGN-Z-11	Generator 10 KW	1.00	20.00	HR	3.000				64		64
8MLT-A-1	Light Tower, Genie	1.00	20.00	HR	3.500				75		75
8MPE-A-11	Extractor Pile	1.00	20.00	HR	5.000				107		107
8MVP-A-11	FORD F150 SUPERC 10	1.00	20.00	HR	6.500				138		138
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	20.00	HR	10.000				213		213
8MWM-C-1	Welder Diesel 400 AMP	1.00	20.00	HR	2.500				53		53
8PILE26	Vibro Hammer 150 TN	1.00	20.00	HR	80.944				1,635		1,635
9ADMS11	Subsistance Crew 5		2.00	DA	750.000			1,515			1,515
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M165	M-Piledriver	1.00	20.00	MH	38.200	1,167					1,167
M170	M-Welder	1.00	20.00	MH	34.960	1,088					1,088
M190	M-Skilled Laborer	1.00	20.00	MH	31.960	947					947
OPCR100	Op Eng 1A- Crane 100-200	1.00	20.00	MH	36.580	1,128					1,128
$16,583.26	100.0000 MH/LS		100.00	MH	[3976.06]	5,506		1,656	9,421		16,583
890006	Upland Crew Demob				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

this is a support crew upland

MARLAN	Up Land Support Crew		10.00	CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		1.00	DA	200.000				202		202
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00	HR	56.724				573		573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00	HR	64.705				654		654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00	HR	6.500				69		69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00	HR	10.867				110		110
9ADMS11	Subsistance Crew 5		0.10	DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		1.00	DA	480.000			485			485
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M195	M-Laborer	2.00	20.00	MH	30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00	MH	35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00	MH	35.390	549					549
$4,755.94	50.0000 MH/LS		50.00	MH	[1870.22]	2,588		561	1,607		4,756
=====> Item Totals:	2000115	- Demobilization									
$23,839.20	150.0000 MH/LS		150.00	MH	[5846.28]	8,094		4,717	11,028		23,839
23,839.200	1 LS					8,093.89		4,716.95	11,028.36		23,839.20

BID ITEM = 2000120				Land Item	SCHEDULE: 1		100				
Description =	Transportation				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
219000	Misc Hauling/Trucking				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

Miscelaneous trucking to mobilize equipment to the site and demob. smal cranes and loaders, traileres and containers.

20 loads x 4 hours = 80 hours

5TRKFB	Trucking - Flat Bed		80.00	HR	125.000			10,000			10,000
890007	Marine Tugs				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

rental tugging services to and from the site anywhere in Florida.

from google earth and assuming there are 238 nautical miles from Tampa to Key West.

Activity Resource	Desc	Quantity Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total

BID ITEM = 2000120 Land Item SCHEDULE: 1 100
Description = Transportation Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

```
at 4.5 knots then: 238 NM/4.5 NM/Hr= 53 hours one way.

Round trip: 53*2= 106 hours ===>> 106/24= 4.41 days say 5 days plus 1 day wait = 6 days mob and 6 days
demob for a total 12 days.
==========================================================================================
rental tug can be as low as $4,500/day without fuel, plus 1,000 gal/day= $4,000.00/day
total cost: $8,500.00/day
```

4TUGSERVICE	Tug Service		12.00 DAY	8,500.000				103,224	103,224
=====> Item Totals:	2000120	- Transportation							
$113,224.00				[ ]			10,000	103,224	113,224
113,224.000		1 LS					10,000.00	103,224.00	113,224.00

Total of Above Sub-Biditems

=====> Item Totals:	2000100	- Mobilization & Demobilization							
$180,264.10	300.0000 MH/LS		300.00 MH	[11692.56]	16,188	38,796	22,057	103,224	180,264
180,264.100		1 LS			16,187.78	38,795.60	22,056.72	103,224.00	180,264.10

BID ITEM = 2000140 Land Item SCHEDULE: 1 100
Description = Environmental Protection & Turbidity Bar Unit = FT Takeoff Quan: 300.000 Engr Quan: 300.000

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call on the plans D-101
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430000 Silt Fence - Install Quan: 1,000.00 LF Hrs/Shft: 10.00 Cal: 510 WC: CCISP

LAB3	Foreman + 2 Laborers		5.00 CH	Prod:	0.5000 S	Lab Pcs:	3.00	Eqp Pcs:	1.00
31ECSF	Silt Fence@106.5%		1,000.00 LF	1.000		1,076			1,076
8TRKPU70	Leased 4x2, 3/4 Ton Ga	1.00	5.00 HR	12.299			62		62
LFORMN	Laborer-Foreman	1.00	5.00 MH	29.250	220				220
LPWR	Laborer-Power Tools	2.00	10.00 MH	28.020	425				425
$1,783.14	0.0150 MH/LF		15.00 MH	[0.469]	645	1,076	62		1,783

432000 Turbidity Barrier Quan: 300.00 LF Hrs/Shft: 10.00 Cal: 510 WC: CCISP

MARPIL	Marine Piling & Demo Crew		10.00 CH	Prod:	1.0000 S	Lab Pcs:	5.00	Eqp Pcs:	18.00
3TRUBIDITYBA	Turbidity Barri@106.5%		300.00 LF	10.000		3,227			3,227
3WELD	Weld Supplies (1 man-Stick		1.00 DA	70.000		71			71
8211050	Fuel, Oil, Grease 50g/d		1.00 DA	200.000			202		202
8CRANEC200	Crane Manitowoc 777 20	1.00	10.00 HR	200.743			2,027		2,027
8DRILLR	***DRILLS - ROCK***	1.00	10.00 HR	17.500			177		177
8MAC-A-10	Compressor 185 CFM	1.00	10.00 HR	3.000			32		32
8MBC-Z-1	Barge Carpenter 12'X40	2.00	20.00 HR	6.500			138		138
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	10.00 HR	55.000			586		586
8MBT-Z-12	Tug Push Boat 200 HP	1.00	10.00 HR	20.000			213		213
8MBW-Z-2	18' Aluminum Boat & O/	1.00	10.00 HR	3.000			32		32
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	10.00 HR	5.000			53		53
8MDH-A-7	DELMAG D19 HAMMER	1.00	10.00 HR	10.000			107		107
8MFD-A-1	FAIRLEADS	1.00	10.00 HR	0.100			1		1
8MGN-Z-11	Generator 10 KW	1.00	10.00 HR	3.000			32		32
8MLT-A-1	Light Tower, Genie	1.00	10.00 HR	3.500			37		37
8MPE-A-11	Extractor Pile	1.00	10.00 HR	5.000			53		53
8MVP-A-11	FORD F150 SUPERC 10	1.00	10.00 HR	6.500			69		69

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000140				Land Item	SCHEDULE: 1		100				
Description =	Environmental Protection & Turbidity Bar				Unit = FT	Takeoff Quan:		300.000	Engr Quan:		300.000
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	10.00	HR	10.000				107		107
8MWM-C-1	Welder Diesel 400 AMP	1.00	10.00	HR	2.500				27		27
8PILE26	Vibro Hammer 150 TN	1.00	10.00	HR	80.944				818		818
9ADMS11	Subsistance Crew 5		1.00	DA	750.000			758			758
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M165	M-Piledriver	1.00	10.00	MH	38.200	584					584
M170	M-Welder	1.00	10.00	MH	34.960	544					544
M190	M-Skilled Laborer	1.00	10.00	MH	31.960	474					474
OPCR100	Op Eng 1A- Crane 100-200	1.00	10.00	MH	36.580	564					564
$11,518.54	0.1666 MH/LF		50.00	MH	[6.627]	2,753		4,055	4,710		11,519
432005	Erosion Control - Hay Bales				Quan: 400.00 EA	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

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A bale size of 14"x18"x22" will weigh about 37 to 43 lbs. This is a safer bale weight for many people to
handle
it means the length is 22"/12= 1.83 ft
if there are 600 ft =====> qty of bales are: 600/1.83=327 say 400 bales
```

LAB4	Foreman + 3 Laborers		5.00	CH	Prod:	0.5000 S		Lab Pcs:	4.00	Eqp Pcs:	1.00
31ECHB	Hay Bales@106.5%		400.00	EA	5.000			2,151			2,151
8TRKPU70	Leased 4x2, 3/4 Ton Ga	1.00	5.00	HR	12.299				62		62
LFORMN	Laborer-Foreman	1.00	5.00	MH	29.250	220					220
LPWR	Laborer-Power Tools	3.00	15.00	MH	28.020	638					638
$3,071.41	0.0500 MH/EA		20.00	MH	[1.558]	858		2,151	62		3,071
=====> Item Totals:	2000140	- Environmental Protection & Turbidity Bar									
$16,373.09	0.2833 MH/FT		85.00	MH	[10.268]	4,256		7,282	4,835		16,373
54.577	300 FT					14.19		24.27	16.12		54.58

BID ITEM = 2000150				Land Item	SCHEDULE: 1		100				
Description =	Demolition and Removal at Zero Duval (DS				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
1100	Remove Existing ticket building				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

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SEe Picture 1 and 3 in drawings:
this is complicated task. assume 2 days
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MARLAN	Up Land Support Crew		20.00	CH	Prod:	2.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		2.00	DA	200.000				404		404
8BHLD480	BHL Cat 450E 1.75CY	1.00	20.00	HR	56.724				1,146		1,146
8CRANERT530	Crane Grove RT530E 30	1.00	20.00	HR	64.705				1,307		1,307
8MBC-Z-1	Barge Carpenter 12'X40	1.00	20.00	HR	6.500				138		138
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	20.00	HR	10.867				219		219
9ADMS11	Subsistance Crew 5		0.10	DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		2.00	DA	480.000			970			970
9RCRISK	Risk		1.00	LS	5,000.000			5,050			5,050
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M195	M-Laborer	2.00	40.00	MH	30.100	1,803					1,803
OPCR24	Op Eng 2- Crane 20-44T	1.00	20.00	MH	35.400	1,099					1,099
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	20.00	MH	35.390	1,098					1,098
$14,486.19	100.0000 MH/LS		100.00	MH	[3740.44]	5,176		6,095	3,215		14,486
1120	Removal storage box, locker,				Quan: 1.00 LS	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

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refrigerator
storage box locker
related Item 9 and 10
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MARLAN	Up Land Support Crew		10.00	CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		1.00	DA	200.000				202		202

Activity Resource	Desc	Quantity Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000150				Land Item SCHEDULE: 1		100				
Description =	Demolition and Removal at Zero Duval (DS			Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00 HR	56.724				573		573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00 HR	64.705				654		654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00 HR	6.500				69		69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00 HR	10.867				110		110
9ADMS11	Subsistance Crew 5		0.10 DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		1.00 DA	480.000			485			485
M105	Foreman - General Marine	1.00	10.00 MH	39.030	588					588
M195	M-Laborer	2.00	20.00 MH	30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00 MH	35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00 MH	35.390	549					549
$4,755.94	50.0000 MH/LS		50.00 MH	[1870.22]	2,588		561	1,607		4,756
1150	Water Main Removal and plug			Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
2UWC06	6" Water Gate V@106.5%		1.00 EA	250.000		270				270
42UTILITY	Utility Subcontractor		1.00 DA	1,200.000					1,214	1,214
$1,484.64				[ ]		270			1,214	1,485
1200	Remove Subaqueous debri			Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
removal per plan DS-100										
Item 12 and 13 cut exposed rebar										
MARLAN	Up Land Support Crew		10.00 CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		1.00 DA	200.000				202		202
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00 HR	56.724				573		573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00 HR	64.705				654		654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00 HR	6.500				69		69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00 HR	10.867				110		110
9ADMS11	Subsistance Crew 5		0.10 DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		1.00 DA	480.000			485			485
M105	Foreman - General Marine	1.00	10.00 MH	39.030	588					588
M195	M-Laborer	2.00	20.00 MH	30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00 MH	35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00 MH	35.390	549					549
$4,755.94	50.0000 MH/LS		50.00 MH	[1870.22]	2,588		561	1,607		4,756
202031	Debri Disposal			Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
trucking in key west: $50.00/cy										
land fill fee: $125/cy										
31DFBLDCY	Bldg Debris Dump Fee-cy		30.00 CY	125.000			3,788			3,788
5TRKCY	Trucking - CY		30.00 CY	50.000			1,500			1,500
$5,287.50				[ ]			5,288			5,288
=====> Item Totals:	2000150	- Demolition and Removal at Zero Duval (DS								
$30,770.21	200.0000 MH/LS		200.00 MH	[7480.88]	10,352	270	12,504	6,429	1,214	30,770
30,770.210	1 LS				10,352.16	270.24	12,503.95	6,429.46	1,214.40	30,770.21
BID ITEM = 2000160				Land Item SCHEDULE: 1		100				
Description =	Wood Deck Demolition/Reconstruction			Unit = SF	Takeoff Quan:		350.000	Engr Quan:		350.000
1160	Removal Wood Decking			Quan: 1.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARPIL	Marine Piling & Demo Crew		10.00 CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		1.00 DA	70.000			71			71
8211050	Fuel, Oil, Grease 50g/d		1.00 DA	200.000				202		202

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000160				Land Item	SCHEDULE: 1		100				
Description =	Wood Deck Demolition/Reconstruction				Unit = SF	Takeoff Quan:		350.000	Engr Quan:		350.000
8CRANEC200	Crane Manitowoc 777 20	1.00	10.00	HR	200.743				2,027		2,027
8DRILLR	***DRILLS - ROCK***	1.00	10.00	HR	17.500				177		177
8MAC-A-10	Compressor 185 CFM	1.00	10.00	HR	3.000				32		32
8MBC-Z-1	Barge Carpenter 12'X40	2.00	20.00	HR	6.500				138		138
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	10.00	HR	55.000				586		586
8MBT-Z-12	Tug Push Boat 200 HP	1.00	10.00	HR	20.000				213		213
8MBW-Z-2	18' Aluminum Boat & O/	1.00	10.00	HR	3.000				32		32
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	10.00	HR	5.000				53		53
8MDH-A-7	DELMAG D19 HAMMER	1.00	10.00	HR	10.000				107		107
8MFD-A-1	FAIRLEADS	1.00	10.00	HR	0.100				1		1
8MGN-Z-11	Generator 10 KW	1.00	10.00	HR	3.000				32		32
8MLT-A-1	Light Tower, Genie	1.00	10.00	HR	3.500				37		37
8MPE-A-11	Extractor Pile	1.00	10.00	HR	5.000				53		53
8MVP-A-11	FORD F150 SUPERC 10	1.00	10.00	HR	6.500				69		69
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	10.00	HR	10.000				107		107
8MWM-C-1	Welder Diesel 400 AMP	1.00	10.00	HR	2.500				27		27
8PILE26	Vibro Hammer 150 TN	1.00	10.00	HR	80.944				818		818
9ADMS11	Subsistance Crew 5		1.00	DA	750.000			758			758
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M165	M-Piledriver	1.00	10.00	MH	38.200	584					584
M170	M-Welder	1.00	10.00	MH	34.960	544					544
M190	M-Skilled Laborer	1.00	10.00	MH	31.960	474					474
OPCR100	Op Eng 1A- Crane 100-200	1.00	10.00	MH	36.580	564					564
$8,291.59	50.0000 MH/EA		50.00	MH	[1988.03]	2,753		828	4,710		8,292
389000	Treated Lumber & Timber				Quan: 350.00 SF	Hrs/Shft: 10.00		Cal: 510	WC: CCISP		
31PTWOOD	Dock Treated Wo@106.5%		350.00	SF	80.000			30,118			30,118
389015	Timber Deck Installation				Quan: 350.00 SF	Hrs/Shft: 10.00		Cal: 510	WC: CCISP		
MARLAN	Up Land Support Crew		50.00	CH	Prod:	5.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		5.00	DA	200.000				1,010		1,010
8BHLD480	BHL Cat 450E 1.75CY	1.00	50.00	HR	56.724				2,865		2,865
8CRANERT530	Crane Grove RT530E 30	1.00	50.00	HR	64.705				3,268		3,268
8MBC-Z-1	Barge Carpenter 12'X40	1.00	50.00	HR	6.500				346		346
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	50.00	HR	10.867				549		549
9ADMS11	Subsistance Crew 5		35.00	DA	750.000			26,513			26,513
9ADMT08	Craft Subsistence ($120/D/		5.00	DA	480.000			2,424			2,424
M105	Foreman - General Marine	1.00	50.00	MH	39.030	2,941					2,941
M195	M-Laborer	2.00	100.00	MH	30.100	4,508					4,508
OPCR24	Op Eng 2- Crane 20-44T	1.00	50.00	MH	35.400	2,746					2,746
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	50.00	MH	35.390	2,746					2,746
$49,913.69	0.7142 MH/SF		250.00	MH	[26.717]	12,940		28,937	8,037		49,914
=====> Item Totals:	2000160	- Wood Deck Demolition/Reconstruction									
$88,323.48	0.8571 MH/SF		300.00	MH	[32.398]	15,693		59,883	12,747		88,323
252.353	350 SF					44.84		171.09	36.42		252.35

PARENT ITEM = 2000166
Description = Sheet Piling (AZ14-770) Unit = LF Takeoff Quan: 48.000 Engr Quan: 48.000

Listing of Sub-Biditems of Parent Item 2000166:

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total

BID ITEM = 2000170 Land Item SCHEDULE: 1 100
Description = Sheet Piling Unit = LF Takeoff Quan: 48.000 Engr Quan: 48.000

201040 Sheeting Template Supply Quan: 1.00 LS Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
Supply 50 LF of sheet pile template

and then switch to driving 30 linear feet of sheet piles/day
=====================================================================
Here are the numbers we came up with.

AZ14-770  $0.80/lb
Double Channel Waler $250/ft
Tie Rods #11 Gr 75 is more readily available @ $6.00/ft
Coating  $2.50.SF

Thanks
Alwyn McDowall, Civil Engineer-BDM Southeast
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```

31PILETEMPLA	Sheet pile Temp@106.5%	1.00 LS		3,500.000			3,765			3,765

201054 Supply Sheet Piles AZ14-770 Quan: 48,078.00 LB Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
Sheet Piles AZ14-770
        Wall H Length (FT)      Unit    width (2w)      QTY (PAIRS)     V-length (ft)   Weight Single
(Lb/Ft)   Total Weight
Vertical Length (-40.0) -2.0= 42 ft ===>  Pay 45 ft
West Return     0       Pairs   0       0               53.42   0.00
        0       Pairs   0       0               53.42   0.00
Front Wall      50      Pairs   5.05    10.00   45      53.42   48,078.00
East Return             Pairs           0               53.42   0.00
Totals  50                      10                      48,078.00


Coat front face                                         Area (Ft^2/Ft)  Total Area (SF)
                                10      30      6.1     1,830.00
```

2AZ14-770	AZ14-770 Sheet @106.5%	48,078.00 LB		0.850		44,175				44,175
2COATSHEETS	Coat Sheet Pile@106.5%	1,830.00 SF		2.750		5,440				5,440
2SPCORNER	Sheet Pile Corn@106.5%	1.00 EA		2,700.000		2,919				2,919
$52,534.08				[ ]		52,534				52,534

201055 Drive Permanent Sheeting Quan: 48.00 LF Hrs/Shft: 10.00 Cal: 510 WC: CCISP

```
1 day to relocate and 3 days driving= total 4 days
```

MARPIL	Marine Piling & Demo Crew		40.00 CH	Prod:	4.0000 S	Lab Pcs:	5.00	Eqp Pcs:		18.00
3WELD	Weld Supplies (1 man-Stick		4.00 DA	70.000		283				283
8211050	Fuel, Oil, Grease 50g/d		4.00 DA	200.000			808			808
8CRANEC200	Crane Manitowoc 777 20	1.00	40.00 HR	200.743			8,110			8,110
8DRILLR	***DRILLS - ROCK***	1.00	40.00 HR	17.500			707			707
8MAC-A-10	Compressor 185 CFM	1.00	40.00 HR	3.000			128			128
8MBC-Z-1	Barge Carpenter 12'X40	2.00	80.00 HR	6.500			554			554
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	40.00 HR	55.000			2,343			2,343
8MBT-Z-12	Tug Push Boat 200 HP	1.00	40.00 HR	20.000			852			852
8MBW-Z-2	18' Aluminum Boat & O/	1.00	40.00 HR	3.000			128			128
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	40.00 HR	5.000			213			213
8MDH-A-7	DELMAG D19 HAMMER	1.00	40.00 HR	10.000			426			426
8MFD-A-1	FAIRLEADS	1.00	40.00 HR	0.100			4			4
8MGN-Z-11	Generator 10 KW	1.00	40.00 HR	3.000			128			128
8MLT-A-1	Light Tower, Genie	1.00	40.00 HR	3.500			149			149

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000170				Land Item	SCHEDULE: 1		100				
Description =	Sheet Piling			Unit =	LF	Takeoff Quan:		48.000	Engr Quan:		48.000
8MPE-A-11	Extractor Pile	1.00	40.00	HR	5.000				213		213
8MVP-A-11	FORD F150 SUPERC 10	1.00	40.00	HR	6.500				277		277
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	40.00	HR	10.000				426		426
8MWM-C-1	Welder Diesel 400 AMP	1.00	40.00	HR	2.500				107		107
8PILE26	Vibro Hammer 150 TN	1.00	40.00	HR	80.944				3,270		3,270
9ADMS11	Subsistance Crew 5		4.00	DA	750.000			3,030			3,030
M105	Foreman - General Marine	1.00	40.00	MH	39.030	2,352					2,352
M165	M-Piledriver	1.00	40.00	MH	38.200	2,334					2,334
M170	M-Welder	1.00	40.00	MH	34.960	2,176					2,176
M190	M-Skilled Laborer	1.00	40.00	MH	31.960	1,894					1,894
OPCR100	Op Eng 1A- Crane 100-200	1.00	40.00	MH	36.580	2,255					2,255
$33,166.55	4.1666 MH/LF		200.00	MH	[165.669]	11,012		3,313	18,842		33,167
303022	Set Pile Template				Quan: 1.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
1 day											
MARPIL	Marine Piling & Demo Crew		10.00	CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		1.00	DA	70.000			71			71
8211050	Fuel, Oil, Grease 50g/d		1.00	DA	200.000				202		202
8CRANEC200	Crane Manitowoc 777 20	1.00	10.00	HR	200.743				2,027		2,027
8DRILLR	***DRILLS - ROCK***	1.00	10.00	HR	17.500				177		177
8MAC-A-10	Compressor 185 CFM	1.00	10.00	HR	3.000				32		32
8MBC-Z-1	Barge Carpenter 12'X40	2.00	20.00	HR	6.500				138		138
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	10.00	HR	55.000				586		586
8MBT-Z-12	Tug Push Boat 200 HP	1.00	10.00	HR	20.000				213		213
8MBW-Z-2	18' Aluminum Boat & O/	1.00	10.00	HR	3.000				32		32
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	10.00	HR	5.000				53		53
8MDH-A-7	DELMAG D19 HAMMER	1.00	10.00	HR	10.000				107		107
8MFD-A-1	FAIRLEADS	1.00	10.00	HR	0.100				1		1
8MGN-Z-11	Generator 10 KW	1.00	10.00	HR	3.000				32		32
8MLT-A-1	Light Tower, Genie	1.00	10.00	HR	3.500				37		37
8MPE-A-11	Extractor Pile	1.00	10.00	HR	5.000				53		53
8MVP-A-11	FORD F150 SUPERC 10	1.00	10.00	HR	6.500				69		69
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	10.00	HR	10.000				107		107
8MWM-C-1	Welder Diesel 400 AMP	1.00	10.00	HR	2.500				27		27
8PILE26	Vibro Hammer 150 TN	1.00	10.00	HR	80.944				818		818
9ADMS11	Subsistance Crew 5		1.00	DA	750.000			758			758
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M165	M-Piledriver	1.00	10.00	MH	38.200	584					584
M170	M-Welder	1.00	10.00	MH	34.960	544					544
M190	M-Skilled Laborer	1.00	10.00	MH	31.960	474					474
OPCR100	Op Eng 1A- Crane 100-200	1.00	10.00	MH	36.580	564					564
$8,291.59	50.0000 MH/EA		50.00	MH	[1988.03]	2,753		828	4,710		8,292
305025	Sheet Pile Drilling				Quan: 48.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
Assume 3 day drilling as a contigency for the contractor											
MARPIL	Marine Piling & Demo Crew		30.00	CH	Prod:	3.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		3.00	DA	70.000			212			212
8211050	Fuel, Oil, Grease 50g/d		3.00	DA	200.000				606		606
8CRANEC200	Crane Manitowoc 777 20	1.00	30.00	HR	200.743				6,082		6,082
8DRILLR	***DRILLS - ROCK***	1.00	30.00	HR	17.500				530		530
8MAC-A-10	Compressor 185 CFM	1.00	30.00	HR	3.000				96		96
8MBC-Z-1	Barge Carpenter 12'X40	2.00	60.00	HR	6.500				415		415
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	30.00	HR	55.000				1,757		1,757
8MBT-Z-12	Tug Push Boat 200 HP	1.00	30.00	HR	20.000				639		639
8MBW-Z-2	18' Aluminum Boat & O/	1.00	30.00	HR	3.000				96		96
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	30.00	HR	5.000				160		160
8MDH-A-7	DELMAG D19 HAMMER	1.00	30.00	HR	10.000				320		320

Activity Resource	Desc	Quantity Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000170				Land Item	SCHEDULE:	1	100			
Description =	Sheet Piling			Unit =	LF	Takeoff Quan:		48.000	Engr Quan:	48.000
8MFD-A-1	FAIRLEADS	1.00	30.00 HR	0.100				3		3
8MGN-Z-11	Generator 10 KW	1.00	30.00 HR	3.000				96		96
8MLT-A-1	Light Tower, Genie	1.00	30.00 HR	3.500				112		112
8MPE-A-11	Extractor Pile	1.00	30.00 HR	5.000				160		160
8MVP-A-11	FORD F150 SUPERC 10	1.00	30.00 HR	6.500				208		208
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	30.00 HR	10.000				320		320
8MWM-C-1	Welder Diesel 400 AMP	1.00	30.00 HR	2.500				80		80
8PILE26	Vibro Hammer 150 TN	1.00	30.00 HR	80.944				2,453		2,453
9ADMS11	Subsistance Crew 5		3.00 DA	750.000			2,273			2,273
M105	Foreman - General Marine	1.00	30.00 MH	39.030	1,764					1,764
M165	M-Piledriver	1.00	30.00 MH	38.200	1,751					1,751
M170	M-Welder	1.00	30.00 MH	34.960	1,632					1,632
M190	M-Skilled Laborer	1.00	30.00 MH	31.960	1,421					1,421
OPCR100	Op Eng 1A- Crane 100-200	1.00	30.00 MH	36.580	1,691					1,691
$24,874.88	3.1250 MH/LF		150.00 MH	[124.252]	8,259		2,485	14,132		24,875
=====> Item Totals:	2000170	- Sheet Piling								
$122,631.88	8.3333 MH/LF		400.00 MH	[331.338]	22,023	52,534	10,390	37,684		122,632
2,554.831	48 LF				458.82	1,094.46	216.47	785.08		2,554.83

BID ITEM = 2000172				Land Item	SCHEDULE:	1	100			
Description =	Soil Anchor Tie backs			Unit =	EA	Takeoff Quan:		4.000	Engr Quan:	4.000
201025	Supply Whaler System for Tiebacks			Quan:	48.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	

```
Here are the numbers we came up with.

AZ14-770  $0.80/lb
Double Channel Waler $250/ft
Tie Rods #11 Gr 75 is more readily available @ $6.00/ft
Coating  $2.50.SF

Thanks
Alwyn McDowall, Civil Engineer-BDM Southeast
Skyline Steel

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```

2WALER	Waler System fo@106.5%		50.00 LF	250.000		13,512				13,512
201026	Install Waler System			Quan:	48.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	

```
2 days for a subcontractor to do this task
```

MARTIE	Marine Tie Back Crew		20.00 CH	Prod:	2.0000 S		Lab Pcs:	6.00	Eqp Pcs:	9.00
8211050	Fuel, Oil, Grease 50g/d		2.00 DA	200.000				404		404
8BHLD416	BHL Cat 416E 1CY	1.00	20.00 HR	28.006				566		566
8MAC-A-17	Atlas Copco 185 CFM Ai	1.00	20.00 HR	3.000				64		64
8MCH-Z-1	30TN RT CRANE 152HP	1.00	20.00 HR	35.200				750		750
8MCN-A-13	Container Steel 20'	1.00	20.00 HR	0.100				2		2
8MFW-A-1	Work Float	1.00	20.00 HR	2.000				43		43
8MGN-Z-17	Generator 8 KW	1.00	20.00 HR	2.000				43		43
8MLT-A-5	Light Tower	1.00	20.00 HR	2.500				53		53
8MVP-A-2	FORD F150 SUPERC 2	1.00	20.00 HR	6.500				138		138
8WELD400	Welder 400 AMP	1.00	20.00 HR	8.035				162		162
M170	M-Welder	1.00	20.00 MH	34.960	1,088					1,088
M180	M-Carpenter Helper	1.00	20.00 MH	30.070	901					901

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000172				Land Item	SCHEDULE: 1	100					
Description =	Soil Anchor Tie backs				Unit = EA	Takeoff Quan:		4.000	Engr Quan:		4.000
M195	M-Laborer	2.00	40.00	MH	30.100	1,803					1,803
OPCR24	Op Eng 2- Crane 20-44T	1.00	20.00	MH	35.400	1,099					1,099
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	20.00	MH	35.390	1,098					1,098
$8,213.06	2.5000 MH/LF		120.00	MH	[89.843]	5,988			2,225		8,213
201029	Supply Tieback Hardware				Quan: 4.00 EA	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

```
4 SOIL ANCHORS AT
4*50 = 200 FT
THEN: 200 FT*$15= $3000

Here are the numbers we came up with.

AZ14-770  $0.80/lb
Double Channel Waler $250/ft
Tie Rods #11 Gr 75 is more readily available @ $6.00/ft
Coating  $2.50.SF

Thanks
Alwyn McDowall, Civil Engineer-BDM Southeast
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```

2NUTS	Nuts for #20 Ba@106.5%		4.00	EA	20.000		86				86
2PLATES&WAS	Plates and Wash@106.5%		4.00	EA	20.000		86				86
2PVCSLEEVE	PVC Sleeve and @106.5%		150.00	LF	5.000		811				811
2SP04	PT Thread Bar #@106.5%		200.00	LF	10.000		2,162				2,162
$3,145.64					[ ]		3,146				3,146
201030	Install System/Soil Anchor				Quan: 4.00 EA	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

```
Phone Call with Tom Anderson, Schnabel, Orlando
```

42SCHNABLE	Soil Anchor Subcontractor		4.00	EA	3,000.000					12,144	12,144
42SCHNABLEM	Schnable Mob & Demob		2.00	EA	2,500.000					5,060	5,060
$17,204.00					[ ]					17,204	17,204
303035	Floating Support for Soil Anchor Drillin				Quan: 4.00 EA	Hrs/Shft: 10.00	Cal: 510	WC: CCISP			

```
2 days to support Schnable or whoever the specialty subcontractor is. the same amount of works
```

MARLAN	Up Land Support Crew		20.00	CH	Prod:	2.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		2.00	DA	200.000				404		404
8BHLD480	BHL Cat 450E 1.75CY	1.00	20.00	HR	56.724				1,146		1,146
8CRANERT530	Crane Grove RT530E 30	1.00	20.00	HR	64.705				1,307		1,307
8MBC-Z-1	Barge Carpenter 12'X40	1.00	20.00	HR	6.500				138		138
8MFW-A-1	Work Float		40.00	HR	2.000				85		85
8MFW-A-2	Work Float		40.00	HR	2.000				85		85
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	20.00	HR	10.867				219		219
9ADMS11	Subsistance Crew 5		0.40	DA	750.000			303			303
9ADMT08	Craft Subsistence ($120/D/		2.00	DA	480.000			970			970
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M195	M-Laborer	2.00	40.00	MH	30.100	1,803					1,803
OPCR24	Op Eng 2- Crane 20-44T	1.00	20.00	MH	35.400	1,099					1,099
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	20.00	MH	35.390	1,098					1,098
$9,833.84	25.0000 MH/EA		100.00	MH	[935.11]	5,176		1,273	3,385		9,834
=====> Item Totals:	2000172	- Soil Anchor Tie backs									
$51,908.73	55.0000 MH/EA		220.00	MH	[2013.22]	11,164	16,658	1,273	5,610	17,204	51,909
12,977.183	4 EA					2,791.12	4,164.46	318.15	1,402.46	4,301.00	12,977.18

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total

BID ITEM = 2000172 Land Item SCHEDULE: 1 100
Description = Soil Anchor Tie backs Unit = EA Takeoff Quan: 4.000 Engr Quan: 4.000

Total of Above Sub-Biditems

=====> Item Totals:	2000166	- Sheet Piling (AZ14-770)								
$174,540.61	12.9166 MH/LF		620.00 MH	[499.107]	33,188	69,192	11,663	43,294	17,204	174,541
3,636.263	48 LF				691.41	1,441.50	242.98	901.96	358.42	3,636.26

BID ITEM = 2000174 Land Item SCHEDULE: 1 100
Description = Bulkhead Concrete Cap Unit = LF Takeoff Quan: 48.000 Engr Quan: 48.000

```
Section: 4*4+0.667*1= 16.67 sf
volume: 16.67*50= 833.50 CF ====>> 833.5/27= 31cy
add 10% waste ===>> 34.1 cy

REbar: 160lb/cy*31= 4960 lbs
```

319010	Prepare/Fabricate Steel Wet Forms			Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
31FMCPUR	Special Form Pu@106.5%		1.00 LS		3,500.000		3,765			3,765
321015	Sheet Pile Cap - Form, Pour & Strip			Quan:	48.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
48 feet say 6 days										
MARLAN	Up Land Support Crew		60.00 CH		Prod:	6.0000 S	Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		6.00 DA		200.000			1,212		1,212
8BHLD480	BHL Cat 450E 1.75CY	1.00	60.00 HR		56.724			3,437		3,437
8CRANERT530	Crane Grove RT530E 30	1.00	60.00 HR		64.705			3,921		3,921
8MBC-Z-1	Barge Carpenter 12'X40	1.00	60.00 HR		6.500			415		415
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	60.00 HR		10.867			659		659
9ADMS11	Subsistance Crew 5		4.80 DA		750.000		3,636			3,636
9ADMT08	Craft Subsistence ($120/D/		6.00 DA		480.000		2,909			2,909
CARPJ	==> Carpenter Journeyman		4.00 MH		31.920	200				200
M100	==> Foreman - Carpenter		1.00 MH		34.720	54				54
M105	Foreman - General Marine	1.00	60.00 MH		39.030	3,529				3,529
M195	M-Laborer	2.00	120.00 MH		30.100	5,409				5,409
OPCR24	Op Eng 2- Crane 20-44T	1.00	60.00 MH		35.400	3,296				3,296
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	60.00 MH		35.390	3,295				3,295
$31,971.30	6.3541 MH/LF		305.00 MH		[237.499]	15,782	6,545	9,644		31,971
325900	Supply 5000 PSI Marine Concrete			Quan:	31.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	

```
Section: 4*4+0.667*1= 16.67 sf
volume: 16.67*50= 833.50 CF ====>> 833.5/27= 31cy
add 10% waste ===>> 34.1 cy

REbar: 160lb/cy*31= 4960 lbs
```

2CR14	5000 PSI Marine@106.5%		34.00 CY		296.000	10,879				10,879
5CONCPCY	Cubic Yard Charge		34.00 CY		5.000		170			170
$11,048.93					[ ]	10,879	170			11,049
380010	Superstructure Rebar Front Wall			Quan:	4,960.00 LBS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	

```
Section: 4*4+0.667*1= 16.67 sf
volume: 16.67*50= 833.50 CF ====>> 833.5/27= 31cy
add 10% waste ===>> 34.1 cy

REbar: 160lb/cy*31= 4960 lbs
```

2REBARHANGE	Rebar Hanger@106.5%		2.00 EA		500.000	1,081				1,081

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000174				Land Item	SCHEDULE: 1		100				
Description =	Bulkhead Concrete Cap			Unit =	LF	Takeoff Quan:		48.000	Engr Quan:		48.000
2RR02	Gr 60 Rebar@106.5%	1.03	5,108.80 LB		0.480		2,651				2,651
2RR10	Rebar Supports@106.5%	1.03	5,108.80 LB		0.050		276				276
4REBAR	Rebar Sub	1.03	5,108.80 LB		0.250					1,293	1,293
$5,300.42					[ ]		4,008			1,293	5,300
380012	Concrete Pumping			Quan:	1.00 DA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
5CONCP28M	Concrete Concrete Pump 28		16.00 HR		95.000			1,520			1,520
5CONCPCY	Cubic Yard Charge		34.00 CY		2.250			77			77
$1,596.50					[ ]			1,597			1,597
=====> Item Totals:	2000174	- Bulkhead Concrete Cap									
$53,681.93	6.3541 MH/LF		305.00 MH		[237.499]	15,782	14,887	12,076	9,644	1,293	53,682
1,118.374	48 LF					328.79	310.14	251.59	200.93	26.93	1,118.37

BID ITEM = 2000176				Land Item	SCHEDULE: 1		100				
Description =	Backfill/Flowable Fill			Unit =	CY	Takeoff Quan:		40.000	Engr Quan:		40.000
203000	Backfill - Flowable Fill			Quan:	40.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		

```
Vol1= 0.833 ft*4ft*41ft= 136 ft3
vol2= 2.6ft*7ft*41ft= 746.2 ft3
vol3= (0.83*4*10.2ft+2.6*7*10.2)/2= 109ft3
total= 991 ft3 ====>> 36.7 CY =====>>> SAY 40cy

==================================================
OLD SECTION: (for comparison and to show the changes from the original design)
Section area: 3.5 * (-7-(+3.3)= 3.5*10.3= 36.05 sf
Volume: 36.05*50= 1,802 cf = 67 cy

waste 15% ===>> 77 cy
```

2CR15FLOWABL	Flowable Fill K@106.5%	1.15	46.00 CY		145.000		7,210				7,210
203010	Install Flowable Fill			Quan:	40.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARLAN	Up Land Support Crew		10.00 CH		Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		1.00 DA		200.000				202		202
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00 HR		56.724				573		573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00 HR		64.705				654		654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00 HR		6.500				69		69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00 HR		10.867				110		110
9ADMS11	Subsistance Crew 5		4.00 DA		750.000			3,030			3,030
9ADMT08	Craft Subsistence ($120/D/		1.00 DA		480.000			485			485
M105	Foreman - General Marine	1.00	10.00 MH		39.030	588					588
M195	M-Laborer	2.00	20.00 MH		30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00 MH		35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00 MH		35.390	549					549
$7,710.19	1.2500 MH/CY		50.00 MH		[46.756]	2,588		3,515	1,607		7,710
203015	Supply Concrete Slab Behind Wall			Quan:	5.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		

```
top surface for concrete slab:

50ft*7.5ft*4"/12"/ft= 125 cf ===>> 5 cy
conctingecy 20%= ===>> 6 cy
```

2CR15-NORMAL	5000 PSI Normal@106.5%	1.20	6.00 CY		175.000		1,135				1,135

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000176				Land Item	SCHEDULE: 1		100				
Description =	Backfill/Flowable Fill				Unit = CY	Takeoff Quan:		40.000	Engr Quan:		40.000
203016	Place Concrete				Quan: 40.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARLAN	Up Land Support Crew			5.00 CH	Prod:	0.5000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		0.50 DA		200.000				101		101
8BHLD480	BHL Cat 450E 1.75CY	1.00	5.00 HR		56.724				286		286
8CRANERT530	Crane Grove RT530E 30	1.00	5.00 HR		64.705				327		327
8MBC-Z-1	Barge Carpenter 12'X40	1.00	5.00 HR		6.500				35		35
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	5.00 HR		10.867				55		55
9ADMS11	Subsistance Crew 5		4.00 DA		750.000			3,030			3,030
9ADMT08	Craft Subsistence ($120/D/		0.50 DA		480.000			242			242
M105	Foreman - General Marine	1.00	5.00 MH		39.030	294					294
M195	M-Laborer	2.00	10.00 MH		30.100	451					451
OPCR24	Op Eng 2- Crane 20-44T	1.00	5.00 MH		35.400	275					275
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	5.00 MH		35.390	275					275
$5,370.06	0.6250 MH/CY		25.00 MH		[23.378]	1,294		3,272	804		5,370
=====> Item Totals:	2000176	- Backfill/Flowable Fill									
$21,425.37	1.8750 MH/CY		75.00 MH		[70.134]	3,882	8,345	6,787	2,411		21,425
535.634	40 CY					97.05	208.63	169.68	60.27		535.63

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000178				Land Item	SCHEDULE: 1		100				
Description =	Drainage Pipe Extension & Repair				Unit = EA	Takeoff Quan:		1.000	Engr Quan:		1.000
321015	Out Flow Pipe - Form, Pour & Strip				Quan: 3.00 DA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
3 days per out flow											
MARLAN	Up Land Support Crew			30.00 CH	Prod:	3.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		3.00 DA		200.000				606		606
8BHLD480	BHL Cat 450E 1.75CY	1.00	30.00 HR		56.724				1,719		1,719
8CRANERT530	Crane Grove RT530E 30	1.00	30.00 HR		64.705				1,961		1,961
8MBC-Z-1	Barge Carpenter 12'X40	1.00	30.00 HR		6.500				208		208
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	30.00 HR		10.867				329		329
9ADMS11	Subsistance Crew 5		0.30 DA		750.000			227			227
9ADMT08	Craft Subsistence ($120/D/		3.00 DA		480.000			1,454			1,454
CARPJ	==> Carpenter Journeyman		2.00 MH		31.920	100					100
M100	==> Foreman - Carpenter		0.50 MH		34.720	27					27
M105	Foreman - General Marine	1.00	30.00 MH		39.030	1,764					1,764
M195	M-Laborer	2.00	60.00 MH		30.100	2,705					2,705
OPCR24	Op Eng 2- Crane 20-44T	1.00	30.00 MH		35.400	1,648					1,648
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	30.00 MH		35.390	1,647					1,647
$14,394.84	50.8333 MH/DA		152.50 MH		[1899.993]	7,891		1,682	4,822		14,395
325900	Supply 5000 PSI Marine Concrete				Quan: 12.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		

```
volume: 3.5*6*6+ 3.5*10*6 = 336 CF ====>> 336/27= 12cy
add 10% waste ===>> 14 cy

REbar: 160lb/cy*12= 1,991 lbs
totals for 2 structures:
24 cy concrete ===>> 28 cy
rebar: 3,982 lbs
```

2CR14	5000 PSI Marine@106.5%		14.00 CY		296.000		4,480		4,480
5CONCPCY	Cubic Yard Charge		14.00 CY		5.000			70	70
$4,549.56					[ ]		4,480	70	4,550

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000178					Land Item	SCHEDULE:	1	100			
Description =	Drainage Pipe Extension & Repair				Unit =	EA	Takeoff Quan:		1.000	Engr Quan:	1.000
380010	Superstructure Rebar Out Flow Pipe				Quan:	1,991.00 LBS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
volume: 3.5*6*6+ 3.5*10*6 = 336 CF ====>> 336/27= 12cy											
add 10% waste ===>> 14 cy											
REbar: 160lb/cy*12= 1,991 lbs											
2REBARHANGE	Rebar Hanger@106.5%		2.00	EA	500.000		1,081				1,081
2RR02	Gr 60 Rebar@106.5%	1.03	2,050.73	LB	0.480		1,064				1,064
2RR10	Rebar Supports@106.5%	1.03	2,050.73	LB	0.050		111				111
4REBAR	Rebar Sub	1.03	2,050.73	LB	0.250					519	519
$2,774.70					[ ]		2,256			519	2,775
406900	Supply 54 in HDPE Storm Drainage Pipe				Quan:	1.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
2HDPE	54" HDPE@106.5%		10.00	LF	100.000		1,081				1,081
406910	Diver Support to Cut Existing SSP				Quan:	1.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
42DIVERS	Diving Subcontractor		2.00	DA	2,500.000					5,060	5,060
=====> Item Totals:	2000178	- Drainage Pipe Extension & Repair									
$27,860.08	152.5000 MH/EA		152.50	MH	[5699.98]	7,891	7,816	1,752	4,822	5,579	27,860
27,860.080	1 EA					7,891.05	7,816.41	1,751.65	4,822.14	5,578.83	27,860.08
BID ITEM = 2000180					Land Item	SCHEDULE:	1	100			
Description =	Outfall Valve				Unit =	EA	Takeoff Quan:		1.000	Engr Quan:	1.000
259100	F&I Gate valve @ Inlets				Quan:	1.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
Outfall Valve $3000.00											
plus 1/2 day to install it.											
MARLAN	Up Land Support Crew			5.00 CH	Prod:	0.5000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
2DF154	Frame & Grate@106.5%		1.00	EA	3,000.000		3,243				3,243
8211050	Fuel, Oil, Grease 50g/d		0.50	DA	200.000				101		101
8BHLD480	BHL Cat 450E 1.75CY	1.00	5.00	HR	56.724				286		286
8CRANERT530	Crane Grove RT530E 30	1.00	5.00	HR	64.705				327		327
8MBC-Z-1	Barge Carpenter 12'X40	1.00	5.00	HR	6.500				35		35
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	5.00	HR	10.867				55		55
9ADMS11	Subsistance Crew 5		0.10	DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		0.50	DA	480.000			242			242
M105	Foreman - General Marine	1.00	5.00	MH	39.030	294					294
M195	M-Laborer	2.00	10.00	MH	30.100	451					451
OPCR24	Op Eng 2- Crane 20-44T	1.00	5.00	MH	35.400	275					275
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	5.00	MH	35.390	275					275
$5,658.74	25.0000 MH/EA		25.00	MH	[935.12]	1,294	3,243	318	804		5,659
=====> Item Totals:	2000180	- Outfall Valve									
$5,658.74	25.0000 MH/EA		25.00	MH	[935.12]	1,294	3,243	318	804		5,659
5,658.740	1 EA					1,294.04	3,242.93	318.15	803.62		5,658.74
BID ITEM = 2000182					Land Item	SCHEDULE:	1	100			
Description =	Site Restoration & Misc. General				Unit =	LS	Takeoff Quan:		1.000	Engr Quan:	1.000

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000182				Land Item	SCHEDULE: 1		100				
Description =	Site Restoration & Misc. General				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
980010	Final Site Restoration				Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARLAN	Up Land Support Crew		20.00	CH	Prod:	2.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		2.00	DA	200.000				404		404
8BHLD480	BHL Cat 450E 1.75CY	1.00	20.00	HR	56.724				1,146		1,146
8CRANERT530	Crane Grove RT530E 30	1.00	20.00	HR	64.705				1,307		1,307
8MBC-Z-1	Barge Carpenter 12'X40	1.00	20.00	HR	6.500				138		138
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	20.00	HR	10.867				219		219
9ADMS11	Subsistance Crew 5		0.10	DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		2.00	DA	480.000			970			970
9RCRISK	Risk		1.00	LS	2,500.000			2,525			2,525
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M195	M-Laborer	2.00	40.00	MH	30.100	1,803					1,803
OPCR24	Op Eng 2- Crane 20-44T	1.00	20.00	MH	35.400	1,099					1,099
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	20.00	MH	35.390	1,098					1,098
$11,961.19	100.0000 MH/LS		100.00	MH	[3740.44]	5,176		3,570	3,215		11,961
=====> Item Totals:	2000182	- Site Restoration & Misc. General									
$11,961.19	100.0000 MH/LS		100.00	MH	[3740.44]	5,176		3,570	3,215		11,961
11,961.190	1 LS					5,176.08		3,570.35	3,214.76		11,961.19
BID ITEM = 2000190				Land Item	SCHEDULE: 1		100				
Description =	Demolition and Removal of Work Area				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
202031	Debri Disposal				Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
trucking in key west: $50.00/cy											
land fill fee: $125/cy											
31DFBLDCY	Bldg Debris Dump Fee-cy		30.00	CY	125.000			3,788			3,788
5TRKCY	Trucking - CY		30.00	CY	50.000			1,500			1,500
$5,287.50					[ ]			5,288			5,288
630016	Demolition and Removal of Deck & Piles				Quan: 1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
Assume to last 4 days											
MARPIL	Marine Piling & Demo Crew		40.00	CH	Prod:	4.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		4.00	DA	70.000			283			283
8211050	Fuel, Oil, Grease 50g/d		4.00	DA	200.000				808		808
8CRANEC200	Crane Manitowoc 777 20	1.00	40.00	HR	200.743				8,110		8,110
8DRILLR	***DRILLS - ROCK***	1.00	40.00	HR	17.500				707		707
8MAC-A-10	Compressor 185 CFM	1.00	40.00	HR	3.000				128		128
8MBC-Z-1	Barge Carpenter 12'X40	2.00	80.00	HR	6.500				554		554
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	40.00	HR	55.000				2,343		2,343
8MBT-Z-12	Tug Push Boat 200 HP	1.00	40.00	HR	20.000				852		852
8MBW-Z-2	18' Aluminum Boat & O/	1.00	40.00	HR	3.000				128		128
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	40.00	HR	5.000				213		213
8MDH-A-7	DELMAG D19 HAMMER	1.00	40.00	HR	10.000				426		426
8MFD-A-1	FAIRLEADS	1.00	40.00	HR	0.100				4		4
8MGN-Z-11	Generator 10 KW	1.00	40.00	HR	3.000				128		128
8MLT-A-1	Light Tower, Genie	1.00	40.00	HR	3.500				149		149
8MPE-A-11	Extractor Pile	1.00	40.00	HR	5.000				213		213
8MVP-A-11	FORD F150 SUPERC 10	1.00	40.00	HR	6.500				277		277
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	40.00	HR	10.000				426		426
8MWM-C-1	Welder Diesel 400 AMP	1.00	40.00	HR	2.500				107		107

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000190					Land Item	SCHEDULE:	1	100			
Description =	Demolition and Removal of Work Area				Unit =	LS	Takeoff Quan:	1.000	Engr Quan:		1.000
8PILE26	Vibro Hammer 150 TN	1.00	40.00	HR	80.944				3,270		3,270
9ADMS11	Subsistance Crew 5		4.00	DA	750.000			3,030			3,030
M105	Foreman - General Marine	1.00	40.00	MH	39.030	2,352					2,352
M165	M-Piledriver	1.00	40.00	MH	38.200	2,334					2,334
M170	M-Welder	1.00	40.00	MH	34.960	2,176					2,176
M190	M-Skilled Laborer	1.00	40.00	MH	31.960	1,894					1,894
OPCR100	Op Eng 1A- Crane 100-200	1.00	40.00	MH	36.580	2,255					2,255
$33,166.55	200.0000 MH/LS		200.00	MH	[7952.12]	11,012		3,313	18,842		33,167
=====> Item Totals:	2000190	- Demolition and Removal of Work Area									
$38,454.05	200.0000 MH/LS		200.00	MH	[7952.12]	11,012		8,600	18,842		38,454
38,454.050	1 LS					11,011.69		8,600.30	18,842.06		38,454.05

BID ITEM = 2000200					Land Item	SCHEDULE:	1	100			
Description =	Piling 36" Diam Drilled Shaft				Unit =	EA	Takeoff Quan:	6.000	Engr Quan:		6.000

ITEM	LENGTH	QTY	TOTAL	
Casing	38	6	228	FT

Concrete

ITEM	LENGTH	QTY	Diam (ft)		Area (ft^2)		Volume (ft^3)	Vol (cy)	Total Vol (cy)
Pile	52	6	36	7.07	367.57	13.61	81.68	cy	
Rebar	2467						14,802.00	lbs	

303022	Set Pile Template				Quan:	6.00 EA	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
MARPIL	Marine Piling & Demo Crew		20.00	CH	Prod:	2.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		2.00	DA	70.000			141			141
8211050	Fuel, Oil, Grease 50g/d		2.00	DA	200.000				404		404
8CRANEC200	Crane Manitowoc 777 20	1.00	20.00	HR	200.743				4,055		4,055
8DRILLR	***DRILLS - ROCK***	1.00	20.00	HR	17.500				354		354
8MAC-A-10	Compressor 185 CFM	1.00	20.00	HR	3.000				64		64
8MBC-Z-1	Barge Carpenter 12'X40	2.00	40.00	HR	6.500				277		277
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	20.00	HR	55.000				1,172		1,172
8MBT-Z-12	Tug Push Boat 200 HP	1.00	20.00	HR	20.000				426		426
8MBW-Z-2	18' Aluminum Boat & O/	1.00	20.00	HR	3.000				64		64
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	20.00	HR	5.000				107		107
8MDH-A-7	DELMAG D19 HAMMER	1.00	20.00	HR	10.000				213		213
8MFD-A-1	FAIRLEADS	1.00	20.00	HR	0.100				2		2
8MGN-Z-11	Generator 10 KW	1.00	20.00	HR	3.000				64		64
8MLT-A-1	Light Tower, Genie	1.00	20.00	HR	3.500				75		75
8MPE-A-11	Extractor Pile	1.00	20.00	HR	5.000				107		107
8MVP-A-11	FORD F150 SUPERC 10	1.00	20.00	HR	6.500				138		138
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	20.00	HR	10.000				213		213
8MWM-C-1	Welder Diesel 400 AMP	1.00	20.00	HR	2.500				53		53
8PILE26	Vibro Hammer 150 TN	1.00	20.00	HR	80.944				1,635		1,635
9ADMS11	Subsistance Crew 5		2.00	DA	750.000			1,515			1,515
M105	Foreman - General Marine	1.00	20.00	MH	39.030	1,176					1,176
M165	M-Piledriver	1.00	20.00	MH	38.200	1,167					1,167
M170	M-Welder	1.00	20.00	MH	34.960	1,088					1,088
M190	M-Skilled Laborer	1.00	20.00	MH	31.960	947					947
OPCR100	Op Eng 1A- Crane 100-200	1.00	20.00	MH	36.580	1,128					1,128
$16,583.26	16.6666 MH/EA		100.00	MH	[662.677]	5,506		1,656	9,421		16,583

Direct Cost Report

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000200				Land Item	SCHEDULE: 1		100				
Description =	Piling 36" Diam Drilled Shaft				Unit = EA	Takeoff Quan:		6.000	Engr Quan:		6.000
305010	Caissons - CSL Tubes				Quan: 936.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
2CSLTUBES	CSL Tubes@106.5%		936.00	EA	5.000		5,059				5,059
305050	Caisson - Drilling				Quan: 312.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARPIL	Marine Piling & Demo Crew		180.00	CH	Prod:	18.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		18.00	DA	70.000			1,273			1,273
8211050	Fuel, Oil, Grease 50g/d		18.00	DA	200.000				3,636		3,636
8CRANEC200	Crane Manitowoc 777 20	1.00	180.00	HR	200.743				36,495		36,495
8DRILLR	***DRILLS - ROCK***	1.00	180.00	HR	17.500				3,182		3,182
8MAC-A-10	Compressor 185 CFM	1.00	180.00	HR	3.000				575		575
8MBC-Z-1	Barge Carpenter 12'X40	2.00	360.00	HR	6.500				2,492		2,492
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	180.00	HR	55.000				10,544		10,544
8MBT-Z-12	Tug Push Boat 200 HP	1.00	180.00	HR	20.000				3,834		3,834
8MBW-Z-2	18' Aluminum Boat & O/	1.00	180.00	HR	3.000				575		575
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	180.00	HR	5.000				959		959
8MDH-A-7	DELMAG D19 HAMMER	1.00	180.00	HR	10.000				1,917		1,917
8MFD-A-1	FAIRLEADS	1.00	180.00	HR	0.100				19		19
8MGN-Z-11	Generator 10 KW	1.00	180.00	HR	3.000				575		575
8MLT-A-1	Light Tower, Genie	1.00	180.00	HR	3.500				671		671
8MPE-A-11	Extractor Pile	1.00	180.00	HR	5.000				959		959
8MVP-A-11	FORD F150 SUPERC 10	1.00	180.00	HR	6.500				1,246		1,246
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	180.00	HR	10.000				1,917		1,917
8MWM-C-1	Welder Diesel 400 AMP	1.00	180.00	HR	2.500				479		479
8PILE26	Vibro Hammer 150 TN	1.00	180.00	HR	80.944				14,716		14,716
9ADMS11	Subsistance Crew 5		18.00	DA	750.000			13,635			13,635
M105	Foreman - General Marine	1.00	180.00	MH	39.030	10,586					10,586
M165	M-Piledriver	1.00	180.00	MH	38.200	10,505					10,505
M170	M-Welder	1.00	180.00	MH	34.960	9,790					9,790
M190	M-Skilled Laborer	1.00	180.00	MH	31.960	8,524					8,524
OPCR100	Op Eng 1A- Crane 100-200	1.00	180.00	MH	36.580	10,147					10,147
$149,249.68	2.8846 MH/LF		900.00	MH	[114.694]	49,553		14,908	84,789		149,250
305060	Caisson - Casings 1/2"				Quan: 228.00 LF	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
$118.00/ft price given by Skyline by phone: DAve											
2CYL36PILE	36" Diameter Pi@106.5%		228.00	LF	118.000		29,083				29,083
305065	Caisson - Concrete				Quan: 82.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
2CR14	5000 PSI Marine Conc Key	1.10	90.20	EA	296.000		27,100				27,100
305070	Caisson - Rebar				Quan: 14,802.00 LB	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
2RR02	Gr 60 Rebar@106.5%	1.05	17,096.10	LB	0.480		8,871				8,871
2RR10	Rebar Supports@106.5%	1.05	17,096.10	LB	0.050		924				924
4REBAR	Rebar Sub@106.5%	1.05	17,096.10	LB	0.050					921	921
$10,715.94					[ ]		9,795			921	10,716
305900	Concrete Pump				Quan: 6.00 DAY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
5CONCP36M	Concrete Concrete Pump 36		48.00	HR	125.000			6,000			6,000
5CONCPCY	Cubic Yard Charge		108.00	CY	2.250			243			243
$6,243.00					[ ]			6,243			6,243
=====> Item Totals:	2000200	- Piling 36" Diam Drilled Shaft									
$244,033.08	166.6666 MH/EA		1,000.00	MH	[6626.767]	55,058	71,036	22,807	94,210	921	244,033

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000200				Land Item	SCHEDULE: 1		100				
Description =	Piling 36" Diam Drilled Shaft			Unit =	EA	Takeoff Quan:		6.000	Engr Quan:		6.000
40,672.180	6 EA					9,176.41	11,839.31	3,801.17	15,701.75	153.55	40,672.18

BID ITEM = 2000210				Land Item	SCHEDULE: 1		100				
Description =	Concrete Cap Mooring Dolphin			Unit =	CY	Takeoff Quan:		120.000	Engr Quan:		120.000

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pile cap area: 28.33*16= 453.33 sf

volume: 453.33*6.67/27= 112cy

curb: 1.25*1*2*28.33/27= 3 cy
Fascia: 2.33*2*28.33/27= 5cy
total concrete:    120 cy
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319010	Purchase/Fabricate Forms			Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
31FMCPUR	Special Form Pu@106.5%		1.00 LS		6,000.000			6,454			6,454
321015	Concrete Cap - Form, Pour & Strip			Quan:	120.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
MARPIL	Marine Piling & Demo Crew		120.00 CH		Prod:	12.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		12.00 DA		70.000			848			848
8211050	Fuel, Oil, Grease 50g/d		12.00 DA		200.000				2,424		2,424
8CRANEC200	Crane Manitowoc 777 20	1.00	120.00 HR		200.743				24,330		24,330
8DRILLR	***DRILLS - ROCK***	1.00	120.00 HR		17.500				2,121		2,121
8MAC-A-10	Compressor 185 CFM	1.00	120.00 HR		3.000				383		383
8MBC-Z-1	Barge Carpenter 12'X40	2.00	240.00 HR		6.500				1,661		1,661
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	120.00 HR		55.000				7,029		7,029
8MBT-Z-12	Tug Push Boat 200 HP	1.00	120.00 HR		20.000				2,556		2,556
8MBW-Z-2	18' Aluminum Boat & O/	1.00	120.00 HR		3.000				383		383
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	120.00 HR		5.000				639		639
8MDH-A-7	DELMAG D19 HAMMER	1.00	120.00 HR		10.000				1,278		1,278
8MFD-A-1	FAIRLEADS	1.00	120.00 HR		0.100				13		13
8MGN-Z-11	Generator 10 KW	1.00	120.00 HR		3.000				383		383
8MLT-A-1	Light Tower, Genie	1.00	120.00 HR		3.500				447		447
8MPE-A-11	Extractor Pile	1.00	120.00 HR		5.000				639		639
8MVP-A-11	FORD F150 SUPERC 10	1.00	120.00 HR		6.500				831		831
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	120.00 HR		10.000				1,278		1,278
8MWM-C-1	Welder Diesel 400 AMP	1.00	120.00 HR		2.500				320		320
8PILE26	Vibro Hammer 150 TN	1.00	120.00 HR		80.944				9,810		9,810
9ADMS11	Subsistance Crew 5		12.00 DA		750.000			9,090			9,090
CARPJ	==> Carpenter Journeyman		100.00 MH		31.920	5,009					5,009
M100	==> Foreman - Carpenter		100.00 MH		34.720	5,352					5,352
M105	Foreman - General Marine	1.00	120.00 MH		39.030	7,057					7,057
M165	M-Piledriver	1.00	120.00 MH		38.200	7,003					7,003
M170	M-Welder	1.00	120.00 MH		34.960	6,527					6,527
M175	==> M-Carpenter	1.00	100.00 MH		30.070	4,839					4,839
M190	M-Skilled Laborer	1.00	120.00 MH		31.960	5,683					5,683
OPCR100	Op Eng 1A- Crane 100-200	1.00	120.00 MH		36.580	6,765					6,765
$114,699.78	7.5000 MH/CY		900.00 MH		[287.454]	48,235		9,938	56,526		114,700
325900	Supply 5000 PSI Marine Concrete			Quan:	120.00 CY	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		
2CR14	5000 PSI Marine@106.5%	1.10	132.00 CY		296.000		42,236				42,236
5CONCPCY	Cubic Yard Charge	1.10	132.00 CY		5.000			660			660
$42,895.86					[ ]		42,236	660			42,896
380010	Superstructure Rebar Mooring Cap			Quan:	12,949.00 LBS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP		

Activity Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000210				Land Item	SCHEDULE: 1		100				
Description =	Concrete Cap Mooring Dolphin			Unit =	CY	Takeoff Quan:		120.000	Engr Quan:		120.000
2RR02	Gr 60 Rebar@106.5%	1.05	13,596.45	LB	0.480		7,055				7,055
2RR10	Rebar Supports@106.5%	1.05	13,596.45	LB	0.050		735				735
4REBAR	Rebar Sub	1.05	13,596.45	LB	0.250					3,440	3,440
$11,229.54					[ ]		7,790			3,440	11,230
380012	Concrete Pumping			Quan:	2.00 DA	Hrs/Shift:	10.00	Cal: 510	WC: CCISP		
5CONCP28M	Concrete Concrete Pump 28		16.00	HR	95.000			1,520			1,520
5CONCPCY	Cubic Yard Charge		120.00	CY	2.250			270			270
$1,790.00					[ ]			1,790			1,790
380014	Pavers			Quan:	453.00 SF	Hrs/Shift:	10.00	Cal: 510	WC: CCISP		
42PAVERS	Pavers Subcontractor		453.00	SF	25.000					11,461	11,461
=====> Item Totals:	2000210	- Concrete Cap Mooring Dolphin									
$188,529.98	7.5000 MH/CY		900.00	MH	[287.454]	48,235	50,026	18,842	56,526	14,901	188,530
1,571.083	120 CY					401.96	416.88	157.02	471.05	124.17	1,571.08

BID ITEM = 2000220				Land Item	SCHEDULE: 1		100				
Description =	Floating Fender: Remove, Store and Place			Unit =	EA	Takeoff Quan:		1.000	Engr Quan:		1.000
630010	Fender Hardware			Quan:	1.00 EA	Hrs/Shift:	10.00	Cal: 510	WC: CCISP		
2FENDERHARD	Fender Hardware@106.5%		1.00	LS	2,500.000		2,702				2,702
630011	Remove, Store, Install Fender			Quan:	1.00 EA	Hrs/Shift:	10.00	Cal: 510	WC: CCISP		

installation at a rate of 1 per day.
all the anchor plates and anchor bolst are embedded into the concrete at the time of pouring the concrete.

MARPIL	Marine Piling & Demo Crew		10.00	CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		1.00	DA	70.000			71			71
8211050	Fuel, Oil, Grease 50g/d		1.00	DA	200.000				202		202
8CRANEC200	Crane Manitowoc 777 20	1.00	10.00	HR	200.743				2,027		2,027
8DRILLR	***DRILLS - ROCK***	1.00	10.00	HR	17.500				177		177
8MAC-A-10	Compressor 185 CFM	1.00	10.00	HR	3.000				32		32
8MBC-Z-1	Barge Carpenter 12'X40	2.00	20.00	HR	6.500				138		138
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	10.00	HR	55.000				586		586
8MBT-Z-12	Tug Push Boat 200 HP	1.00	10.00	HR	20.000				213		213
8MBW-Z-2	18' Aluminum Boat & O/	1.00	10.00	HR	3.000				32		32
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	10.00	HR	5.000				53		53
8MDH-A-7	DELMAG D19 HAMMER	1.00	10.00	HR	10.000				107		107
8MFD-A-1	FAIRLEADS	1.00	10.00	HR	0.100				1		1
8MGN-Z-11	Generator 10 KW	1.00	10.00	HR	3.000				32		32
8MLT-A-1	Light Tower, Genie	1.00	10.00	HR	3.500				37		37
8MPE-A-11	Extractor Pile	1.00	10.00	HR	5.000				53		53
8MVP-A-11	FORD F150 SUPERC 10	1.00	10.00	HR	6.500				69		69
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	10.00	HR	10.000				107		107
8MWM-C-1	Welder Diesel 400 AMP	1.00	10.00	HR	2.500				27		27
8PILE26	Vibro Hammer 150 TN	1.00	10.00	HR	80.944				818		818
9ADMS11	Subsistance Crew 5		1.00	DA	750.000			758			758
M105	Foreman - General Marine	1.00	10.00	MH	39.030	588					588
M165	M-Piledriver	1.00	10.00	MH	38.200	584					584
M170	M-Welder	1.00	10.00	MH	34.960	544					544
M190	M-Skilled Laborer	1.00	10.00	MH	31.960	474					474
OPCR100	Op Eng 1A- Crane 100-200	1.00	10.00	MH	36.580	564					564

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000220				Land Item	SCHEDULE: 1	100				
Description =	Floating Fender: Remove, Store and Place			Unit =	EA	Takeoff Quan:	1.000	Engr Quan:		1.000
$8,291.59	50.0000 MH/EA		50.00 MH	[1988.03]	2,753		828	4,710		8,292
=====> Item Totals:	2000220	- Floating Fender: Remove, Store and Place								
$10,994.03	50.0000 MH/EA		50.00 MH	[1988.03]	2,753	2,702	828	4,710		10,994
10,994.030	1 EA				2,752.92	2,702.44	828.20	4,710.47		10,994.03

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000400				Land Item	SCHEDULE: 1	100				
Description =	Project Close Out			Unit =	LS	Takeoff Quan:	1.000	Engr Quan:		1.000
115000	Remove Fence (Chain Link)			Quan:	160.00 FT	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
MARLAN	Up Land Support Crew		5.00 CH	Prod:	0.5000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		0.50 DA	200.000				101		101
8BHLD480	BHL Cat 450E 1.75CY	1.00	5.00 HR	56.724				286		286
8CRANERT530	Crane Grove RT530E 30	1.00	5.00 HR	64.705				327		327
8MBC-Z-1	Barge Carpenter 12'X40	1.00	5.00 HR	6.500				35		35
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	5.00 HR	10.867				55		55
9ADMS11	Subsistance Crew 5		16.00 DA	750.000			12,120			12,120
9ADMT08	Craft Subsistence ($120/D/		0.50 DA	480.000			242			242
M105	Foreman - General Marine	1.00	5.00 MH	39.030	294					294
M195	M-Laborer	2.00	10.00 MH	30.100	451					451
OPCR24	Op Eng 2- Crane 20-44T	1.00	5.00 MH	35.400	275					275
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	5.00 MH	35.390	275					275
$14,460.06	0.1562 MH/FT		25.00 MH	[5.845]	1,294		12,362	804		14,460
117035	Remove Barrier			Quan:	160.00 FT	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
MARLAN	Up Land Support Crew		5.00 CH	Prod:	0.5000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		0.50 DA	200.000				101		101
8BHLD480	BHL Cat 450E 1.75CY	1.00	5.00 HR	56.724				286		286
8CRANERT530	Crane Grove RT530E 30	1.00	5.00 HR	64.705				327		327
8MBC-Z-1	Barge Carpenter 12'X40	1.00	5.00 HR	6.500				35		35
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	5.00 HR	10.867				55		55
9ADMS11	Subsistance Crew 5		16.00 DA	750.000			12,120			12,120
9ADMT08	Craft Subsistence ($120/D/		0.50 DA	480.000			242			242
M105	Foreman - General Marine	1.00	5.00 MH	39.030	294					294
M195	M-Laborer	2.00	10.00 MH	30.100	451					451
OPCR24	Op Eng 2- Crane 20-44T	1.00	5.00 MH	35.400	275					275
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	5.00 MH	35.390	275					275
$14,460.06	0.1562 MH/FT		25.00 MH	[5.845]	1,294		12,362	804		14,460
890010	Subcontractor Pile Crew Demobilization			Quan:	1.00 LS	Hrs/Shft:	10.00	Cal: 510	WC: CCISP	
MARPIL	Marine Piling & Demo Crew		10.00 CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	18.00
3WELD	Weld Supplies (1 man-Stick		1.00 DA	70.000			71			71
8211050	Fuel, Oil, Grease 50g/d		1.00 DA	200.000				202		202
8CRANEC200	Crane Manitowoc 777 20	1.00	10.00 HR	200.743				2,027		2,027
8DRILLR	***DRILLS - ROCK***	1.00	10.00 HR	17.500				177		177
8MAC-A-10	Compressor 185 CFM	1.00	10.00 HR	3.000				32		32
8MBC-Z-1	Barge Carpenter 12'X40	2.00	20.00 HR	6.500				138		138
8MBS-Z-17	Spud Barge 170x45' ABS	1.00	10.00 HR	55.000				586		586
8MBT-Z-12	Tug Push Boat 200 HP	1.00	10.00 HR	20.000				213		213
8MBW-Z-2	18' Aluminum Boat & O/	1.00	10.00 HR	3.000				32		32
8MCE-A-40	Bucket Clamshell 3 CYD	1.00	10.00 HR	5.000				53		53
8MDH-A-7	DELMAG D19 HAMMER	1.00	10.00 HR	10.000				107		107
8MFD-A-1	FAIRLEADS	1.00	10.00 HR	0.100				1		1

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 2000400				Land Item SCHEDULE: 1		100				
Description =	Project Close Out			Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000
8MGN-Z-11	Generator 10 KW	1.00	10.00 HR	3.000				32		32
8MLT-A-1	Light Tower, Genie	1.00	10.00 HR	3.500				37		37
8MPE-A-11	Extractor Pile	1.00	10.00 HR	5.000				53		53
8MVP-A-11	FORD F150 SUPERC 10	1.00	10.00 HR	6.500				69		69
8MWH-A-1	WINCH 3-DRUM RB-90	1.00	10.00 HR	10.000				107		107
8MWM-C-1	Welder Diesel 400 AMP	1.00	10.00 HR	2.500				27		27
8PILE26	Vibro Hammer 150 TN	1.00	10.00 HR	80.944				818		818
9ADMS11	Subsistance Crew 5		1.00 DA	750.000			758			758
M105	Foreman - General Marine	1.00	10.00 MH	39.030	588					588
M165	M-Piledriver	1.00	10.00 MH	38.200	584					584
M170	M-Welder	1.00	10.00 MH	34.960	544					544
M190	M-Skilled Laborer	1.00	10.00 MH	31.960	474					474
OPCR100	Op Eng 1A- Crane 100-200	1.00	10.00 MH	36.580	564					564
$8,291.59	50.0000 MH/LS		50.00 MH	[1988.03]	2,753		828	4,710		8,292
890011	Upland Crew Demob			Quan: 1.00 LS	Hrs/Shft: 10.00		Cal: 510	WC: CCISP		
MARLAN	Up Land Support Crew		10.00 CH	Prod:	1.0000 S		Lab Pcs:	5.00	Eqp Pcs:	4.00
8211050	Fuel, Oil, Grease 50g/d		1.00 DA	200.000				202		202
8BHLD480	BHL Cat 450E 1.75CY	1.00	10.00 HR	56.724				573		573
8CRANERT530	Crane Grove RT530E 30	1.00	10.00 HR	64.705				654		654
8MBC-Z-1	Barge Carpenter 12'X40	1.00	10.00 HR	6.500				69		69
8TRKPU10	Pickup 4x2 3/4 Ton Gas	1.00	10.00 HR	10.867				110		110
9ADMS11	Subsistance Crew 5		0.10 DA	750.000			76			76
9ADMT08	Craft Subsistence ($120/D/		1.00 DA	480.000			485			485
M105	Foreman - General Marine	1.00	10.00 MH	39.030	588					588
M195	M-Laborer	2.00	20.00 MH	30.100	902					902
OPCR24	Op Eng 2- Crane 20-44T	1.00	10.00 MH	35.400	549					549
OPEXC3	Op Eng 3- Backhoe to 3Y	1.00	10.00 MH	35.390	549					549
$4,755.94	50.0000 MH/LS		50.00 MH	[1870.22]	2,588		561	1,607		4,756
=====> Item Totals:	2000400	- Project Close Out								
$41,967.65	150.0000 MH/LS		150.00 MH	[5728.49]	7,929		26,114	7,925		41,968
41,967.650	1 LS				7,929.04		26,113.55	7,925.06		41,967.65
$1,134,837.59	*** Report Totals ***		4,462.50 MH		238,690	227,517	231,822	292,472	144,336	1,134,838

>>> indicates Non Additive Activity
------Report Notes:------
The estimate was prepared with TAKEOFF Quantities.
This report shows TAKEOFF Quantities with the resources.

Bid Date: 08/01/14 Owner: Engineering Firm:
Estimator-In-Charge:

JOB NOTES

```
************Estimate created on: 03/15/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12.zip (a backup) from 03/15/2012  10:42:38 AM

************Estimate created on: 03/15/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12HB.zip (a backup) from 03/15/2012  11:30:47 AM

************Estimate created on: 09/13/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12HB.zip (a backup) from 09/13/2012  12:48:25 PM
```

Activity Resource	Desc	Quantity Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total

BID ITEM = 2000400 Land Item SCHEDULE: 1 100
Description = Project Close Out Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

```
************Estimate created on: 09/13/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST MASTERS BACKUP\MASTER12HH.zip (a backup) from 09/13/2012  12:52:10 PM

************Estimate created on: 10/30/2012 by User#: 612 - John O'Reilly
Source estimate used: Y:\TBG-ENGI\EST\MASTER12PM

************Estimate created on: 10/31/2012 by User#: 612 - John O'Reilly
Source used: Y:\TBG-ENGI\EST BACKUPS\12-55A.zip (a backup) from 10/31/2012  1:01:03 PM

************Estimate created on: 01/08/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\12-060A

************Estimate created on: 07/03/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-002

************Estimate created on: 08/29/2013 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-034

************Estimate created on: 03/10/2016 by User#: 657 - Jorge Abisambra
Source estimate used: Y:\TBG-ENGI\EST\13-034A
```

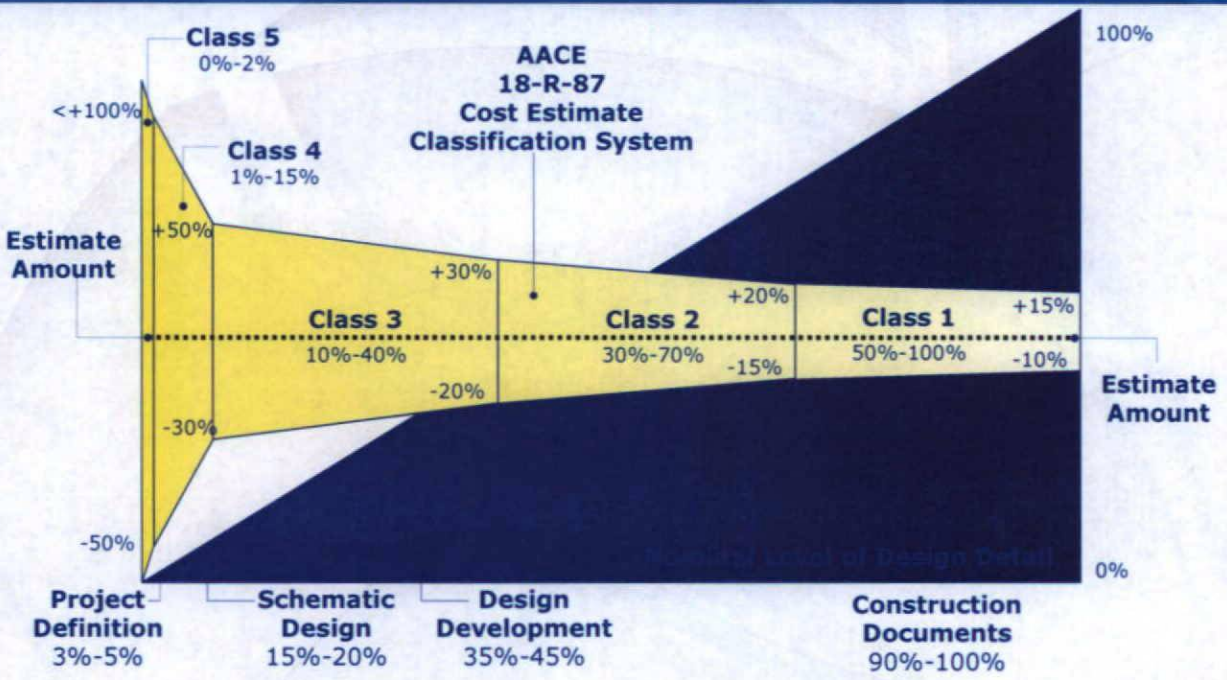
* on units of MH indicate average labor unit cost was used rather than base rate.
[ ] in the Unit Cost Column = Labor Unit Cost Without Labor Burdens
In equipment resources, rent % and EOE % not = 100% are represented as XXX%YYY where XXX=Rent% and YYY=EOE%

------Calendar Codes------

410	4 Nights @ 10 hrs/night
508	5 days @ 8hrs/day
509	5 days @ 9 hrs/day
510	5 days @ 10hrs/day (Default Calendar)
608	6 Days @ 8 hrs/day
610	6 Days @ 10 hrs/day

APPENDIX E – Estimate Class and Accuracy Terms

AACE – Classification System



Construction Cost Estimate Accuracy Ranges

CH2MHILL

Estimate Class	Class 5		Class 4		Class 3		Class 2		Class 1	
LEVEL OF PROJECT DEFINITION Expressed as a % of complete definition	0% to 2%		1% to 15%		10% to 40%		30% to 70%		50% to 100%	
END USAGE Typical Purpose of Estimate	Concept Screening		Study or Feasibility		Budget Authorization, or Control		Control or Bid / Tender		Check Estimate or Bid / Tender	
METHODOLOGY Typical estimating method	Capacity Factored, Parametric Models, Judgment, or Analogy		Equipment Factored or Parametric Models		Semi-Detailed Unit Costs with Assembly Level Line Items		Detailed Unit Cost with Forced Detailed Take-Off		Detailed Unit Cost with Detailed Take-Off	
EXPECTED ACCURACY RANGE Typical variation in low and high ranges [a]	L: -20% to -50%	H: +30% to +100%	L: -15% to -30%	H: +20% to +50%	L: -10% to -20%	H: +10% to +30%	L: -5% to -15%	H: +5% to +20%	L: -3% to -10%	H: +3% to +15%
PREPARATION EFFORT Typical degree of effort relative to least cost index of 1 [b]	1		2 to 4		3 to 10		4 to 20		5 to 100	
REFINED CLASS DEFINITION	Class 5 estimates are generally prepared based on very limited information, and subsequently have very wide accuracy ranges. As such, some companies and organizations have elected to determine that due to the inherent inaccuracies, such estimates cannot be classified in a conventional and systematic manner. Class 5 estimates, due to the requirements of end use, may be prepared within a very limited amount of time and with very little effort expended - sometimes requiring less than 1 hour to prepare. Often, little more than proposed plant type, location, and capacity are known at the time of estimate preparation.		Class 4 estimates are generally prepared based on very limited information, and subsequently have very wide accuracy ranges. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Typically, engineering is from 1% to 5% complete, and would comprise at a minimum the following: plant capacity, block schematics, indicated layout, process flow diagrams (PFDs) for main process systems and preliminary engineered process and utility equipment lists. Level of Project Definition Required: 1% to 15% of full project definition.		Class 3 estimates are generally prepared to form the basis for budget authorization, appropriation, and/or funding. As such, they typically form the initial control estimate against which all actual costs and resources will be monitored. Typically, engineering is from 10% to 40% complete, and would comprise at a minimum the following: process flow diagrams, utility flow diagrams, preliminary piping and instrument diagrams, utility flow diagrams, preliminary piping and instrument diagrams, plot plan, developed layout drawings, and essentially complete engineering process and utility equipment lists. Level Of Project Definition Required: 10% to 40% of full project definition.		Class 2 estimates are generally prepared to form a detailed control baseline against which all project work is monitored in terms of cost and progress control. For contractors, this class of estimate is often used as the "bid" estimate to establish contract value. Typically, engineering is from 30% to 70% complete, and would comprise at a minimum the following: Process flow diagrams, utility flow diagrams, piping and instrument flow diagrams, heat and material balances, final plot plan, final layout drawings, complete engineered process and utility equipment lists, single line diagrams for electrical, electrical equipment and motor schedules, vendor quotations, detailed project execution plans, resourcing and work force plans, etc.		Class 1 estimates are generally prepared for discrete parts or sections of the total project rather than generating this level of detail for the entire project. The parts of the project estimated at this level of detail will typically be used by subcontractors for bids or by owners for check estimates. The updated estimate is often referred to as the current control estimate and becomes the new baseline for cost/schedule control of the project. Class 1 estimates may be prepared for parts of the project to comprise a fair price estimate or bid check estimate to compare against a contractor's bid estimate, or to evaluate/dispute claims. Typically, engineering is from 30% to 100% complete, and would comprise virtually all engineering and design documentation of the project, and complete project execution and commissioning plans. Level for Project Definition Required: 30% to 100% of full project definition.	
END USAGE DEFINED	Class 5 estimates are prepared for any number of strategic business planning purposes, such as but not limited to, detailed strategic planning, business development, project screening at more developed stages, alternative scheme analysis, confirmation of economic and/or technical feasibility, and preliminary budget approval or approval to proceed to next stage.		Class 4 estimates are prepared for a number of purposes, such as but not limited to, detailed strategic planning, business development, project screening at more developed stages, alternative scheme analysis, confirmation of economic and/or technical feasibility, and preliminary budget approval or approval to proceed to next stage.		Class 3 estimates are typically prepared to support full project funding requests, and become the first of the project phase "control estimate" against which all actual costs and resources will be monitored for variations to the budget. They are used as the project budget until replaced by more detailed estimates. In many owner organizations, a Class 3 estimate may be the last estimate required and could well form the only basis for cost/schedule control.		Class 2 estimates are typically prepared as the detailed control baseline against which all actual costs an resources will now be monitored for variation to the budget, and form a part of the change/variation control program.		Class 1 estimates are typically prepared to form a current control estimate to be used as the final control baseline against which all actual costs and resources will now be monitored for variations to the budget, and form a part of the change/variation control program. They may be used to evaluate bid checking, to support vendor/contractor negotiations, or for claim evaluations and dispute resolution.	
ESTIMATING METHODS USED	Class 5 estimates virtually always use stochastic estimating methods such as cost/capacity curves and factors, scale of operations factors, Lang factors, Hand factors, Chilton factors, Peters-Timmerhaus factors, Guthrie factors, and other parametric and modeling techniques.		Class 4 estimates virtually always use stochastic estimating methods such as cost/capacity curves and factors, scale of operations factors, Lang factors, Hand factors, Chilton factors, Peters-Timmerhaus factors, Guthrie factors, the Miller method, gross unit costs/ratios, and other parametric and modeling techniques.		Class 3 estimates usually involve more deterministic estimating methods that stochastic methods. They usually involve a high degree of unit cost line items, although these may be at an assembly level of detail rather than individual components. Factoring and other stochastic methods may be used to estimate less significant areas of the project.		Class 2 estimates always involve a high degree of deterministic estimating methods. Class 2 estimates are prepared in great detail, and often involve tens of thousands of unit cost line items. For those areas of the project still undefined, an assumed level of detailed takeoff (forced detail) may be developed to use as line items in the estimate instead of relying on factoring methods.		Class 1 estimates involve the highest degree of deterministic estimating methods, and require a great amount of effort. Class 1 estimates are prepared in great detail, and thus are usually performed on only the most important or critical areas of the project. All items in the estimate are usually unit cost line items based on actual design quantities.	
EXPECTED ACCURACY RANGE	Typical accuracy ranges for Class 5 estimates are -20% to -50% on the low side, and +30% to +100% on the high side, depending on the technological complexity of the project, appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.		Typical accuracy ranges for Class 4 estimates are -15% to -30% on the low side, and +20% to +50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.		Typical accuracy ranges for Class 3 estimates are -10% to -20% on the low side, and +10% to +30% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.		Typical accuracy ranges for Class 2 estimates are -5% to -15% on the low side, and +5% to +20% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.		Typical accuracy ranges for Class 1 estimates are -3% to -10% on the low side, and +3% to +15% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.	
EFFORT TO PREPARE (for US$20MM project):	As little as 1 hour or less to prepare to perhaps more than 200 hours, depending on the project and the estimating methodology used.		Typically, as little as 20 hours or less to perhaps more than 300 hours, depending on the project and the estimating methodology used.		Typically, as little as 100 hours or less to perhaps more than 1500 hours, depending on the project and the estimating methodology used.		Typically, as little as 300 hours or less to perhaps more than 3000 hours, depending on the project and the estimating methodology used. Bid Estimates typically require more effort than estimates used for funding or control purposes.		Class 1 estimates require the most effort to create, and as such are generally developed for only selected areas of the project, or for bidding purposes. A complete Class 1 estimate may involve as little as 800 hours or less, to perhaps more than 6,000 hours, depending on the project and the estimating methodology used. Bid estimate typically require more effort than estimates used for funding or control purposes.	
ANSI Standard Reference Z94.2-1989 name; Alternate Estimate Names, Terms, Expressions, Synonyms:	Order of Magnitude Estimate, Ballo, ballpark, blue sky, seat-of-pants, ROM, idea study, prospect estimate, concession license estimate, guesstimate, rule-of thumb.		Budget Estimate, Screening, top-down, feasibility, authorization, factored, pre-design, pre-study.		Budget Estimate, Budget, scope, sanction, semi-detailed, authorization, preliminary control, concept study, development, basic engineering phase estimate, target estimate.		Definitive Estimate, Detailed Control, forced detail, execution phase, master control, engineering, bid, tender, change order estimate.		Definitive Estimate, Full detail, release, fallout, tender, firm price, bottom-up, final, detailed control, forced detail, execution phase, master control, fair price, definitive, change order estimate.	

Estimate Class	Class 5	Class 4	Class 3	Class 2	Class 1
Estimate Input Checklist and Maturity Index	Class 5	Class 4	Class 3	Class 2	Class 1
GENERAL PROJECT DATA					
Project Scope Description	General	Preliminary	Defined	Defined	Defined
Plant Production / Facility Capacity	Assumed	Preliminary	Defined	Defined	Defined
Plant Location	General	Approximate	Specific	Specific	Specific
Soils & Hydrology	None	Preliminary	Defined	Defined	Defined
Integrated Project Plan	None	Preliminary	Defined	Defined	Defined
Project Master Schedule	None	Preliminary	Defined	Defined	Defined
Escalation Strategy	None	Preliminary	Defined	Defined	Defined
Work Breakdown Structure	None	Preliminary	Defined	Defined	Defined
Project Code of Accounts	None	Preliminary	Defined	Defined	Defined
Contracting Strategy	Assumed	Assumed	Preliminary	Defined	Defined
ENGINEERING DELIVERABLES	Class 5	Class 4	Class 3	Class 2	Class 1
Block Flow Diagrams	Started / Preliminary	Preliminary / Complete	Complete	Complete	Complete
Plot Plans		Started	Preliminary / Complete	Complete	Complete
Process Flow Diagrams (PFDs)		Started / Preliminary	Preliminary / Complete	Complete	Complete
Utility Flow Diagrams (UFDs)		Started / Preliminary	Preliminary / Complete	Complete	Complete
Piping & Instrument Diagrams (P&IDS)		Started	Preliminary / Complete	Complete	Complete
Heat and Material Balances		Started	Preliminary / Complete	Complete	Complete
Process Equipment List		Started / Preliminary	Preliminary / Complete	Complete	Complete
Utility Equipment List		Started / Preliminary	Preliminary / Complete	Complete	Complete
Electrical One Line Drawings		Started / Preliminary	Preliminary / Complete	Complete	Complete
Specifications and Datasheets		Started	Preliminary / Complete	Complete	Complete
General Equipment Arrangement Drawings		Started	Preliminary / Complete	Complete	Complete
Spare Parts Lists			Started / Preliminary	Preliminary	Complete
Architectural Details / Schedules		Started	Preliminary / Complete	Complete	Complete
Structural Details		Started	Preliminary / Complete	Complete	Complete
Mechanical Discipline Drawings			Started	Preliminary	Preliminary / Complete
Electrical Discipline Drawings			Started	Preliminary	Preliminary / Complete
System Discipline Drawings			Started	Preliminary	Preliminary / Complete
Civil/Site Discipline Drawings			Started	Preliminary	Preliminary / Complete
Demolition Details		Started	Preliminary / Complete	Complete	Complete

NOTE TO BIDDER: Use preferably BLACK ink for completing this Bid form.

BID FORM

To: The City of Key West

Address: 3140 Flagler Avenue, Key West, Florida 33040

Project Title: Repairs and Improvements at Zero Duval and Mallory Square

CH2M HILL Project No.: 439197

City of Key West Project No.: EN-1002

Bidder's person to contact for additional information on this Bid:

Company: Shoreline Foundation, Inc.

Name: James A. Royo

Telephone: (954) 985-0460

Email: tony@shorelinefoundation.com

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that he has carefully examined the Contract Documents for the construction of the project, that he has personally inspected the site, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the Work and to identify the said quantities with the detailed requirements of the Contract Documents, and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Bid.

The Bidder further agrees, as evidenced by signing the Bid, which if awarded a Contract, the Florida Trench Safety Act and applicable trench safety standards will be complied with.

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CONTRACT EXECUTION AND BONDS

The Bidder agrees that if this Bid is accepted, he will, within 10 days, not including Sundays and legal holidays, after Notice of Award, sign the Contract in the form annexed hereto, and will at that time, deliver to the Owner examples of the Performance Bond and Payment Bond required herein, and evidence of holding required licenses and certificates, and will, to the extent of his Bid, furnish all machinery, tools, apparatus, and other means of construction and do the Work and furnish all the materials necessary to complete all work as specified or indicated in the Contract Documents.

CERTIFICATES OF INSURANCE

Bidder agrees to furnish the Owner, before commencing the Work under this Contract, the certificates of insurance as specified in these Documents.

START OF CONSTRUCTION AND CONTRACT COMPLETION TIMES

The Bidder agrees to begin work within 10 calendar days after the date of the Notice to Proceed (April 15, 2016) when the Contract Times commence to run as provided in paragraph 2.03.A of the General Conditions. Work will be completed and ready for final payment and acceptance in accordance with paragraph 14.07 of the General Conditions on or before November 30, 2016.

LIQUIDATED DAMAGES

In the event the Bidder is awarded the Contract, Owner and Bidder recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph Start of Construction and Contract Completion Times above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. Owner and Bidder also recognize the delays, expense, and difficulties involved in proving in a legal or other dispute resolution proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Bidder agree that as liquidated damages for delay (but not as a penalty) Bidder shall pay Owner $3,000.00 per day for each day that expires after the time specified for final completion.

Owner will recover such liquidated damages by deducting the amount owed from the final payment or any retainage held by Owner.

ADDENDA

The Bidder hereby acknowledges that he has received Addenda No's. 1, 2, ____, ____, ____, (Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Bid(s) includes all impacts resulting from said addenda.

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SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated Bid Prices for the Work. Cash allowances DO NOT include any sales and use tax. Equipment allowance includes taxes as shown in Equipment Suppliers' Bid.

PUBLIC ENTITY CRIMES

"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

LUMP SUM WORK

The Bidder further proposes to accept as full payment for the Work proposed herein the amounts computed under the provisions of the Contract Documents. For lump sum bid items, it is expressly understood that the amounts are independent of the exact quantities involved. The Bidder agrees that the amounts for lump sum work represent a true measure of labor and materials required to perform the Work, including all allowances for overhead and profit for each type of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.

UNFORESEEN CONDITION ALLOWANCE

Bidder further agrees that the amount shown is an estimated amount to be included in the Total Base Bid for unforeseen conditions and conflicts. Bidder further acknowledges that payment will be based on actual costs as determined in conformance with the Contract Documents and as authorized by Change Order. The Owner will negotiate with the Contractor how each Allowance will be spent prior to performing the work.

CONCRETE AND UTILITY ALLOWANCE

Bidder further agrees that the amount shown is an estimated amount to be included in the Total Base Bid for concrete and utility coordination. Bidder further acknowledges that payment will be based on actual costs as determined in conformance with the Contract Documents and as authorized by Change Order. The Owner will negotiate with the Contractor how each Contingency Allowance will be spent prior to performing the work.

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PERMIT ALLOWANCE

Bidder further acknowledges that this amount shown is an estimated amount to be included in the Total Base Bid for the Permit required by the City of Key West and any Regulatory Agency Permit(s). Bidder acknowledges that payment will be based on actual cost for the permit(s).

Breakdown of the lump sum bid as provided below is in accordance with the following schedule:

LUMP SUM BID SCHEDULE		
Item No.	**Description**	**Lump Sum Item Price**
A.	**Zero Duval**	
1.	Mobilization	$ 59,326.00
2.	Demolition	$ 33,922.00
3.	Wooden Deck Demolition/ Reconstruction	$ 59,314.00
4.	Sheet Piles	$ 115,382.00
5.	Tie Backs and Walers	$ 168,612.00
6.	Concrete Cap	$ 93,503.00
7.	Backfill/Flowable Fill	$ 56,803.00
8.	Drainage Pipe Extension and Repair	$ 204,362.00
9.	Misc. General	$ 13,421.00
10.	Project Close Out / Demobilization	$ 11,049.00

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LUMP SUM BID SCHEDULE		
Item No.	**Description**	**Lump Sum Item Price**
	SUBTOTAL 'A'	$ 815,694.00
B.	Mallory	
1.	Mobilization	$ 48,526.00
2.	Demolition	$ 37,286.00
3.	Piling	$ 208,306.00
4.	Concrete	$ 227,701.00
5.	Fenders	$ 16,859.00
6.	Misc. General	$ 13,048.00
7.	Project Close Out / Demobilization	$ 11,049.00
	SUBTOTAL 'B'	$ 562,775.00

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C.	Unforeseen Condition Allowance	$ 125,000
D.	Permit Allowance	$ 40,000
E.	Concrete and Utility Allowance	$ 75,000
	Total Lump Sum Bid (A.-E.)	**$ 1,618,469.00**

The Bidder agrees to accept as full payment for the Work proposed under this Project, as herein specified and as shown on the Drawings, the following Total Base Bid amount:

One Million, Six Hundred Eighteen Thousand,
Four Hundred and Sixty-Nine Dollars and Zero cents.
(Amount written in words has precedence)

Basis of Award is Total Lump Sum Bid Amount.

ALTERNATE BIDS – LUMP SUM

Provide Work of Alternate Items as specified in Section 01 29 00 for the following amounts:

Alternate No. 1: New Timber Piles (Each Pile) $3,971.00

SUBCONTRACTORS

The Bidder further proposes that the following subcontracting firms or businesses will be awarded subcontracts for the following portions of the Work in the event that the Bidder is awarded the Contract:

Nearshore Electric Inc.
Name

5680 1st Avenue, #5 | Key West | FL | 33040
Street | City | State | Zip

*Pavers - TBD
Name

Street | City | State | Zip

*Plumbing - TBD
Name

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Street City State Zip

Name

Street City State Zip

Surety

Matson-Charlton Surety Group whose address is

700 South Dixie Highway, Suite 100 Coral Gables FL 33146
Street City State Zip

Bidder

The name of the Bidder submitting this Bid is Shoreline Foundation, Inc.

doing business at

2781 SW 56th Avenue Pembroke Park Florida 33023
Street City State Zip

which is the address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of the partnership, or of all persons interested in this Bid as principals are as follows:

James A. Royo, President

Barry S. Reed, Vice President-Secretary

John R. McGee. Vice President-Tresasurer

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If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this ___ day of _____ 20___.

_____
Signature of Bidder

_____
Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this 1st day of March 2016.

(SEAL)

Shoreline Foundation, Inc.
Name of Corporation

By: _____

Title: President

Attest: _____
Secretary Barry S. Reed

END OF SECTION

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FLORIDA BID BOND

BOND NO. N/A BID BOND

AMOUNT: $ 0

KNOW ALL MEN BY THESE PRESENTS, that SHORELINE FOUNDATION, INC.

hereinafter called the Contractor (Principal), and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

a corporation duly organized and existing under and by virtue of the laws of the State of CONNECTICUT Florida, hereinafter called the Surety, and authorized to transact business within the State of Florida, as Surety, are held and firmly bound unto The City of Key West as Owner

(Obligee), in the sum of: FIVE PERCENT OF THE AMOUNT BID

DOLLARS ($ 5%----------), for the payment for which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the Principal is herewith submitting his or its Bid Proposal for Repairs and Improvements at Zero Duval and Mallory Square, Key West, Florida, said Bid Proposal, by reference thereto, being hereby made a part hereof.

WHEREAS, the Principal contemplates submitting or has submitted a bid to the Obligee for the furnishing of all labor, materials (except those to be specifically furnished by the Owner), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Proposal and the detailed Drawings and Specifications, entitled:

REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the Owner for the performance of said Contract, within 10 working days after written notice having been given of the award of the Contract.

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NOW, THEREFORE, the conditions of this obligation are such that if the Principal within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the Obligee and furnishes the Performance and Payment Bonds, each in an amount equal to 100 percent of the awarded base bid, satisfactory to the Owner, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the Obligee and the Surety herein agrees to pay said sum immediately upon demand of the Obligee in good and lawful money of the United States of America, as liquidated damages for failure thereof of said Principal.

Signed and sealed this 24TH day of FEBRUARY, 20 16.

SHORELINE FOUNDATION, INC.
Principal

By: _____

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
Surety

By: _____
Attorney-In-Fact D. W. MATSON III

END OF SECTION

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TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 216588

Certificate No. 005991874

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

D. W. Matson III, and John W. Charlton

of the City of Coral Gables, State of Florida, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 21st day of July, 2014.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the 21st day of July, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

Marie C. Tetreault
Marie C. Tetreault, Notary Public

58440-8-12 Printed in U.S.A.

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid (Repairs and Improvements at Zero Duval and Mallory Square) will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: _____

James A. Royo - President

Sworn and subscribed before me this
1st day of MARCH, 2016

_____
NOTARY PUBLIC, State of Florida
at Large

Notary Public State of Florida
Joseph Stanton
My Commission EE 827488
Expires 08/28/2016

My Commission Expires: 8/28/16

END OF SECTION

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SWORN STATEMENT UNDER SECTION 287.133(3)(A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid or Proposal for Repairs and Improvements at Zero Duval and Mallory Square, City of Key West, Florida.

2. This sworn statement is submitted by Shoreline Foundation, Inc.
(name of entity submitting sworn statement)

whose business address is 2781 SW 56th Avenue, Pembroke Park, FL 33023

_____ and (if applicable) its Federal Employer

Identification Number (FEIN) is 59-2695595

(If the entity has no FEIN, include the Social Security Number of the individual signing this

sworn statement _____

3. My name is James A. Royo
(please print name of individual signing)

and my relationship to the entity named above is President

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(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 or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. 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 guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. 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 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 controls another person. A person who knowingly enters into a joint venture with a 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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7. I understand that a "person" as defined in Paragraph 287.133(1)(8), 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 public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. 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, AND (Please indicate which additional statement applies.)

_____ There has been a proceeding concerning the conviction before a hearing 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 put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

_____
(signature)

3/1/16
(date)

STATE OF Florida

COUNTY OF Broward

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

JAMES A ROYO who, after first being sworn by me, affixed his/her
(name of individual signing)

signature in the space provided above on this 1st of MARCH, 2016.

My commission expires: 8/28/16

_____
NOTARY PUBLIC

Notary Public State of Florida
Joseph Stanton
My Commission EE 827488
Expires 08/28/2016

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CITY OF KEY WEST INDEMNIFICATION FORM

To the fullest extent permitted by law, the CONTRACTOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees *(herein called the "indemnitees") from liabilities, damages, losses and costs, including but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR, its Subcontractors or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONTRACTOR's insurance or $1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR under Workers' Compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONTRACTOR or of any third party to whom CONTRACTOR may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Shoreline Foundation, Inc. SEAL:

2781 SW 56th Avenue
Address

Signature

James A. Royo
Print Name

President
Title

DATE: 3/1/16

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SECTION 00 43 19
EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF Broward)

I, the undersigned hereby duly sworn, depose and say that the firm of Shoreline Foundation, Inc. provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: _____
James A. Royo, President

Sworn and subscribed before me this

1st day of MARCH, 2016.

_____
NOTARY PUBLIC, State of Florida at Large

Notary Public State of Florida
Joseph Stanton
My Commission EE 827488
Expires 08/28/2016

My Commission Expires: 8/28/16

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City Ordinance Sec. 2-799
Requirements for City Contractors to Provide Equal Benefits for Domestic Partners

(a) Definitions. For purposes of this section only, the following definitions shall apply:

(1) ***Benefits*** means the following plan, program or policy provided or offered by a contractor to its employees as part of the employer's total compensation package: sick leave, bereavement leave, family medical leave, and health benefits.

(2) ***Bid*** shall mean a competitive bid procedure established by the city through the issuance of an invitation to bid, request for proposals, request for qualifications, or request for letters of interest.

(3) ***Cash equivalent*** means the amount of money paid to an employee with a domestic partner in lieu of providing benefits to the employee's domestic partner. The cash equivalent is equal to the employer's direct expense of providing benefits to an employee for his or her spouse.

The cash equivalents of the following benefits apply:

a. For bereavement leave, cash payment for the number of days that would be allowed as paid time off for the death of a spouse. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.

b. For health benefits, the cost to the contractor of the contractor's share of the single monthly premiums that are being paid for the domestic partner employee, to be paid on a regular basis while the domestic partner employee maintains such insurance in force for himself or herself.

c. For family medical leave, cash payment for the number of days that would be allowed as time off for an employee to care for a spouse who has a serious health condition. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.

(4) ***Contract*** means any written agreement, purchase order, standing order or similar instrument entered into pursuant to the award of a bid whereby the city is committed to expend or does expend funds in return for work, labor, professional services, consulting services, supplies, equipment, materials, construction, construction related services or any combination of the foregoing.

(5) ***Contractor*** means any person or persons, sole proprietorship, partnership, joint venture, corporation, or other form of doing business, that is awarded a bid and enters into a covered contract with the city, and which maintains five (5) or more full-time employees.

(6) ***Covered contract*** means a contract between the city and a contractor awarded subsequent to the date when this section becomes effective valued at over twenty thousand dollars ($20,000).

(7) ***Domestic partner*** shall mean any two adults of the same or different sex, who have registered as domestic partners with a governmental body pursuant to state or local law authorizing such registration, or with an internal registry maintained

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by the employer of at least one of the domestic partners. A contractor may institute an internal registry to allow for the provision of equal benefits to employees with domestic partner who do not register their partnerships pursuant to a governmental body authorizing such registration, or who are located in a jurisdiction where no such governmental domestic partnership registry exists. A contractor that institutes such registry shall not impose criteria for registration that are more stringent than those required for domestic partnership registration by the City of Key West pursuant to Chapter 38, Article V of the Key West Code of Ordinances.

(8) ***Equal benefits*** mean the equality of benefits between employees with spouses and employees with domestic partners, and/or between spouses of employees and domestic partners of employees.

(b) Equal benefits requirements.

(1) Except where otherwise exempt or prohibited by law, a Contractor awarded a covered contract pursuant to a bid process shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses.

(2) All bid requests for covered contracts which are issued on or after the effective date of this section shall include the requirement to provide equal benefits in the procurement specifications in accordance with this section.

(3) The city shall not enter into any covered contract unless the contractor certifies that such contractor does not discriminate in the provision of benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees.

(4) Such certification shall be in writing and shall be signed by an authorized officer of the contractor and delivered, along with a description of the contractor's employee benefits plan, to the city's procurement director prior to entering into such covered contract.

(5) The city manager or his/her designee shall reject a contractor's certification of compliance if he/she determines that such contractor discriminates in the provision of benefits or if the city manager or designee determines that the certification was created, or is being used for the purpose of evading the requirements of this section.

(6) The contractor shall provide the city manager or his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this section, and upon request shall provide evidence that the contractor is in compliance with the provisions of this section upon each new bid, contract renewal, or when the city manager has received a complaint or has reason to believe the contractor may not be in compliance with the provisions of this section. This shall include but not be limited to providing the city manager or his/her designee with certified copies of all of the contractor's records pertaining to its benefits policies and its employment policies and practices.

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(7) The contractor may not set up or use its contracting entity for the purpose of evading the requirements imposed by this section.

(c) Mandatory contract provisions pertaining to equal benefits. Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this section. The language shall include provisions for the following:

(1) During the performance of the covered contract, the contractor certifies and represents that it will comply with this section.
(2) The failure of the contractor to comply with this section will be deemed to be a material breach of the covered contract.
(3) If the contractor fails to comply with this section, the city may terminate the covered contract and all monies due or to become due under the covered contract may be retained by the city. The city may also pursue any and all other remedies at law or in equity for any breach.
(4) If the city manager or his designee determines that a contractor has set up or used its contracting entity for the purpose of evading the requirements of this section, the city may terminate the covered contract.

(d) Enforcement. If the contractor fails to comply with the provisions of this section:

(1) The failure to comply may be deemed to be a material breach of the covered contract; or
(2) The city may terminate the covered contract; or
(3) Monies due or to become due under the covered contract may be retained by the city until compliance is achieved; or
(4) The city may also pursue any and all other remedies at law or in equity for any breach;
(5) Failure to comply with this section may also subject contractor to the procedures set forth in Division 5 of this article, entitled "Debarment of contractors from city work."

(e) Exceptions and waivers.

The provisions of this section shall not apply where:

(1) The contractor does not provide benefits to employees' spouses.
(2) The contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with a religious organization, association or society.
(3) The contractor is a governmental entity.
(4) The sale or lease of city property.
(5) The provision of this section would violate grant requirement, the laws, rules or regulations of federal or state law (for example, The acquisition services procured

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pursuant to Chapter 287.055, Florida Statutes known as the "Consultants' Competitive Negotiation Act").

(6) Provided that the contractor does not discriminate in the provision of benefits, a contractor may also comply with this section by providing an employee with the cash equivalent of such benefits, if the city manager or his/her designee determines that either:

a. The contractor has made a reasonable yet unsuccessful effort to provide equal benefits. The contractor shall provide the city manager or his/her designee with sufficient proof of such inability to provide such benefit or benefits which shall include the measures taken to provide such benefits or benefits and the cash equivalent proposed, along with its certificate of compliance, as is required under this section.

(7) The city commission waives compliance of this section in the best interest of the city, including but not limited to the following circumstances:

a. The covered contract is necessary to respond to an emergency.
b. Where only one bid response is received.
c. Where more than one bid response is received, but the bids demonstrate that none of the bidders can comply with the requirements of this section.

(f) City's authority to cancel contract. Nothing in this section shall be construed to limit the city's authority to cancel or terminate a contract, deny or withdraw approval to perform a subcontract or provide supplies, issue a non-responsibility finding, issue a non-responsiveness finding, deny a person or entity prequalification, or otherwise deny a person or entity city business.

(g) Timing of application. This section shall be applicable only to covered contracts awarded pursuant to bids which are after the date when this section becomes effective.

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SECTION 00 43 21
CONE OF SILENCE AFFIDAVIT

STATE OF Florida)
: SS
COUNTY OF Broward)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of Shoreline Foundation, Inc. have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

Sworn and subscribed before me this

1st day of MARCH, 2016.

Notary Public State of Florida
Joseph Stanton
My Commission EE 827488
Expires 08/28/2016

NOTARY PUBLIC, State of FLORIDA at Large

My Commission Expires: 8/28/16

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Sec. 2-773. Cone of Silence

(a) Definitions. For purposes of this section, reference to one gender shall include the other, use of the plural shall include the singular, and use of the singular shall include the plural. The following definitions apply unless the context in which the word or phrase is used requires a different definition:

1) *Competitive Solicitation* means a formal process by the City of Key West relating to the acquisition of goods or services, which process is intended to provide an equal and open opportunity to qualified persons and entities to be selected to provide the goods or services. Completive Solicitation shall include request for proposals ("RFP"), request for qualifications ("RFQ"), request for letters of interest ("RFLI"), invitation to bid ("ITB") or any other advertised solicitation.

2) *Cone of Silence* means a period of time during which there is a prohibition on communication regarding a particular Competitive Solicitation.

3) *Evaluation or Selection Committee* means a group of persons appointed or designated by the City to evaluate, rank, select, or make a recommendation regarding a Vendor or the Vendor's response to the Competitive Solicitation. A member of such a committee shall be deemed a city official for the purposes of subsection (c) below.

4) *Vendor* means a person or entity that has entered into or that desires to enter into a contract with the City of Key West or that seeks an award from the City to provide goods, perform a service, render an opinion or advice, or make a recommendation related to a Competitive Solicitation for compensation or other consideration.

5) *Vendor's Representative* means an owner, individual, employee, partner, officer, or member of the board of directors of a Vendor, or a consultant, lobbyist, or actual or potential subcontractor or sub consultant who acts at the behest of a Vendor in communicating regarding a Competitive Solicitation.

(b) Prohibited Communications: A Cone of Silence shall be in effect during the course of a Competitive Solicitation and prohibit:

1) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and the City's administrative staff including, but not limited to, the city manager and his or her staff;

2) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and the Mayor, City Commissioners, or their respective staff;

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3) Any communication regarding a particular Competitive Solicitation between a potential Vendor or Vendor's Representative and any member of a City evaluation and/or selection committee therefore; and
4) Any communication regarding a particular Competitive Solicitation between the Mayor, City Commissioners, or their respective staff, and a member of a City evaluation and/or selection committee therefore.

(c) Permitted Communications: Notwithstanding the foregoing, nothing contained herein shall prohibit:

1) Communication between members of the public who are not Vendors or a Vendor's representative and any city employee, official or member of the City Commission;

2) Communications in writing at any time with any city employee, official or member of the City Commission, unless specifically prohibited by the applicable Competitive Solicitation.

(A) However, any written communication must be filed with the City Clerk. Any City employee, official or member of the City Commission receiving or making any written communication must immediately file it with the City Clerk.

(B) The City Clerk shall include all written communication as part of the agenda item when publishing information related to a particular Competitive Solicitation.

3) Oral communications at duly noticed pre-bid conferences;

4) Oral presentations before publically noticed evaluation and/or selection committees;

5) Contract discussions during any duly noticed public meeting;

6) Public presentations made to the City Commission or advisory body thereof during any duly noticed public meeting;

7) Contract negotiations with city staff following the award of a Competitive Solicitation by the City Commission; or

8) Purchases exempt from the competitive process pursuant to section 2-797 of these Code of Ordinances.

(d) Procedure

1) The Cone of Silence shall be imposed upon each Competitive Solicitation at the time of Public Notice of such solicitation as provided by section 2-826 of this Code. Public notice of the Cone of Silence shall be included in the notice of the Competitive

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Solicitation. The city manager shall issue a written notice of the release of each Competitive Solicitation to the affected departments, with a copy thereof to each Commission member, and shall include in any public solicitation for goods and services a statement disclosing the requirements of this ordinance.

2) The Cone of Silence shall terminate at the time the City Commission or other authorized body makes final award or gives final approval of a contract, rejects all bids or responses to the Competitive Solicitation, or takes other action which ends the Competitive Solicitation.

3) Any City employee, official or member of the City Commission that is approached concerning a Competitive Solicitation while the Cone of Silence is in effect shall notify such individual of the prohibitions contained in this section. While the Cone of Silence is in effect, any City employee, official or member of the City Commission who is the recipient of any oral communication by a potential Vendor or Vendor's Representative in violation of this section shall create a written record of the event. The record shall indicate the date of such communication, the persons with whom such communication occurred, and a general summation of the communication.

(e) Violations/penalties and procedures.

1) A sworn complaint alleging a violation of this ordinance may be filed with the City Attorney's office. In each such instance, an initial investigation shall be performed to determine the existence of a violation. If a violation is found to exist, the penalties and process shall be as provided in section 1-15 of this Code.

2) In addition to the penalties described herein and otherwise provided by law, a violation of this ordinance shall render the Competitive Solicitation void at the discretion of the City Commission.

3) Any person who violates a provision of this section shall be prohibited from serving on a City of Key West advisory board, evaluation and/or selection committee.

4) In addition to any other penalty provided by law, violation of any provision of this ordinance by a City of Key West employee shall subject said employee to disciplinary action up to and including dismissal.

5) If a Vendor is determined to have violated the provisions of this section on two more occasions it shall constitute evidence under City Code section 2-834 that the Vendor is not properly qualified to carry out the obligations or to complete the work contemplated by any new Competitive Solicitation. The City's Purchasing Agent shall also commence any available debarment from city work proceeding that may be available upon a finding of two or more violations by a Vendor of this section.

END OF SECTION

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N/A

LOCAL VENDOR CERTIFICATION PURSUANT TO CKW ORDINANCE 09-22 SECTION 2-798

The undersigned, as a duly authorized representative of the vendor listed herein, certifies to the best of his/her knowledge and belief, that the vendor meets the definition of a "Local Business." For purposes of this section, "local business" shall mean a business which:

a. Principle address as registered with the FL Department of State located within 30 miles of the boundaries of the city, listed with the chief licensing official as having a business tax receipt with its principle address within 30 miles of the boundaries of the city for at least one year immediately prior to the issuance of the solicitation.

b. Maintains a workforce of at least 50 percent of its employees from the city or within 30 miles of its boundaries.

c. Having paid all current license taxes and any other fees due the city at least 24 hours prior to the publication of the call for bids or request for proposals.

- Not a local vendor pursuant to Ordinance 09-22 Section 2-798
- Qualifies as a local vendor pursuant to Ordinance 09-22 Section 2-798

If you qualify, please complete the following in support of the self certification & submit copies of your County and City business licenses. Failure to provide the information requested will result in denial of certification as a local business.

Business Name

Phone:

Current Local Address:

Fax:

(P.O Box numbers may not be used to establish status)

Length of time at this address

_____ _____

Signature of Authorized Representative Date

STATE OF Florida
COUNTY OF Broward

The foregoing instrument was acknowledged before me this _____day of _____, 20___.
By_____, of_____
(Name of officer or agent, title of officer or agent) Name of corporation acknowledging)
or has produced_____as identification
(type of identification)

_____
Signature of Notary

_____
Print, Type or Stamp Name of Notary

Return Completed form with
Supporting documents to:
City of Key West Purchasing

_____
Title or Rank

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BIDDER'S CHECKLIST

(Note: The purpose of this checklist is to serve as a reminder of major items to be addressed in submitting a bid and is not intended to be all inclusive. It does not alleviate the Bidder from the responsibility of becoming familiar with all aspects of the Contract Documents and proper completion and submission of his bid.)

1.	All Contract Documents thoroughly read and understood.	[X]
2.	All blank spaces in Proposal filled in, using black ink.	[X]
3.	Total and unit prices added correctly.	[X]
4.	Addenda acknowledged.	[X]
5.	Subcontractors are named as indicated in the Proposal.	[X]
6.	Experience record included.	[X]
7.	Bid signed by authorized officer.	[X]
8.	Bid Bond completed and executed, including power-of-attorney dated the same date as Bid Bond.	[X]
9.	Bidder familiar with federal, state, and local laws, ordinances, rules and regulations affecting performance of the work.	[X]
10.	Bidder, if successful, able to obtain and/or demonstrate possession of required licenses and certificates within (10) ten calendar days after receiving a Notice of Award.	[X]
11.	Bid submitted shall contain Bid Form, Bid Security, Experience Record, Anti-Kickback Affidavit, Public Entity Crimes, Key West Indemnification Form, Disclosure of Lobbying Activities, Non-Collusion Declaration and Compliance, Florida Trench Safety Act Compliance, and Suspension and Debarment Certificate, Equal Benefits for Domestic Partner Affidavit, Cone of Silence Affidavit, and Local Vendor Certification.	[X]
12.	Bid Documents submitted in sealed envelope and addressed and labeled in conformance with the instructions in the Invitation to Bid.	[X]
13.	Bidder must provide satisfactory documentation of State Licenses.	[X]

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DISCLOSURE OF LOBBYING ACTIVITIES N/A

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action: ☐	2. Status of Federal Action: ☐	3. Report Type: ☐
a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	a. bid/offer/application b. initial award c. post-award	a. initial filing b. material change **For Material Change Only:** year_____ quarter_____ date of last report_____

4. Name and Address of Reporting Entity:	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:
☐ Prime ☐ Subawardee Tier _____, *if known:* **Congressional District,** *if known:*	**Congressional District,** *if known:*
6. Federal Department/Agency:	**7. Federal Program Name/Description:** CFDA Number, *if applicable:* _____
8. Federal Action Number, *if known:*	**9. Award Amount,** *if known:* **$**

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10. a. Name and Address of Lobbying Entity *(if individual, last name, first name, MI):* *(attach Continuation Sheet(s) SF-LLLA, if necessary)*	**b. Individuals Performing Services** *(including address if different from No. 10a) (last name, first name, MI):*
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.	**Signature:** _____ **Print Name:** _____ **Title:** _____ **Telephone No.:** _____ **Date:** _____
Federal Use Only:	Authorized for Local Reproduction Standard Form – LLL (Rev 7 – 97)

FORM DEP 55-221 (01/01)

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INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. **Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.**

2. **Identify the status of the covered Federal action.**

3. **Identify the appropriate classification of this report. If this is a follow up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by the reporting entity for this covered Federal action.**

4. **Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.**

5. **If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.**

6. **Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.**

7. **Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.**

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8. **Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."**

9. **For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.**

10. **(a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.**

    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

11. **The certifying official shall sign and date the form, print his/her name, title and telephone number.**

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

Form DEP 55-221 (01/01)

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NON-COLLUSION DECLARATION AND COMPLIANCE WITH 49 CFR §29.

ITEM/SEGMENT NO.:_____
F.A.P. NO.:
PARCEL NO.:
COUNTY OF:
BID LETTING OF:_____ ,_____

I, James A. Royo (NAME), hereby declare that I am President (TITLE) of Shoreline Foundation, Inc. (FIRM) Of Pembroke Park, FL (CITY AND STATE) and that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid on this State Project.

I further declare that:

1. The prices(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.

2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.

3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.

4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.

5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.

6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.

7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.

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8. As required by Section 337.165, Florida Statutes, the firm has fully informed the Department of Transportation in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(I)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default..

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

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(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action.

Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: (Seal)

BY: James A. Royo - President WITNESS: _____
NAME AND TITLE PRINTED

BY: _____ WITNESS: _____
SIGNATURE

Executed on this 15 day of March, 2016

FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE

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FLORIDA TRENCH SAFETY ACT COMPLIANCE
Trench Excavation Safety System and Shoring

CERTIFICATION

All excavation, trenching, and related sheeting, bracing, etc. on this project (Seawall Repairs at Zero Duval) shall conform to the requirements of the Florida Trench Safety Act (90-96, CS/SB 2626), which incorporates by reference, OSHA's excavation safety standards, 29 CFR 1926.650 Subpart P including all subsequent revisions or updates to the these standards.

By submission of this bid and subsequent execution of this Contract, the undersigned certifies compliance with the above mentioned standards and further stipulates that all costs associated with this compliance are detailed below as well as included in their lump sum bid amount.

Summary of Costs:

Trench Safety Measure	Units	Quantity	Unit Cost	Extended Cost
A. Barricades	LS	LS	$1,500	$1,500
B.				

Signature

Date 3/1/16

STATE OF Florida

COUNTY OF Broward

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

JAMES A ROYO, who, after first being sworn by me affixed his /her signature in the space,

provided above on the 1st day of MARCH, 2016.

Notary Public

MY COMMISSION EXPIRES: 8/28/16

Notary Public State of Florida
Joseph Stanton
My Commission EE 827488
Expires 08/28/2016

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SUSPENSION AND DEBARMENT CERTIFICATION

CERTIFICATION REGARDING DEBARMENTS, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION-LOWER TIER FEDERALLY FUNDED TRANSACTIONS

1. The undersigned hereby certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. The undersigned also certifies that it and its principals:

(a) Have not within a three-year period preceding this certification been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

(b) Are not presently indicated for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2.(a) of this Certification; and

(c) Have not within a three-year period preceding this certification had one or more public transactions (Federal, State or local) terminated for cause or default.

3. Where the undersigned is unable to certify to any of the statements in this certification, an explanation shall be attached to this certification.

Dated this day of, _____ March 1, __, 20 16_____

By _____
Authorized Signature/Contractor

James A. Royo - President
Typed Name/Title

Shoreline Foundation, Inc.
Contractor's Firm Name

2781 SW 56th Avenue
Street Address

_____
Building, Suite Number

Pembroke Park, FL 33023
City/State/Zip Code

(954) 985-0460
Area Code / Telephone Number

439197/WPB
04 44 04

Exhibit "A"

Addendums

THE CITY OF KEY WEST

ADDENDUM NO. 1
TO THE CONTRACT DOCUMENTS Project No.: 439197
for the construction of the

Date: February 18, 2016

ITB#: 016-002, EN-1002

REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE

CITY OF KEY WEST
KEY WEST, FLORIDA

To All Plan holders and/or Prospective Bidders:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the construction of the REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE dated January 2016 as fully and completely as if the same were fully set forth therein:

PRE-BID MEETING

1. Attached is the meeting minutes from the pre-bid meeting held on February 4, 2016.
2. Attached is a copy of the sign-in sheet from the pre-bid meeting.

SPECIFICATIONS

PART 1—PROCUREMENT REQUIREMENTS

SECTION 00 41 13 – BID FORM

REPLACE the existing Section 00 41 13 BID FORM dated January 2016 in its entirety with the attached dated February 18, 2016.

PART 3 —SPECIFICATIONS

SECTION 01 29 00 – PAYMENT PROCEDURES

ADD the following Article 1.09 Alternates to existing Specification Section 01 29 00 PAYMENT PROCEUDRES dated January 2016.

1.09 ALTERNATES

A. Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the Project.

B. Immediately following the Award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate.

C. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

D. Schedule of Alternates:

1. Alternate No. 1 – New Timber Piles (Each): This Alternate is an additive Alternate which will be added to the Base Bid (if selected). The intent of this Alternate is to allow the City to have new piles reconstructed for the Fury Dock to replace the existing deteriorating or fractured piles. As part of this Alternate, the price will be the represented change in price to:

   a. Remove old pile from location identified and legally dispose of offsite.

   b. Provide new 16 inch diameter marine grade pressure treated pile.

   c. Install vertical and true to a tip elevation of 15 feet minimum into limerock or -35 feet below water surface whichever is deeper.

   d. Top of pile shall be at elevation necessary to serve as columns and roof framing supports for the dock roof decking (match existing).

QUESTIONS AND ANSWERS

1. Mallory: Are construction joints allowed on Dolphin structure (i.e. for pre-casting purposes of a portion of the dolphin followed by a final cast-in-place pour, provided proper methodology of construction is provided and approved).

   RESPONSE: This proposal is acceptable and will be considered subject to an acceptable plan presented by Contractor.

2. Mallory: What are the construction limits on the water side in front of the Mallory Square Pier (i.e. how big of an area can be occupied by floating equipment).

   RESPONSE: Construction limits on the waterside will be limited to the width of the barge along the length of the T-pier. Equipment shall be tied properly, moored and lit according to Coast Guard Standards while berthed along the pier. During construction and while workers are present, barge may be offset off the face of pier and spudded down as necessary to allow construction. Upon completion of work for the day, barge shall be placed adjacent to the pier again and tied as a typical floating vessel. Subject to Navy approval, the Contractor will relocate the barge on weekends to the East Quay pier at the Truman Waterfront.

3. Mallory: can floating equipment stay overnight in front of the Mallory Square Pier (given proper Nav. Lights are provided per USCG requirements).

   RESPONSE: Yes, the T-pier can be used for mooring of floating equipment at night providing U.S. Coast Guard lighting is provided and adequate tie-down provisions are made.

4. Mallory: will the entire Pier area be made available to the contractor, including access from the land side? If so, can the pier be use for temporary storage purposes during construction?

RESPONSE: The length of the north-south run of the T-pier will be made available for storage of contractor's materials and equipment provided that it does not exceed 5-feet in height stacked. Weight of materials on the pier shall not exceed a uniform load of **200** PSF. Contractor shall keep loads below this value and shall protect the piers, pavers, and finish from damage by construction use. All other equipment and materials shall be stored on the Contractor's barge and may not be stored upland or in the general area of Mallory Square. Should Contractor require additional space beyond the barge and pier, upland land may be available by the City for a leased rate upon coordination with the City.

5. Zero Duval: What are the construction limits on the water side in front of the Zero Duval bulkhead? Sheet DS-100 seems to be showing the limit to be around 48-50' wide, but how far offshore away from the bulkhead can be occupied by floating equipment. Are we also limited to that 48'-50' width along the bulkhead line?

   RESPONSE: The waterside Construction limits for Zero Duval portion of the project shall be limited to the area identified on Sheet G-003 as Submerged Lease Area. This is the dashed lines in the water approximately 50 feet wide by 90 feet long. All facilities adjacent to and surrounding the construction work shall remain open and actively operational during construction including the Jet Ski and boat rental area.

6. Zero Duval: There is a sports-landing (i.e. JetSki's landing) on the left/west side of the bulkhead; will it remain operational or will it also be closed during construction? If it is to remain open, what are the limits/clearance that needs to be maintain in front of the landing (water side) with floating equipment?

   RESPONSE: All construction work and equipment shall be kept within the limits of construction waterside as identified in Question No. 5.

7. Zero Duval: Existing Dock on the right/East side of the Zero Duval bulkhead; will it remain operational or will it also be closed during construction? If it is to remain open, what are the limits/clearance that needs to be maintain in front of the docks along the East side of the marina?

   RESPONSE: See response to No. 6.

8. Zero Duval: The Timber pile dolphin seems to be almost dead center in front of the Duval bulkhead and may interfere with floating equipment's (i.e. crane barge). Is that timber dolphin to remain? If so, can contractor temporarily remove the dolphin and replace it at the end?

   RESPONSE: Timber Dolphins shall remain in place throughout construction and may not be removed and reinstalled. Contractor shall work within the limits provided in Question 5 and shall not interfere with any existing structures other than those required under the Contract to be removed and replaced. Contractor may move their barge to either side of the existing dolphins, as required during construction, so long as they do not block access to the surrounding areas that will remain open and operational during construction. See response to Question No. 6.

9. Zero Duval: will contractors be allowed to temporarily block the entrance access to the Marina area (i.e. in order to temporarily remove the timber pile and re-install it). If not, what would be the minimum area that needs to be left open for smaller vessels traffic?

RESPONSE: Blockages and impairment to adjacent property owners and businesses shall be coordinated in detail with the City well in advance of the blockage. Contractor will be limited to the area identified in Question 5 unless mutually agreed upon during construction without impeding operations and business activities of adjacent facilities.

10. Zero Duval: Can the perimeter fence (jersey barrier/fence) be extended another 14' back (i.e. up to the first light pole that will be directly in front of the "Ticket Building" once temporarily relocated), making the Jersey barrier go not only along the back of the ticket building but also around the left side (still keeping the ticket building outside the construction area). Current space does not appear to be enough area in order to properly and safely perform the necessary works.

    RESPONSE: Temporary Jersey barrier and fence on the south side of the laydown area may be moved to align with the south face of the relocated ticket shack. Area may not be made larger than this. This puts the temporary fence along the back of the ticket building but also around the left side and parallel with the south face of the relocated booth (still keeping the ticket building outside the construction area).

11. Will the city also be providing their own vibration monitoring during driving operations? Has the City perform a condition survey of the nearby areas/structures?

    RESPONSE: No, City will not be providing independent monitoring. Contractor is require to provide monitoring per 31 41 17 – 3.01 B. Contractor shall make these records and recordings available to the City. In addition to the Vibration Monitoring, Contractor and City will conduct an initial inspection prior to construction of surrounding areas and document information as mutually agreed upon for this exercise per 02 41 00 – 1.03 D.

12. Please confirm that notwithstanding Page 10 of 340 A. City of Key West Tax License, Page 131 of 340 5.04A and 5.04B J.1, the signor of bonds, insurance contracts, and certificates of insurance, does not have to keep an office in Florida, provided that the insurer or surety complies with all requirements to do business in Florida.

    RESPONSE: Based on discussion with the City Legal Department, the signor of bonds, insurance contracts, and certificates of insurance, does not have to keep an office in Florida, provided that the insurer or surety complies with all requirements to do business in Florida.

13. Reference Instructions to Bidders, section 00 21 13, page 4: "Contractor is required to have a Certified or registered Electrical Contractors City of Key West license and a Certified or Registered General Contractors City of Key West Business Tax Receipt", considering the scope of the project, is the Electrical Contractors City of Key West license required?

    RESPONSE: Licensing is required as stipulated. There will be electrical work at the Zero Duval location that requires permitting and is to be performed by a Florida licensed electrician registered with the City of Key West.

14. Reference Bid Form, Start of Construction and Contract Completion Times: Please detail start date and duration of time when dock at Duval will be free of boat traffic.

    RESPONSE: No boats, ferries, glass bottom tour vessels will be present or utilizing the Zero Duval dock for the duration of construction. The City has negotiated a new location for the vessel away from the construction area. However, ticketing and tour purchases will still be conducted at the relocated ticket booth.

15. Reference sheet DS-100, key note 8: Leader arrow indicates water line on outside face of dock. For proper pricing please indicate size and location of water line.

    RESPONSE: As-built information of the existing water main and water system is not available. Pipe is observable upon site walk-through. For the purposes of bidding, the Contractor shall assume all piping for the water system on the dock shall be 1 – 1-1/2 inch piping. Connection to the closest adjacent main will be required. Final construction of this water system shall be in accordance with the received Building Permit that is the responsibility of the Contractor to obtain as part of the dock replacement portion of this work.

16. Reference sheet DS-100, key note 11: Note calls for excavation and inspection of pipe. There are no details of the condition of pipe or extent of repairs. What is the basis for pricing of pipe repair?

    RESPONSE: The clouded area on Sheets DS-100 that is marked with Key Note No. 11 is the limits of the pipe repair portion of this work. Contractor shall assume that the full length and perimeter of the pipe within this area will require repair as defined in Key Note No. 11.

17. Reference sheet DS-301, details 1 and 2; sheet DS-503, detail 4: Details of sheet DS-301 show T.O.C= 3'-4", T.O.SSP= 2'-7". Detail of sheet DS-503 shows T.O.C.= 4'-0", T.O.SSP= 3'-3". Which detail is correct?

    RESPONSE: The intent is for the concrete cap to fall below the bottom of the lowest wood member of the rebuilt wood dock. Top of concrete (TOC) is to match existing as noted (Approx. 3-4" is the correct elevation – verify in field). TOS is to be 9" below TOC (therefore 2'-7" is correct). The 4'-0" elevation noted in the survey is the top of timber deck over the existing TOC bulkhead cap. The bottom of cap shall be lowered to Elevation minus 1'-8" to accommodate cap being lowered to Elevation 3'-4". This is subject to change based upon field conditions during construction.

18. Provide high and low tide levels.

    RESPONSE: According to LABINS the tides are:
    MHW = -0.25 ' NAVD 88
    MLW = -1.42' NAVD 88
    Actual high and low levels may vary daily and Contractor should refer to appropriate tide tables. Use survey on sheet G-003 for NAVD 88 benchmark and elevations comparison.

19. Reference sheet MS-501, detail 2: Elevation call outs detail T.O.C= 6.0, B.O.C= -0.67? Horizontal dimension shown as 16'-0" wide x 28'-0" long. Assuming the elevations are correct, dimension should be 6'-8". Please confirm. Provide high and low tide levels as they relate to elevations shown.

    RESPONSE: Refer to G-004 for survey information with respect to the pier. See response to question 18 for tides. Total depth of cap is 6'-8".

20. Reference general requirements, section 03 10 00, 3.05.D: Note dictates that side forms can be removed after 24 hours. Are there additional requirements that would prohibit form removal due to concrete's exposure to salt water?

RESPONSE: Specifications indicate that forms of concrete member that support their own weight (this include pile cap for the dolphin and SSP caps) will not be stripped until the concrete has acquired 75% of its 28-day design strength. Only forms of concrete that do not support its own weight (such as curbs) can be stripped within 24 hours. A curing membrane shall be immediately applied.

21. Will the contractor be given a lay down area for the project? If so, please provide size and location.

    RESPONSE: Laydown for Mallory is as defined in Question 4. Laydown for Zero Duval is as defined in Question 10.

22. Will the Dock at end of Duval be re-built on the existing piles?

    RESPONSE: Under the base bid, the existing piles are to remain and be reused as part of the dock replacement. This addendum includes an alternate bid item has been added as part of this addendum to replace each of the four piles in their entirety.

23. Can obtained permits be included to the contract via addenda?

    RESPONSE: Refer to Part 4 of the Volume 1 Specifications.

24. Can you clarify relocation of the Fury Ticket Booth, as well as Berthing for the Fury Glass Bottom Boat?

    RESPONSE: The ticket booth shall be relocated to the location indicated in the drawings. See Sheet DS-100 – Note 5. Contractor is responsible for this relocation. The Fury Boat will be relocated to a remote location and will not interfere with the construction of Zero Duval.

25. Are the original T-Pier drawings available? We are looking for existing pile information.

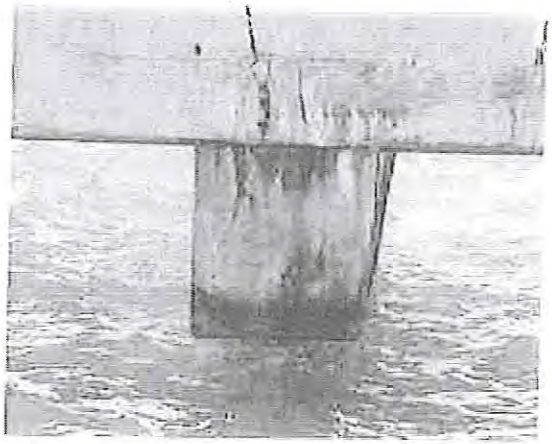
    RESPONSE: Original T-Pier as-built construction drawings dated April 12, 1985 are included with this addendum. Considering 30 years have elapsed since construction, existing conditions may vary from those depicted in the drawings.

26. Concerning the crack on the Fascia of the T-Pier. If it is deep, >=8", how is the repair to be handled?

    RESPONSE: As part of the base bid, hammer out the loose concrete to sound concrete and repair spall using epoxy grout full depth and width of spall.

26. Concerning the crack on the Fascia of the T-Pier. If it is deep, >=8", how is the repair to be handled?

RESPONSE: As part of the base bid, hammer out the loose concrete to sound concrete and repair spall using epoxy grout full depth and width of spall.



All Bidders shall acknowledge receipt of Addendum No. 1 in the Bid Form. Bids submitted without this acknowledgement will be considered informal.

CH2M

Sean McCoy, P.E.

Appended hereto and part of Addendum No. 1:

Prebid Meeting Minutes and Sign-in Sheet, attached.
Section 00 41 13, Bid Form
T-Pier As-built Drawings dated April 12, 1985

END OF ADDENDUM

ADDENDUM NO. 2 Date: February 22, 2016
TO THE CONTRACT DOCUMENTS Project No.: 439197
for the construction of the ITB#: 016-002, EN-1002

REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE

CITY OF KEY WEST
KEY WEST, FLORIDA

To All Plan holders and/or Prospective Bidders:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the construction of the REPAIRS AND IMPROVEMENTS AT ZERO DUVAL AND MALLORY SQUARE dated January 2016 as fully and completely as if the same were fully set forth therein:

ADDENDUM# 1: Addendum #1, issued February 19, 2016 is herewith declared null and void. It is to be replaced in its entirety with this Addendum #2. Addendum #1, issued February 19, 2016, will not be considered a part of the contract documents for this undertaking.

BID OPENING DATE & TIME: Bid opening date and time is hereby changed as follows:

Sealed bids for the City of Key West Invitation to Bid (ITB #16-002) **Repairs and Improvements at Zero Duval and Mallory Square**, addressed to the City of Key West, will be received at the Office of the City Clerk, City of Key West, 3126 Flagler Avenue., Key West Florida, 33040 until **3:00 p.m.**, local time, **March 2, 2016** and then will be publicly opened and read. Any bids received after the time and date specified will not be considered.

PRE-BID MEETING

1. Attached is the meeting minutes from the pre-bid meeting held on February 4, 2016.
2. Attached is a copy of the sign-in sheet from the pre-bid meeting.

SPECIFICATIONS

PART 1—PROCUREMENT REQUIREMENTS

SECTION 00 41 13 – BID FORM

REPLACE the existing Section 00 41 13 BID FORM dated January 2016 in its entirety with the attached dated February 18, 2016.

PART 3 —SPECIFICATIONS

SECTION 01 29 00 – PAYMENT PROCEDURES

ADD the following Article 1.09 Alternates to existing Specification Section 01 29 00 PAYMENT PROCEUDRES dated January 2016.

1.09 ALTERNATES

A. Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the Project.

B. Immediately following the Award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate.

C. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

D. Schedule of Alternates:

1. Alternate No. 1 – New Timber Piles (Each): This Alternate is an additive Alternate which will be added to the Base Bid (if selected). The intent of this Alternate is to allow the City to have new piles reconstructed for the Fury Dock to replace the existing deteriorating or fractured piles. As part of this Alternate, the price will be the represented change in price to:

   a. Remove old pile from location identified and legally dispose of offsite.

   b. Provide new 16 inch diameter marine grade pressure treated pile.

   c. Install vertical and true to a tip elevation of 15 feet minimum into limerock or -35 feet below water surface whichever is deeper.

   d. Top of pile shall be at elevation necessary to serve as columns and roof framing supports for the dock roof decking (match existing).

QUESTIONS AND ANSWERS

1. Mallory: Are construction joints allowed on Dolphin structure (i.e. for pre-casting purposes of a portion of the dolphin followed by a final cast-in-place pour, provided proper methodology of construction is provided and approved).

   RESPONSE: This proposal is acceptable and will be considered subject to an acceptable plan presented by Contractor.

2. Mallory: What are the construction limits on the water side in front of the Mallory Square Pier (i.e. how big of an area can be occupied by floating equipment).

   RESPONSE: Construction limits on the waterside will be limited to the width of the barge along the length of the T-pier. Equipment shall be tied properly, moored and lit according to Coast Guard Standards while berthed along the pier. During construction and while workers are present, barge may be offset off the face of pier and spudded down as necessary to allow construction. Upon completion of work for the day, barge shall be placed adjacent to the pier again and tied as a typical floating vessel. Subject to Navy approval, the Contractor will relocate the barge on weekends to the East Quay pier at the Truman Waterfront.

3. Mallory: can floating equipment stay overnight in front of the Mallory Square Pier (given proper Nav. Lights are provided per USCG requirements).

   RESPONSE: Yes, the T-pier can be used for mooring of floating equipment at night providing U.S. Coast Guard lighting is provided and adequate tie-down provisions are made.

4. Mallory: will the entire Pier area be made available to the contractor, including access from the land side? If so, can the pier be use for temporary storage purposes during construction?

   RESPONSE: The length of the north-south run of the T-pier will be made available for storage of contractor's materials and equipment provided that it does not exceed 5-feet in height stacked. Weight of materials on the pier shall not exceed a uniform load of **200** PSF. Contractor shall keep loads below this value and shall protect the piers, pavers, and finish from damage by construction use. All other equipment and materials shall be stored on the Contractor's barge and may not be stored upland or in the general area of Mallory Square. Should Contractor require additional space beyond the barge and pier, upland land may be available by the City for a leased rate upon coordination with the City.

5. Zero Duval: What are the construction limits on the water side in front of the Zero Duval bulkhead? Sheet DS-100 seems to be showing the limit to be around 48-50' wide, but how far offshore away from the bulkhead can be occupied by floating equipment. Are we also limited to that 48'-50' width along the bulkhead line?

   RESPONSE: The waterside Construction limits for Zero Duval portion of the project shall be limited to the area identified on Sheet G-003 as Submerged Lease Area. This is the dashed lines in the water approximately 50 feet wide by 90 feet long. All facilities adjacent to and surrounding the construction work shall remain open and actively operational during construction including the Jet Ski and boat rental area.

6. Zero Duval: There is a sports-landing (i.e. JetSki's landing) on the left/west side of the bulkhead; will it remain operational or will it also be closed during construction? If it is to remain open, what are the limits/clearance that needs to be maintain in front of the landing (water side) with floating equipment?

   RESPONSE: All construction work and equipment shall be kept within the limits of construction waterside as identified in Question No. 5.

7. Zero Duval: Existing Dock on the right/East side of the Zero Duval bulkhead; will it remain operational or will it also be closed during construction? If it is to remain open, what are the limits/clearance that needs to be maintain in front of the docks along the East side of the marina?

   RESPONSE: See response to No. 6.

8. Zero Duval: The Timber pile dolphin seems to be almost dead center in front of the Duval bulkhead and may interfere with floating equipment's (i.e. crane barge). Is that timber dolphin to remain? If so, can contractor temporarily remove the dolphin and replace it at the end?

   RESPONSE: Timber Dolphins shall remain in place throughout construction and may not be removed and reinstalled. Contractor shall work within the limits provided in Question 5 and shall not interfere with any existing structures other than those required under the Contract to be removed and replaced. Contractor may move their barge to either side of the existing dolphins, as required during construction, so long as they do not block access to the surrounding areas that will remain open and operational during construction. See response to Question No. 6.

9. Zero Duval: will contractors be allowed to temporarily block the entrance access to the Marina area (i.e. in order to temporarily remove the timber pile and re-install it). If not, what would be the minimum area that needs to be left open for smaller vessels traffic?

   RESPONSE: Blockages and impairment to adjacent property owners and businesses shall be coordinated in detail with the City well in advance of the blockage. Contractor will be limited to the area identified in Question 5 unless mutually agreed upon during construction without impeding operations and business activities of adjacent facilities.

10. Zero Duval: Can the perimeter fence (jersey barrier/fence) be extended another 14' back (i.e. up to the first light pole that will be directly in front of the "Ticket Building" once temporarily relocated), making the Jersey barrier go not only along the back of the ticket building but also around the left side (still keeping the ticket building outside the construction area). Current space does not appear to be enough area in order to properly and safely perform the necessary works.

    RESPONSE: Temporary Jersey barrier and fence on the south side of the laydown area may be moved to align with the south face of the relocated ticket shack. Area may not be made larger than this. This puts the temporary fence along the back of the ticket building but also around the left side and parallel with the south face of the relocated booth (still keeping the ticket building outside the construction area).

11. Will the city also be providing their own vibration monitoring during driving operations? Has the City perform a condition survey of the nearby areas/structures?

    RESPONSE: No, City will not be providing independent monitoring. Contractor is require to provide monitoring per 31 41 17 – 3.01 B. Contractor shall make these records and recordings available to the City. In addition to the Vibration Monitoring, Contractor and City will conduct an initial inspection prior to construction of surrounding areas and document information as mutually agreed upon for this exercise per 02 41 00 – 1.03 D.

12. Please confirm that notwithstanding Page 10 of 340 A. City of Key West Tax License, Page 131 of 340 5.04A and 5.04B J.1, the signor of bonds, insurance contracts, and certificates of insurance, does not have to keep an office in Florida, provided that the insurer or surety complies with all requirements to do business in Florida.

    RESPONSE: Based on discussion with the City Legal Department, the signor of bonds, insurance contracts, and certificates of insurance, does not have to keep an office in Florida, provided that the insurer or surety complies with all requirements to do business in Florida.

13. Reference Instructions to Bidders, section 00 21 13, page 4: "Contractor is required to have a Certified or registered Electrical Contractors City of Key West license and a Certified or Registered General Contractors City of Key West Business Tax Receipt", considering the scope of the project, is the Electrical Contractors City of Key West license required?

    RESPONSE: Licensing is required as stipulated. There will be electrical work at the Zero Duval location that requires permitting and is to be performed by a Florida licensed electrician registered with the City of Key West.

14. Reference Bid Form, Start of Construction and Contract Completion Times: Please detail start date and duration of time when dock at Duval will be free of boat traffic.

RESPONSE: No boats, ferries, glass bottom tour vessels will be present or utilizing the Zero Duval dock for the duration of construction. The City has negotiated a new location for the vessel away from the construction area. However, ticketing and tour purchases will still be conducted at the relocated ticket booth.

15. Reference sheet DS-100, key note 8: Leader arrow indicates water line on outside face of dock. For proper pricing please indicate size and location of water line.

    RESPONSE: As-built information of the existing water main and water system is not available. Pipe is observable upon site walk-through. For the purposes of bidding, the Contractor shall assume all piping for the water system on the dock shall be 1 – 1-1/2 inch piping. Connection to the closest adjacent main will be required. Final construction of this water system shall be in accordance with the received Building Permit that is the responsibility of the Contractor to obtain as part of the dock replacement portion of this work.

16. Reference sheet DS-100, key note 11: Note calls for excavation and inspection of pipe. There are no details of the condition of pipe or extent of repairs. What is the basis for pricing of pipe repair?

    RESPONSE: The clouded area on Sheets DS-100 that is marked with Key Note No. 11 is the limits of the pipe repair portion of this work. Contractor shall assume that the full length and perimeter of the pipe within this area will require repair as defined in Key Note No. 11.

17. Reference sheet DS-301, details 1 and 2; sheet DS-503, detail 4: Details of sheet DS-301 show T.O.C= 3'-4", T.O.SSP= 2'-7". Detail of sheet DS-503 shows T.O.C.= 4'-0", T.O.SSP= 3'-3". Which detail is correct?

    RESPONSE: The intent is for the concrete cap to fall below the bottom of the lowest wood member of the rebuilt wood dock. Top of concrete (TOC) is to match existing as noted (Approx. 3-4" is the correct elevation – verify in field). TOS is to be 9" below TOC (therefore 2'-7" is correct). The 4'-0" elevation noted in the survey is the top of timber deck over the existing TOC bulkhead cap. The bottom of cap shall be lowered to Elevation minus 1'-8" to accommodate cap being lowered to Elevation 3'-4". This is subject to change based upon field conditions during construction.

18. Provide high and low tide levels.

    RESPONSE: According to LABINS the tides are:
    MHW = -0.25 ' NAVD 88
    MLW = -1.42' NAVD 88
    Actual high and low levels may vary daily and Contractor should refer to appropriate tide tables. Use survey on sheet G-003 for NAVD 88 benchmark and elevations comparison.

19. Reference sheet MS-501, detail 2: Elevation call outs detail T.O.C= 6.0, B.O.C= -0.67? Horizontal dimension shown as 16'-0" wide x 28'-0" long. Assuming the elevations are correct, dimension should be 6'-8". Please confirm. Provide high and low tide levels as they relate to elevations shown.

    RESPONSE: Refer to G-004 for survey information with respect to the pier. See response to question 18 for tides. Total depth of cap is 6'-8".

20. Reference general requirements, section 03 10 00, 3.05.D: Note dictates that side forms can be removed after 24 hours. Are there additional requirements that would prohibit form removal due to concrete's exposure to salt water?

RESPONSE: Specifications indicate that forms of concrete member that support their own weight (this include pile cap for the dolphin and SSP caps) will not be stripped until the concrete has acquired 75% of its 28-day design strength. Only forms of concrete that do not support its own weight (such as curbs) can be stripped within 24 hours. A curing membrane shall be immediately applied.

21. Will the contractor be given a lay down area for the project? If so, please provide size and location.

    RESPONSE: Laydown for Mallory is as defined in Question 4. Laydown for Zero Duval is as defined in Question 10.

22. Will the Dock at end of Duval be re-built on the existing piles?

    RESPONSE: Under the base bid, the existing piles are to remain and be reused as part of the dock replacement. This addendum includes an alternate bid item has been added as part of this addendum to replace each of the four piles in their entirety.

23. Can obtained permits be included to the contract via addenda?

    RESPONSE: Refer to Part 4 of the Volume 1 Specifications.

24. Can you clarify relocation of the Fury Ticket Booth, as well as Berthing for the Fury Glass Bottom Boat?

    RESPONSE: The ticket booth shall be relocated to the location indicated in the drawings. See Sheet DS-100 – Note 5. Contractor is responsible for this relocation. The Fury Boat will be relocated to a remote location and will not interfere with the construction of Zero Duval.

25. Are the original T-Pier drawings available? We are looking for existing pile information.

    RESPONSE: Original T-Pier as-built construction drawings dated April 12, 1985 are included with this addendum. Considering 30 years have elapsed since construction, existing conditions may vary from those depicted in the drawings.

26. Concerning the crack on the Fascia of the T-Pier. If it is deep, >=8", how is the repair to be handled?

    RESPONSE: As part of the base bid, hammer out the loose concrete to sound concrete and repair spall using epoxy grout full depth and width of spall.

All Bidders shall acknowledge receipt of Addendum No. 2 in the Bid Form. Bids submitted without this acknowledgement will be considered informal.

Appended hereto and part of Addendum No. 2:

Prebid Meeting Minutes and Sign-in Sheet, attached.
Section 00 41 13, Bid Form
T-Pier As-built Drawings dated April 12, 1985

END OF ADDENDUM #2

Exhibit "B"

City of Key West Tax Receipt

CITY OF KEY WEST, FLORIDA

Business Tax Receipt

This Document is a business tax receipt
Holder must meet all City zoning and use provisions.
P.O. Box 1409, Key West, Florida 33040 (305) 809-3955

Business Name	SHORELINE FOUNDATION	CtlNbr:0004137
Location Addr	2781 SW 56TH AVE	
Lic NBR/Class	16-00004139 CONTRACTOR - REG ENGINEERING II	
Issue Date:	July 24, 2015 **Expiration Date:**September 30, 2016	
License Fee	$325.00	
Add. Charges	$0.00	
Penalty	$0.00	
Total	$325.00	

Comments:

Oper: KEYWELD Type: OC Drawer: 1
Date: 7/27/15 54 Receipt no: 30246
2016 4139
OR LIC OCCUPATIONAL RENEWAL
1.00 $325.00
Trans Amount 3058477
CK Check
SHORELINE FOUNDATION 3030 $325.00
Trans date: 7/27/15 Time: 11:37:18

This document must be prominently displayed.

SHORELINE FOUNDATION
2781 SW 56TH AVE

MIRAMAR FL 33023

CITY OF KEY WEST, FLORIDA

Regulatory Permit / License

Certificate of Competency

P.O. Box 1409, Key West, FL 33041

Business Name ROYO JAMES CtlNbr:0024493
Location Addr 2781 SW 56TH AVE
Lic NBR/Class **17-00030164** COMPETENCY CARD
Issue Date: July 13, 2015 **Expiration Date:**September 30, 2017
License Fee $30.00
Add. Charges $0.00
Penalty $0.00
Total $30.00

Oper: KEYWBLD Type: OC Drawer: 1
Date: 7/13/15 S1 Receipt no: 28304
2017 30164
OR LIC OCCUPATIONAL RENEWAL 1.00 $30.00
Trans number: 3056348
CK CHECK 3093 $30.00
Trans date: 7/13/15 Time: 15:12:29

Comments: **COMP CARD #763 FOR ENGINEERING I CONTRACTOR**

ROYO JAMES
2781 SW 56TH AVE

MIRAMAR FL 33023

Exhibit "C"

Licenses

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

(850) 487-1395

ROYO, JAMES ANTHONY
SHORELINE FOUNDATION INC
1316 NW 127 DRIVE
SUNRISE FL 33323

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CGC1517337 ISSUED: 06/04/2014

CERTIFIED GENERAL CONTRACTOR
ROYO, JAMES ANTHONY
SHORELINE FOUNDATION INC

IS CERTIFIED under the provisions of Ch.489 FS.
Expiration date : AUG 31, 2016 L1406040001725

DETACH HERE

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
CGC1517337	

The GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2016

ROYO, JAMES ANTHONY
SHORELINE FOUNDATION INC
2781 SW 56 AVENUE
PEMBROKE PARK FL 33023

ISSUED: 06/04/2014 DISPLAY AS REQUIRED BY LAW SEQ # L1406040001725

To find out about business and economic opportunities for Florida veteran business enterprises, as well as Florida's small minority and women-owned businesses, please contact or visit the Department of Management Service's Office of Supplier Diversity at: ***http://www.dms.myflorida.com/other_programs/office_of_supplier_diversity_osd***

To find out about State of Florida tools supporting statewide centralized procurement activities which have streamlined interactions between vendors and state government entities, please contact or visit the Department of Management Services' MyFloridaMarketPlace at: ***https://vendor.myfloridamarketplace.com***

AC# 465100

SIGNATURE

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The Department of Business and Professional Regulation (DBPR), issues licenses for many licensed businesses and practitioners in the State of Florida.

DBPR is changing the way you interact with state government. Many of DBPR's services are available online at www.MyFloridaLicense.com. We encourage you to utilize these services to make address changes, licensing changes or to renew your license.

Name changes require legal documentation verifying the name change, which must be mailed to the DBPR. An original, a certified copy or a duplicate copy of an original or certified copy of a document that shows the legal name change will be accepted, unless the DBPR has a question about the authenticity of the document.

If applicable, the DBPR will send a renewal notice to your last known address or email address of record. If you have not received your renewal notice, please call our Customer Contact Center at 850.487.1395 or online at www.MyFloridaLicense.com/contactus.

Please refer to your profession's governing statutes and Administrative codes for further information regarding renewals. These may be accessed from our website.

AC# 465100

State of Florida
Department of State

I certify from the records of this office that SHORELINE FOUNDATION, INC. is a corporation organized under the laws of the State of Florida, filed on June 2, 1986.

The document number of this corporation is J17125.

I further certify that said corporation has paid all fees due this office through December 31, 2016, that its most recent annual report/uniform business report was filed on January 5, 2016, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Fifth day of January, 2016

Ken Detzner

Secretary of State

Tracking Number: CC9590903266

To authenticate this certificate,visit the following site,enter this number, and then follow the instructions displayed.

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

Exhibit "D"

Past Experiences & Contracts on Hand

Project: Slip#3 Bulkhead Rehabilitation

Location:
1 East 11 Street
Riviera Beach, Florida 33404

Owners Representative:
AECOM Technical Services, Inc.
Karen D. Brandon, P.E.
2090 Palm Beach Lakes Blvd.
West Palm Beach, FL 33409
(561) 684-3375
Fax: (561) 689-8531
karen.brandon@aecom.com

Construction Dates:
START: June 3, 2013
FINISH: July 10, 2015

Construction cost:
$16,500,000

Change Orders:
Yes + 24 Added $1,100,000 Deducted $1,000,000
(Totaling $16,600,000)

Project Status:
Ongoing Completion Date: July 10, 2015

SFI Project Manager:
Carlos Varela P.E

SFI Project Superintendent:
Sal Daher, Steve Thomsen, Danny Fennel
Darrin Miller

Relevance/Scope of Work:
Construction of 1800 Lf of combo wall with Soil anchors and 10 high concrete cap, 800 LF of which were upland of existing. Dredging 18000 CY from the Slip# 3 to -35 mllw Pave with an asphalt +/-1400 SY. Pave with 18 concrete slabs appx. 7000 SY construct new water distribution system, drainage system (1200 LF of trench drain), 1000 kva electric power distribution system, install new beam and rails for 110ton gantry conveyor and move it from existing to new tracks. All while keeping the south berth operational build 2 ro-ro ramps (80 & 160) with concrete cap projecting 3 foot from the bulkhead.

Project: Cargo Dock 16, Brownville

Location:
13201 R.L. Ostos Rd
Brownsville, TX 78521

Owners Representative:
Ariel Chavez
Brownsville Navigation District
1000 Foust Road
Brownsville, TX 78521
(956) 592-3973
Fax: 956.831.6153
achavez@portofbrownsville.com

Construction Dates:
START: 09/16/2013
FINISH: 06/31/2015

Construction cost:
$21,255,965.00

Change Orders:
Yes + $331,734.00

Project Status:
Finishing up

SFI Project Manager:
Kevin Land

SFI Project Superintendent:
Fred Maxwell

Relevance/Scope of Work:

The engineer of record was HDR Engineering.
The project consisted of a new 600 LF commercial heavy lift cargo dock with two out parcel mooring structures sitting on 35"x95' steel pipe piling set on batter, Approximately 200 LF of bank revetment work, 9 acres working bulk storage area with site lighting, a new field house containing restroom, new perimeter roadway with entrance. The project included 155,000 CY of dredging to a deep of -44. Added as a change order by the owner was an Impressed Current Cathodic Protection System for protection of the seawall steel sheet piling.
The project included over 9000 CY of post tension concrete for the dock which included 800 LF of sheet pile from 65' to 95' long, 950 16"x 85 ft. long concrete piles and 1000 16"x 85' long steel "H" piles.

Project: Pier 66 Marina Redevelopment Phase I & II

Location:
2301 SE 17th Street
Ft. Lauderdale, FL 33316

Owners Representative:
Mr. Shwan Aziz
ECO BUILDING SOLUTIONS, INC. (EBS)
PO Box 811827
Boca Raton, FL 33481-1827
(561) 927-7641
Fax: (727) 942-8937
shwan@ecobuilinginc.com

Construction Dates:
START: 07/29/13
FINISH: 10/09/14

Construction cost:
Phase I: $2,599,000.00
Phase II: $4,593,947.00
Total: $7,192,947.00

Change Orders:
Yes + $1,472,592.00 (Totaling $8,665,539.00)

Project Status:
Completed

SFI Project Manager:
Mark Osburn

SFI Project Superintendant:
Darrin Miller

Relevance/Scope of Work:
Engineer of record was Coastal Systems International, Inc. Construction included
Phase I: SEAWALL
Demolition of 1,500lf of existing concrete seawall cap. Installation of 1,500lf of new steel sheet piling, 150pcs – 14" x 14" x 50' concrete batter pile, 1,500' x 5'wide x 2'deep concrete cap, 75pcs – 12" x 40' wood fender pile 75pcs – 18" mooring cleats, 1,500lf x 5'wide x 7"thick concrete sidewalk.
Phase II: SEAWALL & 127 SLIP MARINA (FIXED CONCRETE & FLOATING DOCKAGE)

SEAWALL: Demolition of 1,000lf of existing concrete seawall cap, Installation of 1,000lf of new steel sheet piling, 100pcs – 18" and 14" concrete batter pile along seawall, 1,000' x 5'wide x 2'deep concrete seawall cap, 1,000lf x 5'wide x 7"thick concrete sidewalk

FIXED DOCKAGE/MARINA SPACE: Marina can accommodate 16 super yachts up to 150 feet, and has the deep-water capacity to accept yachts in excess of 300 feet. Demolition and reconstruction of Approximately 19,000sf of fixed concrete docks & concrete finger piers; constructed on 18" and 14" square concrete pile, cast-in-place concrete pile caps and pre-cast/pre-fabricated concrete deck slabs (ranging from 9" to 12" in depth). The deep water - main dock, along the Intracoastal waterway (A dock & Dockmaster) received an Approximately 16,000sf concrete topping slab ranging in depth of 4" to 7", Approximately 230 – 12" wood fender & mooring piles were installed throughout the marina, Installation of 165 heavy duty; 18" & 24" mooring cleats.

FLOATING DOCKAGE: Approx. 36 slip concrete floating dock facility; with Electrical, Plumbing, Fire & Fuel and anchored with 18" x 18" x 60' pre-cast concrete piling.

2781 S.W. 56th Avenue • Pembroke Park, Florida 33023
Phone: (954) 985-0460 • Fax: (954) 985-0462 • www.shorelinefoundation.com

Project: FPL Discharge Canal

Location: 3898 SW 43rd Court, Fort Lauderdale, FL 33318

Owners Representative:
William Figler
700 Universe Blvd
Juno Beach, FL 33408
(561) 694-4749
William.Figler@fpl.com

Construction Dates:
Phase I:
Start: 9/23/13
Finish: 12/30/13
Phase II:
Start: 6/1/14
Finish: 8/12/14 (Project Complete)

Construction cost:
Phase I:
Original Phase I Contract = $1,588,846.00
Revised Contract Value (+ Phase I COR) = $1,595,553.17
Phase II:
Original Phase II Contract = $598,500.00
Revised Contract Value = $2,194,053.17
Final Contract Value (+Phase II COR) = $2,194,053.17

Change Orders:
Yes + Phase I = $6,707.17
Total COR = **$6,707.17**

Project Status:
Completed

SFI Project Manager:
Charles M. Diveto III

SFI Project Superintendent:
Phase I = Michael Bosowicz
Phase II = Matt Biggs

Relevance/Scope of Work:
Engineer on record was DCR Engineering Services, Inc. The project consisted of a new seawall further described as the following: installation of approximately 900 lf of Steel sheet piling seawall topped with a 3'-0" wide poured-in place concrete cap. Upland work includes concrete pad for propane tanks, removal and replacement of guardrail, and new pedestrian railing.

Project: Building 1000 Quay Wall and Barge Basin

Location:
Philadelphia Navy Yard
Philadelphia, PA

Owners Representative:
Elizabeth Staab
United States of America - NAVFAC
4921 South Broad Street
Philadelphia, PA 19112-1387
(215) 897-2613
Fax: (210) 897-6932
Elizabeth.staab@navy.mil

Construction Dates:
START: 3/7/2011
FINISH: Estimated 3/15/13

Construction cost:
$3,746,167.61

Change Orders:
$1,494,759.27 (Totaling $5,070,292.27)

Project Status:
Completed

SFI Project Manager:
Chris Gonzalez

SFI Project Superintendant:
Fred Maxwell

Relevance/Scope of Work:

Demolition and re-construction of new Quay wall and Barge Basin Rehabilitation, including installation of steel sheet pile, topped with cast-in-place concrete cap and closure cell structure. The existing drain outfalls were modified to be incorporated into the new seawall. The Quaywall was finished with crushed concrete armor stone sloped into the water body. The Barge basin required demolition of the existing structure, and reconstruction of new barge basin around the existing foundation pads for the overhead crane. Barge basin was reconstructed with pre-cast, steel batter H-piles, and steel sheet pile. The pile was topped with cast-in-place concrete caps, precast slabs, and concrete topping. The basin was finished with precast fender piles with UHMW bumpers and metal cleats.

Project: CT-10 Pier Extension & East Dolphin Modifications

Location:
Port Canaveral
445 Challenger Road
Cape Canaveral, FL 32920

Owners Representative:
Randy Gumke – Director Construction
CANAVERAL PORT AUTHORITY
445 Challenger Road
Cape Canaveral, FL 32920
(321) 783-7831 ext. 216
Fax: (321) 783-1063
rgumke@portcanaveral.org

Engineer of Record:
River Consulting LLC
707 Mullet Road, Suite 105
Cape Canaveral, FL 32920

Construction Dates:
START: 11/4/2008
FINISH: 4/3/2009

Construction cost:
Original - $1,538,035.00
Final - $820,562.58

Change Orders:
1 – Owner direct purchase

Project Status:
Completed

SFI Project Manager:
Matt Sturm

SFI Project Superintendant:
Fred Maxwell

Relevance/Scope of Work:

Modifications to the busy existing port facility included a new dolphin mooring platform and extension of the existing pier. The mooring platform required 66" diameter steel piles 107' long to be installed along with 950 square feet of reinforced cast-in-place concrete, new 125 ton bollards and modifications to existing catwalks.
The 90 foot pier extension consisted of installation of (12) 24" square pre-cast, pre-stressed concrete pile 100' long, cast-in-place concrete pile caps, 3,600 square feet of pre-stressed concrete slabs, requisite closure pours and installation of new foam filled mooring fenders and bollards.
This project was completed on-time and under budget. Limited work hours and cruise ship schedules required exacting coordination with Port facilities management.

WORK IN PROGRESS

Contract Description	Owner/Owner's Representative	Architect/Engineer	Contract Amount	Scheduled Completion Date
King's Bay Naval Submarine Base 1063 USS Tennessee Avenue Kings Bay Base, GA	NAVFAC Southeast 910 USS Hunley Avenue Kings Bay, GA 31547	ADA Engineering, Inc. 8550 NW 33rd Street Suite 101 Doral, FL 33122	$8,100,000.00	Jun-16
Biscayne Beach Club Seawall 711 NE 29th Street Miami, FL 33137	Plaza Construction Group FL, LLC 120 NE 27th Street Suite 600 Miami, FL	Coastal Systems International, Inc. 464 South Dixie Highway Coral Gables, FL 33146	$775,000.00	Jan-16
Orkin Miami Seawall 1960 NW 27th Avenue Miami, FL	Orkin, LLC 2170 Piedmont Road NE Lakeshore Building Atlanta, GA 30324	Geosyntec Consultants 900 Broken Sound Parkway Suite 200 Boca Raton, FL 33487	$1,094,735.00	Nov-16
Herbert Hoover S281 & S282 Glades County, FL	Department of Army, USACE 12783 W. Forest Hill Blvd Suite 9E Wellington, FL 33414	US Army Corp of Engineers Jacksonville District, FL	$892,300.00	May-16
Herbert Hoover S273 & S227 Glades County, FL	Department of Army, USACE 12783 W. Forest Hill Blvd Suite 9E Wellington, FL 33414	US Army Corp of Engineers Jacksonville District, FL	$1,515,065.00	May-16
Gator Lake Shoreline Stabilization Saint Andrews State Park 4607 State Park Lane Panama City, FL 32408	State of FL DEP 3900 Commonewelth Boulevard, MS #520 Tallahassee, FL 32399	MRD Associates, Inc. 543 Harbor Boulevard, Suite 204 Destin, FL 32541	$1,904,900.00	Oct-16
CR880 - Twenty Mile Bend Slope Palm Beach County, FL	**Board of County Commissioners Palm Beach County, FL**	Bridge Design Associates, Inc 1402 Royal Palm Blvd, Bldg 200 Royal Palm Beach, FL 33411	$4,064,012.00	Oct-15

WORK IN PROGRESS

Contract Description	Owner/Owner's Representative	Architect/Engineer	Contract Amount	Scheduled Completion Date
Larchmont Gardens NW 85th Street & NW 2nd Ave Miami, FL	Miami-Dade County Public Works and Waste Management Dept. Coral Gables, FL 33158	Central Florida Equipment 9030 N.W. 97th Terrace Medley, FL 33178	$254,159.00	Dec-15
Bair Island Seawall Villas at Bair Island 700 Bair Island Road, Redwood City, CA 94063	The Irvine Company Apartment Communities, Inc. 131 Theroy, Irvine, CA 92617	URS 310 Golden Shore, Suite 100 Long Beach, CA 90802	$3,420,900.00	Sep-16
USCG Miami Beach Bulkhead Miami, FL	Miami United States Coast Guard 15608 SW 117th Avenue Miami, FL 33122	Harper & Buzinec 8805 NW 23rd Street Miami, FL 33122	$1,851,300.00	Sep-16
Seven Mile Bridge and Bahia Honds Bridge Debris Removal on the Florida Keys Overseas Heritage Trail Monroe County, FL	State of FL DEP 3900 Commonewelth Boulevard, MS #520 Tallahassee, FL 32399	The LPA Group 1320 Executive Blvd. Tallahasse, FL 32301	$379,634.00	Jan-16
Broadview Estates Neighborhood Project Pompano Beach, FL	Broward County Water and Wastewater Engineering Division 2555 West Copans Road, Pompano Beach, FL 33069	Broward County Water and Wastewater Engineering Division 2555 West Copans Road, Pompano Beach, FL 33069	$2,644,912.00	Jan-17
Mooring Bollards Phase II Miami, FL	PortMiami 1015 N. America Way Miami, FL 33132	Miami-Dade Seaport Department 1015 N. America Way Miami, FL 33132	$1,214,200.00	Jul-16
Continuing Svcs for Construction of Seawalls Citywide Miami,FL	City of Miami Beach 1755 Meridian Drive Miami Beach, FL 33139	Miami Beach Public Works Department 1700 Convention Center Drive Miami Beach, FL 33139	$4,277,035.00	Feb-17

Exhibit "D"

Proof of Insurnace

Exhibit "E"

Proof of Insurnace

Client#: 25889 SHOREFOU

ACORD # CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/01/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
USI Insurance Services, LLC/CL
P.O. Box 141916
Coral Gables, FL 33114-1916
305 669-6000

CONTACT NAME:
PHONE (A/C, No, Ext): 305 669-6000 FAX (A/C, No):
E-MAIL ADDRESS: usicerts@usi.biz

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : XL Specialty Insurance Company	37885
INSURER B : Commerce & Industry Ins Co	19410
INSURER C : Starr Indemnity & Liability Co	38318
INSURER D : American Family Home Ins Co	23450
INSURER E :	
INSURER F :	

INSURED
Shoreline Foundation Inc
2781 SW 56 Ave
Pembroke Park, FL 33023-4166

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			UM00027959MA15A	01/15/2015	01/15/2016	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE / X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$50,000
							MED EXP (Any one person)	$5,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY / X PROJECT / LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
	AUTOMOBILE LIABILITY			2LA2CA000045	10/01/2015	10/01/2016	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB / X OCCUR			UM00028190MA15A	01/15/2015	01/15/2016	EACH OCCURRENCE	$10,000,000
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$10,000,000
	DED / RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			19397854	10/01/2015	10/01/2016	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N	N/A					E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
C	CONTR EQUIPMENT ALL RISK INCLUDES BOOM COLLAPSE			SICON000703149 OVERLOAD	03/12/2015	03/12/2016	PER SCHEDULE ON FILE LEASED/RENTED	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Shoreline Foundation Inc
2781 SW 56 Ave
Pembroke Park, FL 33023-4166

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Ben G. Bale

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