



ADDENDUM NO. 1  
TO THE CONTRACT DOCUMENTS  
for the construction of the

Date: September 5, 2014  
Project No.: 406518

**PUMP STATION F IMPROVEMENTS  
CITY OF KEY WEST  
KEY WEST, FLORIDA**

**To All Planholders 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 Pump Station F Improvements dated August 2014 as fully and completely as if the same were fully set forth therein:

**PRE-BID MEETING**

1. Meeting minutes from the pre-bid meeting, attached.
2. Copy of the sign-in sheet from the pre-bid meeting, attached.

**CONTRACTOR'S QUESTIONS AND ANSWERS**

1. **Question:** The site currently has 3-phase power. Is there an electrical upgrade component?

**Answer:** There is a Key's Energy Allowance to cover any improvements required of Key's Energy to supply power to the site.

2. **Question:** Where can I get a set of documents?

**Answer:** Documents can be obtained from DemandStar and/or the City of Key West website.

3. **Question:** Given the long lead times for Sole Source generator, will the City assess liquidated damages in the event schedule cannot be met?

**Answer:** In the past, lead times for generator delivery has been approximately 180 days once submittals have been approved. If submittals are timely, lead times are not expected to impact schedule.

4. **Question:** During site visit, I noticed that the tel/power drop to the trailer to the West of site runs right over top (probably through, given height of building) of the VFD building. This pole will likely need relocating.

**Answer:** Yes, it will need to be relocated by Key's Energy. The Key's Energy relocation costs will be paid from the Key's Energy Allowance.

5. **Question:** Is the interior of the Electrical Building to be cathedral ceilings?

**Answer:** The ceiling type will depend on the supplier of the building. Cathedral ceiling is acceptable.

### **PART 3 – SPECIFICATIONS**

#### **SECTION 26 29 23, LOW-VOLTAGE ADJUSTABLE FREQUENCY DRIVE SYSTEM**

1. Page 7; paragraph 2.01.A.2, DELETE the following: "2. Eaton Cutler Hammer."

#### **SECTION 33 12 00, TEMPORARY WASTEWATER BYPASS PUMPING SYSTEM**

1. ADD this section in its entirety.

#### **SECTION 44 42 56.04, SUBMERSIBLE PUMPS**

1. Page 16; paragraph 2.06.A, DELETE in its entirety and REPLACE with the following:

"A. Primer and Finish Paint: Shop apply to all exterior ferrous surfaces of the pump and motor as well as internal of impeller and volute. Shop apply to exterior and interior surfaces of Base 90 elbow. Product to be WILO Ceram CO, without exception.

1. Solids by volume: 97 percent.
2. Type: Solvent-free ceramic coating, impregnated with aluminum oxides.
3. Total Dry Film Thickness: 400 microns (15 mils) minimum.
4. Minimum Adhesion: 15 Newtons per square millimeter (2,030 psi) per ISO 4624.
5. Minimum Hardness: 110 on Buchholz Indentation Scale.
6. Resistance; Level 1 (continuous duty) for sewage with pH of 6 – 11.

B. Surface Preparation: Prepare all surfaces to receive coating system.

1. Method: Blasting per ISO 12944-4.
2. Standard Cleanliness Grade: 2.5.
3. Minimum Peak to Valley Height: 70 microns (2.75 mils)."

2. Supplement 1; Manufacturer and Model Number (2): DELETE in its entirety and REPLACE with the following: “No other allowed.”

**DRAWINGS**

DELETE in their entirety and REPLACE the following:

C-1: CIVIL: SITE PLAN

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

CH2M HILL

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Sean Mc Coy, P.E.

Appended hereto and part of Addendum No. 1:

Meeting minutes from the pre-bid meeting, attached.

Copy of the sign-in sheet from the pre-bid meeting, attached.

Section 33 12 00, Temporary Wastewater Bypass Pumping System, attached.

Drawing: C-1: Civil: Site Plan, attached.

**END OF ADDENDUM**



# MANDATORY PRE-BID MEETING MINUTES

## CITY OF KEY WEST

### PUMP STATION F IMPROVEMENTS

City Manager's Conference Room

Wednesday August 27, 2014 at 10:00 AM

1. Introductions (sign-in)

2. Project Summary

The project consists of the installation of an electrical building on a concrete platform, replacement of two submersible pumps with appurtenances, replacement of a 90 kW generator with a 250 kW generator, platform modifications, new electrical, instrumentation, piping and valves. Anticipate bypass pumping. Preparation of 90 kW generator for long term storage. Preparation of Pumps for storage.

See section 01 11 00 *Summary of Work* for additional details

3. Contract Time and Estimated Schedule

Substantial completion-270 calendar days after notice to proceed  
Final Completion-within 30 calendar days after substantial completion

Estimated NTP: November 17, 2014

Bids due September 17, 2014 at 3:00 PM

**Bidder's questions must be submitted in writing by close of business Monday, September 8, 2014. Submit questions to;**

Sean McCoy  
CH2M HILL  
[sean.mccoy@ch2m.com](mailto:sean.mccoy@ch2m.com)

4. Liquidated Damages

\$3,000/day for failure to meet substantial  
\$1,000/day for failure to meet final

5. Allowance

An unforeseen conditions allowance of \$200,000 is included in the proposal for unforeseen conditions and conflicts. Payment of the allowance shall be based on actual costs and authorized by Work Change Directive.

A permitting allowance of \$50,000 is included in the proposal for payment of permits only.

A Landscape allowance of \$20,000 is included in the proposal for payment of any landscaping required by the City of Key West.

A Keys Energy allowance of \$10,000 is included in the proposal for payment of work by Keys Energy only.

6. Subcontracting

PICS and electrical subcontractors to be identified in proposal  
All other subcontractors shall also be identified in proposal

7. Permits

City of Key West building permits shall be the responsibility of the contractor.

City of Key West license is required for certified or registered electrical and general contractors.

Contractor is required to obtain the De-watering permit.

SFWMD (ERP) permit, USACE permit, and FDEP permit are not required for this project.

8. Construction Sequencing

Wastewater System shall remain operational at all times. Contractor shall anticipate need to bypass pump.

Contractor is required to provide temporary relocation of existing control panel and above ground equipment. Control Panel will be need to be temporarily relocated above the 100 year flood elevation.

Provide 14 days notice for any required temporary shut downs (if required).

9. Staging Area

Contractor shall confine his construction operations to within the easement limits or street right-of-way limits or make special arrangements with the property owners or appropriate public agency for the additional area required.

10. Working Hours

City of Key West has a noise ordinance that allows working hours between 8:00 AM to 7:00 PM, Monday through Friday and 9:00 AM to 5:00 PM Saturday. No work allowed on Sundays.

11. Job Site Security

Contractor shall be responsible for safety of public and the materials on site. See specification section 010100.

## 12. Existing Utilities

Contractor is responsible for utility location.

Notify all utility offices which are affected by construction operations a minimum of 48 hrs in advance. Where utility relocation is required in documents, contractor shall coordinate with utility.

## 13. General Requirements

Public safety and property is of utmost importance.

Contractor shall employ and pay for all independent lab testing as required by the specifications.

Contractor shall verify elevations and location of existing facilities shown on drawings prior to start of construction.

Contractor shall prepare, remove, and transport the Existing Generator and Pumps to the Richard A. Heyman EPF.

## 14. Technical requirements

All stainless steel components to be 316, all electrical enclosures to be NEMA 4X 316 SST.

The diesel engine generator is to be outfitted with aluminum, sound attenuated, structurally reinforced weatherproof enclosure capable of withstanding 200 mph winds.

The Electrical Building will be a precast concrete building, complying with FBC 2010, and the State of Florida High Velocity Hurricane Zones and Wind-borne Debris regions.

The design of this project is based around a Detroit Diesel Generator as specified. Generator dimensions and manufacturer's warranty information will be strictly adhered to by the contractor; no modifications/substitutions will be allowed.

The RTU will monitor signals from the generator, and pump station. The RTU will tie into the Owner's existing DFS SCADA network. Refer to Section 40 90 01 for RTU requirements.

Trees and plants shall be protected. Any trees requiring trimming or removal will need approval from City Key West tree commission.

City of Key West Project Manager Terry Justice will assist with any tree trimming/removal permitting if needed.

## 15. Engineers Cost estimate \$1,418,203

## 16. City/OMI Comments

1. November has Conch Football season in full swing. Area around site will have lots of Traffic.
  - a. Site security will be of utmost importance with increased public traffic.
  - b. However, considering approval time, Issue NTP, and long lead times, football season may be over.
  
2. OMI prefers Wilo Pumps. That's what they have parts for, and the service reps are onsite in an hour or two if needed. Does not get same service from Flygt. OMI prefers to sole source the pumps as Wilo.
  - a. ANS: If pumps are sole sourced, additional information will be released via addendum.
  
3. Ralph Estevez/OMI raised issues with bypass pumping. Our spec is very loose, to the point that we just tell the contractor that it needs to be done. Ralph mentioned that the bypass pumping that occurred for Pump Station DA is what we will need here.
  - a. ANS: Bypass pumping specification to be added by Addendum

## 17. Contractor Questions/Comments

1. The site currently has 3 –phase power. Is there an electrical upgrade component?
  
2. Where can I get a set of documents?
  - a. ANS: Drawings can be purchased from Demand Star
  
3. Given the long lead times for Sole Source generator, will the City assess liquidated damages in the event schedule cannot be met?
  - a. ANS: In the past, lead times for generator delivery have been approximately 180 days once submittals have been approved. If submittals are timely, lead times are not expected to impact schedule.
  
4. During site visit, I noticed that the tel/power drop to the trailer to West of site runs right over top (probably through, given height of building) of the VFD building. This pole will likely need relocating.
  - a. ANS: Yes it will likely need to be relocated by KES. If required, KES relocation costs will be paid from the Keys Energy Allowance.

## 18. Meeting Adjourned

**SIGN-IN**  
**MANDATORY PRE-BID MEETING**  
 City Key West

**Pump Station F Improvements**  
 City Manager's Conference Room  
 Wednesday August 27, 2014 at 10:00 AM

To insure all contact information is recorded correctly and meeting minutes are sent to the right email address: PLEASE PRINT CLEARLY

Name	Company	Phone No.	Cell Phone	E-mail
Sean McCoy	CH2M Hill	305 432 9124	801 946-0135	Sean.McCoy@CH2M.COM
Andrew Toppino	Charley Toppino & Sons	305-747-5839		ATTOPPINO@GMAIL.COM
ALBERTO TURNEZ	METRO EQUIPMENT SERVICE	(305) 740-3303	(786) 426-5701	ATURNEZ@HOTMAIL.COM
BUSBY MONTGOMERY	BURKE CONST.	305-468-6604	954-658-8854	AMONTGOM@BELLSouth.net
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PAUL TOPPINO	ctos	"		Paul.toppino@ctos.com
TERENCE JUSTICE	CKW	305-809-3943	305-304-4777	JUSTICE@KEYWESTCITY.COM
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CARL AKERBLUM	AKERBLUM CONT, INC.	954-224-4437	SAME	PAKERBLUM@AOL.COM
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Ralph ESTEVEZ	OMI	305-906-1192	Same	Ralph.ESTEVEZ@CH2M.COM
Michael Martinez	OMI	305-522-1511	-	Michael.martinez@CH2M.com
Arnold Collins	OMI	305-292-5100	305-407-5090	ARNOLD.collins@CH2M.COM
MIKE TURNER	CKW	305-809-3866	352-219-7399	Mdufner@keywestcity.com



**SECTION 33 12 00**  
**TEMPORARY WASTEWATER BYPASS PUMPING SYSTEM**

**PART 1      GENERAL**

1.01      SYSTEM DESCRIPTION

A.      Performance Requirements:

1.      It is essential to the operation of the City of Key West sewer collection system that no interruption in wastewater collection to the City's wastewater treatment plant occur during the site improvements project. The Contractor shall provide, maintain, and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and backup units as required), pipe, fittings, and all necessary power to intercept the gravity sewers that flows to the Pump Station wet well before it would interfere with the piping modifications, pump replacements and wet well repairs and return it to the existing force main piping system downstream of the Pump Station.
2.      Design, install, and operate the temporary pumping system and pay all costs associated with this system, including fuel.
3.      Convey the sewage wastewater safely past this Work area. Do not stop or impede the gravity sewers flows under any circumstances.
4.      Maintain wastewater flow around the area where Pump Station F modifications are to be constructed in a manner that will not cause surcharging of sewers, damage to sewers, and that will protect public and private property from damage and flooding.
5.      Protect water resources, wetlands, and other natural resources. Mitigation of any spills and associated fines and costs shall be the sole responsibility of the Contractor.

B.      Design Requirements:

1.      Provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping, to ensure that the total flow in the influent gravity sewers to the Pump Station can be safely diverted around the Pump Station throughout the portion of the Contract period where piping modifications, pump replacements, and wet well repair are made. Bypass pumping system will be required to be operated 24 hours per day 7 days per week, including holidays during periods when piping modifications are being made by the Contractor and the existing system is inoperable.
2.      Points of connection to the existing gravity sewer system and force main are identified on the Drawings.

3. Install a minimum of two pumps to bypass the main flow of the influent gravity sewers to the Pump Station. All pumps shall be of equal size. Each pump (normal operating) shall have a minimum pumping capacity of 2,750 gpm. All pumps shall be online and isolated by individual valves and ready for immediate use in the event of an emergency or breakdown.
4. Install suction and discharge piping from the point of flow collection to the existing station bypass pump connection to the existing force main system. Each individual discharge pipeline shall be of adequate size to convey the required flow for the system's normal operating pumps. Contractor shall furnish and install tapping sleeves and valves, including upstream isolation, or existing process piping systems as required to tie-in the temporary pumping system.
5. Maintain onsite portable lights for routine maintenance and/or emergency use.

## 1.02 SUBMITTALS

- A. Shop Drawings: Detailed plans and descriptions outlining all provisions and precautions regarding the handling of existing wastewater flows. This plan must be specific and complete including such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of public and private property from damage and flooding by surcharging of sewers. The plan shall include but not be limited to details of the following:
  1. Sewer plugging method and types of plugs.
  2. Number, size, material, location and method of installation of suction piping.
  3. Number, size, material, method of installation and location of installation of discharge piping.
  4. Bypass pump sizes, capacity, number of each size to be onsite and power requirements.
  5. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted).
  6. Standby power generator size, location.
  7. Thrust restraint scheme for all pipe and fittings.
  8. Sections showing any suction and discharge pipe depth, embedment, select fill and special backfill where required.
  9. Method of noise control for each pump and/or generator.
  10. Any temporary pipe supports and anchoring required.
  11. Calculations for selection of bypass pumping pipe size.
  12. Schedule for installation of and maintenance of bypass pumping lines.

- B. Quality Control Submittals: Certification of vendor's compliance with qualifications included in Article Quality Assurance.

### 1.03 QUALITY ASSURANCE

- A. Employ vendor specializing in design and operation of temporary bypass pumping system.
  1. Provide five references from projects of similar size performed by vendor in the past 3 years.
  2. Vendor shall be Godwin Pumps, Sunbelt Rentals Pump and Power Services, or approved equal.
- B. System operators to be full-time employees of vendor with minimum 3 years experience in operating and maintaining bypass systems. An operator shall be present at all times, 24 hours per day, 7 days per week, that temporary pumps are in operation.
- C. Contractor shall be responsible for any spillage of raw sewage that results in civil or criminal charges from any local, state, or federal agency. Costs for these charges and any required restoration shall be the Contractor's sole responsibility.

### 1.04 MAINTENANCE

- A. Maintenance Service: Ensure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.
- B. Extra Materials: Spare parts for pumps and piping shall be kept onsite as necessary.
- C. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

## **PART 2 PRODUCTS**

### 2.01 BYPASS PIPING MATERIALS

- A. Header and Discharge Piping: Pipe, fittings, couplings, and related items shall be manufactured of materials suitable for conveyance of raw unscreened sewage under pressure. The pressure rating of pipe, fittings, and couplings shall be a minimum of 1.25 times the shutoff head of the bypass pumps employed in the pumping system. Piping shall be suitably thrust restrained for the pumping pressures encountered.

- B. Suction Piping: Suction piping shall be high density polyethylene pressure piping conforming to ASTM D3350 with a maximum SDR of 17. Joints shall be butt fusion welded. Suction piping shall be as manufactured by Phillips Driscopipe, Inc., or equal.

## 2.02 EQUIPMENT

- A. All pumps used shall be fully automatic self priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps shall be electrically operated with diesel engine backup power. Contractor shall provide temporary electric power from Keys Energy to operate the pumps. All pumps shall be trailer mounted and must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of influent flows.
- B. Contractor is responsible for operating and maintaining the temporary pumping equipment 24 hours a day for the duration of the project.
- C. Provide the necessary stop/start controls and the following alarm signals:
  - 1. High level alarm (beacon and horn).
  - 2. Pump malfunction (beacon and horn). Contractor shall provide auxiliary contacts for temporary motor failure and a float with auxiliary contacts (High Level) for use by Owner in remote indication. Connection to auxiliary contacts for remote indication will be by the Owner.
- D. Pump design shall be such that 3.0-inch minimum solid may be passed.
- E. All pumps shall be Godwin “Dri-Prime” automatic self-priming pumps (CD, DPC, or HL Series) meeting flow and head conditions specified as manufactured Godwin Pumps of America, Inc.; Gorman-Rupp (PA or Quiet Flow Series) or equal.
- F. Incorporate noise prevention measures for any and all equipment being used to ensure minimum noise impact on the surrounding areas.
  - 1. Include: Hospital grade silencers or mufflers, equipment modifications, and special equipment or sound barrier walls as necessary to limit noise levels below 55 decibels at a distance of 25 feet in the direction of any residential home.
- G. Repair clamps shall be full circle, stainless steel clamps, Style FS2 or FS3 as manufactured by the Ford Meter Box Company, Inc., or equal.

**PART 3 EXECUTION****3.01 PREPARATION****A. Precautions:**

1. Locate any existing utilities in the area selected to locate the bypass pipelines. Locate bypass pipelines to minimize any disturbance to existing utilities and obtain approval of all utilities, and the Engineer prior to installation.
2. Bypass pump all wastewater flows during all phases of the Work and coordinate all bypass pumping operations with the Owner.

**3.02 INSTALLATION**

- A. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of Work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream. Contractor shall provide continuous monitoring of the integrity of plugs and blocks.
- B. When working inside manholes, exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces.

**3.03 FIELD QUALITY CONTROL**

- A. Test: Perform a hydrostatic pressure test for each section of discharge piping with a maximum pressure equal to 1.5 times the maximum operating pressure of the system. The Owner shall witness the test to ensure that there are no leaks in the discharge piping prior to actual operation.
- B. Bypass pumping systems shall be operated continuously for a minimum period of 24 hours to demonstrate the performance and reliability of the system prior to initiating modification work, which would eliminate existing Pump Station from service.
- C. The Operator shall inspect the bypass pumping system every hour, or on a schedule approved by the Engineer.
  1. An inspection log shall be kept at each pumping location. Each inspection log shall be marked with a time clock stamp to ensure the required maintenance and inspection are being performed.

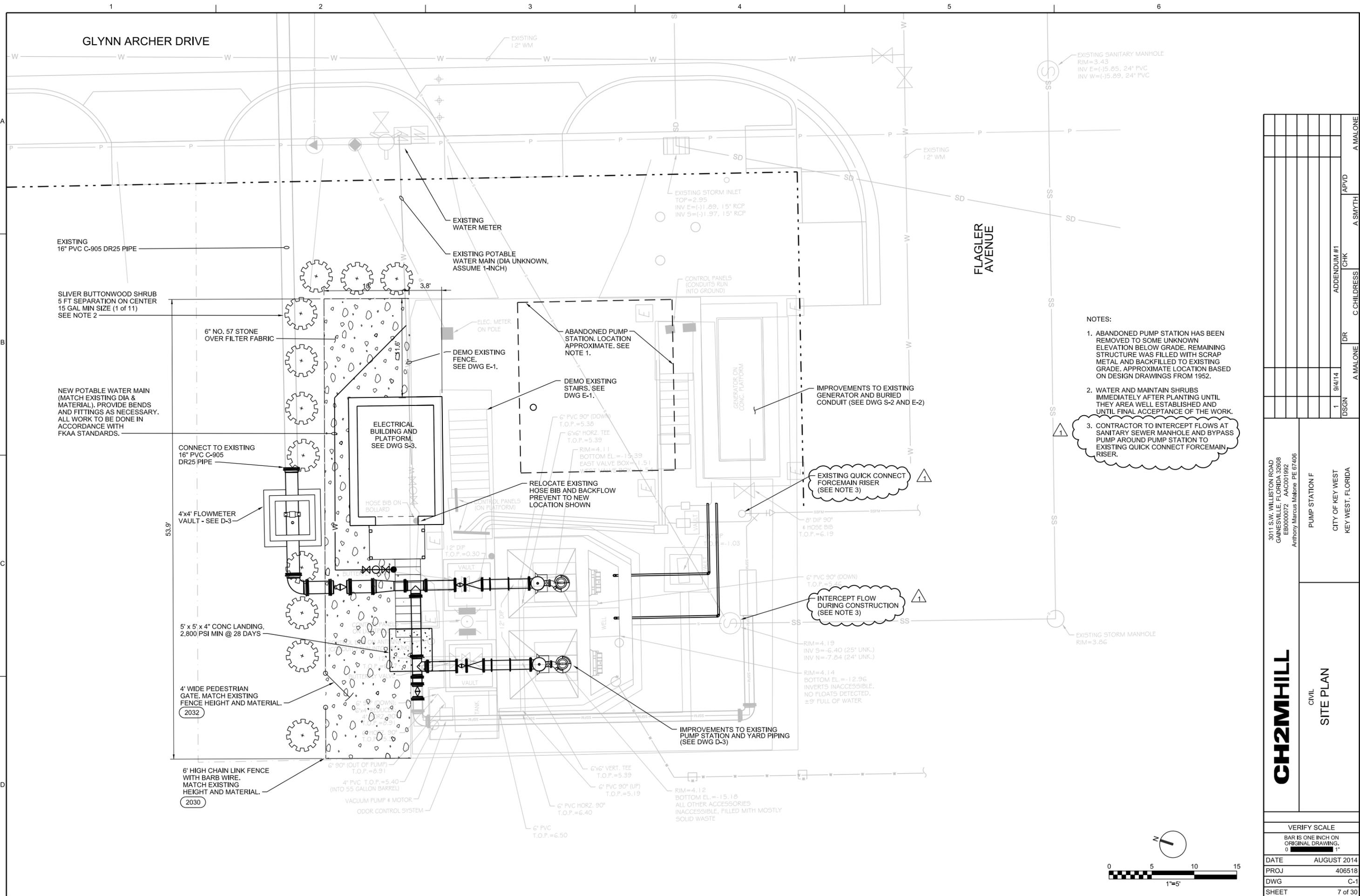
3.04 CLEANING

- A. Sewage remaining in the bypass discharge pipeline and/or pumping equipment shall be discharged to a working sewer before the bypass pumping system is broken down and demobilized.
- B. Disturbed Areas: Upon completion of the bypass pumping operation, clean up all areas disturbed by these operations, restoring same to a condition, at least equal to that which existed prior to the start of the Work.

3.05 DEMOBILIZATION

- A. Upon completion of the temporary bypass pumping, remove pumps, piping, and appurtenances from the site.

**END OF SECTION**



- NOTES:
1. ABANDONED PUMP STATION HAS BEEN REMOVED TO SOME UNKNOWN ELEVATION BELOW GRADE. REMAINING STRUCTURE WAS FILLED WITH SCRAP METAL AND BACKFILLED TO EXISTING GRADE. APPROXIMATE LOCATION BASED ON DESIGN DRAWINGS FROM 1952.
  2. WATER AND MAINTAIN SHRUBS IMMEDIATELY AFTER PLANTING UNTIL THEY AREA WELL ESTABLISHED AND UNTIL FINAL ACCEPTANCE OF THE WORK.
  3. CONTRACTOR TO INTERCEPT FLOWS AT SANITARY SEWER MANHOLE AND BYPASS PUMP AROUND PUMP STATION TO EXISTING QUICK CONNECT FORCEMAIN RISER.

APVD	A. MALONE
CHK	A. SMYTH
DR	C. CHILDRESS
DSGN	1 9/4/14
ADDENDUM #1	

3011 S.W. WILLISTON ROAD  
 GAINESVILLE, FLORIDA 32608  
 E80000072 AAC001992  
 Anthony Marcus Malone PE 67406

PUMP STATION F  
 CIVIL  
 CITY OF KEY WEST  
 KEY WEST, FLORIDA  
 SITE PLAN

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	AUGUST 2014
PROJ	406518
DWG	C-1
SHEET	7 of 30

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