

Project Name: LS Telemetry Tower

Project Location: SEWRF, 3331 Lena Road, Bradenton, FL 34211

The work in this Request for Quotation package is to provide, erect and install a new 100 foot tall free standing tower, including furnishing of all labor, materials, equipment and incidentals, warranties, and professional services required. Construction design & record drawings shall fully meet the requirements of all current federal, state and county laws, regulations and standards, with the most stringent applying.

PROJECT SCOPE:

This project will provide an antenna for remote operations of various remote facilities. It entails providing a 100 foot free standing tower to mount the antenna to and mount a County provided antenna on it, including the required permits and construction / installation of the proper foundation, tower erection, wiring, lights, climbing ladder, etc. (see site plan).

Erector / installer shall provide:

1. Contractor will provide the County with equipment & structural submittal documents sufficient to be signed off and approved for the issuance of all required permits.
2. The tower installation contractor is responsible for all permitting, submittals and fees and structural steel certificate at construction completion.
 - A. Manatee County Building Department permitting fees are:
Permit \$475 + 3% to State
Flood Review Fee \$ 25
 - B. Manatee County Building Department required submittals are:
Five (5) sets of signed/sealed tower drawings, to include tower and foundation details, specs and installation instructions
Site plan with buildings located & proposed tower locations (attached)
Two (2) sets of signed & sealed soils report
Completed Building Permit application
Steel certification signed & sealed by EOR at tower completion.
3. It is the intent of this project that the contractor provide a turn-key delivery of an antenna support structure and mounting an antenna as referenced herein & shall include, but is not limited to, all labor, material, equipment, professional services, warranties, maintenance and operational manuals for any or all furnished equipment, and demolition & disposal of the existing monopole antenna tower.
6. Provide final as built. Record set with tower plans/foundation and utility locations for approval by Utility Engineering. Provide two sets of warranties and manuals for products used. Provide digital picture record of each stage of construction including: pre-construction conditions, final site work and finished structure with final pay application.
7. Permit process started within 90 days. Upon approval of permitting, construction shall commence and be completed within a 120 day period.

8. Final pay application shall be at least 25% of the total project cost. Final payment application shall include the picture record, warranties, lien releases, proof of permit closeout and record drawings.

Site Plan Drawing: note the proposed site location and approximate location of utilities in the area.

Note: Included by reference is the May 2011 approved Manatee County Utility Standards.

I ANTENNA TOWER:

1. General Information:

- A. Tower base location as shown.
- B. Tower to meet all applicable wind and lighting / marking codes. Site wind load is 140 mph per the Manatee County Wind Load map.
- C. Antennas mounted to tower & wired into the building.
- D. Site has controlled access, access codes will be provided.
- E. Tower shall have a minimum 5 year warranty against defects in materials or workmanship.

2. Tower Structure:

- A. Free standing monopole or open structure meeting requirements of ANSI/TIA/EIA-222-F.
- B. All steel hot dip galvanized per ASTM A123
- C. Climber safety device system
- D. Site wind load is 140 mph per the Manatee County Wind Load map.
- E. Mounting of all equipment, connections, wires, cables & lines:
DFS Model CTA 209/Telewave Model ANT 220 D6-9
Andrew Solutions DB222-A Omni, exposed dipole antenna
- F. Tower location is more than 20,000 feet from the end of the nearest airport runway.

3. Tower Foundation

- A. As required per the tower manufacturer based on the Soil Boring logs attached.

4. Tower Erection

- A. Clean up site and all debris associated with the project
- B. Restore site to pre-construction condition upon completion.
- C. 110 volt power is available on site for tower lighting and small equipment usage during construction / erection.

End of Section

Att: Soil boring logs.

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.

24. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE INFORMATION CONTAINED HEREIN IS NOT BEING PROVIDED FOR THE PURPOSE OF CONVEYING A GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN, ON THE PLANS) THAT MAY AFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.

23. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORY DRAINS, UTILITIES, DRAINAGE, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY ON THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANAGE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.

27. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.

28. ALL DISRUPTED CROSSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED, THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
29. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE SOD, INSTALLED PIPE LINE, IN AREAS THEREAFTER, THE CONTRACTOR MUST PROVIDE A TEMPORARY MAINTENANCE ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
30. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.
- CONSTRUCTION**
- THE EXTENT OF ALL EXISTING AND PROPOSED EXISTING SHALL BE INDICATED BY THE CONTRACTOR'S SURVEY. THE

31. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE MUFFLES CONSIDERED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
32. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. RUMBLE SHALL BE SWEEP DAILY AS PART OF DAILY CLEAN UP.
33. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.

334. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
335. THE CONTRACTOR SHALL PROVIDE ALL Dewatering EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. Dewatering IS REQUIRED TO A MINIMUM OF 18" BELOW TRENCH BOTTOM.
336. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENTS.
337. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
338. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
339. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
340. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
341. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
342. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.

20. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MAAMTEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.

21. THE CONTRACTOR SHALL EMPLOY A LAND SUREYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

4.2. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.

40. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.

MANATEE COUNTY
CHILD WELFARE DEPT

TACO/PEOPLES GAS CO.
 DEAN SHAMAM
 SARASOTA, FL 34240
 FAX: (941) 343-4030
 FAX: (941) 342-4031
 EMERGENCY: 1-877-832-8911
 VERTICON FLORIDA, INC.
 VERNER, SLOMER, BLYD
 SARASOTA, FL 34236
 FAX: (941) 330-9203
 FAX: (941) 908-6706
 WAYNE.SUNNER@verizon.com
 GARY L. LUKER
 VENUE AVENUE EAST
 PALMETTO, FL 34221
 (941) 723-4430
 FAX: (941) 723-4444
 EMERGENCY: 1-800-4-OUTAGE
 Eng. Code# 01-jrp.com
 MANATEE COUNTY HEALTH DEPT.
 PHNS, RICE-SMITH
 410 BR. AVE. E. EAST
 BIRMINGHAM, FL 34208
 (941) 748-0747 EXT. 1355
 FAX: (941) 748-0364
 SOUTHWEST FLORIDA WATER
 SOUTHWEST FLORIDA
 SARASOTA, FL 34237
 DARRYL R. FLATT, P.E.
 6750 FRUITVILLE ROAD
 SARASOTA, FL 34240
 (941) 377-3722
 FAX: (941) 372-7660
 SUNSHINE STATE ONE CALL OF
 (1-800) 432-4770
 COOPERATIVE, INC.
 1100 W. 10TH RD.
 WICHITA, KS 67204
 PHONE: (613) 466-3327
 E-mail: chodhrai@csug.com
 DEPARTMENT OF
 ENVIRONMENTAL PROTECTION
 STANLEY, TELECOM PRY-
 TEMPLE TERRACE, FL 33637
 PHONE: (813) 632-7600, EXT.
 408 FAX: (813) 632-7662
 BRIGHT HOUSE NETWORKS
 TOM WRIGHT
 1400 W. STATE ROAD 54
 BRADLINTON, FL 34208-5555
 (941) 748-3816 EXT. 21348
 tom.Wright@brighthouse.com
 MANATEE COUNTY PUBLIC
 WORKS DEPT./TRAFFIC
 ENGINEERING, FINES
 2505 W. VENUE EAST
 BIRMINGHAM, FL 34203
 VISHAL KAKKAD, P.E.
 (941) 749-3500 EXT. 7812
 FAX: (941) 749-3571
 vishal.kakkad@manatee.org
 KENDALL COCKER
 (863) 376-6660
 kendall.cocker@epscorp.com

LEGEND

The diagram illustrates a utility pole with various equipment and labels. The pole is shown in cross-section, revealing internal components such as a transformer, meter, and various wires. The labels are organized into columns, with some pointing to specific parts of the pole. The labels include:

- BRANCH MARK
- CONCRETE MONUMENT
- IRON PIPE
- IRON ROD
- HUB
- NAIL & DISK
- ELEVATION
- PARCEL ID NO.
- LOT NO.
- LOT NAME
- POWER POLE
- LIGHT POLE
- LOCAL BOX
- SIGNAL
- REFLECTOR
- SPRINKLER
- GAS MARKER
- BFP
- BLOW OFF VALVE
- FINE INJECTANT
- WATER VALVE
- AIR RELEASE VALVE
- WATER UTILITY
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEAN OUT
- SOIL BORING LOCATION
- TELEPHONE SERVICE BOX
- FLOW DIRECTION
- GATE INLET
- WETTED END SECTION
- EXISTING
- BUSH
- TREE
- C&M TREE
- PALM TREE
- PINE TREE
- EDGE OF VEGETATION
- C&M LINK FENCE
- BARBED WIRE FENCE
- FORCE MAIN
- PRIVATE WATER
- REQUIRED WATER
- SANITARY SEWER
- STORM DRAIN
- GAS LINE
- OVERHEAD TV
- UNDERGROUND TV
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- OVERHEAD VENTRON
- UNDERGROUND VENTRON
- VENTRON
- UNDERGROUND UTILITY
- OVERHEAD UTILITY
- PAUL ROAD TRUCKS
- EDGE OF CONCRETE
- EDGE OF ROAD
- TOP OF DRAIN
- TOP OF DRAIN
- PROPERLY LINE
- RIGHT OF WAY
- R/W
- RIGHT OF WAY
- CONCRETE
- ASPH
- ASPHALT
- DRIVEWAY
- SWK
- SODDWAY
- EP
- EDGE OF PAVEMENT
- BACK OF CURB
- ABBREVIATIONS
- PROPOSED
- MAIN
- SERVICE LINE
- PROPOSED DUCTANT
- FINE INJECTANT
- VALVE
- SANITARY SEWER MANHOLE
- REDUCER
- TEE
- HORIZONTAL BRAD
- VERTICAL BRAD
- PLATE
- MASTER UTILITY ASSEMBLY
- SERVICE LINE & METER
- DOUBLE SERVICE

STA. 40+60, 17' LT.
1-EX. 6" GATE VALVE
1-EX. 6" FITTING

[illegible]

PROJECT #	402-0019707
SURVEY #	N/A
SEC./TWN./RGE	01/35S/18E
SCALE	1"=20'

	BY	DATE
SURVEYED	N/A	N/A
DESIGNED	WRT	04/20/12
DRAWN	WRT	04/20/12
CHECKED	WRT	04/20/12

SATELLITE LIFT STATION R & R TELEMETRY TOWER SOUTH EAST WATER RECLAMATION FACILITY GENERAL NOTES & LEGEND



1022 26th Avenue East
Bradenton, FL 34208

This project will provide antennas for remote operations of various remote facilities by staff in the SEWRF office. It entails furnishing of all labor, materials, equipment and incidentals, warranties, and professional services required to provide a 100 foot free standing tower to mount the antennas to, including the required permits and construction / installation of the proper foundation, tower erection, wiring, lights, climbing ladder, etc. Also included is demolition and disposal of the existing 75' monopole antenna.

1. General Information:

- A. Tower base location as shown.
- B. Tower to meet all applicable wind and lighting / marking codes. Site wind load is 140 mph per the Manatee County Wind Load map.
- C. Antennas mounted to tower & wired into the building.

A. Free standing monopole or open structure meeting requirements of ANSI/TIA/EIA-222-F.

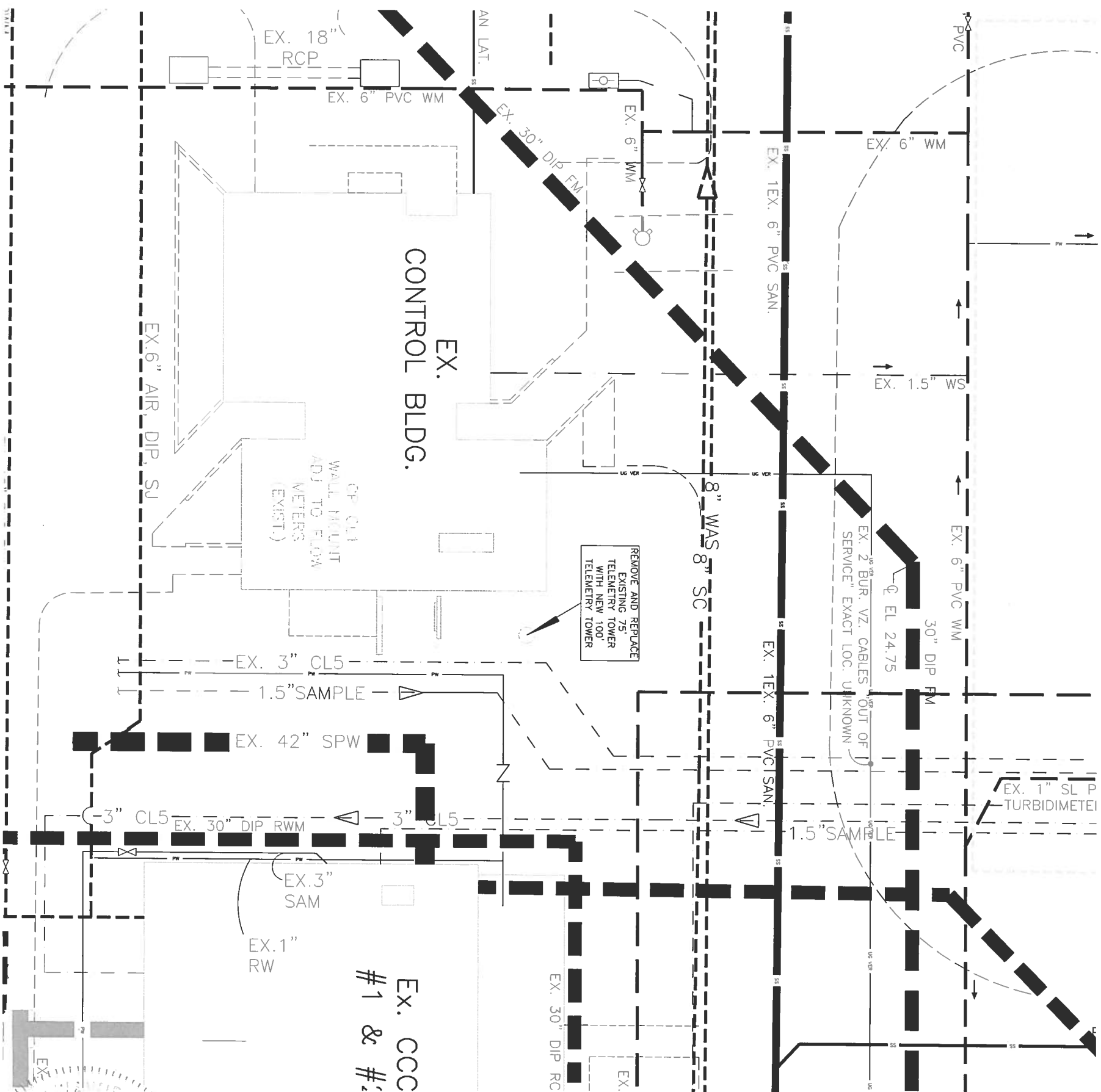
- B. All steel hot dip galvanized per ASTM A123
- C. Climber safety device system
- D. Site wind load is 140 mph per the Manatee County Wind Load map.
- E. Mounting of all electronic equipment & lines:
 - 1 each OMNI exposed Dipole, Andrew DB222-A.
- F. Tower location is more than 20,000 feet from the end of the nearest airport runway.

A. As required per the tower manufacturer

A. Clean up site, and all debris associated with the project

B. Restore site to pre-construction condition upon completion.

- C. 110 volt power is available on site for tower lighting and small equipment usage during construction / erection.



**SATELLITE LIFT STATION
R & R TELEMETRY TOWER
SOUTH EAST WATER
RECLAMATION FACILITY
PLAN SHEET**



1022 26th Avenue East
Bradenton, FL 34208

NO.		REVISION	DESCRIPTION	BY	DATE
PROJECT #	402-0019707				
SURVEY #	N/A				
SEC./TWN./RGE	01/35S/18E				
SCALE	1"=20'				
SURVEYED	N/A	BY		DATE	
ADDITIONED	WRT				
DRAWN	15-2				
CHECKED	WRT				
	04/20/12				
WAYNE R. FROLYER, P.E.					
FLORIDA P.E. # 62204					
Signature & Date					
11/3/12					



MANATEE COUNTY FLORIDA

November 9, 2012

To All Bidders

Subject: Satellite Lift Station Telemetry Tower, SE Water Reclamation Facility,
Proj # 402.0019707

The "construction cost estimate" for the tower work is \$87,500, eighty seven thousand, five hundred dollars.

This construction cost estimate was determined as of October 24, 2012. The construction cost estimate is based on the original specifications and drawings November 9, 2012. Changes to the specifications subsequent to the original documents by addenda to this bid may not be accounted in this construction cost estimate.

Estimated construction time is NTP plus 180 days.

Sincerely,

Wayne R. Troxler, P.E.
Engineer of Record

cc: Sherri Robinson, Project Manager
Project File: 402.0019707

Public Works Department – Utility Engineering Division
1022 26th Avenue East, Bradenton, FL 34208

WEB: www.mymanatee.org * PHONE: (941) 708-7450 * FAX: (941) 708-7431

LARRY BUSTLE * MICHAEL GALLAN * JOHN R. CHAPPIE * ROBIN DiSABATINO * DONNA HAYES * CAROL WHITMORE * JOE
McCLASH

District 1
District 7

District 2

District 3

District 4

District 5

District 6

OPINION OF COST

PROJECT NAME: LS Telemetry Tower - SE WRF
PROJECT NUMBER: TBD
PROJECT DESCRIPTION: Provide & install 100' galvanized tower with lights, antenna, ladder, etc., including footing, erection & antenna installation.
PROJECT SITE DIMENSIONS: Approx. 100 ft. x 100 ft.
PREPARED BY: Wayne R. Troxler 

ITEM NO.	DESCRIPTION 90% Cost Estimate	UNITS	QTY.	UNIT PRICE (\$)	EXTENDED PRICE (\$)
1	Provide 100' galvanized tower & incidentals	EA	1	20,000.00	20,000.00
2	Construct foundation & erect tower	EA	1	25,000.00	25,000.00
3	Demo old tower, remove debris	LS	1	20,000.00	20,000.00
4	Mount new antenn on new tower, run cables, lights, wires, etc	LS	1	5,000.00	5,000.00
5					0.00
6					0.00
7					0.00
8					0.00
9					0.00
10					0.00
11					0.00
12					0.00
13					0.00
14					0.00
15					0.00
16					0.00
17					0.00
18					0.00
19					0.00
20					0.00
21					0.00
22					0.00
23					0.00
24					0.00
25					0.00
26					0.00
27					0.00
28					0.00
29					0.00
30					0.00
	SubTotal Construction Cost				70,000.00
	Mobilization (% of SubTotal)		10%		7,000.00
	Miscellaneous Work & Clean Up (% of SubTotal)		5%		3,500.00
	Contingency (% of SubTotal)		10%		7,000.00
	Total Construction Cost				87,500.00

Note:

- Opinion of cost assumes construction to be completed by private contractor.