

JEA Water and Wastewater Standards

501 As-Built Drawings

V. SUBMITTAL TRANSMITTALS AND CHECKLISTS

V.1. AS-BUILT OR RECORD DRAWING CERTIFICATION BLOCKS:

The following information (as applicable) shall be displayed on each page of the As-Built or Record drawing set. For preliminary as-built or record drawing review, all fields must be filled out including signature, date and license numbers. The seal must be supplied on the final approved as built.

V.1.1. FOR ENGINEERS:

AS-BUILT	
INFORMATION PROVIDED BY:	
Date:	_____
Name:	_____
Address	_____

Phone#:	_____
<u>I HEREBY CERTIFY THAT THE</u>	
_____ Pavement _____ Curb & Gutter _____ Storm & Drainage System _____ Lake or Pond _____ Underdrain Connections	_____ Chilled Water _____ Water Main _____ Reclaimed Water Main _____ Force Main _____ Sanitary Gravity System _____ Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS <u>AND THE ACCOMPANYING ELECTRONIC FILES HAVE BEEN LOCATED AND MAPPED</u> IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 61G15-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.	
ELECTRONIC DRAWING FILE NAME: _____	
FILE DATE: _____	
DATE OF FIELD SURVEY _____	
SIGNATURE: _____	
NAME: _____	
FLORIDA PROFESSIONAL ENGINEER NO: _____	

JEA Water and Wastewater Standards

501 As-Built Drawings

V.1.2. FOR SURVEYORS:

AS-BUILT	
INFORMATION PROVIDED BY: _____	
Name: _____	
Address: _____	
Phone#: _____	
I HEREBY CERTIFY THAT THE	
_____ Pavement	_____ Chilled Water
_____ Curb & Gutter	_____ Water Main
_____ Storm & Drainage System	_____ Reclaimed Water Main
_____ Lake or Pond	_____ Force Main
_____ Underdrain Connections	_____ Sanitary Gravity System
	_____ Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND MEET THE <u>MINIMUM</u> TECHNICAL STANDARDS FOR SURVEYING AND MAPPING IN THE STATE OF FLORIDA AS PER CHAPTER 5J-17.051 AND 5J-17.052, F.A.C.	
ELECTRONIC DRAWING FILE NAME: _____	
FILE DATE: _____	
DATE OF FIELD SURVEY: _____	
SURVEYOR'S SIGNATURE: _____	
SURVEYOR'S NAME: _____	
PSM#: _____	
THIS REPORT AND DIGITAL FILE ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER.	

JEA Water and Wastewater Standards

501 As-Built Drawings

V.1.3. FOR CONTRACTORS:

AS-BUILT	
INFORMATION PROVIDED BY:	
Date:	_____
Name:	_____
Address:	_____ _____
Phone#:	_____ _____
I HEREBY CERTIFY THAT THE MATERIALS AND QUANTITIES USED IN THE CONSTRUCTION OF:	
_____ Pavement	_____ Chilled Water
_____ Curb & Gutter	_____ Water Main
_____ Storm & Drainage System	_____ Reclaimed Water Main
_____ Lake or Pond	_____ Force Main
_____ Underdrain Connections	_____ Sanitary Gravity System
_____	_____ Lift Station
ARE IN ACCORDANCE WITH THE APPROVED PLANS AND JEA STANDARDS AND COUNTY SPECIFICATIONS, UNLESS OTHERWISE APPROVED BY THE REGULATORY AGENCY.	
CONTRACTOR'S SIGNATURE: _____	
CONTRACTOR'S NAME: _____	
CONTRACTOR'S STATE UTILITIES LICENSE NUMBER: _____	

JEA Water and Wastewater Standards

501 As-Built Drawings

V.1.4. FOR PROJECT MANAGERS:

RECORD DRAWING	
INFORMATION PROVIDED BY:	
Date:	_____
Name:	_____
Address:	_____

Phone#:	_____

I HEREBY CERTIFY THAT THE MATERIALS AND QUANTITIES USED IN THE CONSTRUCTION OF:	
_____ Pavement	_____ Chilled Water
_____ Curb & Gutter	_____ Water Main
_____ Storm & Drainage System	_____ Reclaimed Water Main
_____ Lake or Pond	_____ Force Main
_____ Underdrain Connections	_____ Sanitary Gravity System
	_____ Lift Station
ARE IN ACCORDANCE WITH THE APPROVED PLANS AND JEA STANDARDS AND COUNTY SPECIFICATIONS, UNLESS OTHERWISE APPROVED BY THE REGULATORY AGENCY. INFRASTRUCTURE IS AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "RECORD" DRAWINGS.	
JEA PROJECT MANAGER'S SIGNATURE: _____	
JEA PROJECT MANAGER'S NAME: _____	

JEA Water and Wastewater Standards

501 As-Built Drawings

V.2. JEA AS-BUILT OR RECORD DRAWING SUBMITTAL TRANSMITTAL

Water / Wastewater / Reclaimed Water / Chilled Water Pipes and Pumping

To: W&S As-Built Submittal Mailbox
From: _____
Phone: _____ E-mail: _____
Company Name: _____
Company Address _____
Date of Submittal: _____
Signature of Submitter _____
Verifying Compliance: _____

Project Name: _____
Project Type: _____ New Development _____ Treatment Plant _____ JEA Installed _____ JEA Contractor
(Check all that apply)
Project Purpose _____ Main Extension _____ Main Replacement _____ Main Relocation _____ Plant Project
JEA Availability _____ JEA Capital Project
Number: _____ Number: _____
JEA Project Manager: _____ JEA PM e-mail: _____

Engineering Firm: _____
Engineering Contact: _____
Engineers Phone: _____
Engineers E-mail: _____

Contracting Co.: _____
Contractor Contact: _____
Contractor Phone: _____
Contractor E-Mail: _____

Surveying Co.: _____
Surveyor Contact: _____
Surveyors Phone: _____
Surveyors E-mail: _____
JEA O&M representative: _____

- Attached: _____ Water As-Built & Data Tables – Paper & Electronic
_____ Wastewater As-Built & Data Tables – Paper & Electronic
_____ Wastewater Pump Station Attribute Tables Electronic
_____ Reclaimed Water As-Built & Data Tables – Paper & Electronic
_____ Chilled Water As-Built & Data Tables – Paper & Electronic
_____ As-Built Submittal Checklist filled out by Engineer, Contractor or Surveyor
_____ As-Built Submittal Checklist filled out by JEA Project Manager
_____ Equipment Attribute Worksheets completed

JEA Water and Wastewater Standards

501 As-Built Drawings

V.3. JEA AS-BUILT OR RECORD DRAWING SUBMITTAL REQUIREMENTS CHECK LIST PIPELINES AND PUMPING STATIONS

Project Name: _____

JEA Availability Number: _____ JEA Capital Project Number: _____

Initial next to each requirement verifying compliance

- _____ Separate As-Builts or record drawings for water, wastewater, reclaimed water and chilled water
- _____ On each page of as-built, certification filled out, signed, sealed and dated by surveyor/mapper
- _____ On each page of as-built, certification filled out, signed and dated by contractor
- _____ On each page of record drawing, certification filled out, signed and dated by JEA project manager
- _____ Old lines not built as per design deleted and redrawn as constructed
- _____ Notes and elevations not struck through, but changed
- _____ "AS-BUILT" or "RECORD DRAWING" labeled in 1" letters on each page
- _____ Sheets are 24" x 36" in size
- _____ Includes all changes by Addendum or Change Order or SWA (Supplemental Work Allowance)
- _____ As-Built Includes datum & reference to state plane coordinates (Florida East Zone NAD 83, NAVD 88)
- _____ Vicinity map on cover page
- _____ Street names on all streets
- _____ North Arrow on each page
- _____ Graphic Scale on each page
- _____ Availability number and/or JEA Capital Project number on each page
- _____ JEA easements labeled as such, including RE number and Official Records Book and Page (OR #).
- _____ Title page includes JEA Availability Number and/or JEA Oracle Project Numbers
- _____ Date of utility installation completion on each page
- _____ Ownership transition point between JEA and Private system clearly designated on the as-built drawing.
- _____ Master Plan showing phasing for the entire development
- _____ Match lines shown for continuation to other sheets
- _____ Private utilities installed as part of this project shown
- _____ Call outs provided showing points of connection to existing JEA infrastructure.
- _____ Water pressure and/or force main pressure sensors are identified.

JEA Water and Wastewater Standards

501 As-Built Drawings

POTABLE WATER SYSTEMS

WATER MAINS

_____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system
- Points of crossing over or under wastewater mains, reclaimed mains, chilled water mains or storm drains
- At maximum of 100 ft. intervals
- Where less than 30 inches or greater than 48 inches of cover is provided
- Main stub outs

_____ Each water main section between fittings/valves is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main or group of mains for mains between fittings less than 10 feet apart.

_____ Pipe size and type indicated on service lateral piping

_____ Beginning and end points of horizontal directional drills located by professional surveyor

_____ HDD (Horizontal directional drill) bore log included showing:

- Bore in plan and profile view
- Bore log on 24" x 36" sheets
- Certified by HDD contractor
- Horizontal and vertical location data at 25 ft. intervals (max)

WATER FITTINGS

_____ Each fitting shows a call out designating fitting number, fitting type (45, tee, etc.) and size with leader pointing to the installed fitting.

_____ Table included with data for each fitting:

- Fitting Number
- Subtype = Fitting Type (see data table file for subtypes)
- Facility Owner (JEA or PRIVATE)
- Fitting Size Primary (Inches)
- Fitting Size Secondary (Inches)
- Fitting Type
- Manufacturer
- Fitting Material (DIMJ, PVC or HDPE)
- Lining Material
- Fitting Top Elevation (feet)
- Final Grade Elevation (feet)
- Fitting Depth (feet)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

WATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve.

Table included with data for each valve:

- Valve Number (WV, WWV, RV, CV)
- Valve Subtype = Valve, ARV, Backflow, Hydrant
- Valve Type
- Facility Owner (JEA or PRIVATE)
- Valve Size
- Valve Open Direction (left/right)
- Valve number of turns required to open the valve
- Valve Depth to Operating Nut
- Final Grade Elevation (feet)
- Valve Depth to Nut (feet)
- Valve Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

WATER HYDRANTS

Each hydrant shows a call out designating hydrant number with leader pointing to the installed hydrant.

Table included with data for each hydrant:

- Hydrant Number (WH, RH)
- Hydrant Subtype = Hydrant
- Facility Owner (JEA or PRIVATE)
- Hydrant Manufacture Date (year)
- Hydrant Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

JEA Water and Wastewater Standards

501 As-Built Drawings

WATER METERS AND METER BOXES

Each meter box shall be listed in the data table with meter number matching the Lot #. If no Lot # exists, assign a water meter ID not included in the Lot # series. Show this meter ID at the meter on the as-built and in the data table.

Location of meter boxes indicated and referenced to property lines (not necessary for 2 inch or less residential meters located as per standards).

The size meter to be installed for each meter

Table included with data for each water meter box:

- Meter Box Number
- Proposed Meter Size
- Service Type (Water or Reclaimed Water)
- Meter Subtype = Minor Meter (<2"), Major Meter
- Facility Owner (JEA or PRIVATE)
- Meter box manufacturer
- Meter Box Material
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

WATER LOCATE WIRE BOXES

Each locate wire box shows a call out designating locate wire box number with leader pointing to the installed box

Table included with data for each locate wire box:

- Locate Wire Box Number (WLW-.)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

WASTEWATER SYSTEMS

GRAVITY MAINS

Elevations on the main and finished grade shown at:

- Points of connection to the existing system
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains
- Lateral (service) end points
- Main stub outs

Vertical separation called out at crossings with water mains

Plan and profile drawings provided showing pipe and manholes

Each gravity wastewater main section between manholes is shown with pipe size, pipe material, pipe pressure class, pipe length and slope called out with a leader line pointing to the applicable main.

Pipe type and size and finished grade elevations on service lateral piping shown.

The location of the service point for each lateral located from the side property line or by station and offset.

Table included with data for each gravity main:

- Sewer Pipe Run Number
- Sewer Pipe Subtype = Collection, Trunk
- Facility Owner (JEA or PRIVATE)
- Pipe Size (Inches)
- Pipe Class (SDR26, etc)
- Pipe Material (PVC, etc.)
- Pipe Manufacturer
- Pipe Length (feet)
- Downstream Pipe Invert Elevation (feet)
- Downstream Grade Elevation at Invert (feet)
- Upstream Pipe Invert Elevation (feet)
- Upstream Grade Elevation at Invert (feet)
- Slope (ft/ft)

JEA Water and Wastewater Standards

501 As-Built Drawings

GRAVITY FITTINGS

_____ Each fitting shall be listed in the sewer fitting data table with fitting number matching the Lot #. If no Lot # exists, assign a fitting number ID not included in the Lot # series. Show this fitting number ID at the fitting on the as-built and in the fitting data table.

_____ Table included with data for each fitting:

- Fitting Number (matching lot number)
- Subtype = Fitting Type (see data table file for subtypes)
- Facility Owner (JEA or PRIVATE)
- Fitting Size Primary (Inches)
- Fitting Size Reducer (Inches)
- Manufacturer
- Fitting Material (DI, PVC or HDPE)
- Lining Material
- Fitting Top Elevation (feet)
- Final Grade Elevation (feet)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

MANHOLES & CLEANOUTS

_____ Elevations of inverts and north rim of top of manhole covers shown for all manholes at the manhole

_____ Manholes and cleanouts labeled with number at manhole or cleanout

_____ Air release valve manholes shown and listed in manhole data table (if applicable)

_____ Table with the following data for each manhole:

- Manhole Number
- Manhole Subtype = Collection, Force main, Low Pressure, Trunk, ARV
- Facility Owner (JEA or PRIVATE)
- Manhole Type (A through J)
- Manhole Drop Type (Inside or Outside)
- Manufacturer/Supplier
- Manhole Size (feet)
- Manhole Material
- Manhole Lining Material
- Manhole Lining Manufacturer
- Rim Elevation (feet)
- Invert Elevations (feet) with Directions
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- Exterior Joint Tape Type & Manufacturer
- RFID/Barcode Number (future)

JEA Water and Wastewater Standards

501 As-Built Drawings

WASTEWATER SERVICE POINTS

_____ Each service point (sewer lateral end point) shall be listed in the data table with meter number matching the Lot #. If no Lot # exists, assign a water meter ID not included in the Lot # series. Show this meter ID at the meter on the as-built and in the data table.

_____ Table included with data for each wastewater service point:

- Wastewater Service Point Number
- Wastewater Service Point Subtype = Customer point, Major Meter
(See data table file for subtypes)
- Finished Grade Elevation (feet)
- Top of Pipe Elevation (feet)
- Depth of Cover (feet)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

WASTEWATER FORCE MAINS

_____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains
- At maximum of 100 ft. intervals
- Where less than 30 inches or greater than 48 inches of cover is provided.
- Main stub-outs

_____ Each force main section between fittings/valves is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main or group of mains for mains between fittings less than 10 feet apart.

Beginning and end points of HDD (horizontal directional drills) located by professional surveyor

_____ HDD bore log included showing:

- Bore in plan and profile view
- Bore log on 24" x 36" sheets
- Certified by HDD contractor
- Horizontal and vertical location data continuous or at no more than 25 ft. intervals

JEA Water and Wastewater Standards

501 As-Built Drawings

FORCE MAIN FITTINGS

Each fitting shows a call out designating fitting number, fitting type (45, tee, etc.) and size with leader pointing to the installed fitting.

Table included with data for each fitting:

- Fitting Number
- Subtype = Fitting Type (see data table file for subtypes)
- Facility Owner (JEA or PRIVATE)
- Fitting Size Primary (Inches)
- Fitting Size Reducer (Inches)
- Manufacturer
- Fitting Material (DI, PVC or HDPE)
- Lining Material
- Fitting Top Elevation (feet)
- Final Grade Elevation (feet)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

WASTEWATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve.

Table included with data for each valve:

- Valve Number (WV, WWV, RV, CV)
- Valve Subtype = Valve, ARV, Backflow, Hydrant
- (See data table file for subtypes)
- Valve Type
- Facility Owner (JEA or PRIVATE)
- Valve Size
- Valve Open Direction (left/right)
- Valve number of turns required to open the valve
- Valve Depth to Operating Nut
- Final Grade Elevation (feet)
- Valve Depth to Nut (feet)
- Valve Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

JEA Water and Wastewater Standards

501 As-Built Drawings

WASTEWATER LOCATE WIRE BOXES

Each locate wire box shows a call out designating locate wire box number with leader pointing to the installed box

Table included with data for each locate wire box:

- Locate Wire Box Number (WLW-.)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

WASTEWATER PUMPING STATIONS

_____ Pump Station sheet is digital (not scanned and marked up) and legible when zoomed in.

_____ All As-Built changes are marked with AB and clouded. Corrected in AUTOCAD file, not crossed out with the new numbers.

_____ All pump station data/information is included on first sheet and the station layout with measurements, elevations and GPS coordinates on second sheet.

_____ All utilities within the pump station site are located relative to property lines.

_____ Elevations (*and GPS coordinates) indicated at:

- Invert(s)
- Wet well Top (rim elevation) *
- Wet well bottom
- Concrete slab station corners
- Underground piping, valves* and fittings*

_____ Measurements of panels & equipment relative to the concrete edges of station at:

- Control Panel Rack
- Power Distribution Rack
- Demarcation Box(s)
- Flow Meter Panel

_____ Above and below ground piping

_____ Wet Well shown and dimensioned from property lines

_____ Generator/Pony pump shown and information filled out

_____ Driveway shown and dimensioned from property lines

_____ All materials, sizes of lines and fittings associated with pump station are indicated on drawings.

_____ All buried electrical conduit labeled and located, including electrical service from utility transformer to station meter and to control panel.

_____ Pump information has been checked for completeness and accuracy

_____ MCC Panel chart is filled out.

_____ Schedule of elevation chart is filled out entirely.

_____ Station physical address is indicated in Pump Station Information box.

_____ Privately owned pump stations will provide pump model info for modeling purposes.

_____ Water pressure and/or force main pressure sensors are identified.

JEA Water and Wastewater Standards

501 As-Built Drawings

RECLAIMED WATER SYSTEMS

RECLAIMED WATER MAINS

Elevations on the main and finished grade shown at:

- Points of connection to the existing system
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains
- At maximum of 100 ft. intervals
- Where less than 30 inches or greater than 48 inches of cover is provided
- Main stub-outs

Each reclaimed water main section between fittings/valves is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main or group of mains for mains between fittings less than 10 feet apart.

Pipe size and type indicated on service lateral piping

Location of reclaim signage indicating reclaim water in use

Location of meter boxes indicated and referenced to property lines (not necessary for 2 inch or less residential meters located as per standards).

Beginning and end points of horizontal directional drills located by professional surveyor

HDD (Horizontal directional drill) bore log included showing:

- Bore in plan and profile view
- Bore log on 24" x 36" sheets
- Certified by HDD contractor
- Horizontal and vertical location data at 25 ft. intervals (max)

RECLAIMED WATER FITTINGS

Each fitting shows a call out designating fitting number, fitting type (45, tee, etc.) and size with leader pointing to the installed fitting.

Table included with data for each fitting:

- Fitting Number
- Subtype = Fitting Type (see data table file for subtypes)
- Facility Owner (JEA or PRIVATE)
- Fitting Size Primary (Inches)
- Fitting Size Reducer (Inches)
- Manufacturer
- Fitting Material (DI, PVC or HDPE)
- Lining Material
- Fitting Top Elevation (feet)
- Final Grade Elevation (feet)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

RECLAIMED WATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve.

Table included with data for each valve:

- Valve Number (WV, WWV, RV)
- Valve Subtype = Valve, ARV, Backflow, Hydrant
(See data table file for subtypes)
- Valve Type
- Facility Owner (JEA or PRIVATE)
- Valve Size
- Valve Open Direction (left/right)
- Valve number of turns required to open the valve
- Operating Nut Elevation (feet)
- Final Grade Elevation (feet)
- Depth to Op Nut (feet)
- Current Status (Open/Closed)
- Valve Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

RECLAIMED WATER HYDRANTS

Each hydrant shows a call out designating hydrant number with leader pointing to the installed hydrant.

Table included with data for each hydrant:

- Hydrant Number (WH, RH)
- Hydrant Subtype = Hydrant
- Facility Owner (JEA or PRIVATE)
- Hydrant Manufacture Date (year)
- Hydrant Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

JEA Water and Wastewater Standards

501 As-Built Drawings

RECLAIMED WATER METER BOXES

Each meter box shall be listed in the data table with meter number matching the Lot #. If no Lot # exists, assign a reclaimed water meter ID not included in the Lot # series. Show this meter ID at the meter on the as-built and in the data table.

The size meter to be installed for each meter

Table included with data for each meter box:

- Meter Box Number
- Proposed Meter Size
- Service Type (Water or Reclaimed Water)
- Meter Subtype = Minor Meter (<2"), Major Meter
- Facility Owner (JEA or PRIVATE)
- Meter box manufacturer
- Meter Box Material
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

RECLAIMED WATER LOCATE WIRE BOXES

Each locate wire box shows a call out designating locate wire box number with leader pointing to the installed box

Table included with data for each locate wire box:

- Locate Wire Box Number (WLW-.)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

CHILLED WATER SYSTEMS

CHILLED WATER MAINS

- _____ Elevations on the main and finished grade shown at:
- Points of connection to the existing system
 - Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains
 - At maximum of 100 ft. intervals
 - Where less than 30 inches or greater than 48 inches of cover is provided
- _____ Each chilled water main section between fittings/valves is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main or group of mains for mains between fittings less than 10 feet apart.
- _____ Each pipe labeled as to supply water or return water
- _____ Pipe size and type indicated on service lateral piping
- _____ Location of lateral end points indicated and referenced to property lines.
- _____ Beginning and end points of horizontal directional drills located by professional surveyor
- _____ HDD (Horizontal directional drill) bore log included showing:
- Bore in plan and profile view
 - Bore log on 24" x 36" sheets
 - Certified by HDD contractor
 - Horizontal and vertical location data at 25 ft. intervals (max)

CHILLED WATER FITTINGS

- _____ Each fitting shows a call out designating fitting number, fitting type (45, tee, etc.) and size with leader pointing to the installed fitting.
- _____ Table included with data for each fitting:
- Fitting Number
 - Subtype = Fitting Type (see data table file for subtypes)
 - Facility Owner (JEA or PRIVATE)
 - Fitting Size Primary (Inches)
 - Fitting Size Reducer (Inches)
 - Manufacturer
 - Fitting Material (DI, PVC or HDPE)
 - Lining Material
 - Fitting Top Elevation (feet)
 - Final Grade Elevation (feet)
 - State Plane Northing, Y Coord
 - State Plane Easting, X Coord
 - Latitude (in Decimal Degrees)
 - Longitude (in Decimal Degrees)
 - RFID/Barcode Number (future)

JEA Water and Wastewater Standards

501 As-Built Drawings

CHILLED WATER VALVES

_____ Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve.

_____ Table included with data for each valve:

- Valve Number (WV, WWV, RV)
- Valve Subtype = Valve, ARV, Backflow, Hydrant
(See data table file for subtypes)
- Valve Type
- Facility Owner (JEA or PRIVATE)
- Valve Size
- Valve Open Direction (left/right)
- Valve number of turns required to open the valve
- Operating Nut Elevation (feet)
- Final Grade Elevation (feet)
- Depth to Op Nut (feet)
- Current Status (Open/Closed)
- Valve Manufacturer
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

CHILLED WATER LOCATE WIRE BOXES

_____ Each locate wire box shows a call out designating locate wire box number with leader pointing to the installed box

_____ Table included with data for each locate wire box:

- Locate Wire Box Number (WLW-.)
- State Plane Northing, Y Coord
- State Plane Easting, X Coord
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

JEA Water and Wastewater Standards

501 As-Built Drawings

STORM DRAIN SYSTEMS

STORM DRAIN

- _____ Runs of storm wastewaters identified with size, material and slope (i.e., 300' of 15" RCP at S=.004)
- _____ Elevations given for the north rim of the top of all manhole covers and inlets and catch basins and all manhole, inlet and catch basin inverts
- _____ All storm drain manholes, inlets and catch basin types identified

JEA Water and Wastewater Standards

501 As-Built Drawings

V.4. INSPECTION CHECKLIST: LOCATE WIRE BOXES

Project Name: _____

Street/Intersection/Address Location: _____

Station: _____ Offset: _____

Check the following as applicable

Water

Wastewater

Reclaimed

Location: Paved Area
 Grassed Area

Cover at Finish Grade: Cover at finish grade
 Cover above/below finish grade-adjust per spec.

Locate wire accessible in box: Yes
 No, full of debris – excavate debris

Locate wire properly color coded: Yes
 No—replace per spec

Locate wire signal verified: Yes
 No—repair per spec

Comments:

Contractor Representative:

Signature *Print name*

JEA Inspector:

Signature *Print name*

JEA O&M representative:

Signature *Print name*

Commissioned this date: _____

JEA Water and Wastewater Standards

501 As-Built Drawings

V.5. JEA TRACER WIRE CERTIFICATION FORM

Project Name/Number: _____

Date(s) Tested: _____

Installed by Contractor: _____

Name of Tester: _____

Testing Company: _____

JEA Inspector: _____

Pass: _____

Fail: _____

Continuity/Signal strength between access points:

Marker Balls Installed / Located
Color is for the utility type of Marker ball

Access pt #1 to access pt #2:					
Access pt #3 to access pt #4:			Installed		Located
Access pt #5 to access pt #6:			Installed		Located
Access pt #7 to access pt #8:			Installed		Located
Access pt #9 to access pt #10:			Installed		Located

Total footage tested	Water	Sewer / FM	Reclaimed Water	Fiber Optic

If any faults found List below (please indicate utility type and location)

Fault # 1:	
Fault # 2:	
Fault # 3:	
Fault # 4:	
Fault # 5:	

JEA Water and Wastewater Standards

501 As-Built Drawings

V.6. JEA RECORD DRAWING SUBMITTAL TRANSMITTAL

Water/ Wastewater/Reclaimed Treatment Plants, Wells and Facilities

To: W&S As-Built Submittal Mailbox

From: _____

Phone: _____

E-mail: _____

Company Name: _____

Date of Submittal: _____

**Signature of
Submitter Verifying
Compliance:** _____

Project Name: _____

Project Numbers: _____

JEA Project Manager: _____

JEA PM E-mail: _____

Engineering Firm: _____

Engineering Contact: _____

Engineers Phone: _____

Engineers E-mail: _____

Contracting Co.: _____

Contractor Contact: _____

Contractor Phone: _____

Contractor E-Mail: _____

Surveying Co.: _____

Surveyor Contact: _____

Surveyors Phone: _____

Surveyors E-mail: _____

Attached: _____ As-Builts - Paper Copy & Electronic
_____ Record Drawing Submittal Checklist filled out by Engineer, Contractor or Surveyor
_____ Record Drawing Submittal Checklist filled out by JEA Project Manager
_____ Equipment Attribute Worksheets completed

JEA Water and Wastewater Standards

501 As-Built Drawings

V.7. JEA RECORD DRAWING SUBMITTAL REQUIREMENTS CHECK LIST

Treatment Plants

Project Name: _____

Project Numbers: _____

Initial next to each requirement verifying compliance

_____ On each page of record drawing, certification filled out, signed and dated by the project manager

_____ Improvements not built as per design are redrawn as constructed

_____ "RECORD DRAWING" labeled in 1" letters on each sheet

_____ Sheets are 24" x 36" in size

_____ Includes all changes by Addendum or SWA (Supplemental Work Allowance), or Change Order

_____ Includes datum & reference to state plane coordinates (Florida East Zone NAD 83, NAVD 88)

_____ Vicinity map on cover page

_____ Title page and each page includes JEA Oracle Project Number(s)

_____ Provide paper and electronic copies of Record Drawing (.dwg and .pdf formats)

_____ Street names on all streets

_____ North Arrow on each page

_____ Graphic Scale on each page

_____ JEA Capital Project number on each page

_____ JEA easements labeled as such, including RE number and Official Records Book and Page (OR #).

_____ Date of utility installation completion on each page

PLANT INFRASTRUCTURE

Provide and incorporate into record drawings the horizontal and vertical record locations of improvements, including the following:

_____ Corner coordinates of rectangular or square buildings, structures, and tanks.

_____ Center coordinates of circular buildings, structures, and tanks.

_____ Building floor elevations.

_____ Floor elevations of structures and tanks as required to define floor slope.

_____ Top elevations of structures and tanks and weirs.

JEA Water and Wastewater Standards

501 As-Built Drawings

- _____ Channel floor elevations at each change in slope.
- _____ Channel top elevations.
- _____ Manhole center coordinates for electrical duct banks, sanitary sewer, storm sewer, etc.
- _____ Pipe coordinates at changes in direction.
- _____ Coordinates of all buried valves, and fittings.
- _____ All underground piping invert or centerline elevations.
- _____ All underground pipe invert or centerline elevations at fittings.
- _____ Pipe invert, or centerline, elevations at crossing with another pipe.
- _____ Invert or top of pipe elevations and coordinates of existing pipe at crossing with new underground pipe showing Separations

- _____ Invert elevations of manhole pipe inlets and outlets.
- _____ Duct bank, storm sewer, sanitary sewer coordinates and elevations at changes in direction or offset measurements from existing Structures or Roadways.

- _____ Top and bottom elevations of duct banks at manholes and hand holes showing ID numbers
- _____ Other horizontal and vertical record data pertinent to completed Work.
- _____ Location of internal utilities and appurtenances concealed in the construction Referenced to Structure or Roadway off set dimensions

- _____ Details not indicated on the original contract drawings
- _____ Depths of various elements of foundations in relation to finish first floor elevations
- _____ Location, elevation, and datum of Benchmark used.
- _____ Elevation of all Pump and Housekeeping Pads
- _____ Weir Elevations
- _____ Field changes of dimensions and or details as relates to; but not limited the following:
 - Interior equipment
 - Architectural and structural changes, including relocation of doors, windows, etc.
 - Architectural schedule changes

- _____ Hydraulic profile sheet--update control elevations and liquid elevations for low flow, average flow, and peak hourly flow conditions including return flows (as required based on equipment selection or field changes)

- _____ Runs of storm sewers identified with size, material and slope (i.e., 300' of 15" RCP at S=.004)

- _____ Ground surface record/information shall include the following:
 - Spot elevations should be shown at a minimum 100-foot rectangular grid, sufficient to show all the important topographic features
 - All elevations shown on the construction drawings shall be confirmed or amended on the record drawing markups if finished elevations are different.

JEA Water and Wastewater Standards

501 As-Built Drawings

WELL INFRASTRUCTURE

WELLS

- _____ Elevation of top casing and at grade
- _____ Depth of casing below land surface
- _____ Diameter, material and thickness of casing(s)
- _____ Depth of well below land surface
- _____ Location of well, in latitude and longitude

WELLHEAD

- _____ Wellhead pad finished elevation
- _____ All materials and sizes of lines and fittings indicated on drawings
- _____ All buried electrical conduit labeled and located
- _____ Pipe coordinates at changes in direction
- _____ Coordinates of buried valves, tees and fittings
- _____ Other horizontal and vertical record data pertinent to completed Work
- _____ Location of internal utilities and appurtenances concealed in the construction referenced to visible accessible features
- _____ Field changes of dimensions and or details
- _____ Location, elevation, and datum of Benchmark used