AS-BUILT

INFORMATION PROVIDED BY: _____

Name: _____

Address: _____

_____

Phone#: _____

I HEREBY CERTIFY THAT THE

	Chilled Water
Pavement	Water Main
Curb & Gutter	Reclaimed Water Main
Storm & Drainage System	Force Main
Lake or Pond	Sanitary Gravity System
Underdrain Connections	Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND MEET THE-MINIMUM 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.

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:

		_____	Chilled Water
_____	Pavement	_____	Water Main
_____	Curb & Gutter	_____	Reclaimed Water Main
_____	Storm & Drainage System	_____	Force Main
_____	Lake or Pond	_____	Sanitary Gravity System
_____	Underdrain Connections	_____	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:_____

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:

		_____	Chilled Water
_____	Pavement	_____	Water Main
_____	Curb & Gutter	_____	Reclaimed Water Main
_____	Storm & Drainage System	_____	Force Main
_____	Lake or Pond	_____	Sanitary Gravity System
_____	Underdrain Connections	_____	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:_____

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: (Check all that apply)	____ New Development	____ Treatment Plant	____ JEA Installed	____ JEA Contractor
Project Purpose	____ Main Extension	____ Main Replacement	____ Main Relocation	____ Plant Project
JEA Availability Number:			JEA Capital Project 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-Builts & Data Tables – Electronic
_____ Wastewater As-Builts & Data Tables – Electronic
_____ Wastewater Pump Station Attribute Tables Electronic
_____ Reclaimed Water As-Builts & Data Tables – Electronic
_____ Chilled Water As-Builts & Data Tables – 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

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 as one continuous PDF

____ 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

____ PDF sheets are 24" x 36" in size

____ All PDF sheets combined into one document

____ All Utility Services (Water/Sewer/Reclaimed/Chilled) provided on first and every submittal

____ CAD and Excel files provided on first and every submittal

____ 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 and Graphic Scale on each page

____ Cover Page required which is a separate page from Utility Pages

____ Call outs provided for any main that is Removed, Abandoned/Grout Filled, or Out of Service. Call out beginning and end points

____ Availability number and/or JEA Capital Project number on Cover Page and on each page

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

____ Date of utility installation completion on Cover 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.

____ Pump station as built include all detail sheets.

As Built Cover Page

_____ Title with “As-Built” and Project Name underneath. If known, provide address

_____ Availability Number and/or the JEA Capital Project Number

_____ Vicinity Map (refer to Standards Manual for Vicinity Map requirements)

_____ Date of utility installation completion

_____ Legend

_____ Surveyor Notes (includes vertical and horizontal datum)

_____ General Notes (specific utility notes provided on utility sheets)

_____ Certifications filled out, signed, and sealed on every sheet, including cover sheet

_____ Title Block

_____ Surveyor logo and address

Cover Page should not include:

_____ As-Built utility plans

_____ Data Tables

POTABLE WATER SYSTEMS

WATER MAINS

Elevations on the main and finished grade shown at:

- Points of connection to the existing system and called out on the plan view and shown in the points along pipe table
- In the event of potable water temporarily serving irrigation demand, call out the point of connection between potable and reclaimed
- Points of crossing over or under wastewater mains, reclaimed mains, chilled water mains or storm drains called out on the plan view and shown in the pipe crossing table
- At maximum of 100 ft. intervals called out on the plan view and shown in the points along pipe table
- Where less than 30 inches or greater than 48 inches of cover is provided called out on the plan view and shown in the points along pipe table
- Main stub outs called out on the plan view and shown in the points along pipe table

Beginning and ending points of pipe exposed aboveground are shown in the points along pipe table, with Pipe Orientation noted as Aboveground

Each water main section is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main. A new call out should be placed when the pipe size, pipe material, and/or pressure class changes.

Provide a note on each water sheet for water service laterals stating the size, pressure class, and material

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

HDD (Horizontal directional drill) bore log included showing:

- Bore in plan view showing length and beginning/end points called out with coordinates
- Bore profile view provided on separate sheet
- Bore log on 24” x 36” sheets
- Certified by HDD contractor
- Horizontal and vertical location data at 25 ft. intervals (max)

Points along Pipe table with data at points of connection and maximum 100 ft intervals:

- Pipe Location Number (WPOC#, WWPOL#, etc)
- Pipe Location (Point of Connection, Top of Pipe, Top of Casing)
- Pipe Subtype
- Facility Owner
- Pipe Size
- Pipe Orientation
- Pipe Class
- Pipe Manufacturer
- Pipe Material
- Pipe Lining Manufacturer

- Pipe Lining Material
- Finished Grade Elevation (feet)
- Pipe Top Elevation (feet)
- Pipe Cover (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

Pipe Crossing table with data at each crossing:

- Crossing Number
- Upper Pipe Type
- Upper Pipe Size
- Finished Grade Elevation (feet)
- Upper Pipe Top Elevation (feet)
- Cover to Top of Upper Pipe (feet)
- Upper Pipe Bottom Elevation (feet)
- Lower Pipe Type
- Lower Pipe Size (inches)
- Lower Pipe Top Elevation (feet)
- Cover to Top of Lower Pipe (feet)
- Separation Between Pipes (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

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. All Fittings should be clearly shown on the main.

Table included with data for each fitting:

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

WATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve. All Valves should be clearly shown on the main.

Table included with data for each valve:

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

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#)
- Facility Owner (JEA or PRIVATE)
- Hydrant Manufacture Date (year)
- Hydrant Manufacturer
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number

WATER METERS AND METER BOXES

Each meter box shall be listed in the data table with meter number matching the Lot # or Address #. If no Lot # or Address # exists, assign a water meter number not included in the Lot # series. Show this meter number at the meter on the plan view and in the data table.

Irrigation Meters shall be numbered with Meter Number, shown and called out on the plan view and included in the water meter 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 (WM#)
- Proposed Meter Size
- Meter Subtype = Minor Meter (<2”), Major Meter, Irrigation Meter
- Facility Owner (JEA or PRIVATE)
- Meter Box Orientation
- Meter Box Manufacturer
- Meter Box Material
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- 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 (WL#)
- Locate Box Subtype (Marker Ball, Locate Wire Box)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

WASTEWATER SYSTEMS

GRAVITY MAINS

_____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system and called out on the plan view and shown in the points along pipe table
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains and shown in the pipe crossing table
- Lateral (service) end points
- Main stub outs

_____ Beginning and ending points of pipe exposed aboveground are shown in the points along pipe table, with Pipe Orientation noted as Aboveground.

_____ 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.

_____ Call out High Line (HL) and Low Line (LL) on the plan and profile view

_____ Note if Sewer Service ties into Low Line in profile view

_____ Provide a note on each sewer sheet for sewer laterals stating the size, pressure class, and material

_____ 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 (GM#)
- 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 (feet/feet)

GRAVITY FITTINGS

Each fitting shows a call out designating fitting number, fitting type (cleanout, wye, plug, etc) and size with leader pointing to the installed fitting. All fittings shall be clearly shown on the main.

Table included with data for each fitting:

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

MANHOLES

Manholes labeled with manhole number and called out with manhole type, rim elevation, and invert elevations with a leader pointing to the applicable manhole.

Table with the following data for each manhole:

- Manhole Number (MH#)
- 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
- Lowest Invert Elevation (feet)
- Exterior Joint Tape Type
- Exterior Joint Tape Manufacturer
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)
- RFID/Barcode Number (future)

WASTEWATER SERVICE POINTS

Each service point (sewer lateral end point) shall be listed in the data table with service point number matching the Lot # or Address #. If no Lot # or Address # exists, assign a service point number not included in the Lot # series. Show this service point number at the service point on the plan view and in the data table.

Table included with data for each wastewater service point:

- Wastewater Service Point Number (WWSP# or WWM#)
- Wastewater Service Point Subtype = Customer point, Sewer Flow Meter
- Finished Grade Elevation (feet)
- Top of Pipe Elevation (feet)
- Depth of Cover (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

WASTEWATER PRESSURE MAINS

_____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system and called out on the plan view and shown in the points along pipe table
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains called out on the plan view and shown in the pipe crossing table
- At maximum of 100 ft. intervals called out on the plan view and shown in the points along pipe table
- Where less than 30 inches or greater than 48 inches of cover is provided called out on the plan view and shown in the points along pipe table
- Main stub-outs

_____ Beginning and ending points of pipe exposed aboveground are shown in the points along pipe table, with Pipe Orientation noted as Aboveground.

_____ Each main section is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main. A new call out should be placed when the pipe size changes.

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

_____ HDD bore log included showing:

- Bore in plan view showing length and beginning/end points called out with coordinates
- Bore profile view provided on separate sheet
- 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

_____ Points along Pipe table with data at points of connection and maximum 100 ft intervals:

- Pipe Location Number
- Pipe Location (Point of Connection, Top of Pipe, Top of Casing)
- Pipe Subtype
- Facility Owner
- Pipe Size (inches)
- Pipe Orientation
- Pipe Class
- Pipe Manufacturer
- Pipe Material
- Pipe Lining Manufacturer
- Pipe Lining Material
- Finished Grade Elevation (feet)
- Pipe Top Elevation (feet)
- Pipe Cover (feet)
- X Coord (State Plane Easting feet)

- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

Pipe Crossing table with data at each crossing:

- Crossing Number
- Upper Pipe Type
- Upper Pipe Size (inches)
- Finished Grade Elevation (feet)
- Upper Pipe Top Elevation (feet)
- Cover to Top of Upper Pipe (feet)
- Upper Pipe Bottom Elevation (feet)
- Lower Pipe Type
- Lower Pipe Size (inches)
- Lower Pipe Top Elevation (feet)
- Cover to Top of Lower Pipe (feet)
- Separation Between Pipes (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

FORCE MAIN FITTINGS

Each fitting shows a call out designating fitting number, fitting type (45, tee, etc.) and size with leader pointir to the installed fitting. All Fittings should be clearly shown on the main.

Table included with data for each fitting:

- Fitting Number (FMF#)
- Subtype = Fitting Type (see data table file for subtypes)
- Facility Owner (JEA or PRIVATE)
- Fitting Size Primary (Inches)
- Fitting Size Secondary (Inches)
- Manufacturer
- Fitting Material (DI, PVC or HDPE)
- Lining Manufacturer
- Lining Material
- Fitting Top Elevation (feet)
- Finished Grade Elevation (feet)
- Fitting Depth (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- 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. All Valves should be clearly shown on the main.

Air release valves in manholes called out and shown on plan view and included in valve table.

Table included with data for each valve:

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

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 (WWL#)
- Locate Box Subtype (Marker Ball, Locate Wire Box)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

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

_____ All above and below ground piping is shown

_____ 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 shall be shown, with size indicated, 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.

RECLAIMED WATER SYSTEMS

RECLAIMED WATER MAINS

_____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system and called out on the plan view and shown in the points along pipe table
- In the event of potable water temporarily serving irrigation demand, call out the point of connection between potable and reclaimed
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains called out on the plan view and shown in the pipe crossing table
- At maximum of 100 ft. intervals called out on the plan view and shown in the points along pipe table
- Where less than 30 inches or greater than 48 inches of cover is provided called out on the plan view and shown in the points along pipe table
- Main stub-outs

Beginning and ending points of pipe exposed aboveground are shown in the points along pipe table, with Pipe Orientation noted as Aboveground.

_____ Each reclaimed water main section is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable. A new call out should be placed when the pipe size changes.

_____ Provide a note on each water sheet for water service laterals stating the size, pressure class, and material.

_____ 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 view showing length and beginning/end points called out with coordinates
- Bore profile view provided on separate sheet
- Bore log on 24” x 36” sheets
- Certified by HDD contractor
- Horizontal and vertical location data at 25 ft. intervals (max)

_____ Points along Pipe table with data at points of connection and maximum 100 ft intervals:

- Pipe Location Number
- Pipe Location (Point of Connection, Top of Pipe, Top of Casing)
- Pipe Subtype
- Facility Owner
- Pipe Size (inches)
- Pipe Orientation
- Pipe Class
- Pipe Manufacturer
- Pipe Material
- Pipe Lining Manufacturer

- Pipe Lining Material
- Finished Grade Elevation (feet)
- Pipe Top Elevation (feet)
- Pipe Cover (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

Pipe Crossing table with data at each crossing:

- Crossing Number
- Upper Pipe Type
- Upper Pipe Size (inches)
- Finished Grade Elevation (feet)
- Upper Pipe Top Elevation (feet)
- Cover to Top of Pipe (feet)Upper Pipe Bottom Elevation (feet)
- Lower Pipe Type
- Lower Pipe Size (inches)
- Lower Pipe Top Elevation (feet)
- Cover to Top of Lower Pipe (feet)
- Separation Between Pipes (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

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. All Fittings should be clearly shown on the main.

Table included with data for each fitting:

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

RECLAIMED WATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve. All Valves should be clearly shown on the main.

Table included with data for each valve:

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

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

RECLAIMED WATER METER BOXES

Each meter box shall be listed in the data table with meter number matching the Lot # or Address #. If no Lot # or Address # exists, assign a reclaimed water meter number not included in the Lot # series. Show this meter number at the meter on the plan view 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 (RM#)
- Proposed Meter Size
- Meter Subtype = Minor Meter (<2"), Major Meter
- Facility Owner (JEA or PRIVATE)
- Meter Box Orientation
- Meter Box Manufacturer
- Meter Box Material
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- 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 (RL#)
- Locate Box Subtype (Marker Ball, Locate Wire Box)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

CHILLED WATER SYSTEMS

CHILLED WATER MAINS

____ Elevations on the main and finished grade shown at:

- Points of connection to the existing system and called out on the plan view and shown in the points along pipe table
- Points of crossing over or under water mains, reclaimed mains, chilled water mains, wastewater mains or storm drains called out on the plan view and shown in the points along pipe table
- At maximum of 100 ft. intervals called out on the plan view and shown in the points along pipe table
- Where less than 30 inches or greater than 48 inches of cover is provided called out on the plan view and shown in the points along pipe table

Beginning and ending points of pipe exposed aboveground are shown in the points along pipe table, with Pipe Orientation noted as Aboveground.

____ Each chilled water main section is shown with pipe size, pipe material and pipe pressure class called out with a leader line pointing to the applicable main. A new call out should be placed when the pipe size changes.

____ Each pipe labeled as to supply water or return water

____ Provide a note on each water sheet for water service laterals stating the size, pressure class, and material

____ 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 view showing length and beginning/end points called out with coordinates
- Bore profile view provided on separate sheet
- Bore log on 24” x 36” sheets
- Certified by HDD contractor
- Horizontal and vertical location data at 25 ft. intervals (max)

____ Points along Pipe table with data at points of connection and maximum 100 ft intervals:

- Pipe Location Number
- Pipe Location (Point of Connection, Top of Pipe, Top of Casing)
- Facility Owner
- Pipe Size (inches)
- Pipe Orientation
- Pipe Class
- Pipe Manufacturer
- Pipe Material
- Pipe Lining Manufacturer
- Pipe Lining Material
- Finished Grade Elevation (feet)
- Pipe Top Elevation (feet)

- Pipe Cover (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

Pipe Crossing table with data at each crossing:

- Crossing Number
- Upper Pipe Type
- Upper Pipe Size (inches)
- Finished Grade Elevation (feet)
- Upper Pipe Top Elevation (feet)
- Cover to Top of Upper Pipe (feet)
- Upper Pipe Bottom Elevation (feet)
- Lower Pipe Type
- Lower Pipe Size (inches)
- Lower Pipe Top Elevation (feet)
- Cover to Top of Lower Pipe (feet)
- Separation Between Pipes (feet)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (Decimal Degrees)
- Longitude (Decimal Degrees)

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. All Fitting should be clearly shown on the main.

Table included with data for each fitting:

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

CHILLED WATER VALVES

Each valve shows a call out designating valve number, valve type, and valve size with leader pointing to the installed valve. All Valves should be clearly shown on the main.

Table included with data for each valve:

- Valve Number (CV#)
- Valve Type
- Facility Owner (JEA or PRIVATE)
- Valve Size
- Valve Orientation
- Valve Open Direction (left/right)
- Valve number of turns required to open the valve
- Valve Nut Elevation (feet)
- Finished Grade Elevation (feet)
- Depth to Nut (feet)
- Valve Manufacturer
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

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 (CL#)
- Locate Box Subtype (Marker Ball, Locate Wire Box)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

CHILLED WATER METER ROOMS

Each meter room shall be listed in the data table with meter number matching the Lot # or Address #. If no Lot # or Address # exists, assign a chilled water meter number not included in the Lot # series. Show this meter number at the meter on the plan view and in the data table.

The size meter to be installed for each meter

Table included with data for each meter room:

- Meter Room Number (CM#)
- Proposed Meter Size
- Facility Owner (JEA or PRIVATE)
- X Coord (State Plane Easting feet)
- Y Coord (State Plane Northing feet)
- Latitude (in Decimal Degrees)
- Longitude (in Decimal Degrees)

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

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: _____

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:	

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

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.

_____

_____ 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.

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

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