TOHO RECORD DRAWING CHECKLIST

1: GENERAL INFORMATION:

[ ] Project Name:
[ ] Project Number:
[ ] Project Location:
[ ] Submitted by:
[ ] Cover Sheet with Sheet Index
[ ] The following certification shall be provided on the Record Drawing Cover Sheet:

> *' I CERTIFY THAT THESE RECORD DRAWINGS HAVE BEEN REVIEWED BY ME OR BY INDIVIDUAL(S) UNDER MY DIRECT SUPERVISION AND THAT THESE RECORD DRAWINGS INCORPORATE THE INFORMATION CONTAINED IN CHAPTER 61G17, BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS. TO THE BEST OF MY KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS SUBSTANTIALLY REFLECT ALL WATER, SANITARY SEWER, AND RECLAIM WATER UTILITIES THAT APPLIES, AS CONSTRUCTED. THE ACCURACY OF THESE RECORD DRAWINGS IS RELIANT ON THE ACCURACY APPLIED BY THE SURVEYOR THAT PREPARED THE CERTIFIED AS-BUILT SURVEY'*

[ ] Street names
[ ] Right of way
[ ] Centerline of roadway
[ ] Survey control line with stations
[ ] Parcels
[ ] Scaled vicinity map
[ ] Scale of drawings and bar scale
[ ] North arrow
[ ] Location of Bench Mark reference Site / Project Bench Mark
[ ] Seal and signature of Florida registered P.E. or R.L.S. on each sheet
[ ] All easements identified and dimensioned
[ ] Statement designating drawings are "Record Drawing" on each sheet
[ ] Horizontal Control Datum Note and Vertical Control Datum Note
[ ] Drawing sheets numbered in sequence
[ ] Match Lines with sheet match data
[ ] The ¼ Section, Township, Range shall be displayed on the lower right hand corner of the cover sheet, as NE ¼ S29 T25S R29E

2: WATER SYSTEM:

[ ] Overall master plan of project (including all phases)
[ ] Water, reclaim and sewer drawings may be shown on same sheet or separate.
[ ] Show state plane coordinates where water main connects to water laterals (services)
[ ] Pipe size, material and class must be labeled
[ ] Separation from water, reclaim and sewer shown on plans
[ ] All valves and blow-offs shall have description of size and type of valve on water plan sheet.
[ ] Display a separate, recorded easement for utility extensions outside public rights of way.
[ ] Tap sizes, location with coordinates
[ ] Water meters with coordinates
[ ] Show state plane coordinates for all assets, hydrants, valves bends, tees, reducers, etc…
[ ] Show existing water mains and connections for all new water piping tie ends
[ ] Plan view is required for all TWA owned water mains
[ ] Provide details of any water piping conflicts

3: RECLAIM SYSTEM:

[ ] Overall master plan of project (including all phases)
[ ] Water, reclaim and sewer drawings may be shown on same sheet or separate.
[ ] Show state plane coordinates where reclaim main connects to reclaim laterals (services)
[ ] Pipe size, material type and class must be labeled
[ ] Separation from water, reclaim and sewer shown on plans
[ ] All valves and blow-offs shall have description of size and type of valve on reclaim plan sheet.
[ ] Display a separate recorded easement for utility extensions outside public rights of way.
[ ] Tap sizes, location with coordinates
[ ] Reclaim meters with coordinates
[ ] Show state plane coordinates for all assets, hydrants, valves bends, tees, reducers, etc…
[ ] Show existing reclaim mains and connections for all new reclaim piping tie ends
[ ] Plan view is required for all TWA owned reclaim mains
[ ] Provide details of any reclaim piping conflicts

4: SANITARY SEWER SYSTEM:

[ ] Overall master plan of project (including all phases)
[ ] Water, reclaim and sewer drawings may be shown on same sheet or separate.
[ ] Show footage from downstream manhole to sewer lateral (services) connections with sewer main
[ ] Pipe size, material type and class must be labeled
[ ] Separation from water, reclaim and sewer shown on plans
[ ] Rim, invert and grade elevations in plan and profile
[ ] Show street sewer main cleanouts with coordinates
[ ] Show lateral cleanouts with coordinates
[ ] Display grades of sewer mains
[ ] Force main location with appurtenances
[ ] Display a separate, recorded easement for utility extensions outside public rights of way
[ ] Plan and profile is required for all TWA owned sewer mains
[ ] Show existing sewer mains and connections for all new sewer piping tie ends
[ ] Provide a boundary survey for the lift station
[ ] Provide lift station detail sheets
[ ] Dimensions between all manholes shall be field verified and shown. The inverts and rim elevation of all manholes shall be shown on the drawings and provided in the Coordinate Asset Table
[ ] Plan and profile is required for all TWA owned sewer mains

5: DIGITAL DATA

[ ] Provide a CD with the following information:

a. **[ ]** Original CAD drawings with all associated xref files
b. **[ ]** PDF scans of signed and sealed record drawings
c. **[ ]** Coordinate asset table in Excel format
d. **[ ]** PDF scan of the boundary survey for the lift station

6: MISCELLANEOUS:

[ ] Provide a copy of the original surveyor certified as-built drawing
[ ] Provide engineer certified record drawings
[ ] All privately maintained utilities shall be clearly marked 'PRIVATE' and the limits of the privately maintained areas shown on the record drawings
[ ] Toho maintained utilities shall be clearly marked 'EXISTING TWA' and shown on the record drawings
[ ] Provide coordinates for all fittings, valves, clean-outs, meters, etc. constructed with this project. These coordinates should be included in a Coordinate Asset Table which lists the Northing, Easting, and elevations shot by the surveyor.
[ ] Record drawings shall clearly show all field changes of dimension and details
[ ] Drawings shall clearly show all details not on the original accepted construction drawings
[ ] Create larger details in those instances where essential assets are displayed but the drawing is too cluttered to understand.
[ ] There should be three distinct sets of lines for the water, reuse, and sanitary sewer
[ ] All drawing information needs to be legible and easy to interpret.
[ ] All underlying base data from the approved drawings should be thin weight or gray while the record drawing information should be a bold and black.
[ ] Provide a contractor's demolition sheet showing all abandoned or demolished water reclaim and sewer infrastructure. Lengths of existing piping and/or structures abandoned or demolished, and the method used shall be clearly indicated.
[ ] Accepted construction drawings simply stamped 'Record Drawings' and as-built surveys will not be accepted for review by TWA. The engineer of record shall be responsible for transferring the as-built information on to the accepted construction drawings and re-drawing as necessary.
[ ] All construction has been completed in accordance with the approved plans, and applicable Toho Water Authority standards and specifications. Any and all deviations from the approved plans are shown on the record drawings and have been verified by a TWA inspector to be true and correct.

7: RECORD DRAWING SUMMARY:

I. All other requirements outlined in Section 11.6 of the TWA Standards and Specifications must be adhered to with future submittals.

II. After engineering review of compliance with these comments, the TWA GIS department will review the electronic files to ensure all requirements have been met.