### *(Click on Gray Box & input value; Units Box will expand for US or SI designation)*

### GENERAL INFORMATION

**Project Identification Name**:

Facility Name:

Location:

Address:

Facility Supervisor:

Phone:

Fax:

Email:

Consulting Engineering Firm:

Location:

Address:

Engineer Contact:

Phone:

Fax:

Email:

### DIFFUSED AERATION REQUIREMENT

Oxygen Transfer & Adequate Mixing  Mixing Only  Supplemental Oxygen Only

**TYPE OF AERATION SYSTEM REQUESTED**

Fine Bubble  Coarse Bubble  Combination Fine & Coarse

**GENERAL COMMENTS**

### 

### TANK / BASIN GEOMETRY

**DRAWINGS REQUIRED: AUTOCAD, CAD, OR DIGITAL SCANNED**

Total Number of Tanks:   Parallel Operation  Series Operation

Tank Bottom Material:  Concrete  Steel  Plastic/Fiberglass  Clay

Bottom Elevation [MSL]

Rectangular Tank or Channel (Straight Sidewall)

Length   Width  Side Wall Height

Additional V-Bottom Depth (at centerline of V)

Bottom Slope (if sloped to end of tank)  [%]

Operating Water Depth

Circular (Flat Bottom)

Diameter  Side Wall Height  Bottom Slope to Center [%]

Operating Water Depth

Circular (Conical Bottom)

Diameter  Side Wall Height  Cone Depth at Center

Operating Water Depth (top of cone to water level)

Horizontal Circular

Diameter  Horizontal Length  Flat Ends  Domed Ends  Open Top

Manway Access Diameter  Manway Location (from end of tank)

Operating Water Depth (measured at centerline to water level)

Rectangular Lagoon

Top Length  Top Width

Water Surface Length  Water Surface Width

Bottom Length  Bottom Width  Sidewall Slope [%]

Operating Water Depth

**Fluid Operational Method**

Constant Liquid Level  Variable Volume Liquid Level

**WASTEWATER CHARACTERIZATION**

**DRAWINGS REQUIRED: AUTOCAD, CAD, OR DIGITAL SCANNED**

##### Plant Loadings (For Aeration Tank Design) **[Total for All Tanks]**

Average Design Influent Peak Design Influent Required Effluent

FLOW

BOD5

COD

NH3

**Operating MLSS Concentration**

Wastewater Operating Temperature

Average Food to Biomass Ratio

Peak Food to Biomass Ratio

Actual Oxygen Required AOR

Air Flowrate Available

##### Waste Sludge Loadings (For Aerobic Digester Design) **[Total for All Tanks]**

Waste Sludge Flowrate

Solids Concentration in Influent

Percent Volatiles in Influent

Percent Volatiles to be Reduced

**Sludge Concentration within Tank**

Actual Oxygen Required AOR

Air Flowrate Available

##### Wastewater Holding (For Sludge Holding, Septage Holding & Equalization) **[Total for All Tanks]**

**Solids Concentration within Tank**

Actual Oxygen Required AOR

Air Flowrate Available

Desired Unit Mix Rate to be appled

##### Additional Design Parameters **[Total for All Tanks]**

*Description Value Units*

**DRAWINGS REQUIRED: AUTOCAD, CAD, OR DIGITAL SCANNED**

##### Re-Aeration Systems **[Total for All Tanks]**

Flowrate

### Influent Dissolved Oxygen Conc.

### Required Effluent Dissolved Oxygen Conc.

Actual Oxygen Required AOR

Oxygen Uptake Rate

### Chloride Conc. (solubility limit)

**AERATION SYSTEM PIPING MATERIALS**

Drop Pipe Sch. 10 – 304L SS

Submerged Manifold Piping Sch. 40 PVC

Drop Pipe Sch. 10 – 304L SS

Submerged Manifold Piping Sch. 80 PVC

Drop Pipe Sch. 10 – 304L SS

Submerged Manifold Piping Sch. 10 – 304L SS

Drop Pipe Sch. 10 – 316L SS

Submerged Manifold Piping Sch. 10 – 316L SS

### DIFFUSER RETROFIT INFORMATION

Brand Name of Existing Diffusers / Description:

Fine Bubble  Coarse Bubble

Total Number of Diffusers per Tank:

Threaded Connection Diameter:

Normal Operating Airflow per Tank:

Maximum Operating Airflow per Tank:

**DRAWINGS REQUIRED: AUTOCAD, CAD, OR DIGITAL SCANNED**