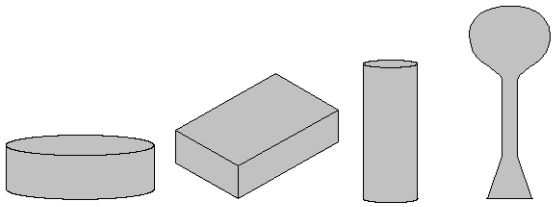
Tideflex® Mixing System
FOR FINISHED WATER STORAGE FACILITIES
DESIGN DATA SHEET



I. GENERAL INFORMATION

Reservoir/Tank Name:		☐ Advertises on ☐ Bids on
Project Location:		(mm-dd-yyyy)

Water Utility/Owner Name:			
Owner Contact:			
Email:			
Address:			
City:		State:	
Zip:		Country:	
Phone:		Fax:	

Consulting Engineering Firm:			
Engineer Contact:			
Email:			
Address:			
City:		State:	
Zip:		Country:	
Phone:		Fax:	

II. SYSTEM INFORMATION

INSTALLATION:
☐ New Tank
☐ Existing Tank

SCADA:
Tank on SCADA?
☐ yes ☐ no

WATER SOURCE:
☐ Surface Water ☐ Reclaimed Water
☐ Ground Water ☐ _____

OPERATION:
☐ Distribution System Reservoir
☐ Clearwell
☐ Combination

MODE:
☐ Fill-then-draw
☐ Simultaneous fill and draw

PRIMARY DISINFECTION:
☐ Chlorine ☐ UV ☐ Chlorine Dioxide
☐ Chloramine ☐ Ozone ☐ None
☐ _____

HIGH WATER LEVEL SHUTOFF:
☐ by Altitude Valve ☐ None, floats on system
☐ by Pressure Switch ☐ _____

SECONDARY DISINFECTION:
☐ Chlorine ☐ Chloramine ☐ None
☐ Chlorine Dioxide ☐ _____

III. RESERVOIR / TANK DATA *(Provide tank drawings if available. See nomenclature on page 4.)*

TYPE OF RESERVOIR / TANK:		Tank Manufacturer or Basis of Design: _____
☐ Circular Reservoir ☐ Irregular Shape ☐ Rectangular Reservoir		☐ At Grade ☐ Semi-Buried ☐ Buried
☐ Standpipe		
☐ Elevated Tank	☐ Dry Riser	☐ Sphere/Spheroid ☐ Composite ☐ Hydropillar ☐ _____
	☐ Wet Riser	Wet Riser Diameter _____ ☐ ft ☐ in ☐ m

TANK DETAILS: *(Provide tank drawings if available.* ***See nomenclature on page 4.)***

VOLUME:		☐ MG ☐ gallons ☐ m^3 ☐ Megaliters

Circular Reservoir / Standpipe		**Elevated Tank**		**Rectangular Reservoir**	
	☐ ft ☐ m		☐ ft ☐ m		☐ ft ☐ m
Tank Diameter:		Bowl Diameter:		Length x Width	x
Depth to Maximum Operating Level		Head Range:		Depth to Maximum Operating Level	
Depth to Overflow		Height From Foundation to Overflow		Depth to Overflow	
		Height from Foundation to Max. Operating Level		Number of Cells	1
Bottom Elevation:		Foundation Elevation:		Bottom Elevation:	

TANK MATERIAL: *(select multiple if alternates for new tank)*

☐ Welded Steel	☐ Bolted Steel (conc. floor)	☐ Bolted Steel (steel floor)	☐ Riveted Steel
☐ Prestressed Concrete	☐ Post-tensioned Concrete	☐ Cast-in-place Concrete	
☐ Composite (Elevated)	☐ Earthen Lined	☐ _____	

TYPE OF ROOF / COVER:

☐ Fixed Roof → Internal Roof Supports? ☐ yes ☐ no	☐ Floating Cover	☐ None, Open Reservoir

IV. INLET / OUTLET PIPING *(For new tanks that operate in fill-then-draw and for existing tanks that have a common inlet/outlet pipe, complete the "Inlet" pipe data. The TMS separates inlet/outlet inside the tank)*

☐ Common Inlet/Outlet Pipe ☐ Separate Inlet and Outlet Pipes

Inlet Diameter		☐ in ☐ mm	Material:	Penetration: ☐ bottom ☐ sidewall ☐ top
Outlet Diameter		☐ in ☐ mm	Material:	Penetration: ☐ bottom ☐ sidewall

Outlet have Silt Stop? ☐ yes ☐ no → ☐ fixed pipe extension ☐ removable

Does tank have a dedicated drain pipe? ☐ yes ☐ no

V. HYDRAULIC DATA

Minimum **Fill** Rate:		☐ gpm ☐ lps ☐ _____	☐ Pumped ☐ Gravity
Maximum **Fill** Rate:			
Maximum **Draw** Rate: peak demand + fire flow (if applicable)		☐ gpm ☐ lps ☐ _____	☐ Pumped ☐ Gravity

VI. TANK FLUCTUATION / TURNOVER DATA *(With one of the methods below, provide data on the typical, or expected, daily fluctuation of tank levels in summer and winter, if different.* ****See nomenclature, page 4)***

	Method 1				***Method 2***	***Method 3***	
	Max. Operating Level*		Min. Operating Level*		**%** (percent)	Volume Exchange	
Summer		☐ ft		☐ ft			☐ gallons/day
Winter		☐ m		☐ m			☐ liters/day

VII. REFROFIT INFORMATION

Year Tank Constructed:	
Date of Last Inspection:	
Date of Last Rehab/Repaint:	
Next Scheduled Rehab:	
Internal Baffles?	☐ yes ☐ no
Ice Formation?	☐ yes ☐ no
Water Temperature Range	min
☐ °F ☐ °C	max
Size of Largest Roof Hatch	☐ dia ☐ sq.
Size of Largest Shell Hatch	☐ dia ☐ sq.
Rechlorination/Recirculation Sytems Installed?	☐ yes ☐ no
Are Sampling taps installed?	☐ yes ☐ no
Samples been taken at different locations/depths inside the tank?	☐ yes ☐ no
Has a tracer study, CFD, or scale model been done?	☐ yes ☐ no

VIII. WATER QUALITY ISSUES

Identify Water Quality Issues
☐ Loss of Residual
☐ DBPs > ☐ TTHM ☐ HAA5
☐ Coliform Bacteria
☐ Nitrification
☐ Elevated HPC
☐ Biofilms
☐ Taste & Odor
☐ Increased pH
☐ Color
☐ Turbidity
☐

Identify known/suspected causes:
☐ Poor Mixing
☐ Short-Circuiting
☐ Poor Turnover / Tank Fluctuation
☐ Long Detention Time
☐ Thermal Stratification
☐ High Levels of Organics
☐

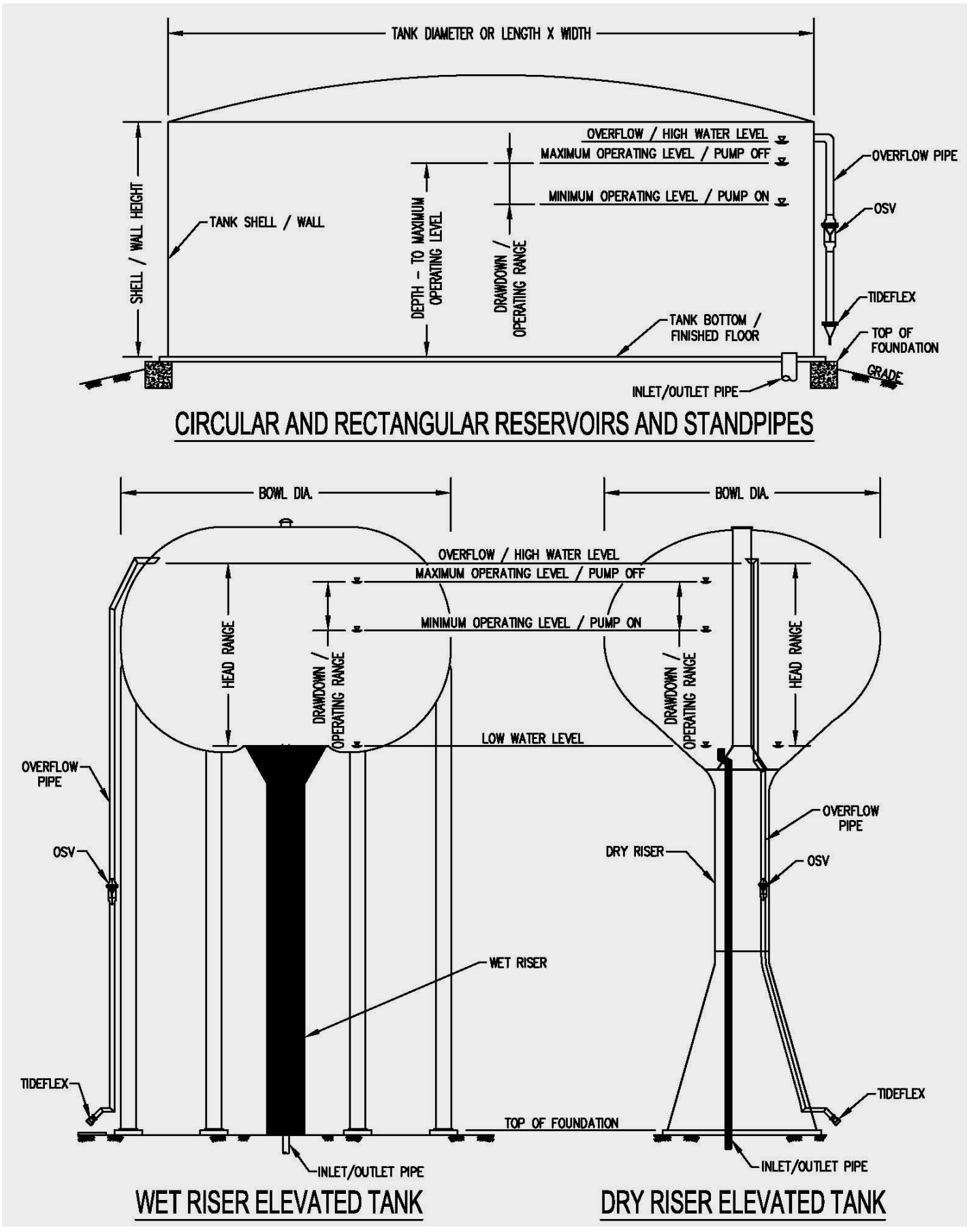
IX. OVERFLOW PIPE PROTECTION

Check method used to prevent birds, rodents, cold drafts, etc. from entering tank thru overflow pipes

Overflow Pipe Size:		☐ in ☐ mm

☐ **Tideflex Valve** ☐ **Overflow Security Valve (OSV)** ☐ **Screen** ☐ **Flap Valve**

X. COMMENT

PLEASE MAIL, FAX OR E-MAIL COPIES OF TANK DRAWINGS, INSPECTION REPORTS/PHOTOS TO:
Tideflex Technologies
600 North Bell Ave. Carnegie, PA 15106 USA
PHONE: 412-279-0044 **FAX:** 412-279-5410
E-MAIL: mduer@tideflex.com (Mike Duer) or info@tideflex.com

XI. TANK NOMENCLATURE