Outlet channel of primary clarifiers tank or anaerobic bio-phosphorus tanks distribution chamber shall be designed the following scenarios:

i) Wastewater should be transferred to biological treatment unit at normal operational conditions

ii) If biological treatment units are out of operation, the whole amount of the incoming wastewater shall be directly by-passed.

Minimum number of primary sedimentation tank for Stage 2	: 3 tanks
Maximum surface loading at maximum flow	: 4 $m^3/m^2.h$
Maximum weir load at maximum flow	: 10 $m^3/m.h$
Type of bridge	: rotating half or linear operated

**For the calculation of the required minimum surface area of the primary clarifiers, the hourly loading rate (not the daily loading rate i.e. m3/m2.day) based on the maximum hourly flow rate shall be taken into consideration.*

3.3.4.8 Distribution Chamber for Anaerobic Bio-phosphorus Tanks

The distribution chamber shall be designed, constructed and equipped regarding the requirements set in Table 2-1.

This distribution chamber shall receive the wastewater from the primary clarifiers and distribute it evenly to the anaerobic bio-phosphorus tank or to the aeration tanks combined with anaerobic section. The structure shall be made of reinforced concrete and shall be equipped with penstocks or appropriate valves. There shall be the penstocks or valves with electric actuator in accordance with the specifications given in Section 7.8.8 and 7.8.18. The operation status of the penstocks should be monitored and controlled by the SCADA system. Chambers designed and constructed for the needs of Stage 2 should be isolated by an appropriate material/construction assuring the isolation until installation of penstocks proposed for Stage 2.

The location of the return sludge flow shall be selected and designed by the Contractor.

3.3.4.9 Anaerobic Bio-phosphorus Tanks

Anaerobic tanks shall be provided for biological phosphorus removal.

The microorganisms in the recycled sludge release captured phosphorus inside the body of the sludge when they are exposed to anaerobic conditions.

The anaerobic bio-phosphorus tanks shall be designed, constructed and equipped regarding the requirements set in Table 2-1. The design flow ($Q_{DW,h}$) of the related stage requirements shall be met for the unit.

From the anaerobic bio-phosphorus tanks, the wastewater shall flow to a distribution chamber and shall be distributed evenly to the activated sludge tanks. It shall be possible to operate the anaerobic bio-phosphorus tank and activated sludge tanks separately and to take each tank out of operation for inspection or maintenance.