1. **GENERAL**

1.1 The following specifications direct attention to certain required features of the design package, but do not purport to cover all details entering into the design, construction, and/or installation of the equipment.

1.2 Furnish ____ subsurface aerators. Each aeration system shall consist of an on shore rocking piston compressor, weighted PVC air tubing and a subsurface air diffuser.

2. **PERFORMANCE**

2.1 The subsurface aeration system shall deliver air to the bottom of the water impoundment. The air is produced by an on shore compressor through a PVC air tube and dispersed through a rubber membrane diffuser. The compressed air shall be dispersed as fine bubbles as defined by the U.S EPA report.

3. **ROCKING PISTON COMPRESSOR**

3.1 The compressor shall deliver ___ brake horsepower and shall be wired for _____ volts, ___ HZ, single phase service.

3.2 The ___ horsepower compressor shall produce ___CFM at ____amps on ____ volt service up to 21.7 PSI.

3.2 The compressor shall be constructed of light weight die-cast aluminum.

3.3 The compressor shall be of the oil –less operation design.

3.4 The compressor bearings shall be of the permanently lubricated design.

3.5 The compressor cylinder shall be hard coated for wear resistance.

3.6 The compressor shall be provided with a 40 PSI relief valve.

3.7 The compressor shall be provided with a replaceable air filter.
4. AIR DIFFUSER

4.1 Furnish ____ air diffuser(s) complete with ____ single head EPMD rubber membrane or ____ double head EPMD rubber membrane with base.

4.2 The air diffuser shall consist of a mounting base and rubber air membrane.

4.3 The base shall be made of HDPE molded plastic.

4.4 The base shall be hollow with locking fill plug to allow weighted substrate to be added to sink diffuser.

4.5 The air membrane shall be made of EPDM rubber.

4.6 The air membrane shall provide air dispersion as uniformed fine bubbles up to 3 CFM air flow.

4.7 The air diffuser shall have a check valve to prevent water from entering the air tube when not in operation.

5. AIR TUBE

5.1 Furnish ____ 100 foot rolls of ____ diameter air tubing.

5.2 The air tube shall be manufactured from flexible PVC tubing.

5.2 The air tube shall be weighted to allow air hose to sink to the bottom.

6. VIBRATION AND NOISE

6.1 The compressor normal operation noise level shall be less than 70dp.
7. DELUXE SYSTEM

7.1 Furnish ____ Deluxe Deep-Air system(s).

7.2 The deluxe system shall consist of the rocking piston compressor mounted in a lockable steel cabinet, a cooling fan, valved outlet header, 0 – 50 liquid filled pressure gauge and electrical outlet box.

7.3 The lockable steel cabinet shall measure 16.5” wide x 22” length x 19” height.

7.4 The lockable steel cabinet shall be 14 gauge galvanized steel with a powder coat finish.

8. OPERATION AND MAINTENANCE MANUAL

8.1 Operation and maintenance manuals shall be furnished before start up of the equipment.

9. WARRANTY

9.1 The Deep Aire subsurface aerator has a one year limited warranty against defects in material and workmanship.