## **Environmental Horticulture: Agriscience and Biotechnology**

#### PROGRAM REQUIREMENTS

Refer to the project-specific Schedule of Spaces for student stations, square footage, and for any requirements that may differ from the prototype requirements listed below:

- 1 Laboratory
- 1 Related Classroom
- 1 Flammable Storage Room
- 1 Fish/Small Animal Room
- 1 Tissue Culture Room
- 1 Material Storage Room
- 1 Greenhouse
- 1 Land Laboratory

## II. PROGRAM FURNITURE AND EQUIPMENT

Refer to the Furniture and Equipment List for owner-provided furniture and equipment.

## III. SPECIAL CONSIDERATIONS

### Heating/Ventilation/Air Conditioning

Provide exhaust fans in the Flammable Storage Room and in the Fish/Small Animal Room.

Provide an emergency exhaust fan, centrally located, in the Laboratory. To prevent overuse, provide a 10-minute timer on the fan.

Provide a thermostat controlled exhaust system in the Greenhouse consisting of two (2) fans on one end wall and an operable shutter on the opposite end wall.

Provide a thermostat controlled tank heater with LP gas tank and electronic ignition in the Greenhouse.

### Floor

Provide sealed concrete in the Laboratory, Flammable Storage Room, Fish/Small Animal Room, Tissue Culture Room, and in the Material Storage Room.

Provide a concrete center aisle and three concrete lateral aisles in the Greenhouse.

Provide standard flooring elsewhere in accordance with the District Design Guidelines.

# Walls

Provide plaster or painted masonry walls in the Fish/Small Animal Room.

Provide poly-carbonate covering on the entire Greenhouse structure with the exception of the roll-up side curtains, which are to be manually-operated.

## **Environmental Horticulture: Agriscience and Biotechnology**

# III. SPECIAL CONSIDERATIONS (continued)

# Ceiling

Provide painted exposed structure, minimum 10' high, in the Laboratory.

Provide standard ceilings elsewhere in accordance with the District Design Guidelines.

## <u>Lighting</u>

Provide lighting in the Greenhouse.

### Windows

Provide operable windows in the Fish/Small Animal Room.

Provide windows, sill height above six (6) feet, in the Laboratory.

#### Doors

Provide an exterior overhead roll-up door, 8' wide x 8' high (manually operated) into the Fish/Small Animal Room.

## • <u>Plumbing</u>

## Related Classroom

Provide one (1) epoxy resin sink with cold water in the teacher demonstration table, in accordance with District Design Guidelines.

## Laboratory

Provide one (1) epoxy resin sink with cold water at each of the student laboratory tables, as described elsewhere in this section.

Provide one (1) pull-cord emergency shower with eyewash, in accordance with District Design Guidelines.

Provide one (1) molded fiberglass rinse-counter unit with hot and cold water, in accordance with District Design Guidelines. Provide a garbage disposal.

## Fish/Small Animal Room

Provide two (2) hose bibs and floor drains, located as required.

Provide one (1) molded fiberglass rinse-counter unit with hot and cold water, in accordance with District Design Guidelines.

### Tissue Culture Room

Provide one (1) molded fiberglass rinse-counter unit with hot and cold water, in accordance with District Design Guidelines.

## **Land Laboratory**

Provide two (2) hose bibs.

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## III. SPECIAL CONSIDERATIONS (continued)

# <u>Plumbing</u> (continued)

Provide #30 agricultural type sprinkler heads spaced on a 50' x 50' grid and mounted on 36" high risers.

#### Greenhouse

Provide one (1) exterior hose bib and one (1) interior hose bib, located near the door.

Provide two (2) 1" PVC stub-outs with 1" gate valves for connection to future owner-provided irrigation system. One is to be located near the door on the interior wall, and the other is to be located on a side wall, approximately two feet from the back wall.

#### Communications

Provide a clock, speaker and intercom handset in the Laboratory and Related Classroom.

Provide a data connection with adjacent power outlet in the Laboratory and Related Classroom, in accordance with District Design Guidelines.

Provide a TV bracket with DVD bracket, CCTV jack, and adjacent power outlet in the Laboratory and Related Classroom, in accordance with District Design Guidelines.

#### Electrical

## Laboratory

Provide two (2) duplex outlets at each student laboratory table, as described elsewhere in this section.

Provide three (3) duplex outlets on each wall.

## Tissue Culture Room

Provide one (1) duplex outlet on each wall.

#### Greenhouse

Provide two (2) duplex weatherproof outlets at opposite ends of the Greenhouse.

#### Related Classroom

Provide one (1) duplex outlet in the teacher demonstration table.

## Related Classrooms (continued)

Provide duplex outlets in each wall in accordance with District Design Guidelines.

## Gas and Air

Provide one (1) double-prong gas jet at each student laboratory table, as described elsewhere in this section, in the Laboratory.

## **Environmental Horticulture: Agriscience and Biotechnology**

## III. SPECIAL CONSIDERATIONS (continued)

### Safety

Provide a fire blanket and a fire extinguisher in a recessed cabinet in the Laboratory and Related Classroom.

Emergency shut-down devices for gas, and receptacles, where required, are to be located so as to be easily accessible to the teacher and must not shut down safety equipment or lighting.

Provide a keyed reset mounted adjacent to each electrical shut-down device.

Provide a fire alarm pull station in the Laboratory.

### Fencing

Provide a 6' high chain link fence around the entire Land Laboratory with two 10' wide swinging gates, located as directed.

### Contractor-Provided Equipment and Casework

#### Laboratory

Provide one (1) rinse-counter unit, in accordance with District Design Guidelines.

Provide a garbage disposal.

Provide one (1) glassware drying rack, mounted above the drain board for the rinsecounter unit, in accordance with District Design Guidelines.

Provide six (6) student laboratory tables with sinks, in accordance with District Design Guidelines.

Provide one (1) goggles sanitizing cabinet with goggles, in accordance with District Design Guidelines.

Provide twelve (12) linear feet of lockable base and wall cabinets, located adjacent to the rinse-counter unit, to include one (1) bank of lockable graduated drawers, countertop to be 36" above the finished floor. These base cabinets are to be provided with an epoxy resin countertop.

Provide two (2) lockable tote tray storage cabinets, 24" wide x 24" deep x 84" high, with twelve (12) fixed shelves and center divider, complete with tote trays. Tote trays are to be  $10\ 1/2$ " wide x 19" long x 3 1/2" high, molded plastic.

## Related Classroom

Provide one (1) teacher demonstration table, to contain the sink and a base cabinet below, in accordance with District Design Guidelines.

## **Environmental Horticulture: Agriscience and Biotechnology**

## III. SPECIAL CONSIDERATIONS (continued)

• Contractor-Provided Equipment and Casework (continued)

### Fish/Small Animal Room

Provide one (1) rinse-counter unit, in accordance with District Design Guidelines.

Provide two (2) plastic laminate finished shelving units with 1/2" lips, units to be 36" wide x 18" deep x 84" high with five (5) adjustable shelves. Shelf support clips are to be non-corrosive.

## Tissue Culture Room

Provide one (1) built-in double-sided chemical fume hood with a lockable acid storage cabinet in the base section, located in the wall between the Tissue Culture Room and the Laboratory, in accordance with District Design Guidelines.

# • Contractor-Provided Instructional Aids

## Laboratory and Related Classroom (each)

Provide a 12' wide x 4' high regular marker board with a 4' wide x 4' high grid marker board on one (1) side (grid to be 2" x 2") and a 4' wide x 4' high tackboard on the other side, bottom to be mounted 36" above the floor.

Provide an 8' wide x 4' high regular marker board on an adjacent wall, bottom to be mounted 36" above the floor.

Provide a wall-mounted video projection system in accordance with District Design Guidelines.

### Other Considerations

Provide a three-sided, 2-compartment mulch bin, approximately 6' wide x 30' long x 4' high, located near the Greenhouse.