

Building Dialogue

Ladd Elementary School

11/9/2006

Year Open: 1912 Additions: 1922

Square Footage: 85910 Acreage: 225

FACILITY MANAGEMENT SYSTEM

Date Dialogue**10/16/2006 Plumbing: Plumbing improvements**

1. Replace 1 number of sink (ADA) - \$700

Total estimated cost - \$700

10/9/2006 Fire Prot:

The fire alarm control panel is a Silent Knight 5820XL. The corridors have Strobes and lighted exit lights. Classrooms have smoke detectors. Corridor on 2nd floor is sprinkled.

10/4/2006 Mechanical : Cost Estimate for Proposed HVAC Improvements

The cost estimates are based on rules of thumb for the building size, age, condition and types of usage. Any requirements of asbestos removal are not included in the following costs:

1. New 15 Ton rooftop unit for Library - \$22,000.
2. New 25 Ton Rooftop unit for Auditorium and ductwork - \$75,000.
3. New Rooftop units for classrooms in first & second floor and ductwork - \$450,000.
4. Install new Split unit system for Gym, Art Room, Cafeteria & rest of ground floor area and ductwork - \$120,000.
6. Addition of heat in the AHUs for office, nurses area, caring commm area and computer room - \$8,000.
7. New DDC controls with WEB based Lonworks protocol - \$200,000.

9/20/2006 Asphalt/Concrete : Asphalt

The asphalt paved areas are in good condition except for the cracks to be repaired and a sealcoat to be applied on approximatley 50,000 sf.

9/20/2006 Asphalt/Concrete : Concrete

The exisiting concrete areas are in good condition and should not require any repairs.

9/20/2006 Asphalt/Concrete : Play Equipment

The school has large paved areas located mostly north of the building as playgrounds.

9/20/2006 Doors: Exterior Entrances

The four primary entrances located on the east, south, and west elevations have steel doors set in wood frames. These should be replaced completely including all the wood transom areas. The other doorways on the north have metal doors in wood frames that should be replaced completely.

9/20/2006 Windows: Windows

The windows at the north kindergarten addition are aluminum with insulated glass. The other areas are aluminum with plexiglass. There are some broken panes in the east wall. The wood window stools at several locations are water damaged and should be replaced.

9/20/2006 Walls : Walls

The exterior walls are brick with cast stone terra cotta and exposed concrete. The steel lintels above the openings are in poor shape and ragging at several locations. They should be replaced. At one of the west entrances the brick soldier course has fell from the building onto the walk below. The terra cotta coping at the southwest corner has fallen off the building. Tuckpointing is needed in the brick.

9/2/2006 Electrical :

Ladd Elementary has had its electrical service upgraded to 1200A 208Y/120V. The school is partly air conditioned (Nurse Station, Library, Office and KG), and if the school is to become fully air conditioned, additional service capacity may be required. This could be accomplished by adding an additional lateral for a second service. The estimated size at 208Y/120V would be 600A at about \$60,000.

Lighting is fluorescent, widely spaced, making the illumination in classrooms at the low end of IES recommendation, about 50 f.c. (estimated). There has been a continuing effort in the school to retrofit existing fixtures with T8 lamps. To date, this is about half completed leaving about 300 fixtures to be retrofitted. The gymnasium has 9 HID fixtures and the stands have two wall packs (poor selection). The auditorium has old style chandeliers which take

8/30/2006 Mechanical : Existing HVAC system:

Two steam boilers provide low pressure steam for heating throughout the building. Two big fan units in the fan room provide recirculated air to all the classrooms and other areas. These fan units have steam coils and provide hot air in the winter in most of the areas, including all the classrooms. This is the sole source of heat in most of the areas, including all the classrooms. Gymnasium, auditorium, library and classrooms 103 & 207 have steam fin tube radiators on the perimeter walls for heating.

Partial air-conditioning is also provided for office, nurses area and caring comm area by DX cooling with split units. The AHUs for these areas do not have heating capabilities. Computer room is also served by an independent split unit. The AHU for computer room has heating capability. A rooftop unit serves the kindergarten classrooms and this unit has gas heat capability also. A rooftop unit serve library area, but don't have any heating capability.

8/29/2006 Mechanical : Recommendations for renovation of HVAC System:

The areas including all the classrooms are proposed to be air conditioned by installing several rooftop units. These rooftop units shall be installed on the roof and shall have DX cooling and gas heat capabilities. One rooftop unit will serve one or two classrooms in second floor and the classroom(s) in the first floor exactly below them.

Heating capabilities shall be added in the AHUs for office, nurses area and caring comm area. Alternatively gas-fired duct furnace or electric duct heater can also be installed to provide heat in these areas. Gas or electric heat shall be installed in the AHU of computer room. The rooftop unit of the library shall be replaced by a new rooftop unit, having DX cooling and gas heat capability. A new rooftop unit with DX cooling and gas heat capability shall also be installed for auditorium.

Seperate split units shall be provided for gymnasium, art room, cafeteria and for rest of the areas on the ground floor. Air handling units can be located in suitable locations and condensing units shall be installed on the roof.

All the new rooftop units and air handling shall be designed for bringing required amount of OA in the spaces to comply with the ventilation code, ASHRAE-62.1-2004.

7/19/2006 Roofing :

This building is older and is cut up in various elevations. Will equire window access and ladders to get around entire roof. Sections of this roof have been re roofed with final aggregate ballast. This area also has metal panel covering all exposed brick that is deteriorating due to moisture intrusion. Various roof systems on this building. Most all of the old smooth mod with the reflective coating is still in good shape. Tower roofs are concrete and beginning to delaminate. New addition of this building is in need of work.