

Building Dialogue

Bryant Elementary School

11/9/2006

Year Open: 1915 Additions: 1920, 1938
Square Footage: 45760 Acreage: 415

FACILITY MANAGEMENT SYSTEM

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

1. Provide drain piping covers for 3 number of sinks (ADA) - \$200

Total estimated cost - \$200

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 Rooftop units for classrooms in basement, first & second floor and ductwork - \$440,000.
3. Install new Split unit system for Gym & Cafeteria and ductwork - \$55,000.
4. New DDC controls with WEB based Lonworks protocol - \$150,000.
5. Demolition and removal allowance - \$60,000.
6. Miscellaneous and architectural allowance - \$150,000.

9/22/2006 Asphalt/Concrete : Asphalt

The asphalt parking lot located north of the building is in good condition. No work is required. The playgrounds are east and north of the building. The cracks in the asphalt need repair. The playgrounds can be finished with a sealcoat.

9/22/2006 Asphalt/Concrete : Concrete

The concrete is in satisfactory condition except for two small patch areas at the south ramp that need repair.

9/22/2006 Asphalt/Concrete : Play Equipment

The play equipment is located at the north playground and appears to be in good condition.

9/22/2006 Doors: Exterior Entrances

The exterior entrances are hollow metal doors and frames that have been installed within the existing wood framing and trim. The existing wood and glass transoms were left in place, when the doors were replaced. The doors and frames are in good shape. The exposed wood and trim should be replaced.

9/22/2006 Windows: Windows

The windows are aluminum with plexiglass, not insulated. They are in good condition.

9/22/2006 Walls : Walls

The walls are brick, cut stone trim and coated concrete areas at the windows. The coated areas are peeling and need to be cleaned and recoated. The brick requires tuckpointing and some stone will need repair. Cracks need repair. Some wall areas in the classroom on the third floor are damaged.

9/13/2006 Fire Prot:

The emergency power system is not functioning at this time, and needs immediate attention by a mechanic. Should the school be occupied at night and a utility power failure occur, there will be no egress lighting! Egress lights are powered through an emergency power panels, transfer switch, and emergency power generator. At present, this is not functional. See the Electrical check list for costing.

The basement level is sprinkled. All corridors are protected with sprinklers, and have pull stations at egress points from all floors, and horn/strobes. Classroom doors are provided with magnetic releases. Doors and transoms are glazed with wire glass, but it is doubtful, due to their wood construction, that they are 1 hr fire rated.

9/13/2006 Fire Prot:

Most, but not all, classrooms have smoke detectors, mounted on the wall near the ceiling. Since classroom smoke detectors are not required under the 2003 IBC, this will not be considered a defect. The library has smoke detectors. Fans have duct smoke detectors.

The FACP is Silent Knight 5820XL located in the boiler room.

9/12/2006 Electrical :

The emergency power system is not functioning at this time, and needs immediate attention by a mechanic. Although this is a maintenance item, an expense item is included since the condition of the generator is a life safety issue.

9/12/2006 Electrical :

The lighting system for classrooms is composed of indirect custom made (perhaps home made) pendant mounted fixtures. These are about 50% functional at this time for one reason or another. If installed 15 or 18 years ago, these are at the end of their useful life, and additionally, the presence of T12 technology represents an opportunity for energy savings. The strip fixtures inside these tubular enclosures can be directly replaced with T8 fixtures and the result will be adequate classroom lighting, If this, however, is not aesthetically pleasing, we would recommend these tube fixtures be replaced with direct/indirect linear fixtures for a similar appearance and good light distribution. However, replacing the existing is about \$25.00(x2)per 4 ft of length and new liners are about \$400.00 per 4 ft unit.

9/12/2006 Electrical :

Corridors have soffit lighting, T12 fluorescent, also with many dark sections. We recommend replacement with T8 fluorescent fixtures, and these should be improved with a specular reflector which will greatly improve light production. Vestibules have original chain hung fixtures for tungsten lamps. We recommend preserving these fixtures. Replace regular tungsten lamps with long life lamps such as tungsten-halogen lamps or 130V lamps. Only one globe was missing, this should be replaced. These fixtures should be inspected by a qualified electrician and frayed wiring should be replaced.

9/12/2006 Electrical :

The cafeteria/kitchen is lighted with 2T12 acrylic wrap fixtures. These are in need of changing, but could be retrofitted with T8 lamps and ballasts.

The exterior lighting is good. Parking lot is lighted with shoe box fixtures on short poles. Flood lights are mounted at high angles. This might be considered glaring in the neighborhood. We recommend these floods be turned

9/6/2006 Kitchen: Recommendations:

It is proposed to install a new make-up air unit for kitchen. This unit shall also be capable to provide gas-heat.

9/6/2006 Mechanical : Existing HVAC System

One low pressure steam boiler provide heat to the building. One big fan unit provide air to all the areas of the building. This unit has steam coils after the fan and the air is distributed to different spaces through individual duct from the plenum after the steam coils. There are two additional steam heating coils at the return air openings to heat the return air also. So, this fan unit provide heating in the months of winter. Areas having the north exposure wall in the first and second floor and the office area have finned tube steam radiators on the wall. Steam produced by the boiler is circulated through these radiators to provide heat.

Partial airconditioning was provided to library and office area. One rooftop unit was installed to serve these areas. This rooftop unit is DX cooling only unit. Four classrooms in the second floor level have window type air conditioners for cooling.

Gravity type roof ventilators with dampers are in place on the roof to maintain a certain temperature in the attic by relieving the hot air. The fan unit

9/6/2006 Mechanical : Recommendations for revision of HVAC System

The building has only partial air conditioning. The library and office area is served by a single rooftop unit and four classrooms have window air conditioners. The whole building is proposed to be air conditioned.

Rooftop units shall be installed on the rooftop to provide cooling and heating in all the classrooms. One rooftop unit will serve the classroom on the second floor and the classrooms below that classroom in first and ground floor. These rooftop unit shall have DX cooling and gas heating. The rooftop unit for library and office shall be replaced with a new rooftop unit with gas heat capability. The gymnasium and cafeteria shall be provided with split system units. Separate AHUs shall be installed for gymnasium and cafeteria with DX cooling and electric/gas heat. The AHUs can be located in the fan room after the fan is removed or any other feasible location. The air cooled condensing unit for these AHUs shall be located outside the building, on the ground or on the roof.

After installation of the new HVAC system steam would not be required. Then the boiler can be removed as and when possible and the existing fin tube radiators shall also be removed. The associated steam and condensate piping shall also be removed or abandoned as required.

The gravity system with dampered roof vents shall be removed. All the new rooftop units and the AHUs shall be designed for bringing OA as per ventilation code ASHRAE-62.1-2004. So, the fan unit will also not be required after the

8/30/2006 Electrical :

Briant elementary is well maintained much to the credit of the resident staff which is doing an excellent job of lamping, cleaning, etc. Constructed in 1915 this school has retained much of its original character, and for this reason we recommend most lighting fixtures remain unchanged except as noted. The electrical system has been upgraded to 1200A 480Y/277V. There may be as much as 500A spare capacity, and more than adequate for existing and future upgrades for air conditioning. There is wall space in the boiler room for additional equipment, and we anticipate only distribution equipment needed for additional air conditioning units and fans. Branch panels have been upgraded with circuit breakers.