

GHR Engineers and Associates, Inc.

Mechanical and Electrical Consulting Engineers

Meeting Notes

February 19, 2020

7296

Project Name: Pana Building Replacement

Meeting Date: February 17, 2020

Meeting Time: 8:15 am

Meeting Location: Lincoln

Purpose of Meeting: Walkthroughs.

In attendance:

Jeff Stauder	Director Building and Grounds
Kim Kurtenbach	BLDD
Damien Schlitt	BLDD
Jim Gleason	GHR

Topics discussed

Action by

1. Discussion
 - a. Product - IWAS Amendment to replace with HLS dollars.
 - b. District is Tier One.
 - c. "Lead piping" is reported in both buildings. High lead levels have been detected in the water.
 - d. Lincoln (built 1923, 1967 addition)
 - i. Forced air in 1923.
 - ii. Hot water boiler in 1967.
 - iii. Flooding in gym every year damages floor.
 - iv. Water problems in classrooms. Coming from the walls.
 - v. Retrofit windows leak, poor energy performance.
 - e. Washington (built 1923, 1967 addition)
 - i. Had a boiler explosion.
 - ii. Flooding in gym.

- f. Lincoln and Washington are virtually identical.
- g. WAC's in every classroom. They're failing and need replacement. It was noted they provide no ventilation air.
- h. Spot cooling provided here and there.
- i. No elevators. Have chair lifts for all elevations both buildings.
- j. Fire alarm ten years old. Not ADA compliant.
- k. Need ADA toilet upgrades (\$350K per school minimum).
- l. ACM: Reportedly some ceiling tile, floor tile, pipe insulation.
- m. Reportedly no lead paint.
- n. Have new plastic pipe to water fountains in an effort to address the lead problems.
- o. Washington has new water service. Lincoln has original service.
- p. Paint "bubbling" on masonry from water incursion.
- q. No IAQ complaints. (WAC potential problems.)
- r. No sprinklers.
- s. Prep kitchens located off the gyms (big problem). Lots of complaints.
 - i. No toilet(s) close.
 - ii. Have dishwashers.
 - iii. Grease interceptor?
 - iv. Have range hoods with Ansul systems.
- t. Chimney's are in need of tuckpointing. Taller than necessary.
- u. Sanitary sewer is City Connected.

- v. Storm sewer runs to Pana Lake. Sites drain adequately.
- w. No footing tiles or they're compromised.
- x. Trip branch circuits in classrooms. Need more outlets. Original 1923 wiring still in use.
- y. No incinerators.
- z. Controls are pneumatic. Down a lot.
- aa. Have some security cameras.
- bb. Controlled access door (one) at both buildings but not close to office.
- cc. (Sites are approximately 3.5 acres per Google Earth.)
- dd. 300 kids would require 8 acres.
- ee. District has 10 acres available.
- ff. Don't have stages.
- gg. No locker rooms for PE (they use the gym or outside).
- hh. Crow's nests are located at tops of stairs (two per school).
- ii. Not on Historic Preservation list.
- jj. Lighting has been retrofitted with fluorescent.
- kk. Network wiring has been installed.
- ll. Network needs upgrade but adequate.
- mm. Have copper phone services.
- nn. Fiber? Not sure.
- oo. Electrical service getting overloaded according to Electrician who was on site doing work today.

- pp. 1923 wiring is in conduit but no ground. Cloth covered conductors. UG conduits rusted away.
- qq. Bell systems have been updated.
- rr. Intercom / paging, old style, reportedly need upgraded.
- ss. Schedule: TBD.

2. Lincoln

- a. Smoke detectors in hallways, storage rooms, etc.
- b. Ducted system in 1923, supply and return.
- c. Eggcrate lighting with retrofit fluorescent lamps.
- d. Not ADA fire alarm. No strobes. No audiovisual alarms.
- e. Battery pack emergency lighting.
- f. Fluorescent lighting in gym.
- g. Modine HW unit ventilators in 1967 classrooms.
- h. No insulation on HW heating piping in stairwells. Piping in boiler room and in gym has foam insulation.
- i. Gym has 2 HW AHU's hanging from structure.
- j. Boiler Model 35.5.160, 23 HP, forced draft, casing rusting, no manufacturer nameplate since the casing is partially missing.
- k. FPE MDP 800 amp, 1 phase, 3 wire. Three phase drop to building with one conductor per phase. Gear in kitchen (locked).
- l. Two domestic water heaters 199 mbh each. Probably oversized.
- m. Simplex model 4005 FACP in boiler room. (Admin office locked.)

- n. FPE subpanels 1967.
 - o. June Aire
 - i. Two forced draft burners.
 - ii. Big Ass blower appears to be circa 1923.
 - p. TC air compressor with dryer.
 - q. Water meter in brick pit in basement. Horrible condition. Nobody wants to touch the water service for fear it'll start leaking.
 - r. Some occupancy sensors on lighting but not many (toilet rooms, for example).
 - s. Supplemental electric heaters in toilet rooms in 1967.
 - t. Toilet exhaust fans reportedly don't work.
 - u. Bare supply ducts on 1923 central system.
 - v. Office's (admin) and kitchen were locked.
3. Washington
- a. Lot drains toward the building. They built a rip-rap barrier.
 - b. Pipe is GI screwed (soldered joints?).
 - c. Fan bearings failing on the 1923 supply fan, shaft clearance complicating replacement. Someone added grease fittings to the original bearings. Someone added pillow block bearing and support on shaft. The shaft can't be withdrawn without demolishing a wall and electrical equipment.
 - d. Pneumatic compressor with tank "dryer".
 - e. Window wells full of leaves. Water getting in.
 - f. Footing tile? No sump pump observed.

- g. Burnham hot water boiler 1110 mbh output, forced draft.
- h. Simplex 4005 FACP in boiler room.
- i. Two AO Smith instantaneous domestic water heaters.
- j. FPE 800 amp, 1 phase, 3 wire MDP in boiler room plus small FPE 100 amp, 3 phase, 4 wire panel.
- k. FPE subpanels (e.g., in stairwells). Some Square D panels added.
- l. Some exposed TC tubing in old is copper. Original probably is pipe.
- m. The June Aire multi-zone unit used to employ coal as the heat source.
- n. Electrical service reportedly hard to balance. Probably started as red leg three phase.
- o. Phones in classrooms.
- p. Have some smart boards.
- q. Admin offices locked.

Please review these notes and notify the author within seven days of any additions and/or corrections.

Meeting notes prepared by:

Jim Gleason

JNG/smh

cc: 7296 Meeting Notes
All in Attendance