



## FIELD OBSERVATION REPORT

Lincoln Trail Elementary School, Hardin County Schools, Elizabethtown, KY 201752 -CA8

Date: 8/14/2020

Time: 8:00 AM ET

Weather: 75/Overcast/Rain

Observed by: Joseph Jones

Report No: 29

Est. Completion: 80%

### Present on Site:

Mike Warren, Billy Parson (Gerald was on vacation), General Trades, Concrete, Erectors, Roofers, Painters, HVAC Installers, Geothermal Installers, Electricians, Plumbers, Sprinkler Installers

### 1. Work in Progress

- a. The general trades contractor was cleaning the interior of Areas B and C.
- b. Concrete workers were installing forms for curbs on the site.
- c. Erectors were detailing railings.
- d. Roofers were hanging gutters on Area B.
- e. Painters were applying dry fall paint in the Library/ Media Center.
- f. The HVAC installer was insulating ductwork on the mezzanine and installing equipment in the second floor mechanical room. They were also testing water flows in the hydronic system.
- g. The geothermal installers were testing pressure in the well field.
- h. The electrician was connecting mechanical equipment.
- i. Plumbers were connecting equipment in the Mechanical Room.
- j. Sprinkler installers were pressure testing their piping.

### 2. General Observations

- a) Rain was falling when I arrived on site. Light to moderate rain continued to fall during my visit. Rains had fallen during the week, but significant storms were predicted for today, tomorrow and on into the weekend. The site was muddy, but the building was mostly dry. There were wet areas in the building from incomplete exterior construction.

Concrete workers were laying out the forms for curbs at paved areas. They had installed the concrete walks at the front on the building in front of Areas B and C.

The standing seam metal roofing over Area B is mostly installed except at the west end. The roofers were installing the last of the gutters while I was on site. After that work is complete, the last of the standing seam metal roofing can be installed. The flood coat and gravel will be installed over the low sloped built-up-roofing after all of the other trades are complete with their work adjoining the roof areas. This would include the

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application of the intumescent coating over the spray foam insulation and the application of the fiber cement and metal panels over low sloped roof areas.

The windows and entrance framing and glazing systems are still not complete so there are still ample places for storms to flood the building. Until the windows and entries are in place, the building will not be completely dried in thus continuing to slow finishing of interior work. Even after the windows and curtainwall framing is installed, the perimeters of the openings still need to be sealed. The glass and at least temporary plywood doors need to be installed at the entrances before the HVAC system can be started. The plan was to get all of this done by next week, but Billy advised me that it will be the week after that. The building must be under environmental control before finishes such as the wood flooring system can be stored in the building and installed.

The mechanical system is nearing the point when it can be used to control the environment in the building. This equipment cannot be started until the building is completely enclosed including the windows and entrances. The window installer was not on the job while I was there leaving the main entrances open to the elements and the windows partially sealed. .

The erectors were detailing the steel railings. All steel needs to be cleaned and the primer touched up so that no rust or bare metal is showing. The finish contractors are rapidly covering up the steel making these required repairs inaccessible.

Ceramic tile walls have been installed in the student toilets, but as noted in previous reports there were numerous wall tiles that were out of plane with adjoining tiles. An attempt had been made to correct this by removing the worst offenders and installing new tiles. The walls are better, but not perfect. Additional corrective work will need to be done before final acceptance. They have installed most of the quarry tile in the Kitchen from what I could see since most of it was covered with protection paper. I could observe that some tiles were missing at the door openings and the joints were not grouted.

The spray insulation installers had applied the intumescent coating to the spray insulation on the west side of the Gym. This is the area where the intumescent fireproofing had been applied ahead of the storms at the end of last week. They were covering this area with sheet plastic last week, but on this visit the permanent reinforced plastic vapor barrier was in place and the cement fiber composite panels were installed. The panels appeared to be in plane, have tight joints and were level. The overall appearance of the finished product was good. The vapor barrier was extended over the spray insulation above the kitchen roof without the intumescent fireproofing. The vapor barrier must be removed and the intumescent coating applied before the composite panels are installed over this area. The vapor barrier is a substitute for the originally submitted material. This was reviewed and approved by JRA.

The painters have applied the first coat of paint to most of the first floor walls. They were painting the Library/Media Center while I was on site. They have caulked some of the block expansion joints in the classrooms. Billy said that the caulking smears on the block will not be visible after the finish coat is applied.

The mechanical contractor is making good progress installing the heat pumps on the mechanical platform. They have been installing hydronic piping, ductwork and insulation on ductwork. Their systems appear to be getting to the point that they can be

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energized in the next two weeks. This will be an important milestone because it will allow the installation of finished materials into the building. Water could be heard flowing through the hydronic piping as they tested the systems.

The geothermal well contractor was testing the piping in the well system ahead of connecting it to the building system. They reported to Billy that they had achieved the required pressure.

The electrical contractor continues to install rough ins to mechanical equipment. They have typically been a two-man crew for most of the project. Billy reported that The owner of the company has recently been on the job along with a another electrician. Again, we reviewed the work that is left for them to complete, and it is a real cause for concern. They have to connect all mechanical equipment, kitchen equipment and specialty equipment; install the fire alarm and security systems including the alarms and door controls; all of the light fixtures; and electrical trim including devices, switches and plates. Every time they don't have something in place that affects another subcontractor they affect the overall schedule for completion. Gerald had told me that drywall cannot be hung because they are missing pieces for the light fixtures in toilets that must be installed ahead of the drywall. This appears to still be the case.

The fire suppression system is to the point that it was being pressure tested. This will show leaks to be repaired ahead of the installation of finish materials such as drywall and ceiling tiles.

The plumbers were installing piping in the Mechanical Room. They have the fixtures in the toilets, the Kitchen, Janitor Closets, Classrooms and in mechanical spaces and rough-ins to specialty equipment to install. This is a significant amount of work at the end of the project.

Billy repeated Gerald's comments about the uneven response from the trade contractors. The path for completion of the building should be apparent to all trade contractors, but some tend to ignore the schedule and send partial crews or none at all. Certain work must be in place for the building to be finished. These include a completed building enclosure – roof, exterior walls and openings, mechanical and electrical systems and finish work by other finish contractors. Any one trade contractor can jeopardize the schedule to complete the project.

- b) From the front of the site, the remaining exterior work required is apparent. Cover the Cafeteria walls with composite panels, finish the standing seam metal roofing, install the aluminum entrance including doors and install the downspouts. Also note that the front of the site has been cleaned up of the masonry debris noted in my last report.



- c) Concrete walks have been poured in front of Area C and half of Area B. This provides the base for the aluminum entrances as requested by the window installer. It also provides a place for the water falling out of the gutters to land this preventing mud from splashing on to the brick. This is not the case at the east end of Area C where there is no walk.



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- d) The main canopy is complete except for the metal roofing, painting and electrical work.



- e) The interior aluminum frame for the Cafeteria windows are in place along with the glass units. The spray insulation will be covered the intumescent fire proofing and then the composite fiber cement panels.



- f) The second floor of Area B and top of Area C will be covered with the composite panel system.



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- g) The windows have been sealed to the brick. This appears to be a temporary seal that will be covered by the face caps. All joints will need to be completely sealed to the brick. All exposed sealant must be evenly tooled and must provide a finished appearance.



- h) The fiber cement composite panel system is installed on the west side of the Gym. The joints are even, the panel are in plane and are level. Note that the vapor barrier was extended over the exterior wall above the Kitchen without applying the intumescent fire proofing. This must be applied before proceeding with this area. Also note that the concrete exterior exit stair for the Gym has been construction.



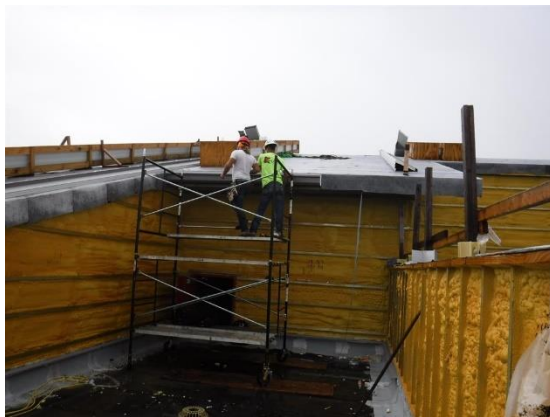
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- i) The roofer was completing the sheet metal fascia and gutter on the north side of Area B. Once this is complete, the standing seam metal roofing can be completed.



- j) Roofers were completing the fascia and gutter at the west end of Area B. Their scaffolding was properly located on plywood protection panels on one side and on the roofing membrane on the other. The hollow metal door and associated hardware to this roof area has been installed.



- k) It was raining when I took these pictures. There was a considerable amount of water ponding on the roof. It appears that the roof does not slope to the drain sump.



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- l) The low sloped roofs over the Gym and Cafeteria appear to drain well while rain is falling.



- m) The door to the Gym/Cafeteria roof is now in place. This opens into the mechanical platform above the second floor. The opening in the middle of the exterior wall is for the louver for the energy recovery/makeup air unit.



- n) The low sloped roof over the front entrance appear to drain well. The door to the mechanical platform is in place. The work ladder to the sloped roof was properly placed on a protection board.





- o) The range hood exhaust unit and the refrigerant units for the walk-in coolers are in place over the Kitchen roof.



- p) The standing seam metal roof remains to be installed over the west end of Area B and the roof over the mechanical space over Area A. The composite panel system remains to be installed..



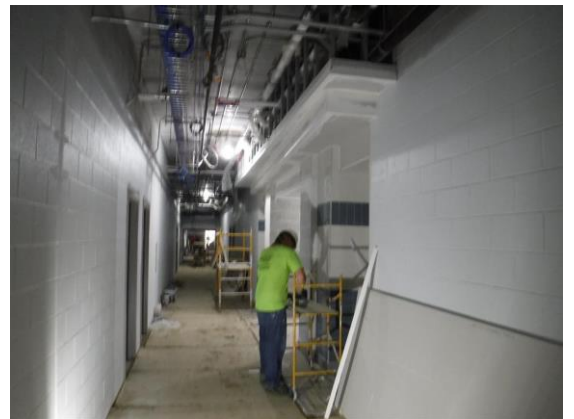
- q) The heat pumps serving the Gym and Cafeteria are in place in the second floor mechanical room.,.



- r) Water resistant drywall was being installed in the administrative area. Mineral wood sound insulation is required in the stud spaces for the walls in this area.



- s) Drywall soffits are being installed and in some cases they have been painted.

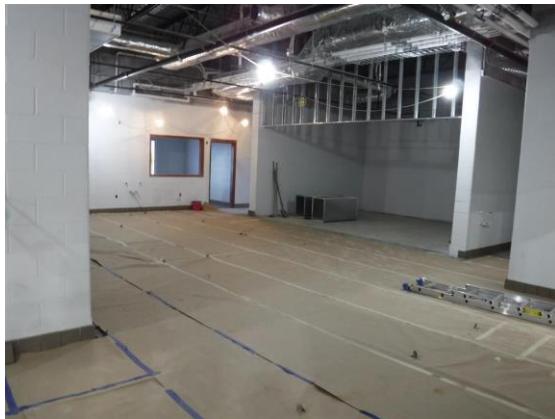




- t) The Cafeteria has been painted. Blocking is installed for the pin frames and the windows are in place. The basketball backstops are installed.



- u) The quarry tile floors have been laid in the Kitchen and are covered with protection board. The joints are not grouted. The hoods are installed.





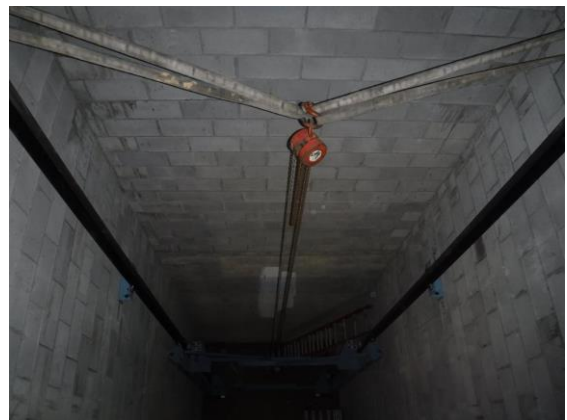
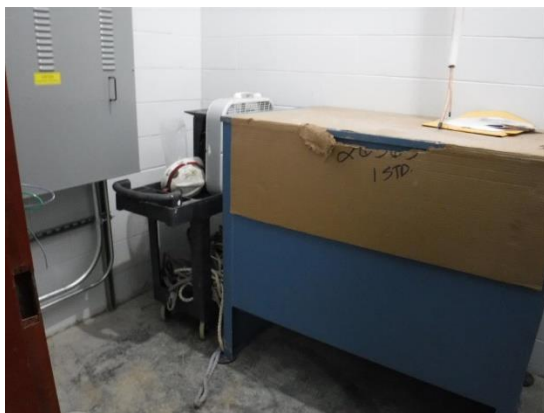
- v) In the Gym, the basketball backstops are installed. The speakers were being installed.



- w) The rear entrance is not installed leaving this area open to the elements.



- x) The elevator pump is installed and the platform is being installed.



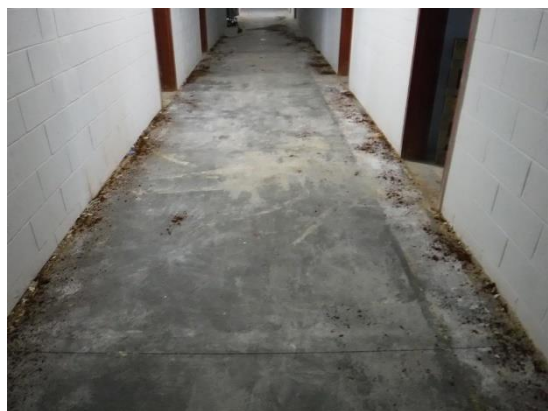
- y) The Library/Media Center was being painted with dryfall paint.



- z) The corridors walls in Area B have been painted. The ground faced block was protected from overspray of the paint.



- aa) The Skudo board protection system was being removed and the corridor slabs cleaned. Very little of the wax layer from the protection layer remains. Although there will be some construction work performed over the corridors, the heavier work is now complete.



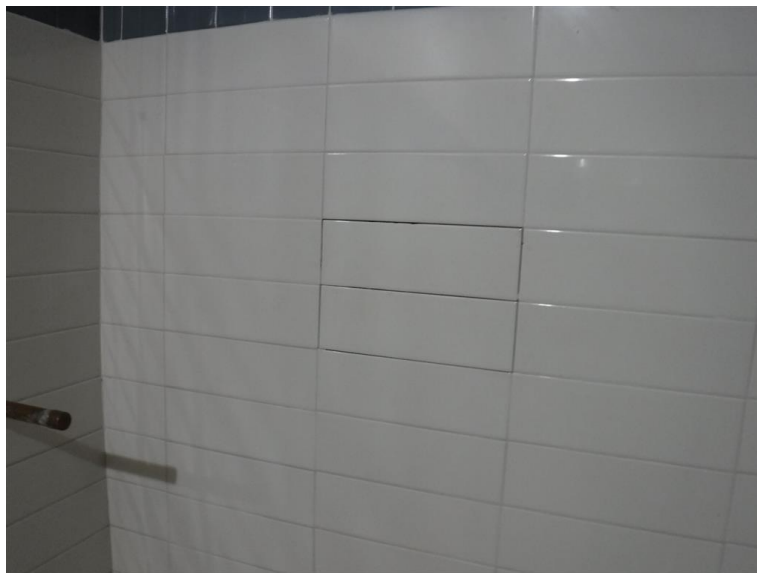
- bb) Although most rooms are dry, a small amount of water is getting into the building.



- cc) Although the wall tile walls look better after some of the tiles have been replaced, there are still areas that need attention.



- dd) Tiles that do not have grouted joints are the ones that have been replaced.





- ee) The entry to this toilet group and typical wall in the toilets still have tiles that are noticeably out of plane. These out of plane tiles need to be replaced.



**3. Stored Material:**

- a. Electrical fixtures, wire, conduit and boxes and equipment.
- b. Roofing materials.
- c. HVAC materials
- d. Tile materials.
- e. Ceiling grid and attachment materials.
- f. Plumbing and mechanical rough-in materials and equipment and finished trim and fixtures.

**4. Follow up items:**

- a. Keep as-built locations for site utility work up to date.
- b. Keep as-built locations of plumbing and electrical lines up to date.
- c. Maintain site silt control measures.
- d. Have all trades keep the building clean of all bottles, lunch bags, wrappers, trash, debris, etc.
- e. Protect brick at downspout locations until downspouts are installed.
- f. Verify status of sprinkler piping under stair.
- g. Protect all low sloped roof areas during the installation of the composite panel systems.
- h. Enclose the building completely before starting the HVAC system.

Follow up by:

- ☐ Architect, ☐ Owner, ☐ MEP Engineer, ☐ Structural Engineer, ☐ Civil Engineer  
☒ Contractor, ☐ Other

Respectfully submitted,  
Joseph Jones, AIA  
JRA Architects

Cc: 201752, CA8