



FIELD OBSERVATION REPORT

Revised

East Hardin Middle School, Hardin County Schools, Elizabethtown, KY 201752.01 -CA8

Date: 3/12/2020

Time: 10:30 AM ET

Weather: 60/overcast

Observed by: Joseph Jones

Report No: 19

Est. Completion: 41%

Present on Site:

Doyle Gibson (Superintendent - Alliance Corp.), Masons, General Trades. Electricians

1. Work in Progress

- a. Masons were laying block in Area A and B.
- b. General trades were installing hollow metal door frames as the masons laid up block walls.
- c. Electricians were installing rough-ins as the masons laid up block walls.

2. General Observations

- a) The weather was warm and dry. Rain and storms were predicted for that night. Temperatures were above freezing and were suitable for masonry work. Wetter weather is expected next week.

Crews of masons and their helpers were laying block walls in Area A and B. Masons were concentrating on laying ground faced block along the east-west corridor so that the walls would be prepared to receive steel spanning open spaces. After the steel is in the place, the precast concrete planks will be installed in the two story classroom area.

Doyle noted that the window openings on the east wing of classrooms that needed to be relaid from the head of the first floor windows up were in the process of being corrected. The mason built the openings for two story high windows not realizing that block is shown to be located behind the spandrel glass between the floors. Based on the report from Icon, portions of the fire wall at the Gym need to be reworked so the wall is continuous and it acts as two independent walls to protect each side of the fire area. While the overall quality of masonry work continues to be good, there will be areas where joints and block will need to be repaired to provide an acceptable substrate for the paint finish.

The general trades contractor and electrician have been installing door frames and electrical rough ins ahead of the masonry work. The electrician has installed electrical rough ins under the mezzanine around the Gym. The plumber has installed some of the piping under the mezzanine around the Gym.

Electricians were installing rough ins in the walls ahead of the masons.

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- b) Ground faced concrete block walls are being laid for the main east-west corridor on the first floor in Areas A and B.



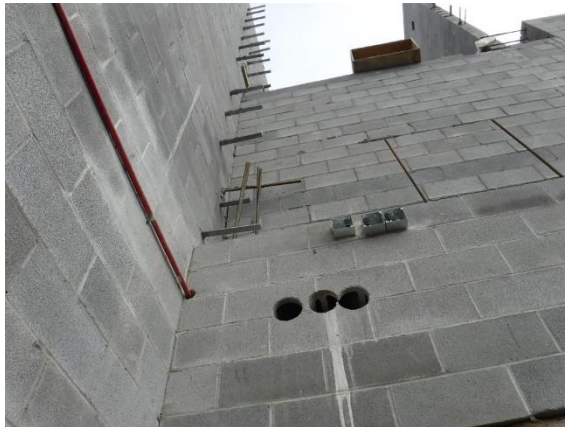
- c) The ground faced block needs to be cleaned and sealed. Overall the work is acceptable thus far. Block the block joints and the false joints have been filled with mortar and tooled with a concave joint. The joints at Lincoln Trail Elementary School are struck for the block joints and the false joints are left open.



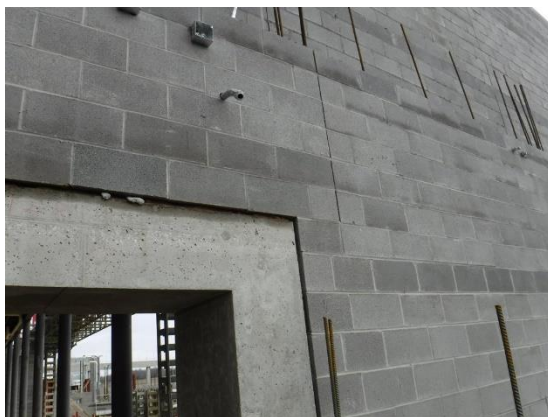
- d) The outside corners of the ground faced block have bullnoses as specified. These block cost about \$40 each. The mason is being extra careful to not damage these blocks.



- e) The concrete block fire wall around the Gym and extending in front of the Cafeteria consists of two independent block walls. The wall ties sticking out of the Gym wall would tie these two walls together so they do not act independently. The ties will be removed and two courses of block will be cut free from the Gym wall.



- f) Concrete block wall over the concrete portals at the fire wall, do not bear on the portals. The control joint at the end of the bond beam must be on the wall side of the portal.



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- g) Doyle said that the dark mortar can be successfully cleaned off of the ground faced block. It is important that the mortar not be left to harden in the block faces so the joint appears as a smear instead of a clean line just in the joint.



- h) The control joint on the west side of the Gym must be relocated to the end of the bond beam 8" to the west of the concrete portal. The wall above is temporarily supported above the portal. When the temporary materials are removed, the joint between the portal and the block will be filled with mineral wool insulation and fire resistant rated sealants to create a continuous fire barrier at the fire wall. The wall to the east side of the portal must tie into the outer layer of block running along the Gym wall so that it supports the east end of the block wall over the portal.



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- i) Masons were reworking the exterior walls at the east side of Area B where the window openings were laid as if the windows would be two stories high. The block at the jambs has been cut back to reveal the grouted cells. JRA, Solid Ground and Icon have noted this discrepancy in their reports. The corrective measures cited was to remove the upper portion of the block and reinforcing to restore the wall to the original design intent.



- j) Doyle and I observed the mason removing faces of every other course of the jamb block 8" from the jamb. This meant that the face on one side of the window opening was left in place at the bond beam. Doyle told the mason that the bond beams at the heads of the first floor windows must be installed with full 8" bearing on both sides including replacing the full face of the block to form a bond beam. Either the block and the grout at the bond beam must be removed so the beam can be fully installed or the mason can drill the grout the full 8" from the jamb and anchor the reinforcing with structural epoxy into the grout. Solid Ground needs to verify that the work is properly done in their SPIN reports. The outer webs of the block above the bond beam will be cut to form a "U" shape to fit around the grout. If this work cannot be done to provide full bearing and an acceptable appearance in the room side of the wall, the entire wall needs to be removed and relaid. The grout above the jambs needs to be bonded to the infill block cores.



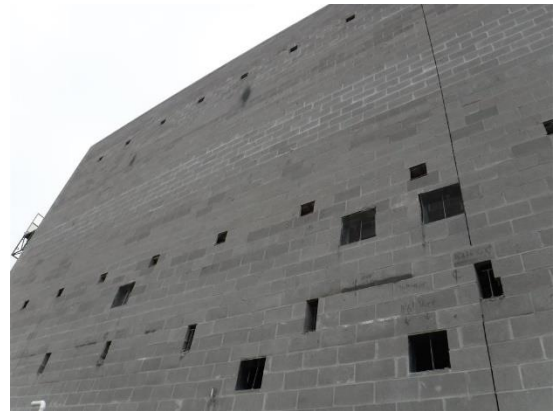
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- k) Laying concrete block at the east end of exterior of Area A has begun.



- l) The exterior block wall at the west side of the Gym has been started. The wall along the corridor and above the mezzanine is laid to roof joist bearing height. Openings in the wall are for mechanical penetrations from the mechanical mezzanine.



- m) Blockwork in Area D has been extended up to truss bearing height. Some of the trusses in the area bear on steel framing supported by columns above the mechanical mezzanine.



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- n) Doyle noted that the use of the Hydro Lift scaffolding system has accelerated the blockwork in areas where it can be used. These are typically long walls that benefit from the long spans and supports the system employs.



- o) Plumbing rough ins were installed ahead of the blockwork. The toilets have a concentration of plumbing piping. Another area with extensive plumbing rough ins is the kitchen. The blue PEX piping supplies water to the Kitchen drains to keep them from drying out and allowing sewer gases to escape into the Kitchen.



- p) The opening beside the doors into the Science Classrooms is for the spill kits. The blue piping is acid resistant drain piping.



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- q) Doyle noted that one of the door frames was scheduled to fit into an 8" concrete block wall but the wall is 12" wide at that point. JRA agreed that the frame could be located in the center of the wall so that the work could proceed. The base at the returns needs to be anchored to the bullnose corners so that it does not separate over time.



- r) Overall, a significant amount of blockwork has been installed. The addition of the steel framing and the precast concrete planks for the second floor of the classroom wing will allow for the completion of the walls.



s) Stored Material:

- a. Block, mortar and masonry materials.
- b. Hollow metal door and window frames.
- c. Plumbing piping and accessories.
- d. Conduits and electrical boxes and rough in materials.
- e. Reinforcing bars and wire.
- f. Galvanized steel imbeds.
- g. Storm sewer fittings.
- h. Mechanical and electrical equipment.

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t) **Follow up items:**

- a. Maintain the Skudo system so that it protects the corridor slabs.
- b. Verify that the bearing elevations for concrete block wall are per the drawings. Doyle said that the mason will use laser levels to insure bearing elevations.

Follow up by:

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

Respectfully submitted,
Joseph Jones, AIA
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Cc: 201752.01, CA8