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Memorandum

To: Richard VanGorder

From: Scott M. Chandler; CIH; LEED AP

Date: 10/16/2018

Re: Summary of Mold-Related Activities at Grosse Pointe South High School

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Rich- TEC has reviewed its records pertaining to mold-related activities conducted over the past five years at Grosse Pointe South High School. This information is provided below in narrative form.

January 2012 to March 2016. No mold-related investigations/assessments conducted at South High School.

March, 2016 to August, 2016. TEC Conducted initial assessment of indoor air quality complaints in Room 401. Fungal growth was identified on gypsum roof deck underside above stage area. Air samples also suggested presence of same types of fungi. See Appendix A. Infrared camera study of underside of roof indicated potential damp roof components. Treatment and encapsulation of water damaged drywall-like roof decking materials in high ceiling area was conducted. Afterward, the high ceiling area passed visual inspection and clearance air sampling. Roof area above Room 401 was subsequently replaced by GPPS.

August 29, 2016 through September 23, 2016. TEC provided technical assistance to GPPS Buildings and Grounds staff in responding to a reported stormwater backup into basement areas of South High School, impacting air handling units 1 & 3. Potential for sewage to be included in floodwaters. The bulk water and solids were removed and areas decontaminated with approved disinfectant by a water restoration contractor. TEC conducted visual assessment and surface wipe sampling/laboratory analysis to verify that sewage indicators were not present. See Appendix B for report.

December 20, 2016. TEC walked through areas of Industrial Arts and "S" buildings with reported water damage. Preliminary report of observations was provided to GPPS. Most areas that were assessed displayed water staining, but no visible fungal growth. Two areas of fungal growth on suspended ceiling tiles were identified and sampled. Suspended ceiling tiles with confirmed growth were removed by GPPS personnel. See Appendix C. In a follow-up assessment for water stained tiles in 2nd and 3rd floor rooms in the IA and S buildings on October 8, 2018, it was determined that most of the tiles in the IA building with water staining remained and require replacement. Moisture testing

conducted on this date indicated that the tiles were dry (with the exception of Rooms 315 & 317), suggesting that the water source(s) had been corrected. GPPS Buildings and Grounds staff planned to conduct roof-related sealing of flashings of roof penetrations above rooms 315 & 317. Additionally, GPPS staff will be removing the water stained tiles. Two rooms with historical staining of the original glued-on ceiling tiles were identified. These are found in Rooms 216 & 217. Although visible growth was not observed, TEC has recommended removal of these materials by the district's environmental contractor. This work will be performed in the near future, most likely over a weekend period.

In a follow-up to the December 20, 2016 assessment, TEC and GPPS personnel conducted an additional walk-through of the S building classrooms for evidence of ongoing water infiltration. All of the water stained tiles identified in the December, 2016 assessment had been previously removed. This was performed after the district conducted extensive brick mortar tuck pointing, roof seam and flashing repairs and partial roof replacement in the Room 260 area. Our assessment indicated small water stains (less than 6" in diameter) that were damp in Rooms 180, 272 and 268. No mold growth was observed. It is our understanding that GPPS staff have undertaken rooftop assessment in these areas to identify and patch any remaining locations of water infiltration.

February 15, 2018 through August 31, 2018. Fungal growth reported along perimeter wall of Room 231, (conference room) adjacent to 2nd floor cafeteria. See Appendix D. Initial mold removal from plaster surfaces conducted in March, 2018 and the room closed pending more extensive cleanup in Summer, 2018. Assessment of the room indicated that various building materials (i.e., cabinet around steam radiator, plaster lath and carpeting were all likely impacted. See Appendix E. Additional assessment to determine extent of growth was conducted on July 18, 2018. See Appendix F. Removal of all impacted materials was conducted along with asbestos abatement of insulation jacket surrounding steam radiator in August, 2018. Work was performed by an asbestos abatement/mold remediation contractor. Visual inspection passed as did clearance air and surface samples for asbestos and mold.

March 15, 2018 through March 30, 2018. TEC responded to reports of potential fungal growth on plaster wall surfaces in 2nd floor cafeteria. Elevated relative humidity in the cafeteria was eventually traced by GPPS Buildings & Grounds staff to leaking steam traps in basement and migration of steam through pipe chases along perimeter wall. Perimeter wall was isolated and plaster surfaces cleaned by a mold remediation contractor. Clearance inspection passed. Surface and air samples met clearance criteria. See Appendix G. Note: clearance samples for Room 231 did not pass, which prompted additional investigation in this room. Room 231 was closed to public use. See previous paragraph for details.

August 20, 2018 to August 24, 2018. TEC responded to a report of fungal growth on a drywall soffit area outside the entrance to Room 256 in the "S" building. Additional investigation identified other impacted areas inside Room 256, primarily suspended ceiling tiles beneath roof drain lines and a small quantity of ceiling drywall below a roof deck penetration. No tape-lift samples were collected. Removal of all impacted materials was conducted by a mold remediation contractor. TEC conducted a visual inspection and collected clearance air samples, which passed. See Appendix H.