October 26, 2011

Mr. Joseph M. Mangan
Newport Independent Schools
301 E. 8th Street
Newport, Kentucky 41071

Re: Newport High School Stadium
Structural Evaluation

Dear Mr. Mangen:

On October 24, 2011, I met you at the above referenced facility to perform a general structural evaluation of the grandstand. A surface repair project is going to begin soon and review of the general structural condition is desired.

The grandstand facility, located on the west side of the football field, was constructed around 1936. The framing system consists of reinforced concrete treads and risers supporting the seating area of the grandstand. This seating structure spans in the north and south directions to reinforced concrete beams spaced twenty to twenty-five feet on centers running east and west. Interior and exterior columns provide the support for the beams. Concrete masonry walls are in-filled between and under the concrete frame to enclose and separate the structure into rooms. The area under the seating structure houses locker rooms, meeting rooms and weight rooms.

The surface of the seating area varies in degrees of disrepair. Aluminum bleachers are fastened to the face of the tread and riser system. Concrete is deteriorated and spalling in many areas, most notably at the aisle ways and the bottom third of the structure. The treads and risers portion of the structure was split in several sections creating expansion joints where they butt, probably on the center of the beam below. Deterioration and spalling is occurring in varying degrees of severity along these joints. In several locations, a metal checker plate has been placed in the aisle, presumably to cover up deteriorated or removed concrete.

The underside of the structure was observed from the locker and weight rooms. Some areas had plaster ceiling, therefore, the structure was not visible. Other areas were visible showing a flat and sloped bottom side of slab spanning between beams. At several locations, the expansion joint described above, followed through the tread and riser slab to the beam. Most of these conditions are leaking. In general, however, the structural concrete seemed to be in good condition. Some areas on the lower third of the grandstand showed signs of leakage through the slab. Once the repairs are made on the surface, these areas should be investigated for any loose concrete, removed and patched back to finish conditions.

The general condition of the grandstand structure is good, especially considering its age. The top deck repair that is scheduled to be done is needed. If not performed soon, deterioration will continue to migrate deeper and deeper into the structure, resulting in more extensive repairs when rehabilitation is finally done.

While the deteriorated concrete is removed during this project, it is imperative to remove all loose material and observe the condition of exposed reinforcing steel. Typically, concrete cracks when the embedded reinforcing steel gets wet and begins to rust. The expansion of the rusted steel pushes the concrete away from the steel, resulting in cracks and bulging in the surface of the concrete. Depending on the condition of this steel, all rust should be removed and rust inhibiting paint should be applied. If steel is deteriorated beyond twenty percent of its original size, it should be replaced with new. During this demolition process, if any other cracking is observed deeper in the slab or beams, further observation should be done. As we spoke, there are several areas of deterioration and cracking occurring on the south end exterior column and beams. These should be investigated by removing loose material, repairing steel and patching. All other areas where leakage has occurred in the framing below should be investigated after topping repairs have been made. Any loose materials should be removed and patched and re-painted.

The observations described are of structural items only and are only of what was observed from the interior and exterior of the building. Other details of the building, HVAC, electrical, code compliance issues, mold presence, etc. are not addressed by this visual observation.

If you have any questions, please do not hesitate to call.

Sincerely,

GOP Limited

Douglas A. Crawford