Drainage Improvement Implementation Recommendations

The report provided by Jewel Associates, Inc. identified (9) nine study areas with specific improvement initiatives for each. The following is the recommended prioritization of the improvement initiatives in relation to the other facility improvement noted in the past.

Priority 1 - #1 MS foundation drain pumping Option 1: This initiative is to direct pipe the excessive amount of water currently pumped from the building lower level floor sump to the village storm sewer system. The cost is estimated at $60,000. The improvement is the removal of the high volume of water discharged across walks, drives, and play areas to saturated grounds south of the school building. The benefits include safety, operations savings, and increased site area use. The safety concerns are due to slippery wet surfaces, including icy areas during the winter, causing student, staff, and visitor slips and falls. The slippery areas also provide the potential for vehicle accidents. The ice increases operational costs for snow and ice removal and the wet surfaces increase the operational costs for additional building track in and clean up. The option to connect to the storm sewer may not be available to the district in the future.

Priority 2 - #3 Standing water between MS and ES Option 1: This initiative is to drain the standing water from the area between the two buildings by extending the storm sewer to the area. The cost is estimated at $72,000. The improvement is to accelerate the removal of the high volume of water retained in the practice and play areas through the extended storm sewer system. The benefits include safety, operations savings, increased site area use, and a reduction in the compound accumulation of water at this relatively higher elevation on the district campus. The safety concerns are due to wet ground surfaces, including icy areas during the winter, causing student, staff, and visitor slips and falls. The wet areas also limit the use of grounds equipment to adequately care for the area. The frequent inability to service the area increases operational costs for special grounds care and frequent grounds repairs caused by pedestrian, equipment, and vehicle use on the wet areas. The option to extend to the storm sewer may not be available to the district in the future.

Priority 3 - #8 & #9 North side of HS roof drains discharge area and parking lots: The first part of this initiative is to install a collector pipe to collect the roof drain discharge empting on to the grass area between the 1961 and 1993 wings on the north side of the HS. The second part of this initiative is to regrade the north lawn areas of the HS. The cost is estimated at $28,000. The improvement is to better contain the roof discharge, move the water more directly to the north side of the north drive, and accelerate shedding of the roof drain discharge water. The improvement is also to better manage the routine accumulation of storm water on the paved areas on the north side of the HS during precipitation events. The benefits include safety, operations savings, increased site area use, and a reduction in the compound accumulation of water at the building perimeter and roadway. The safety

concerns are due to wet ground surfaces, including icy areas during the winter, causing student, staff, and visitor slips and falls. The wet areas also limit the use of grounds equipment to adequately care for the area. The frequent inability to service the areas increases operational costs for special grounds care and frequent grounds repairs caused by pedestrian, equipment, and vehicles on the wet areas. Additional priority considerations for the roofing discharge improvement are the proximity of the below grade building tunnels, which are vulnerable to infiltration and flooding, and the future planned use of the grounds for an additional outdoor student area with access from the LMC.

Priority 4 - #5 Track infield drainage Option 1: This initiative is to replace the existing drain system inside of the track and around the perimeter of the football field. The cost is estimated at $82,000. The improvement is to increase the volume and flow of storm water from the track and the inside the track areas. The improvement is to better manage the routine accumulation of storm water inside the track areas during and provide for quicker return to use after precipitation events. The benefits include safety, operations savings, and increased site area use. The safety concerns are due to wet track and ground surfaces causing students, staff, and visitor slips and falls. The wet areas also limit the use of grounds equipment to adequately care for the area. The frequent inability to service the area increases operational costs for special grounds care and frequent grounds repairs caused by student and equipment use on the wet areas. Coordination of this improvement with other track and field improvements is recommended. Correction of the drainage system should be completed prior to the investment in other corrective maintenance and upgrades planned for the track and/or football field.

Priority 5 - #2 Downspouts around MS Option 1: This initiative is to trench drains for MS down spouts to empty into and pipe the water to the above mentioned extended storm sewer improvement areas. The cost is estimated at $15,000. The improvement is to better contain the roof discharge, move the water more directly away from the building, walks, and drives. The trench drains are to use the higher priority extended storm sewer improvement identified above to better manage the routine accumulation of storm water. The benefits include safety, operations savings, and a reduction in the water on walks and roadway around the building. The safety concerns are due to slippery wet surfaces, including icy areas during the winter, causing student, staff, and visitor slips and falls. The slippery areas also provide the potential for vehicle accidents. The ice increases operational costs for snow and ice removal and the wet surfaces increase the operational costs for additional building track in and cleanup.

Priority 6 - #4 & #6 ES playground drainage and parking lot drainage Option 1: The first part of this initiative is to install infiltration devices to move and disperse the accumulation for storm water in and around the ES playground. The second part of this initiative is to regrade the lawn areas of the ES to direct the storm water away from and off of the ES parking lot areas. The cost is estimated at $44,000. These improvements are to move the

water more directly to the north side of the school, reduce the accumulation of water, and accelerate shedding water from the ES grounds areas. The improvement is also to better manage the routine accumulation of storm water on the paved areas around the school. The safety concerns are due to slippery wet surfaces, including icy areas during the winter, causing student, staff, and visitor slips and falls. The slippery areas also provide the potential for vehicle accidents. The ice increases operational costs for snow and ice removal and the wet surfaces increase the operational costs for additional building track in and cleanup. Completion of this improvement is recommended prior to making other major hardscape (concrete and asphalt) improvements around the school.

Priority 7 - #7 Drain tile behind softball field backstop: This initiative is to install a drain tile behind the softball field backstop. The cost is estimated at $21,000. The improvement is to increase the volume and flow of storm water from the ball field and field perimeter areas. The improvement is to better manage the routine accumulation of storm water from the field areas during and provide for quicker return to use after precipitation events. The benefits include safety, operations savings, and increased site area use. The safety concerns are due to wet field and ground surfaces causing students, staff, and visitor slips and falls. The wet areas also limit the use of grounds equipment to adequately care for the area. The frequent inability to service increases operational costs for special grounds care and frequent grounds repairs caused by student and equipment use on the wet areas.