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MEMORANDUM

TO: Gary Barczak, Chair, Board of Public Works
Vincent Vitale, First District
Cathleen M. Probst, Second District
Thomas G. Lajsic, Fourth District
Rosalie Reinke, Fifth District

FROM: Robert J. Hutter P.E., Engineer III

DATE: May 16, 2017

RE: **Communication from Engineer regarding Fire Administration Backup Generator**

The attached report was prepared by the City's consultant, Donohue & Associates Inc., and identifies options for the replacement of backup generator at the Fire Administration Building. The City's primary objective for this project is to replace the existing diesel generator (manufactured in 1969) with a natural gas generator with the same kilowatt rating of 100kW.

The consultant investigated moving the generator to the roof of the building. A structural analysis was performed on the existing roof above the garage to determine if relocating the generator to the roof is a feasible option. The roof was constructed in 1929 and consists of steel beams supporting a concrete slab. Results of the analysis indicate the existing roof beams would be overstressed with the addition of the new generator. Further locating the generator on the roof will allow limited work space around the enclosure and likely limit the ability to fully open the enclosure doors to 90 degrees. Therefore, Donohue & Associates, Inc. does not recommend relocating the generator to the roof above the garage.

The cost estimate for this work (Shown in Appendix C) is **\$93,681**.

The consultant also included a preliminary construction schedule with this report. The design schedule was developed to comply with the City's goal to construct the project in the next year. This schedule shows the Notice to Proceed in October 2017 with Final Completion in June 2018.