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NO. LTC # 362-2009

LETTER TO COMMISSION

TO: Mayor Matti Herrera Bower and Members of the City Commission

FROM: Jorge M. Gonzalez, City Manager

DATE: December 23, 2009

SUBJECT: Update on Miami Dade County Water and Sewer Department (WASD) plans to replace an existing 54-inch sanitary sewer line running from Miami Beach to Virginia Key

On Friday, December 18, 2009, representatives of the City met with WASD officials to discuss the WASD plan to replace an existing 54-inch sanitary sewer line running from Miami Beach to Virginia Key. The purpose of the meeting was to obtain information on a recently announced change in the project scope, and to better understand the impacts such a change of scope would have on the City. The original plan to build a Utility Tunnel containing three pipes dedicated to sewer flow was changed to a project with a single new 54-inch sewer line in a deeper location.

At the December 18, 2009 meeting, WASD explained that they were concerned that the planned Utility Tunnel Project (a twelve-foot diameter tunnel bored under Government Cut with three pipes dedicated to sewer flow, and a reclaimed water pipe) was too complex to be constructed in time for the anticipated start of the Port of Miami dredging project. In order to meet the Port of Miami dredging project time line, WASD changed the project to be a single 54-inch sanitary sewer line constructed in a deeper location. WASD believes that the changed scope would allow them to complete the pipe relocation project and also to accommodate the dredging project timeline.

WASD described the new project as a micro tunnel (a smaller version of the original Utility Tunnel Project) that would be bored from Fisher Island, starting on land, go under Government Cut and surface on the Miami Beach side of the Cut. The new line would then be connected to the existing 54-inch sewer line that serves Miami Beach. The construction involves boring a small tunnel under Government Cut with a smaller tunnel boring machine, and placing pipe sections behind the machine as the machine advances. The connection point would be in Government Cut and the boring machine would be retrieved from a marine access shaft that would be built in the Cut. The construction would not involve blasting and would need to be supported by barges operating in Government Cut. The number of barges to be used and the duration of use is not known at this time. At this point, WASD does not believe that the capacity of the new sewer line would change from what is currently available to the City. The cost of the new 54-inch sanitary sewer line is estimated to be 45 million dollars.

The impact of WASD's change in project design is that the original Utility Tunnel project would be delayed at least until 2014. WASD indicated that it was still their intent to build the larger Utility Tunnel Project to provide for added capacity and sewer system redundancy; however, it would now be a part of the regular County Capital Improvement Project process. As the new 54-inch sewer line is not intended to be temporary, the future Utility Tunnel design would likely provide fewer pipes dedicated to sewer flow than the original design. The current design for the future Utility Tunnel, subject to change, is for a twelve foot tunnel with a single 54-inch sewer line and a reclaimed water line.

With the priority for the original Utility Tunnel Project no longer being driven by the Port of Miami dredging project, it was clear to the Miami Beach representatives that WASD was not certain that the future Utility Tunnel Project would be built as anticipated. The future or second Utility Tunnel Project would now have to compete with other Capital Improvement Projects at the County for resources and priority.

The uncertainty on the part of WASD as to when or if the second Utility Tunnel Project would be built creates a dilemma for the City, which was expressed to WASD, as to how the City is to deal with the City Coast Guard Booster Pump Station (CGBPS). In the original Utility Tunnel design, there was sufficient sewer pipe capacity that it did not seem to be necessary to proceed with the CGBPS. In the new approach to replace the existing 54-inch sewer line, the project only replaces current capacity. As such, there is an operating problem that at some point in the future the City would have to address. The same conditions that existed and were the reason for the City to pursue the CGBPS would be present if WASD delayed or did not build the future Utility Tunnel Project. If WASD proceeds with the second Utility Tunnel Project as planned (by 2014), the City believes that the CGBPS would not be necessary and, as the final solution (the second Utility Tunnel) is near term if built by 2014, there is only limited and acceptable risk on the part of the City not to proceed with the CGBPS.

The dilemma of course, is that the City must rely on WASD to proceed with a second Utility Tunnel Project as planned. In order to address this issue, Miami Beach representatives suggested to WASD that the City enter into an agreement with the County to provide for the second Utility Tunnel within an agreed upon time frame and, in the event that WASD did not pursue the second Utility Tunnel, WASD would then assume the responsibility and cost of building a booster pump station to address the City's needs.

Not having to build the CGBPS as a result of having the larger Utility Tunnel that was originally planned by WASD, or the timely construction of the second Utility Tunnel Project, is the best option for the City. In the event that the Utility Tunnel project does not get built as indicated by WASD, one of the next preferable options would be for WASD to assume the responsibility and expense for the project.

In order to help WASD assess what risk they might be assuming by virtue of an agreement as outlined, the City agreed to develop and to provide operating capacity calculations on the City sewer system. The operational information will help assure WASD that the City system could operate safely for a short period of time without the need for a booster pump station.

WASD indicated that they would consider the City's suggested agreement. While WASD has indicated they would consider an agreement, it is very likely that the assistance of our Elected Officials and citizens will be needed to help WASD move affirmatively.

This meeting was also the first time the City was able to discuss with WASD the reclaimed water element of the Utility Tunnel Project. WASD indicated that a plan was not yet fully developed for the reclaimed water that was included in the Utility Tunnel Project. Current thinking by WASD is that the water might be used to provide less expensive water for the larger Condominium buildings in South Pointe for use in cooling systems in lieu of potable water. WASD recognized that the City has no infrastructure in place to use reclaimed water at this time. The reclaimed water element may change in the future design, as WASD will need to develop a plan for reused water that can be applied to the entire WASD system, and this specific pipe may not fit in those plans.

The City will be developing the required operating information to provide to WASD as soon as possible. Shortly after that data is provided to WASD, the City will again meet with WASD to continue discussion of an agreement that would provide for a commitment on the part of WASD to pursue a second Utility Tunnel and, in the event they do not proceed with that second Utility Tunnel

Project, for WASD to assume responsibility for the construction of a Booster Pump Station to address the City's sewer system operational needs. It is anticipated that discussions will proceed quickly enough that the City Commission can take action, if needed, at the January 13, 2010 City Commission meeting.

As more information becomes available, it will be forwarded to the City Commission. If you have questions, please feel free to call me or Assistant City Managers Robert Middaugh or Jorge Gomez.

JMG:RCM

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