

September 29, 2020

Mr. Dean Scott, Chairman
Maricopa Consolidated Domestic
Water Improvement District
P.O. Box 209
Maricopa, AZ 85239

RE: Response to City Manager email of August 31, 2020.

Dear Mr. Scott:

On Monday, August 31, 2020 Mr. Ricky A. Horst issued an email with questions and comments regarding a draft IGA for Inspection and Flow Testing of District Hydrants (IGA) prepared and promulgated by the District on July 29, 2020 in response to a draft IGA for Inspection and Flow Testing District of Hydrants prepared and promulgated by the City's Fire Department. On August 31, 2020 the District's Office Manager, Sara Sheehan, provided an email response to several of Mr. Horst's questions regarding Sections 1, 2. (A), 2. (B) and 4.

Within Section 2. (B) it states “ *District agrees, (at) its sole cost of regular maintenance and repair its own System Blow-off equipment as soon as reasonably possible and as applicable. The District has sole discretion to deem unsubstantiated, unnecessary, or too costly of repair or replacement of equipment deficiencies. District is under no obligation to take corrective action or make repairs identified by City, Fire Department or 3rd party contractor of those parties. District will promptly notify the Fire Department designated contact of repairs to “Out of Service” System Blow-off equipment.* Mr. Horst questioned what the definition of is “**reasonably possible**”. It should be noted that this is undefined term pulled from the draft IGA document initially prepared by the City Fire Department. Should a definition for this term be needed it should be a discussion item between the District staff and Fire Department staff. The City Manager feels that there is a need for a definition of the term “**promptly**” as it relates to repairs of out of service equipment. Prompt notification would be a function of availability of parts, equipment, and manpower as well as when the repairs were completed which would make defining this term ambiguous at best. However, as he has noted, a non-functioning hydrant should be marked in the field using a standard method such as an “out of service ring”.

Under Section 4. the City Manager expresses a concern that by having to account of water released from hydrants that the City will have to pay for water used during flow testing, firefighting, fire suppression and training. The Water District is required to annually report all water usage to the Arizona Department of Water Resource showing the total amount of water pumped from wells, the total metered amount water used by customers together with other documented uses of water and report the difference between the two volumes as unaccounted for water loss. Water providers are limited by the Department as to the maximum percentage of lost or unaccounted water and subject to penalties should they exceed this cap. Consequently, it is important that the District have a reasonable accounting of unmetered water usage by the City Fire Department.

The intent of the Intergovernmental Agreement both in the Fire Department's draft and in the District's version is to create a working relationship between the District and Fire Department with respect to insuring the adequate maintenance and operation of the flushing hydrants to provide for proper drinking water quality and fire suppression. However, the City Manager has endeavored to move the IGA beyond this

goal by raising an additional 12 issues not related to the maintenance and operability of the hydrants but to the District's capability to provide fire flow and suppression to new developments and redevelopment. These 12 additional elements should be a separate discussion and possibly the topic of a separate intergovernmental agreement.

Under additional discussion Item 1. the City Manager is requesting the "right to review all dated related to any water improvements and system capability to meet new development or redevelopment/building enhancement of modification requirements" as well as "to have all data verified by the District and stamped by the Engineer of Record". The City already has the opportunity to do what is being requested. The City's development standards require that a developer submit a water design report prepared by a registered Civil Engineer of Record for water system improvements related to his proposed project for City staff review which would provide the data that is being sought.

Under Item 2. the City Manager would have all data verified by the District and stamped by the Engineer of Record. It is not the District's responsibility to verify the validity of a proposed projects design data. That is the function of the design Engineer of Record. During the normal course of a project's review and approval by the District, the Developer is required to submit to a water design report prepared and sealed by a registered Civil Engineer for the water system improvements related to his proposed project. Such a design report typically outlines the domestic and fire flow demands of the proposed project, identifies the District's existing system flow capabilities through third party flow tests and provides the results of a design flow model for any new main extensions that might be required.

Item 3. indicates that the City is to have access to the District's Water Supply Plan, reporting of system capacity and the ability to meet peak water demands and fire flow conditions. Mr. Horst has previously stated that he will not acknowledge the validity of water system capacity information provided by the District. If the City choses not to accept the validity of flow and storage volumes provided by the District, then it is incumbent on the City to fund an independent third-party engineering capacity analysis.

Under Item 4. Mr. Horst requests a clear indication as to whether or not it is the District's intention to provide fire flow and fire suppression capability. District has previously stated that it intends to continue to provide fire flow and fire suppression capability to at least the minimum flow volume, duration and pressure level previously identified by the City. This is borne out by the numerous current flow tests of District hydrants that demonstrate flows in excess of the minimum flow rates established previously by the City.

Under Item 5. it is not, however, District's responsibility to provide fire flow volumes and pressures as a function of the type of construction and effective area, type of occupancy, the exposure of hazard of adjacent buildings and the communication hazard with adjacent buildings. It is the responsibility of the City to address these issues through the proper application of the adopted fire codes. These codes identify the minimum separation of structures for varying types of construction and occupancy, reduction in required fire flow volumes and pressures based on the use of fire sprinkler systems and the use of alternate types of fire rated construction. No public, municipal or private water provider is required to make substantial monetary investments in system upgrades and improvements merely because a City wishes to make development as financially attractive and inexpensive as possible in the name of economic development.

Under item 6 of the City Manager's email with respect to ISO ratings it is not the responsibility of the District or any potable water provider to meet ISO standards or requirements which are subject to change over time. Achieving a given ISO rating is not a requirement but is discretionary and in the purview of the City. If the City choses to pursue a given ISO rating, then it is incumbent on the City to fund whatever improvements to the water system are needed to achieve the desired rating. The City is welcome to enter into an another IGA with the District to provide the funding for water system enhancements similar to the

prior IGAs that financed the District's second water storage tank or the water main enhancements on the District's south side which was done utilizing Community Development Block Grants.

Under Item 7. Mr. Horst again raises the issue of the District electing not to provide fire flow and fire suppression services. As was stated previously under Item 4. the District fully intends to provide fire flow and fire suppression capability to at least the minimum flow volume, duration and pressure level previously identified by the City.

Under item 8. of Mr. Horst's email indicates the need for procedures to use City rights-of-way citing repairs to City infrastructure including landscaping, roads, sidewalks, etc. caused by water leaks, repairs, etc. The District similarly needs to have a procedure in place for City use of rights-of-ways, alleys and easements to which the District has senior rights for damage caused by the City's Public Works Department, landscape maintenance crews and street improvement projects.

Item 9. requests coordination of the District's Capital Improvement Plan with the City and the City's plans with the District to coordinate project schedules and avoid cutting newly surfaced roads, etc. It should be noted that the Water District's service area is substantially built-out. At this juncture any new water main improvements proposed under the District's Capital Improvement Plan for the McDavid Planning Area will occur outside of City street improvements while any new water main improvements proposed under the District's Capital Improvement Plan for the Lexington Planning Area will become the responsibility of the Developers proposing projects in this area. It should also be noted that the City's monthly utility coordination meetings has provided a forum for City Staff and the District's Engineer to coordinate on pending City projects to avoid future conflicts with street improvements. This is exemplified by the collaboration between the City and District with respect to the Roosevelt Avenue and Lexington Avenue paving project. The District worked with City Staff to complete water main extensions on Roosevelt Avenue and across Lexington Avenue in advance of street work so that future water main extensions by developers would not require cutting of new pavement.

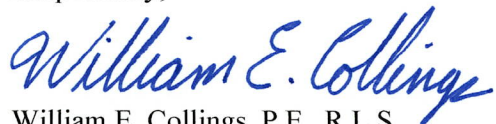
Under Item 10. the City Manager requests "*explanation as to why the District Engineer of Record called out a Fire Hydrant Specification and Specifically a "Mueller Super Centurion Hydrant" one of the most expensive hydrant on the market to replace previous hydrants if it is only to serve as Blow-off equipment*". The District Board in 2007 put in place a long standing policy that "each fire hydrant installed after January 1, 2008 shall include an anti-terrorism valve design to protect against accidental backflow and intentional contamination of drinking water via the hydrant." Contaminants and toxins can be introduced into the public water system via a hydrant through a hydraulic process known as the venturi affect. Contaminants, poisons, drugs, and other harmful compounds can be inserted into one of the nozzles of a dry barrel hydrant and then, with the hydrant caps back in place, the hydrant operating nut can be used to open the hydrant foot valve filling the hydrant with water. The venturi affect can then pull the water laden with the undesirable materials into the water main. Once the District Board became aware of this issue in 2007, the potential health risk to its customers and the significant associated liability were an incident to occur they implemented the current policy. Whether a hydrant functions as a piece of firefighting equipment or as a blowoff the potential for system contamination is the same. While the requirement for the integral anti-terrorism valve is called out in Note 17 of the District Water Main Notes required on all water main construction plans it does not require the use of a specific brand of hydrant. The selection of a hydrant that meets the requirements of the District is left to the water line contractor.

Under Item 11. Mr. Horst states that it is his "*understanding that the only agreed upon change to the draft I/GA is to change the name from Blow-off Equipment to that of a Flushing Hydrant.*" Since the second meeting to discuss the IGA was canceled by the Fire Department and no subsequent meeting has been scheduled it is not possible to determine if that is the only agreed upon change to the IGA.

Under Item 12 the City Manager states that *“regarding the Sonoran Creek Development project, we have checked with the developers and the Developers Engineer of Record has stated that the District cannot provide the minimum flow (1500 gallons) for the development. The District will not allow this project to be served by Global Water and therefore he will propose a solution incorporating a booster concept. Therefore it would seem that both the District and the City is waiting to see the specification in support of a booster concept.”* Mr. Horst’s comments are not supported by either the independent flow tests that were conducted on behalf of the Developer or by the Water Basis of Design Report prepared and submitted by Rick Engineering, the Developer’s Engineer of Record. Both the independent flow tests and the design report indicate that there is in excess of 1500 gpm of fire flow available for the project which is further supported by the results of water system modeling included in the appendix of the report. The water line plans submitted to the District for its review do indicate a booster pump room in the main tenant building but shows that it is fed by a 2-inch domestic water service line, not a fire line. When questioned about the need for a booster pump the project engineers for Rick Engineering indicated that they did not propose the booster pump as a solution to insufficient fire flow capability by the District and that they did not know what the need or function of the pump would be or why it would be served by a domestic water service line. They indicated that their civil water plans only show the booster pump room because that was what was shown on the Architect’s building plan.

Should you have any questions with regard to the forgoing discussion items please do not hesitate to contact me.

Respectfully,



William E. Collings, P.E., R.L.S.
Vice President / District Engineer