Mayor’s Column

January 19, 2016

In a very positive demonstration of School District/Local Government collaboration, the FEMA funded flood mitigation project is just weeks away from shovels in the ground.

The road to this point has not been an easy one. Since our initial application to FEMA, post the devastating storm of 2007, and the actual bids received for the flood mitigation project in late 2015, costs have risen significantly.

As background, FEMA originally approved the funding of a $6.9 million mitigation project for Bronxville with FEMA contributing approximately $5.2 million or 75% of the cost. The School District and Village would each expend $861,238 to fund the 25% local share. Based on actual 2015 construction bid costs, the estimated 2007 numbers, only conceptual in nature and time, have risen by $1.7 million.

As background, the projects primary components are as follows:

* A Stormwater Pump Station designed to capture and deliver excessive rain runoff to the Bronx River before flooding occurs.
* Dedicated Forcemain Pipe that will operate as a closed system under positive pressure to convey captured runoff from the pump station to the Bronx River.
* Below Grade Stormwater Piping Network under Hayes Field designed to attenuate the peak rate of runoff delivered to the pumping station.
* Flow Diversion Structures designed to redirect excessive stormwater runoff from the existing 72 inch and 36 inch trunk lines feeding the pump station and below grade storage piping network.

Trees to be removed to facilitate the above construction include one 10” caliper fir; three maples with less than 6” caliper and four small cherry trees. Three times as many trees will be replanted in a comprehensive landscape plan.

At every stage of the now nine year process, the School and Village shared the numbers as we knew them from FEMA. As is custom, FEMA’s operational method of estimating costs was based on conceptual designs not actual conditions at the time of the grant application in 2007.

As a result, after conducting all of the necessary on site topographical evaluations necessary to actually bid the project in 2015, the following were the major cost drivers affecting the final cost projections:

* After an indepth soil boring analysis, the soil conditions on Hayes Field were so silty and wet that the pumps required additional piling supports adding $300,000 to the original FEMA estimate.
* Environmental standards have become more stringent since 2007, even since 2011, and now require us to stabilize a portion of the Bronx River/Laurel Brook Stream bank with a stone wall to shore up a 30 inch diameter sanitary sewer main that is now partially exposed due to prolonged bank erosion.
* All of the environmental concerns necessitated a myriad of agency permits that added time and expense to what was already a lengthy bureaucratic process.

As just a sample, permits were required from:

* US Army Corps of Engineers
* New York State Department of Environmental Conservation
* Westchester County
* City of Mount Vernon
* NYS SPDES (State Pollutant Discharge Elimination System)
* After doing extensive subsurface geotechnical work, it was determined that the conventional trench method of piping would not work in the Village due to our small size and consequential labyrinth of underground utilities. Because of the space constraint and the age and fragility of our sanitary sewer and utility conduits (some 100 years old), it was determined that the 400 feet of the new flood piping conveyance system would have to be trenchless, adding $1.486 to the cost.
* FEMA also used the ENR (Environmental and Natural Resources) Heavy Construction Cost Index numbers from 2007 – the time of the initial application. The recent bid projectins were based on 2015 numbers which showed a 17.95% increase in material costs. Compounding this number is our particular regional phenomenon so dubbed “The Tappan Zee Effect.” Because over 250 contractors are employed using an unprecedented amount of materials on one project, local construction supplies at a premium, and many contractors are employed for a significant duration. As a consequence, fewer contractors are bidding on projects and are less aggressive in pricing.

In the end, we had four bidders, two in the twelve million dollar plus range.

* FEMA also removed the $300,000 contingency line from the project despite the unique set of variables.
* The Bronxville School environs also have much shallower groundwater conditions than the National model necessitating a construction “dewatering” cost $260,000 above the anticipated norm.
* All of the above modifications naturally then contributed to increased design and engineering costs.

However, bottom line, we can’t lose sight that when all is said and done, we will have a state of the art flood mitigation system for not only our school campus and the nearby neighbors, with a majority of the project funded through a federal grant. In the history of the Village, we have never seen a grant even approaching the magnitude of this dollar amount.

After losses in excess of $35 million to the school and nearby neighbors, you as residents rightly tasked those of us in positions of governance to, “fix it.” This project is the result of that directive.

Those of you who lived through the floods in 2007 and 2011 remember the loss of two full weeks of school leading up to the AP exam schedule for the high schoolers, the destruction of musical instruments, computers, art projects, student records and just as important an indefinable loss of momentum and morale in the community.

This big picture, long term solution that was indeed mired at times in bureaucratic morass will hopefully allow all of us to view rainstorms, not with the angst and trepidation that we will do today, but with comfort and confidence.