Good evening,

My name is Elia Machado. I am a New York City resident and a professor of Geographic Information Systems (GIS) and remote sensing at Lehman College, where I also serve as the interim director of our Master’s of GIS science (MS-GISc) and coordinator of the internship program.

I am here to testify in support of the proposal submitted by GISMO and to emphasize why strengthening New York City’s GIS capacity is necessary to better serve its citizens and the City’s use of resources.

But first, I want to thank you, commissioners, for your consideration on this issue throughout all the borough meetings. I am aware that many of you are not familiar with GIS and I want to invite you to discuss more about it and to see the work of our students.

GIS enables the spatial visualization and analysis of data and has become a critical component of decision support systems. Although its importance may have gone unnoticed by many, GIS has already permeated many aspects of our daily lives and has become pivotal to our security and our economy. Common examples of GIS applications include how to get from point A to point B in the most efficient manner, but also important applications such as 311 and 911 that rely on GIS technology. My colleagues from GISMO have already provided detailed accounts of how GIS helped save lives during 9/11 and Sandy in previous hearings.

It is not surprising, that over the last decades, GIS has increasingly been used in New York City and many other cities in the world. More than 40 students have graduated from our master’s program since 2015, and I am proud to say that the majority of them have had internships and now hold positions using their GIS expertise at several city agencies. These include the Department of Information Technology & Telecommunications (DoITT), the department of Transportation, the Parks department, the Police department, and the department of Environmental Protection, among others.

Through our work, we have become well aware of the opportunities and challenges of working with GIS in New York City. These include limited coordination among city agencies, the absence of a GIS leader and strategic plan to guide the City’s GIS efforts, and missed opportunities to share good practices across agencies.

We do not know when the next superstorm or emergency will hit, but we know that it will happen and we need to be ready. We have a unique opportunity this year to strengthen GIS capacity in New York City to better respond to emergencies, use our resources more efficiently, and improve the day to day services to its citizens.

For these reasons, I urge you to support the amendments to Chapter 48 of the City Charter.

Thank you.