The University of Massachusetts Medical School (UMMS) and its clinical partner UMass Memorial Health Care, comprising 5 hospitals, work in tandem to train medical professionals while delivering care to a large and growing patient base. The two entities have a total of thirteen campuses located across the state with a portfolio mix of academic buildings, research facilities, hospitals, health clinics, and administrative offices.

Since both organizations were charged with combining administrative operations such as space and lease management – and consolidating those and other functions using a single centralized technology platform – ARCHIBUS was chosen.

The ARCHIBUS implementation will ultimately create an online geospatial portal. That portal would contain all up-to-date space, lease, mapping, and robust Facilities & Administrative (F&A) cost survey information to help manage the organizations’ nearly 8 million square feet of space, 146 owned and leased buildings, and almost 300 acres of land.

UMMS Senior Director of Space Planning and Management Scott Shader, UMass Memorial Director of Strategic Space Planning Kathleen Hylka, and project co-manager Amy Miarecki, Director of Post-Award Administration & Compliance at UMMS, combined their expertise to create an effective methodology and durable technology solution.

Three-Phase Project, One Geospatial Goal

“The three-phased program starts with an ARCHIBUS implementation for space, lease and move management. That would be followed by the introduction of a GIS solution from ESRI for campus mapping, and would conclude with the integration of the two platforms to create a complete geospatial portal,” explains Shader.

The project began by collecting, verifying, and consolidating all space and map data which will also be linked to campus PeopleSoft and Infinium information.
Until recently, the annual space survey had been completed using a detailed paper-based survey, or an Excel space spreadsheet, but a new online survey was developed by Financial Service’s Amy Miarecki and her team to streamline the process.

“That manual survey used to take three months to finish but we replaced it with the online space inventory survey using ARCHIBUS, which we estimate will cut the data collection time in half,” says Miarecki. “The survey is used for A-21 reporting, which helps us maximize reimbursement of research costs, but we also do other reporting such as the Space Productivity survey done by Scott’s group. Department chairpersons get a Space Productivity report so they and their deans can decide if additional space is needed and what standards for space and productivity should be implemented. But as far as our surveys are concerned, all our administrators think we have a much more efficient process now.”

Space data, as well as floor plans and other related information, now reside in a central ARCHIBUS data repository integrated with PeopleSoft personnel and financial data. In addition to dramatically cutting survey time, facilities managers spend less time collecting data and more time analyzing data quality.

To better manage leased properties, ARCHIBUS Lease Administration eliminates time-consuming and error-prone manual processes and supports Web-accessible lease dates and milestones while making it readily available from a central database. ARCHIBUS Enterprise Move Management, featuring instant database updates, is being planned for implementation to streamline all moves.

Blending GIS with Facilities Management

UMMS and UMass Memorial also improved upon their previous approach to campus mapping. CAD drawings, for example, were being used as campus maps; as-built plans were all on paper or Mylar; no building footprint data was available; and floor plans were without geographic context. To make matters worse, many different versions of campus maps were in circulation. To remediate the mapping challenge – one that began with CAD staff having to use tape measures to manually establish dimensions of, and distances between, buildings – a key advance was transferring AutoCAD drawings to a coordinate system, then scaling, rotating and importing them into ESRI’s ArcGIS Server.

There is much more to come in the evolving GIS implementation, says Shader. “Our intention is to integrate GIS with our leasing, MAC and space survey, as well as make our entire space and GIS resource more robust to enhance management and analysis.

“We’ll also be working on collaborative projects with UMass Memorial and other UMass Medical departments. Among them will be integrating 360-degree interactive and immersive virtual tours for way-finding, both outside and within building footprints, which are also linked to ARCHIBUS, along with a connection to the campus’ new BIM implementation.”