



# THE *American* Surveyor

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Fall 2004

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# ProFile

By Marc S. Cheves, LS

## A Visit With S.J. Martenet in Baltimore

**N**ot far from Orioles Stadium at Camden Yards where the 19th century foundations of Babe Ruth's boyhood home lie buried

beneath the ballpark, a grand brownstone mansion-turned-office-building on St. Paul Street houses the offices of S.J. Martenet and Co., one of the oldest firms in the country. Founded in 1849, Martenet's archives hold foundations of another sort—volumes of historic survey records that document the growth of Baltimore City and beyond. One of the company's principals is our own Associate Editor, Joel Leininger. Leininger, of course, is well-known on the national lecture circuit and has written scores of articles and essays on survey-related matters, but we thought readers would enjoy a more personal visit and a close-up look at some of the interesting things his company does.



Leininger was first attracted to the profession after taking a surveying class at the Baltimore Polytechnic Institute where he attended high school. He

also served as a surveyor in the Marine Corps Reserve. Early in his career, Leininger would spend his Saturdays poring over law books and case law at the Pratt Library. He has many boundary law and Maryland history volumes in his library today (see images). Says he, "The rules governing our practice have their origin in those books. How can we afford not to have them at hand?" As a result of his self-study, Leininger knows his subject very well, and is highly regarded as a boundary surveyor among the title community in Maryland. (He is also a computer programmer, and wrote the accounting package the firm uses, as well as coding for the firm's digital records archives.)

Because of their experience and extensive records, the Martenet team is able to concentrate the major portion of their work on commercial title surveys, boundary resolution, topography, and litigation support. As a licensed Maryland surveyor myself, I can personally attest to the value of



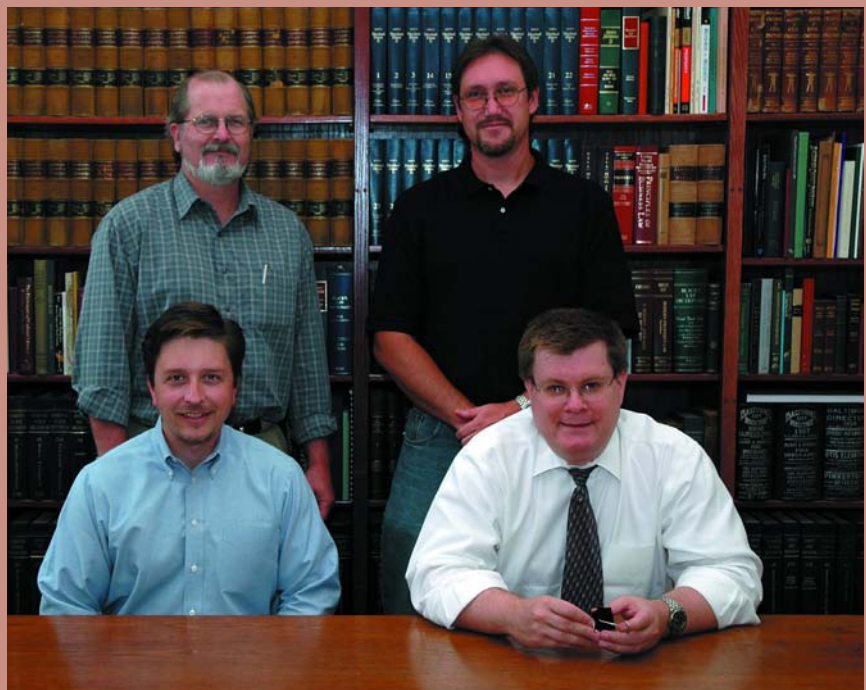
Martenet's records. Before becoming involved in the magazine business, I had occasion to do a survey in Baltimore in the early 1990s. At the time, Martenet's records were available to any surveyor for \$55 per hour. I gathered up all the information about my subject tract, and even though Martenet had not surveyed my particular parcel, they had surveyed all around it. We did our field work, and tied in everything Martenet had surveyed, including work that had been done back in the 1920s. Back then, Baltimore surveyors worked in fractional feet, not tenths and hundredths. Once we had computed our field work, we were amazed to find that everywhere we turned—even two blocks away—we hit the 1920's locations within a quarter of an inch. Needless to say, it was one of those surveys where we had no doubt we were re-establishing our boundary in its correct location. Naturally, access fees to Martenet's records have gone up since I last accessed them, and their methods of research have changed as well. Today the company charges \$85-95 per hour for a Martenet employee to do the research, and because they have created digital indexes and images, most of their research takes no more than an hour or two.

The company is currently involved in an ongoing program to convert all of its records to digital form. (See more about this project in the sidebar.) All the records will eventually be available online, thereby saving visitors a trip to Martenet's office. Leininger showed me a PDF version of one set of records, which at 35 pages, looked very complete. Martenet will make its records available for sale, even if the company is not selected for a job, albeit at a higher fee. Given that, heaven help the surveyor who finds himself in a dispute with Martenet on the other side, and who didn't bother to consult what the archive contained. A proper survey, after all, requires having the right records, and Martenet is a prime resource for such records. The firm also requires a copy of the finished plat or boundary worksheet as a return product, which then gets indexed and incorporated into the archive to benefit future generations. Leininger adds, "We don't believe in the value of records because we're sitting on top of a trove of

## The Maryland Licensing Wrinkle

**T**he firm of S.J. Martenet has been caught up in an interesting wrinkle in the Maryland licensing law. Of the four principals, only Leininger is a licensed surveyor. Historically, Maryland, like many states on the East Coast, incorporated road and storm drain design into its surveying license. In the 1970s, because of a perceived lack of candidates having that sort of design experience, the state legislature created a second surveying license that was identical to the original except that it eliminated the "minor engineering" component. After that time, most newly licensed surveyors opted for the newer license, which was more consistent with the actual workload in many surveying offices. In 1990, Maryland changed its law again, and eliminated further issuance of the newer non-engineering license. Thus, until recently, candidates for licensure had to submit evidence of experience in road and storm-drain design, something that most surveyors could not accumulate,

because market realities dictated that engineers perform those services. The pool of Maryland licensed surveyors diminished because almost no one got licensed for a decade. That requirement has recently been relaxed such that classes can be taken in lieu of experience to meet the requirement. Today, after satisfying the Maryland Surveyors Board that they have the necessary experience or education, those applying for a Maryland surveying license must also take a separate exam that tests knowledge of road grade and storm drain design. For surveyors who have no desire to do anything but surveying, the burden is onerous. Because of this, not one of the other three principals at Martenet is licensed, although all of them are highly qualified and in the process of obtaining the necessary education and sitting for the exam. Unfortunately, it is the public that is the real victim here, because only two or three new licenses have been granted each year since the change took place.



**Standing L-R:** Tom Wilhelm and Jeff Howard  
**Seated L-R:** Dave Paplauckas and Joel Leininger



### Boundary law begins here.

them, we're sitting on top of a trove of them *because we believe in their value.*"

In a wide-ranging discussion, Leininger outlined his philosophies on surveying. First and foremost, he believes that surveyors are not going after all the work available to them. In his column in the May/June issue, he decried the surveyor who threw up his hands and told the client, "That is outside the scope of my practice, you'll have to consult with an attorney." Because survey and boundary law are no longer being emphasized in law school, attorneys are increasingly relying on surveyors for expert assistance in this area. Leininger cites adverse possession as an example: a surveyor can know the elements, and is able to ask the questions and find the facts, therefore he or she *could* offer an

opinion, if willing to widen their focus. He also poses a number of questions: Why is it assumed that only title companies are allowed to render opinions? Is this self-imposed by surveyors? Are there legal requirements to support this assumption? He firmly believes that surveyors must be *more* than mere fact finders, and he and his partners have built a very successful practice around this belief.

Leininger cautions fellow surveyors not to become too narrow-minded, or too focused on what he calls the "pocket protector," or technical aspects, of our profession. To this end, he has branched out into planning, zoning and land use opinions. He believes surveyors are just as qualified as anyone else to do this, and argues that it all comes down to subject matter knowledge and the trust factor: do your clients trust your judgment on the subject? Leininger emphasized that he is not talking about merely shifting the liability to the surveyor, but rather participating in the process, and using our unique knowledge to expand our realms of practice. Leininger believes we have far more in common with the title attorneys than we do with civil engineers, but we need to become better communicators.

When I asked him if there was a "secret" to success, he listed the keys: meticulous execution on every project, knowing your subject well, and being able to convince others that you are worthy of reliance. It's a formula that has preserved the foundations of S.J. Martenet & Co. for more than a century and a half, and promises success for generations to come. *A*



## History of the Firm

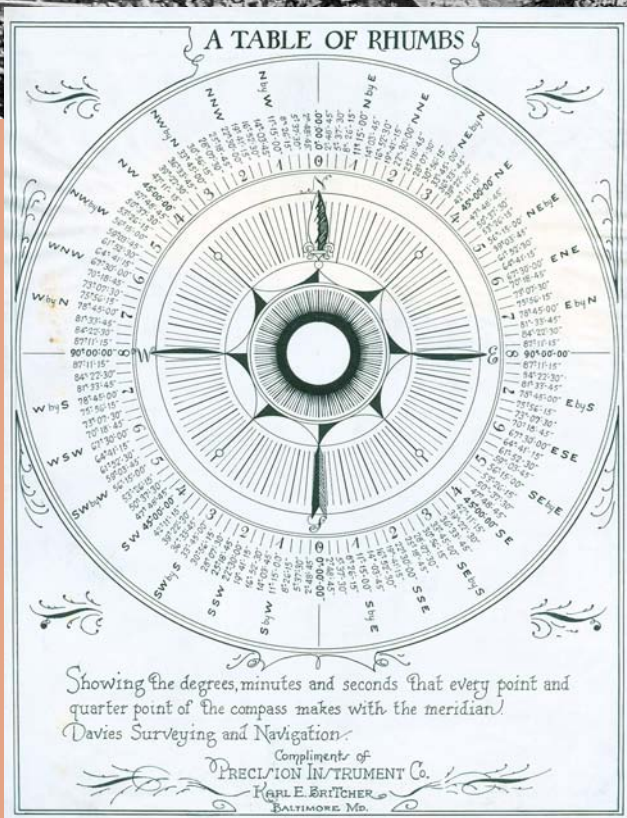
**L**ike many early-day surveyors, Simon J. Martenet was a man of many talents—surveyor, civil engineer, mapper, and real estate agent. His name is most often associated with the Maryland atlases he published in the latter half of the 19th century, even though firm records show that the atlases were but a small part of the overall operation. The bulk of the work consisted of property surveys, topographic surveys, and new development layout—in short, typical surveying activities both then and now. Martenet was elected City Surveyor six times. As a developer, he had a hand in dozens of developments throughout Baltimore City and County, many of which are thriving communities to this day.

Following Martenet's death in 1892, the company's four principal assistants—Harry Javins, Septimus Tustin, Howard Sutton, and William Atwood—purchased the firm from his widow. Sutton and Tustin (and their descendants) ended up controlling the firm for more than nine decades; Atwood was elected City Surveyor. Samuel Thompson signed on in 1898.

In February of 1904 the Great Baltimore Fire swept through most of downtown Baltimore, leveling more than 80 blocks and destroying hundreds of businesses. S.J. Martenet was located in the Equitable Building, which was the first of Baltimore's new "skyscrapers" at nine stories tall. Although most of the oversized records were lost, while the fire raged nearby the partners of the firm loaded everything they could into wagons, including paper records, fieldbooks and instruments and carted them off. The building's interior was destroyed, but the facade remained intact, and rebuilding commenced immediately. Martenet's records were considered the best evidence for the re-establishment of the downtown area.

George Wimmer and Howard Tustin joined the firm in 1906. In 1943 Thompson and Wimmer died within a





**Above:** The shocking aftermath of Baltimore's 1904 fire.  
**Left:** Table of Rhumbs drafted by Karl Britcher. Deeds for patents from the 1600s used navigational bearings, and the table was used to convert to numerical values for calculation purposes.

month or so of each other (Wimmer died from typhoid a couple of weeks after water in a gutter splashed into his mouth while driving an iron pipe) and Tustin found himself unable to keep up with the demands of the business. He asked Howard Sutton, son of the former partner to merge his company, Sutton, Britcher and Co., with Martenet. Tustin and Sutton were charter members of the Maryland Society of Surveyors when it began in 1947, with Tustin serving as its first president. After World War II the partners decided to get out of

land development because they felt the process had become overly politicized and not financially worthwhile. With this decision, the firm was no longer the largest in the state, but it continued to concentrate on city and county surveys.

Tustin's sons, Howard Jr. and Richard, joined the firm after the war, and were the first to be able to retire from the business. In 1988, Leininger, along with partners Dave Paplauckas and Tom Wilhelm, purchased the assets from the Tustin brothers and incorporated the firm. After a four-year joint venture with another Baltimore firm, Purdum and Jeschke, a fourth surveyor, Jeff Howard, left Purdum and Jeschke and joined as

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**BATTLE MONUMENT.** WHEELWRIGHT, MUDGE & CO.

**PAPER AND SIG DEALERS.** Calvert and Fayette Sts. S. E. Corner Sharp and Lombard Sts.

**FORD'S GRAND OPERA HOUSE.** FAYETTE, near Easton St.

**WHOLESALE NOTION DEALER.** 22 Hanover Street.

**SUN IRON BUILDING.** Cor. South and Baltimore Sts.

**WASHINGTON MONUMENT.** Charles and Monument Streets.

**JOSHUA HORNER, JR. WEICOURT THE BREWERY & BOTTLING.** Office, 54 S. Gay St.

**MARYLAND INSTITUTE.** Baltimore, opposite Harrison St.

**EXPLANATION BY COLOURS OF THE DIFFERENT HORSE RAILWAYS.**

**F. KLEMM'S MAP OF Baltimore and the Proposed Extension of the City Limits,**  
 COMPILED FROM ACTUAL SURVEYS BY S. J. MARTENET, CITY SURVEYOR,  
 Published by F. KLEMM, 75 Second Street, Baltimore, 1873.

**POPULATION.**  
 The census returns of the United States for Baltimore-Town and City, from 1790 to 1870, are as follows:

Year	Population	Year	Population	Year	Population
1790	13,000	1820	82,736	1850	119,654
1800	20,314	1830	89,625	1860	114,418
1810	35,682	1840	102,511	1870	207,499

**PRODUCTIONS.**  
 Productive industry of Baltimore as shown by the U. S. Census, 1870, exclusive of establishments, the value of whose production is less than \$500 per annum; establishments 2,261, hands employed 23,178, value of production \$31,106,278.

**PROPERTY VALUES OF BALTIMORE-TOWN, BALTIMORE-TOWN AND COUNTY AND OF BALTIMORE CITY.**

Year	Value	Year	Value
1850	\$2,922,870	1865	\$5,793,370
1860	188,565,765	1870	154,622,867
1862	126,991,025	1874	139,417,797
1864	84,242,292	1865	143,340,022
1865	21,703,822	1866	144,298,217
1866	2,099,819		

One of many maps produced either by the firm or based on surveys by the firm in the 19th century.

principal. In 1995 the firm acquired the records of another well-known Baltimore firm, E.V. Coonan and Co. In 2002, Martenet acquired the 50-odd years of survey records of Purdum and Jeschke.

Today, Martenet's offices are located in a beautiful 16,000 square foot brown-

stone mansion on St. Paul Street in downtown Baltimore. Perhaps they were meant to be there all along, for records show that S.J. Martenet and Company had originally staked out the building in 1885. Today, the firm occupies roughly 3,000 square feet; the building also



## Archives Overview

The Martenet archive consists of surveys and related records created by S.J. Martenet & Co. and other local firms during the second half of the nineteenth century. Between 1849 and 2000, the firm conducted approximately 60,000 surveys across the state, focusing primarily on the Baltimore metropolitan area.

The close working relationship between S.J. Martenet and the state of Maryland dates back at least to the Civil War, when the General Assembly passed a law mandating state and federal agency cooperation with Mr. Martenet in the preparation of his map of Maryland, which was to become the standard map and atlas used in all Maryland schools. The collection is without peer, complementing and enhancing the extensive collection of public records relating to land in the custody of the Maryland State Archives. The collection includes the individual project files containing title research and analysis, correspondence, computations, plats of the property, other notes regarding the survey and field books used during the survey, estate files and related indices, oversized plats, and related reference materials pertaining to the disposition of land.

The records of three other firms—Sutton, Britcher and Associates (circa 1920-1942), E.V. Coonan and Co. (circa 1910-1960) and Purdum and Jeschke (1950-2001)—are also contained within the collection, the records having been obtained by the firm over the years. The Coonan records also contain many original records from the Bouldin family, which surveyed in the Baltimore area from the 1790s to 1910. These sets of records consist of 5,320 rolls, 55,000 packets (files) and 1,500 fieldbooks for Martenet, of which approximately 25,000 packets and 510 rolls have been scanned. Coonan's records consist of 2,500 rolls, and have been indexed but not scanned. The Purdum and Jeschke



records have yet to be indexed or scanned. All in all, Leininger estimates that Martenet has spent \$100,000 thus far in making the records digital.

Several finding aids have been incorporated into the site to assist in identifying records of interest. Of particular importance to surveyors and others interested in specific properties is geographic indexing. Based on tax maps (and, in Baltimore City, block plats) it enables searchers to identify records of interest by simply providing the location of the place of interest. Searches can also be conducted by client name, agent name and intersecting streets. Extensive cross-referencing was incorporated into the archives to allow quick "jumping" to other data sets containing related material. Additionally, resources at the Maryland State Archives are incorporated into the archives where appropriate.

Because the firm is still actively engaged in surveying in central Maryland, it is continually adding to the archive. Records of surveys conducted subsequent to 1988, however, are not available as yet on the website.

*Continued >*



contains six apartments and an additional commercial space housing the Concert Artists of Baltimore. One of the apartments is occupied by a violinist for the Baltimore Symphony. While I was there, the sounds of her violin drifted pleasantly down the elegant 19th century stairwell.

## Digital Archive Project

The digital archive of the S.J. Martenet records is the product of an evolutionary process that began more than a decade ago.

In 1990, on a visit to the Pratt library, Leininger took note of a CD-based image retrieval system for back issues of magazines. Although pedestrian by today's standards, the system seemed revolutionary at the time. Using a full-text indexing system to identify the pages of interest, the system delivered *images* of individual magazine pages, not merely text files of the articles. Leininger suspected that such a system could be modified to accommodate the firm's archives, yet neither the technology for a large-scale scanning project nor the funding for it was within the firm's reach. Nevertheless, Leininger instituted the geographical indexing project that entailed reviewing every survey file, geographically coding its location, and entering the data into a database. This allowed for improved searching capabilities of the original records. With various employees working on the coding project off and on, it took more than 14 years to geographically reference the entire 60,000-record collection.

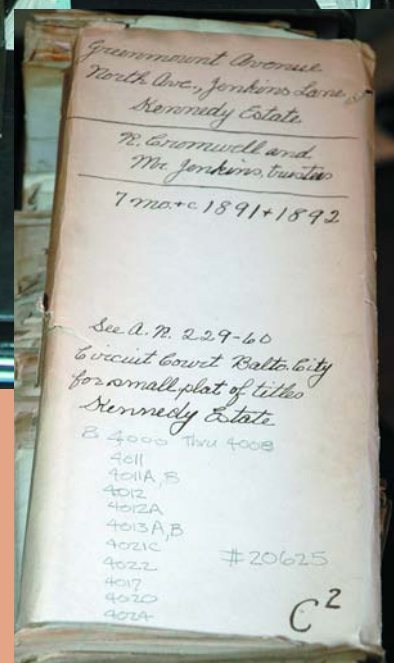
At the same time, Dr. Edward C. Papenfuse, Maryland State Archivist and Commissioner of Land Patents, was directing a series of projects at the Maryland State Archives that would deliver images of records in their collections in response to web-based requests. Papenfuse was familiar with the maps issued by Martenet in the latter half of the 19th century but was unaware of the current status and setup of the firm. Ironically, due to the loss of records resulting from the Great Baltimore Fire of 1904, much of what the contemporary employees of Martenet knew about the firm's 19th century mapping projects they gleaned from Papenfuse and Coale's *Atlas of Historical Maps of Maryland*. Although Leininger was generally familiar



with the Archive team's mission, he was not aware of its interest in preserving private survey records, nor of its digital capabilities.

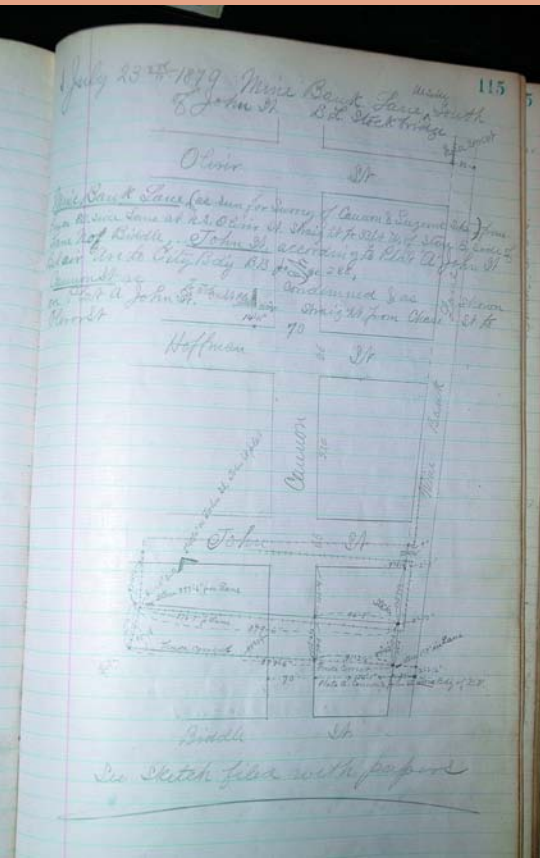
At the suggestion of a mutual friend, in 1998 Papenfuse arranged to visit Martenet's offices and there saw for the first time both the extent of the collection and its fragile state. He concluded at once that it would be in the State's best interest to attempt to preserve the collection; however, the cost of the undertaking was beyond what the Archives or Martenet budgets could absorb. Papenfuse therefore set about looking for funding sources.

The project would be beneficial for both organizations. The Archives would lend professional knowledge in the care and handling of a one-of-a-kind collection that could be preserved for future generations, while the imaging and retrieval system would provide a test bed for the development of similar projects for other organizations. The system would also yield a revenue stream.



Martenet would benefit from the faster retrieval of records, and geographic searches would be more complete and reliable than the old indexing methods. Also, depositing the original records with the Archives would place them in the care of professionals experienced in dealing with fragile documents and thus relieve the firm of the burden of preserving them. Insurance was also an issue. Policies for "valuable papers" only covered the cost of replacing papers that were destroyed. Since one-of-a-kind papers such as those in the collection could not be reproduced, there was no insurance available for the collection.



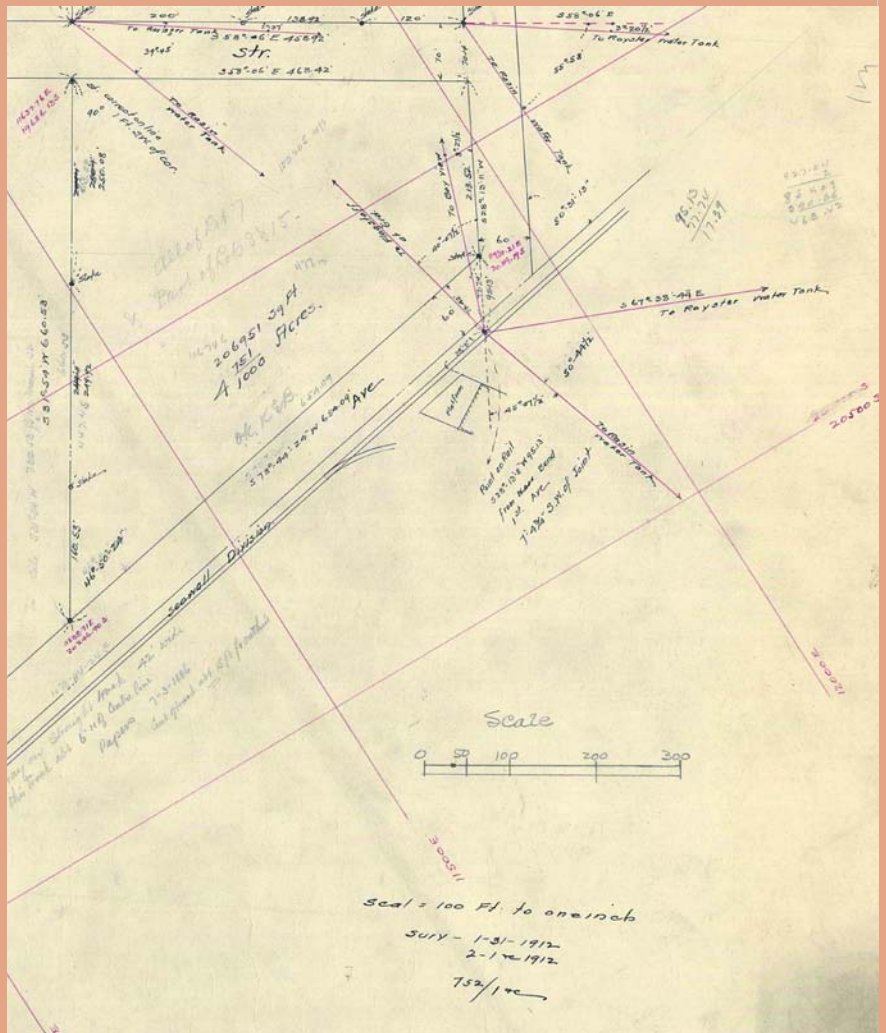


Martenet is still responsible for the “databases” necessary to manage the archive, and the State is still responsible for scanning the papers and creating the images, but the management of the archive has taken two separate paths. The State’s system is Windows NT-based, using Microsoft SQL Server and ColdFusion. Martenet’s system (coded by Leininger) is Linux-based, using Apache, PHP and MySQL. Both support “dynamic web page creation,” or the ability to create web pages and serve them to the browser on demand. This allows for maximum flexibility and efficiency in maintaining the archive. From the user’s perspective, one “surfs” the archive with a web browser.

The Archives team set up what ultimately became a seven-scanner/eight-workstation operation at Martenet, scanning images associated with the Martenet collection as well as images from other collections, including subdivision plats and related materials for the [www.plats.net](http://www.plats.net) project and State Highway plats for the [www.mdroads.net](http://www.mdroads.net) project.

The images are available from both sources, but the Archives may only offer them in its search room in Annapolis. Web-based inquiries must be directed to the Martenet site. As yet, however, the site is not exposed to the Internet at large, because the imaged part of the collection has not reached sufficient coverage of the collection to warrant going “live.”

**1912 calculation worksheet**



Efficiency was another benefit for Martenet. Typically, when other surveying firms requested information from their files, someone had to take time to retrieve the information. With a digital retrieval system, less human interaction would be required.

Months passed while the Archives group deliberated over the sources from which to request grants. Preservation Maryland awarded the two entities \$50,000 to purchase equipment and begin the project. The Maryland General Assembly committed \$14,000 for each of the next four years toward the project. The Archives committed to staffing the project and Martenet provided space and underwrote the cost of utilities in its newly-acquired facilities on Saint Paul Street in Baltimore. A high-speed DSL line connected the Baltimore facility and the Hall of Records in Annapolis.

In the years that followed, the interests of Martenet and the State diverged.