



**DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: «prefix» «first_name» «middle_initial» «last_name» «LnameSuffix» «Suffix»
 «title»
 «organization»
 «address1»
 «address2»
 «city», «state». «zipcode»

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: June 18, 2010

SUBJECT: MCAMLIS 82nd Steering Committee Meeting Materials

 Enclosed please find a set of materials that the steering committee will take up at its
 scheduled June 22nd meeting.

 I. Meeting Agenda

 II. Meeting Minutes of the 81st Steering Committee meeting held March 16th, 2010

 III. Reports

 A. Report materials related to the MCAMLIS Enterprise Address Project

 B. Report materials related to the MCAMLIS Milwaukee County Plats of Survey
 Project

 C. Report materials related to the Evaluation of Orthophotography Products; the
 2010 Regional Orthophotography Program; the Pictometry "AccuPlus"
 Orthophotography; and Oblique Imagery Products

 D. Report materials related to the status of the CDBG-EAP Grant application and
 LiDAR Data Acquisition Program

 E. Report materials prepared by SEWRPC staff on the status of MCAMLIS
 Floodland Mapping Project

 F. Report materials prepared by Milwaukee County DAS staff related to the
 MCAMLIS Fiscal status

 IV. Old Business

 A. Report materials prepared by the Register of Deeds regarding Senate Bill 507
 including Milwaukee County Corporation Council advice and recommendation

 V. New Business

- A. Report materials prepared by MCAMLIS Staff recommending a MCAMLIS 2010-2013 Strategic Plan
 - B. Report materials prepared by MCAMLIS Staff regarding revision of the MCAMLIS Data 'Requisition and Distribution Guidelines' and 'Copyright Policy'
- VI. Correspondence
- A. Email; David Baraniak, President, Trifecta Global Infrastructure Solutions, Ltd
 - B. Letter: SEWRPC Re. Control Survey Datum Transformations, dated 6/16/2010

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**MILWAUKEE COUNTY AUTOMATED MAPPING
AND LAND INFORMATION SYSTEM**

Eighty-Second Steering Committee Meeting

AGENDA

Date: June 22nd, 2010
Time: 9:00 a.m.
Place: Milwaukee Metropolitan Sewerage District
MMSD Hdqtrs, Room 401
260 W Seeboth St.
Milwaukee, WI. 53204

- I. Roll Call
- II. Meeting Minutes
 - Consideration of the minutes of the 81st Steering Committee meeting held March 16th, 2010
- III. Reports
 - A. Report by MCAMLIS staff on the status of the Enterprise Address Project.
 - B. Report by MCAMLIS Staff on the status of internet access to the Milwaukee County Plats of Survey
 - C. Report by MCAMLIS staff on the status of the Evaluation of Orthophotography Products; the 2010 Regional Orthophotography Program; the Pictometry "AccuPlus" Orthophotography; and Oblique Imagery Products
 - D. Report by MCAMLIS Staff on the status of CDBG-EAP Grant application and LiDAR Data Acquisition Program
 - E. Report by SEWRPC staff on the status of MCAMLIS Floodland Mapping Project
 - F. Report by Milwaukee County DAS staff on MCAMLIS Fiscal status
- IV. Old Business
 - A. Report by the Register of Deeds regarding Senate Bill 507 including Milwaukee County Corporation Council advice and recommendation
- V. New Business
 - A. MCAMLIS Staff report regarding preparation of the Land Information Strategic Plan
 - B. MCAMLIS Staff report regarding revision of the MCAMLIS Data 'Requisition and Distribution Guidelines' and 'Copyright Policy'
- VI. Correspondence

- A. Email; David Baraniak, President, Trifecta Global Infrastructure Solutions, Ltd.
- B. Letter: SEWRPC Re. Control Suvey Datum Transformations, dated 6/16/2010

VII. Date, time, and place of next meeting

VIII. Adjournment

82nd MCAMILLIS STEERING COMMITTEE MEETING ROSTER

Name	Organization	Phone	Fax	Email
KW Bower	Milwaukee Sewerage	262-547-6721	262-547-1103	kwbauer@sewer.org.
John Bennett	City of Milwaukee	414-425-7510	414-425-3106	John.H.Bennett@milwaukee.gov
Karen Gross	We Energies	414-385-6179	—	Karen.Gross@weenergys.com
Don Lehmer	MMSD	414-225-2196		DLehmer@mmsd.com
Nancy Olson	CITY OF MILWAUKEE	414-286-8710	414-286-2113	nancy.olson@milwaukee.gov
Pamela Booth	CITY OF MILWAUKEE	414-286-8795		pbooth@milwaukee.gov
Janine Bronson	City of Milwaukee	414-286-8709		hbranson@milwaukee.gov
Marcia Cornell	City of Milwaukee	414-286-2411		marcia.cornell@milwaukee.gov
Hardy Weisner	SDS	414 690-7090		rweisner@wi.pr.com
David W. Baranick	TRIFECTA	262-385-2301		david.baranick@trifectais.com
Sara Hackbarth	MMSD	414-225-2121		shackbarth@mmsd.com
GREG HIGH	MILWAUKEE COUNTY DTPW	414-278-4943	414-223-1366	ghigh@milwaukeecounty.com
GARY DEWITT	MILWAUKEE COUNTY	414-278-4836	"	gdewitt@milwaukeecounty.com
Josh Fudge	Milwaukee Co.	414-278-4139		jfudge@milwaukeecounty.com

MINUTES OF THE 81st MEETING
Milwaukee County Automated Mapping and Land Information System
Steering Committee

Date: Tuesday, March 16, 2010

Time: 9:00a.m.

Place: Milwaukee Metropolitan Sewerage District
MMSD Hdqtrs, Room O.J. Noer - A
260 W. Seeboth Street
Milwaukee, WI 53204

Members Present

Kurt W. Bauer, Chairman	Milwaukee County Surveyor
Donald R. Nehmer, Chairman Elect	Capital Program Business Manager, Milwaukee Metropolitan Sewerage District
Nancy A. Olson, Vice Chair Elect	Chief Information Officer, Information and Technology Management Division, City of Milwaukee
John M. Bennett	City engineer, City of Franklin, representing the Intergovernmental Coordinating Council of Milwaukee County
Gregory G. High	Director, Architecture, Engineering and Environmental Services Division, Milwaukee County Department of Transportation and Public Works, representing the Interim Director, Milwaukee County Department of Transportation and Public Works
Karen Gross	Representing John C. Place, Manager, Gas Engineering and Mapping, We Energies
John L. La Fave, LIO	Milwaukee County Register of Deeds
Josh Fudge	Fiscal Mgt Analyst Representing Cynthia Archer, Director of Milwaukee County Department of Administrative Services

Members Absent

Guest and Staff Present

Tammy Bronson	City of Milwaukee, Information and Technology Management Division
Pamela Booth	City of Milwaukee, Information and Technology Management Division
Phil Mroczkowski	City of Milwaukee

Gary E. Drent	Fiscal and Budget Manager, Milwaukee County, DTPW/AE&ES
William C. Shaw	MCAMLIS Project Manager, Milwaukee County DTPW/AE&ES
Kevin Bruhn	Milwaukee County DTPW/AE&ES
Hardy Meihsner	GeoDecisions
Kathleen Bach	Milwaukee County Register of Deeds

I. ROLL CALL

The Eighty-First meeting of the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee was called to order by Chairman Bauer at 9:00a.m. Roll Call was taken by circulating an attendance signature sheet and a quorum was declared present.

II. SPECIAL ORDER OF BUSINESS

II (a) Election of 2010 MCAMLIS Steering Committee Officers

Bauer: The committee is nominated Mr. Nehmer as Chairman and Ms. Olson as Vice Chairman.

Motion: Gross move for approval of Committee's Recommendation
Second: La Fave motion carried unanimous

III. MEETING MINUTES

III (a) CONSIDERATION OF THE MINUTES OF THE 80TH STEERING COMMITTEE MEETING HELD DECEMBER 8, 2009

Nehmer: noted that a copy of the minutes was provided with the meeting materials and asked if there were any corrections required?

Motion: Bauer moved to accept minutes
Second: Bennett motion carried unanimous

IV REPORTS

IV (a) REPORT BY MILWAUKEE COUNTY REGISTER OF DEEDS STAFF ON MCAMLIS STREET ADDRESS AND CADASTRAL MAP MAINTENANCE OPERATIONS.

Bach: directed the Committee to the report included with the meeting materials.

IV (b) REPORT BY CITY OF MILWAUKEE STAFF ON MCAMLIS CADASTRAL MAP MAINTENANCE OPERATIONS.

Bronson: directed the Committee to the report included with the meeting materials

IV(c) REPORT BY MCAMLIS STAFF ON THE STATUS OF THE ENTERPRISE ADDRESS PROJECT.

Shaw: directed the Committee to the report included with the meeting materials

IV (d) REPORT BY MCAMLIS STAFF ON THE STATUS OF INTERNET ACCESS TO THE MILWAUKEE COUNTY PLATS OF SURVEY

Shaw: directed the Committee to the report included with the meeting materials

IV (e) REPORT BY MCAMLIS STAFF ON THE STATUS OF THE EVALUATION OF ORTHOPHOTOGRAPHY PRODUCTS; THE 2010 REGIONAL ORTHOPHOTOGRAPHY PROGRAM; THE PICTOMETRY "ACCUPLUS" ORTHOPHOTOGRAPHY; AND OBLIQUE IMAGERY PRODUCTS

Shaw: directed the Committee to the report included with the meeting materials

Bennett: asked if the Pictometry images would be either 4" or 6"?

Shaw: Six inch - the requirement to go to 6" was due to the need to compare the 2 types of orthophotography and an equivalent Pictometry product was specified to be the same as the Aero-Metric product, which was 6".

IV (f) REPORT BY MCAMLIS STAFF ON THE STATUS OF CDBG-EAP GRANT APPLICATION AND LiDAR DATA ACQUISTION PROGRAM

Shaw: directed the Committee to the report included with the meeting materials

Olson: asked, does the funding have to be expended within a year?

Shaw: our plans are to expend the grant funds within 2010. Adding that contracts are in place to acquire the LiDAR and all the required reporting this year.

Bennett: are we going to get new contour maps?

Shaw: based on what we have requested, we will be able to generate contour maps. We haven't seen them yet; they are not your traditional produced contours, so they may have some deficiencies relative to what you're used to. Adding that he expects them to be adequate for most purposes.

IV (g) REPORT BY MCAMLIS STAFF REGARDING 2009 ACCOMPLISHMENTS

Shaw: directed the Committee to the report included with the meeting materials

Bennett: what is the status of the copyright?

Shaw: currently the copyright is owned by MCAMLIS Steering Committee and Milwaukee County. The digital rights to the data have been released by the utilities.

Bennett: are we enforcing or relaxing the copyrights?

Shaw: at this point we haven't revised our procedures for enforcement of the copyright. Noting that this remains to be completed, but basically the enforcement; as per earlier is what continues today. Further stating that under certain circumstances he has released data that would normally be restricted.

Bennett: requested that this be an agenda item. Adding that now that MCAMLIS has the copyright to the data we should encourage people to use our data.

IV (h) REPORT BY THE MILWAUKEE COUNTY SURVEYOR REGARDING THE STATUS OF 2009 SURVEYOR ACTIVITIES

Bauer: directed the Committee to the report included with the meeting materials

IV (i) REPORT BY SEWRPC STAFF ON THE STATUS OF THE REGIONAL WATER STUDY

Bauer: directed the Committee to the report included with the meeting materials

IV (j) REPORT BY SEWRPC STAFF ON THE STATUS OF MCAMLIS FLOODLAND MAPPING PROJECT.

Bauer: directed the Committee to the report included with the meeting materials

IV (k) REPORT BY MILWAUKEE COUNTY DAS STAFF ON MCAMLIS FISCAL STATUS

Fudge: directed the Committee to the report included with the meeting materials

LaFave: asked if there was additional revenue collected for the \$1 fee that hasn't yet been authorized for expenditure by the committee?

Fudge: replied that there is an amount approved for expenditure; however, the revenue collected is less than the amount that has been approved. Adding that this explains the negative unrestricted balance.

Shaw: noted that there were encumbrances shown in the \$4 fee summary that should be released; these items will bring the balance in line.

Bauer: Mr. Nehmer had asked the committee to prepare a new strategic plan; to do so we will need a better understanding of the fiscal situation.

Nehmer: can we distribute a report for first quarter 2010 when it becomes available?

Fudge: Yes. I will review and update the report for 2009 also.

Shaw: requested that Mr. Fudge work with him to ensure that the reports are distributed to the committee.

Nehmer: stated that ALL REPORTS ARE ACCEPTED AND PLACED ON FILE

V. OLD BUSINESS

V (a) SENATE BILL 507 RELATING TO CHANGING THE FEES COLLECTED BY THE REGISTER OF DEEDS, THE REDACTION OF SOCIAL SECURITY NUMBERS FROM ELECTRONIC DOCUMENTS, AND CHANGES TO THE LAND INFORMATION PROGRAM

LaFave: . directed the Committee to the report included with the meeting materials

Shaw: The new legislation requires counties that accept fees to submit an update to their 5-year Land Information Modernization Plan. Noting that this committee's work on the State Plan is not complete. Further stating that a draft plan needs to be presented in June for review and that he was preparing to submit a draft plan for review and approval at the next meeting, and would try to distribute prior to the next quarterly meeting.

Olson: Once the bill passes, this committee may no longer have the authority to expend funds.

LaFave: Until the powers that be indicate otherwise, this committee will continue to exist and retain its authority.

Bauer: There is a legally binding contract in force between the utilities, MMSD, and the county board. The utilities may be asked to dissolve this contract. In the mean time, MCAMLIS will need to continue functioning.

VI. NEW BUSINESS

VI (a) MCAMLIS STAFFING AND FUTURE HOME ORGANIZATION AND STRUCTURE

Shaw: directed the Committee to the report included with the meeting materials

LaFave: stated that whether as a new resolution, or as part of the resolution creating a new land information council, he would like to see the MCLIO staff moved from DTPW to ROD. Further stating that the ROD Office has the resources and are insulated from the political maneuvering that resulted in a layoff directive from the County Executive.

Bauer: concurred and stated that what Mr. LaFave proposed made sense. The centralization of land information activities under the LIO should be supported by the committee as reorganization plans move forward. The committee should not hesitate to call a special meeting on this matter once Mr. LaFave seeks the committee's support of the resolution.

VII CORRESPONDENCE

Bauer: place on file

VIII DATE, TIME, AND PLACE OF NEXT MEETING

June 15, 2010 @ 9:00am, Milwaukee Metropolitan Sewerage District

IX ADJOURNMENT

**Motion: Bennett moved
Olson second, motion carried unanimous**



**DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: June 10, 2010
SUBJECT: Enterprise Address System Project Status

BACKGROUND

At its meeting held August 22nd, 2006, the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee approved a project to provide for the development of a Countywide "Enterprise Address System" (EAS).

It was determined that a need for an EAS was a result of the many County and Regional services that rely on high quality address information to effectively provide critical services.

To meet this need, the EAS project is designed to provide a comprehensive approach to the management of all Milwaukee County Address information.

The EAS Project focus is on the establishment of data, technology and organizational components required to serve all Milwaukee County units of government as well as the many individual public service agencies that use address information in their day-to-day operations.

ACTIVITIES THIS PERIOD – 3/10 – 6/10

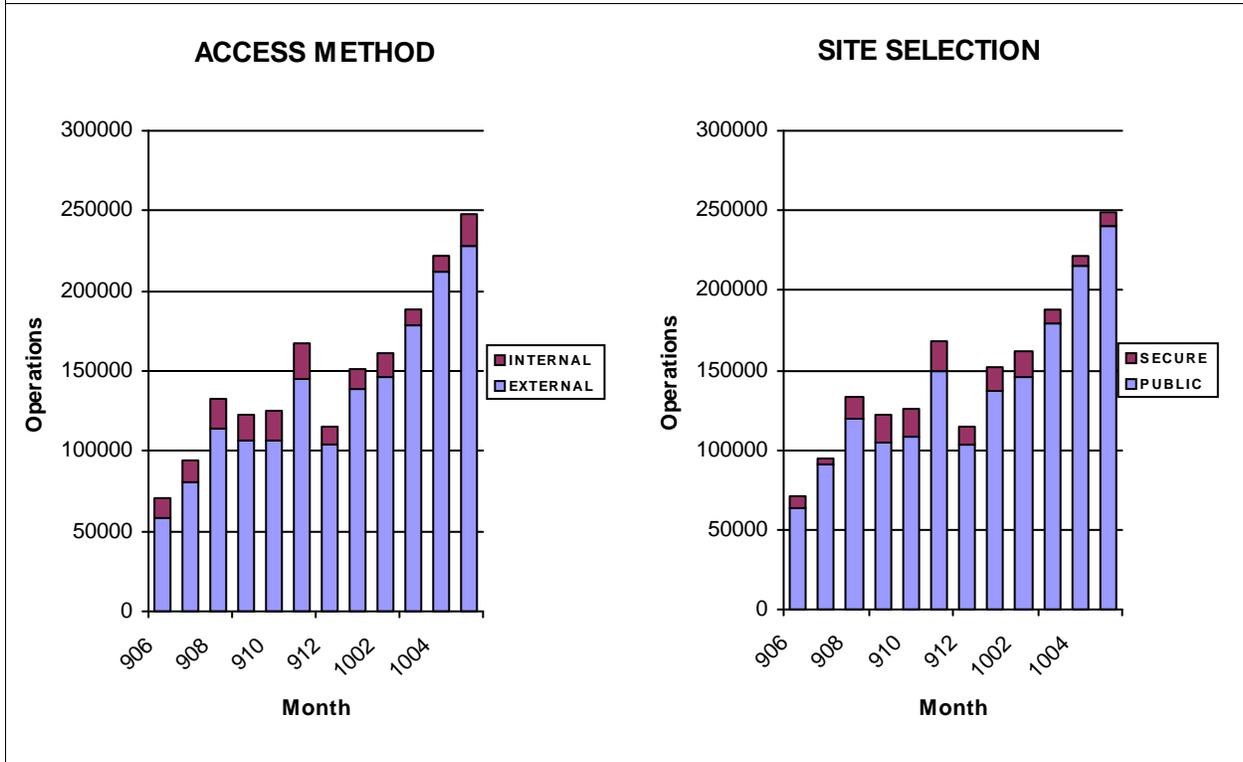
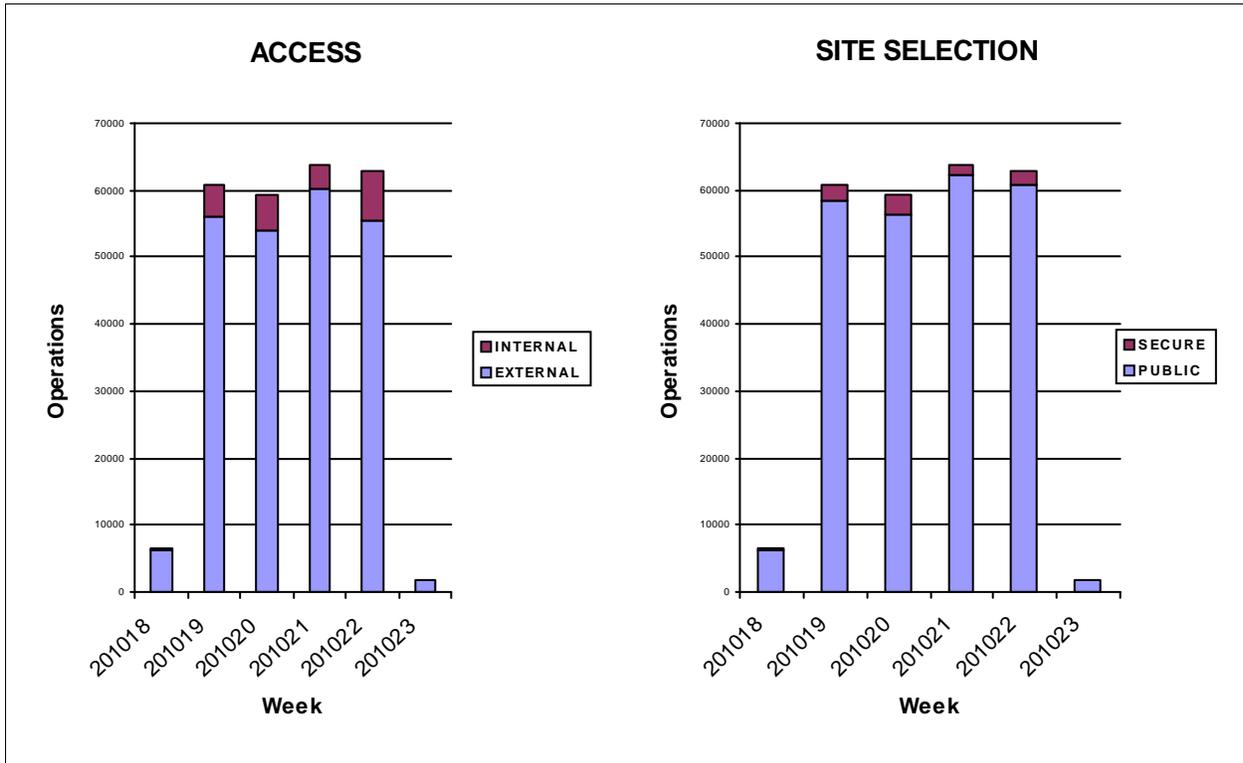
1. Deployed 1st qtr consolidated Milwaukee County and City of Milwaukee Cadastral Data
2. Develop, build, test and deploy Version 2.2.2 of the MCLIO Interactive Mapping Service (attached MCLIO Interactive Map Service Dashboard)
 - Prepared and co-presented joint webinar highlighting website integration w/ Pictometry functionality. The next Webinar is scheduled for 6/29
 - Participated in a ESRI Community Maps Program (see attached Community Maps Exhibit)
 - Prepared to deploy revised Website access screen with scripting for new look and feel and updated access to tutorials and help files
3. Progress reconciling the EAS database to allow dynamic linking of parcels, addresses, units and structures (attached; centerline to structure and address to building status maps)
4. Published 'Building an Enterprise Address Geodatabase for Varied Municipal Operations' article highlighting the MCLIO EAS database architecture and approach (attached)
5. Produced Cudahy Water Plat atlas draft for review by Cudahy engineering staff (attached)

NEXT

- Ongoing effort toward incorporating multiple address source information
- Continue address integration implementing the countywide EAS Address Model
- MCLIO Interactive Mapping Services enhancement of capabilities and improvements

Attach: MCAMLIS EAS Address Model Status: Structure-to-Address Relationship
MCAMLIS EAS Address Model Status: Centerline-to-Address Relationship
MCLIO Interactive Mapping Services Dashboard
EAS article included in May 2010 issue of WLIA Land Records Quarterly
ESRI Community Maps Program Exhibits
Cudahy Water Plat Exhibits

MCLIO Map Services Dashboard



MCAMLIS EAS Address Model Status

Structure-to-Address Relationship

For Work Performed through 5-24-10

PROGRESS

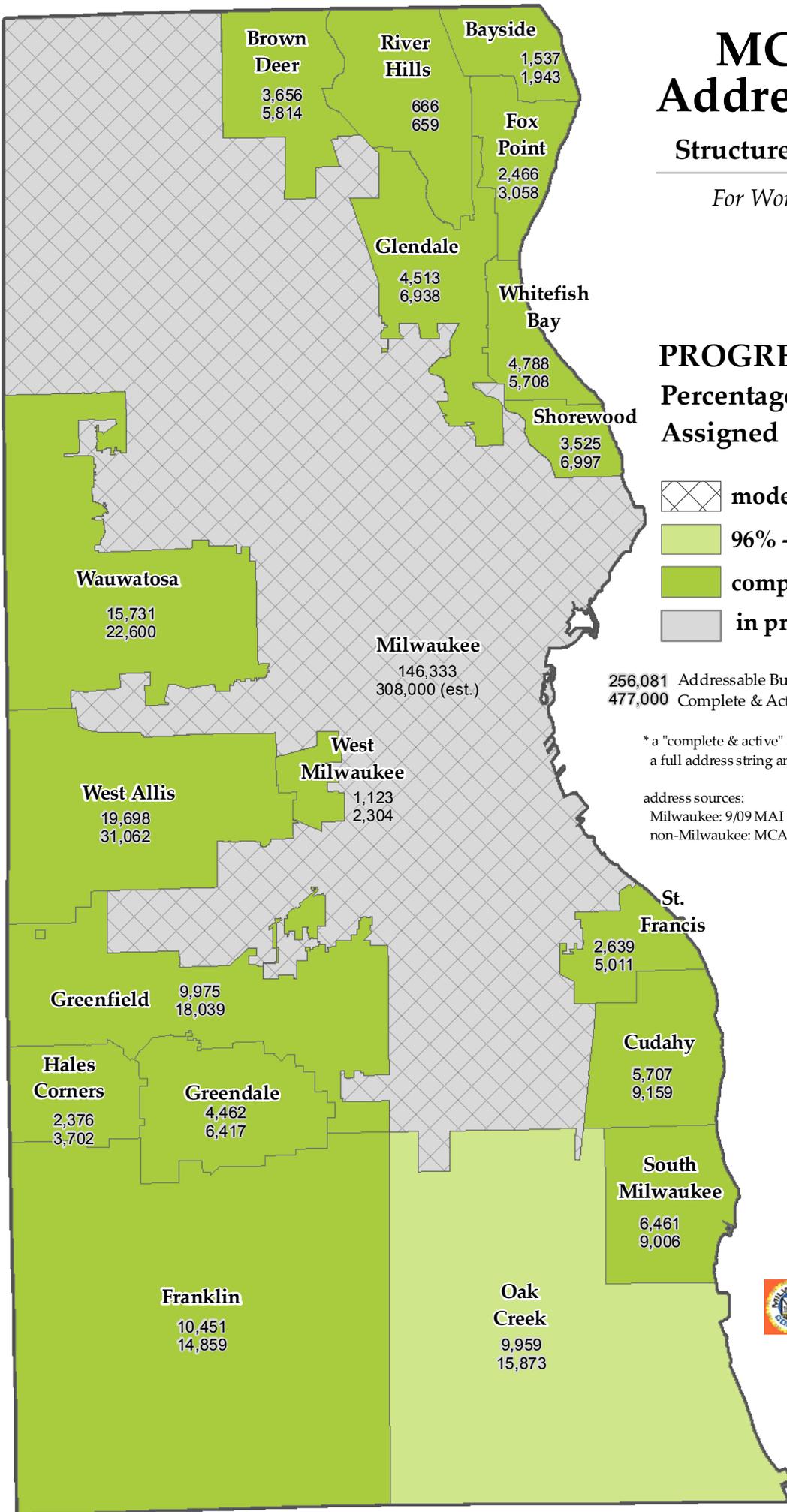
Percentage of Addresses Assigned to Structures

-  model to be constructed
-  96% - 98.0% (field collection required)
-  complete / ongoing maintenance (>98%)
-  in process: 60% complete (est.)

256,081 Addressable Building Polygons (including Milwaukee)
477,000 Complete & Active Address Records* (est. includes Milwaukee)

* a "complete & active" address record contains enough data for a full address string and is not associated with a retired or vacant parcel

address sources:
Milwaukee: 9/09 MAI
non-Milwaukee: MCAMLIS-maintained address table



**Milwaukee County
Land Information Office**

MCAMLIS EAS Address Model Status

Centerline-to-Address Relationship

For Work Performed through 5-24-10

PROGRESS

Current Percentage of Addresses
Geocodeable to Centerline Segments



model to be constructed



complete / ongoing maintenance (>99.5%)

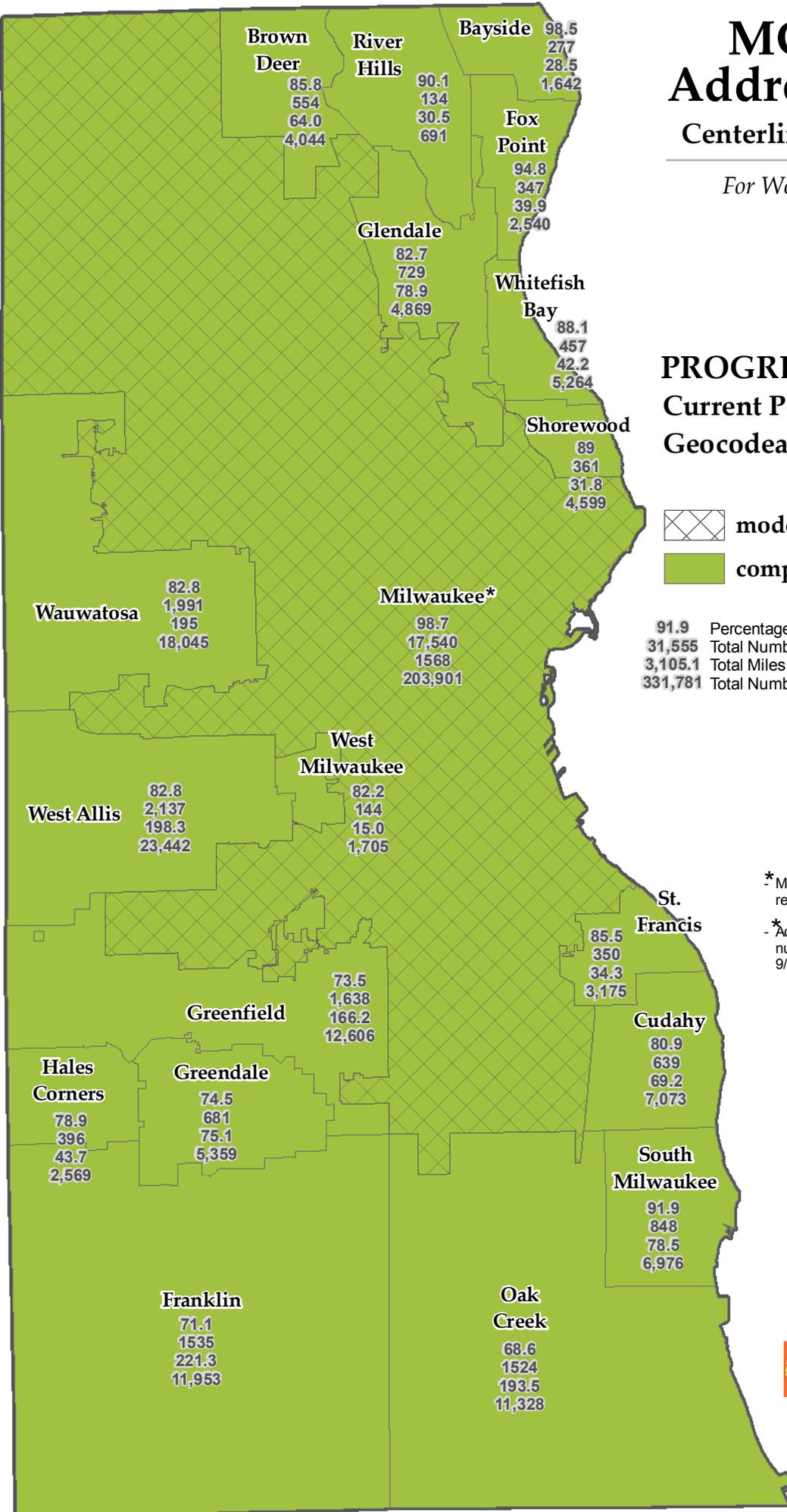
91.9 Percentage of Geocodeable Addresses Prior to Error Correction
 31,555 Total Number of Centerlines
 3,105.1 Total Miles of Centerline
 331,781 Total Number of Unique Addresses (excluding units)

* MCAMLIS centerline data incorporates the most recent data available from Milwaukee's DIME file (10/09)

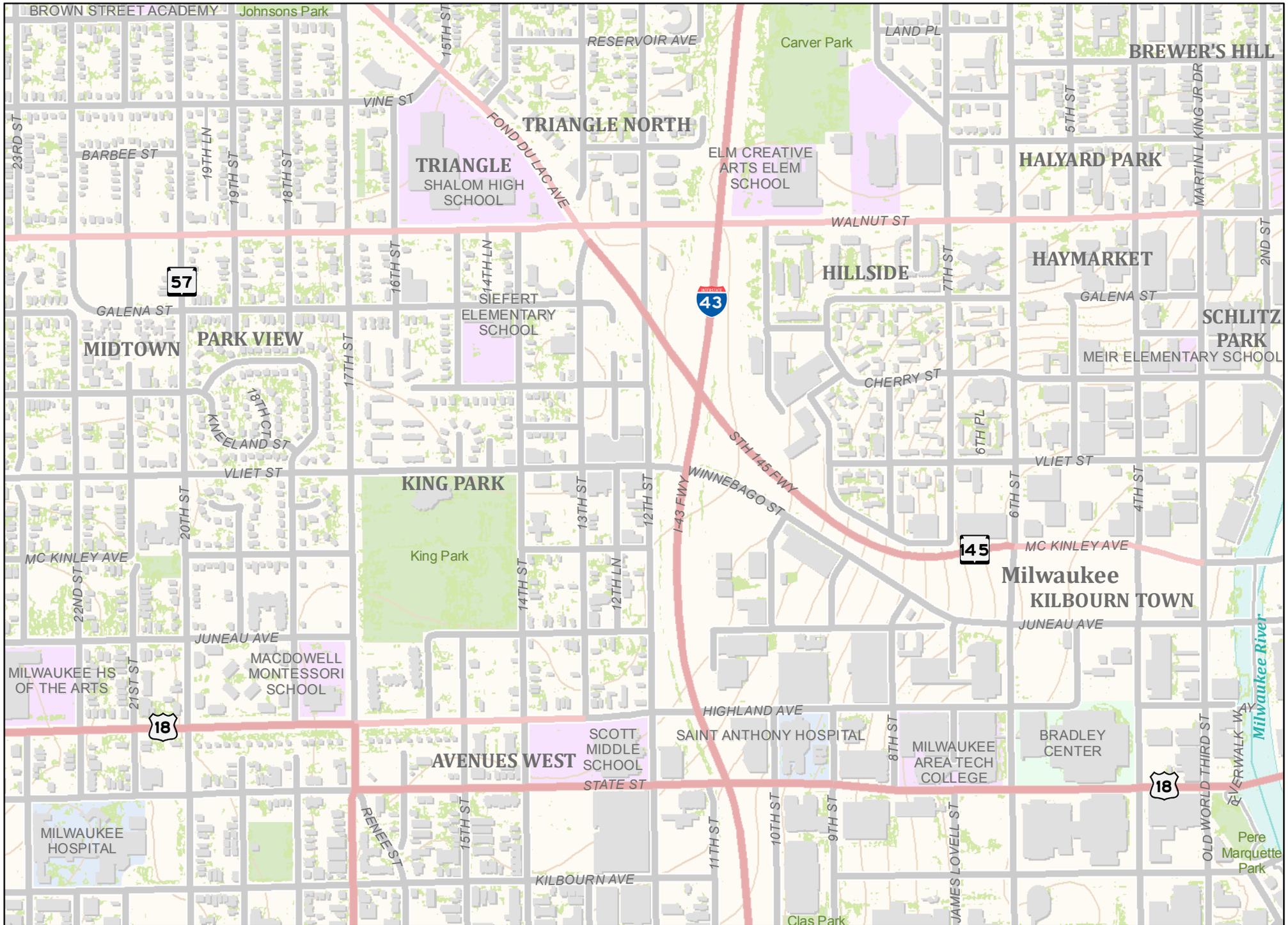
* Addresses used to determine geocode success rate & number of unique addresses are sourced from the 9/09 edition of Milwaukee's MAI



**Milwaukee County
Land Information Office**

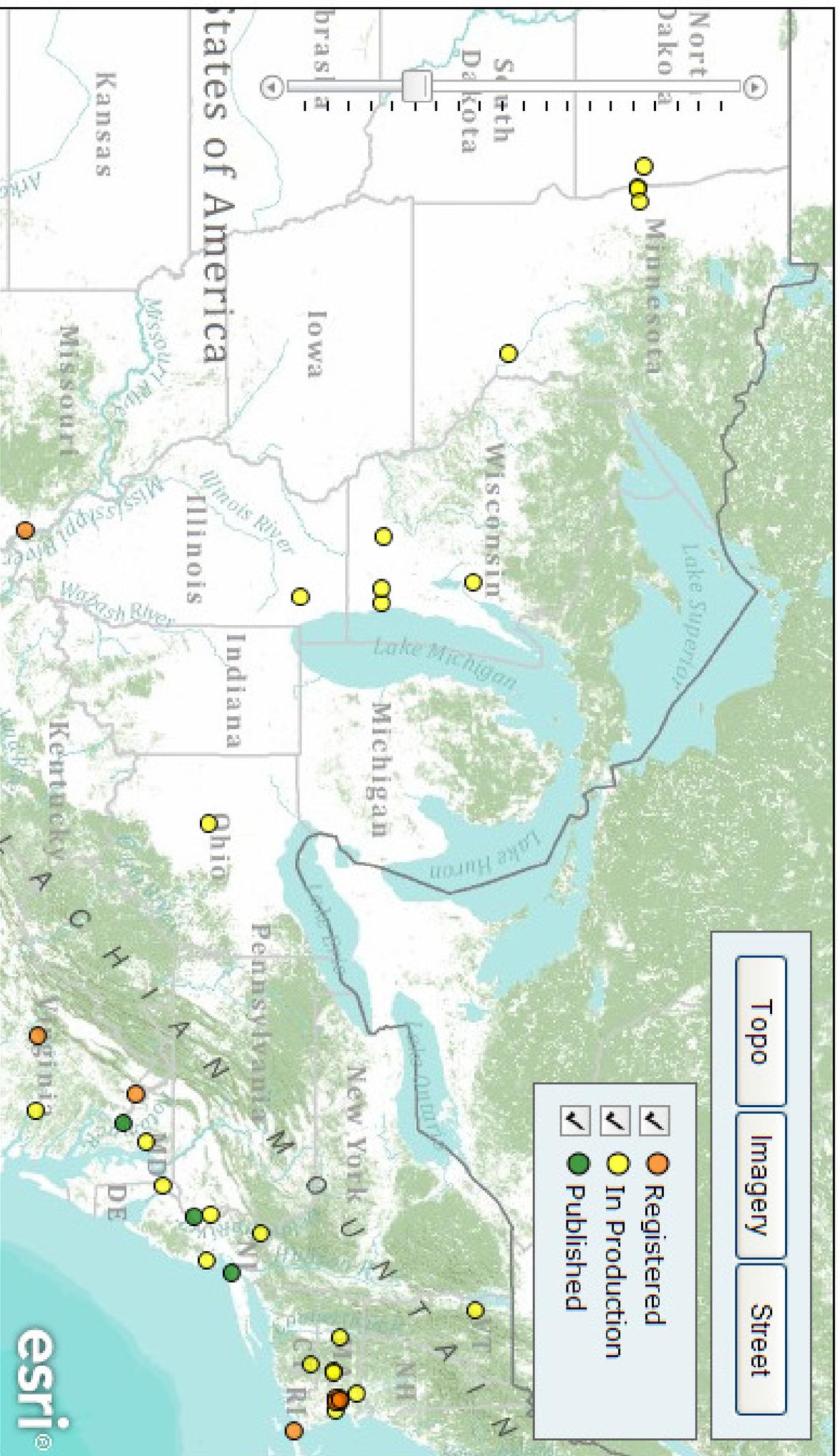


Milwaukee County's Contribution to ESRI's ArcGIS Online Community Maps Service



Community Maps Program

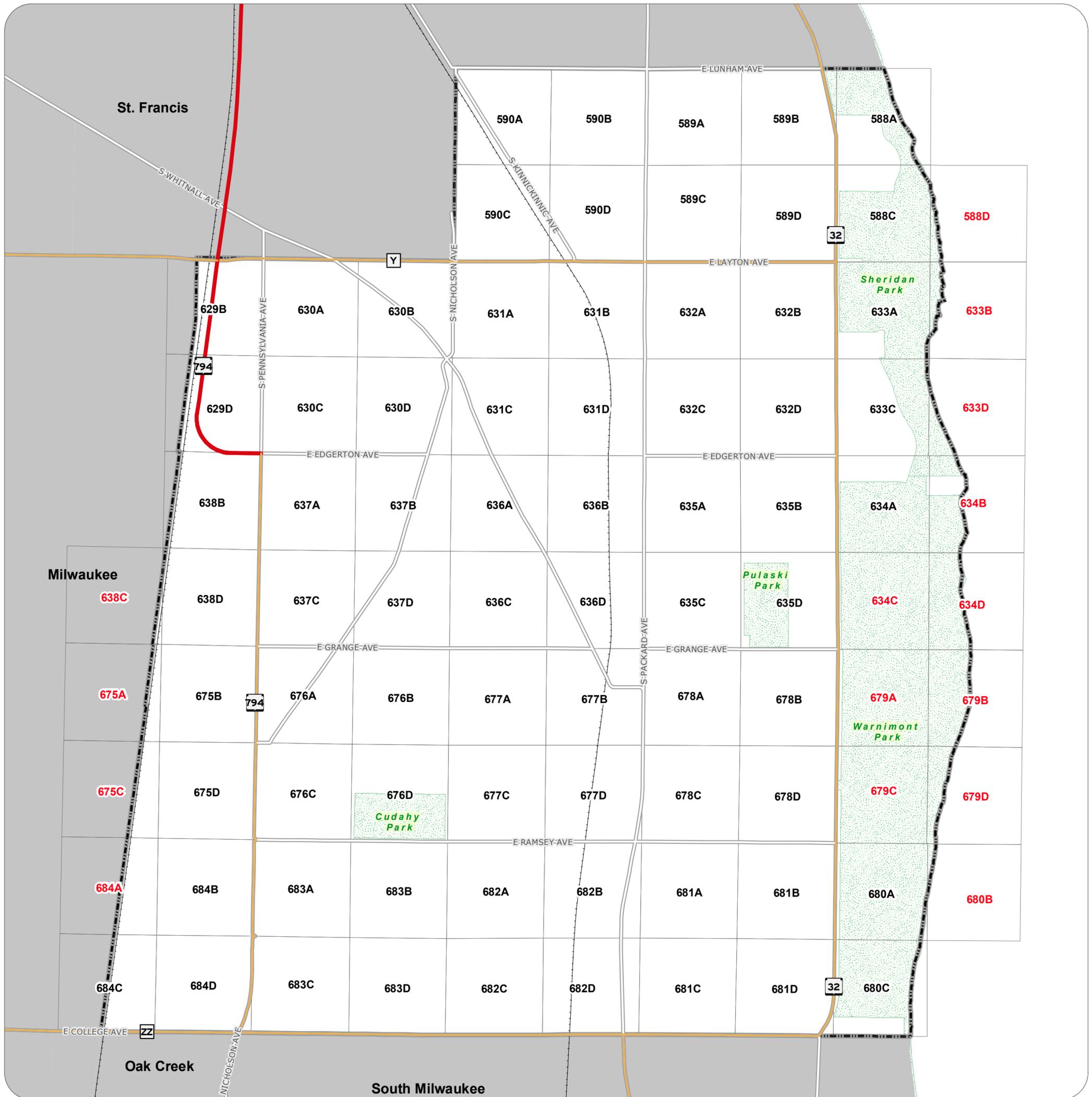
See for which geographic area user organizations have already contributed their data. Click on a point on the map to see the name of the user organization and the status of their data.





Water Plat Book

1"=1000' (1:12000)

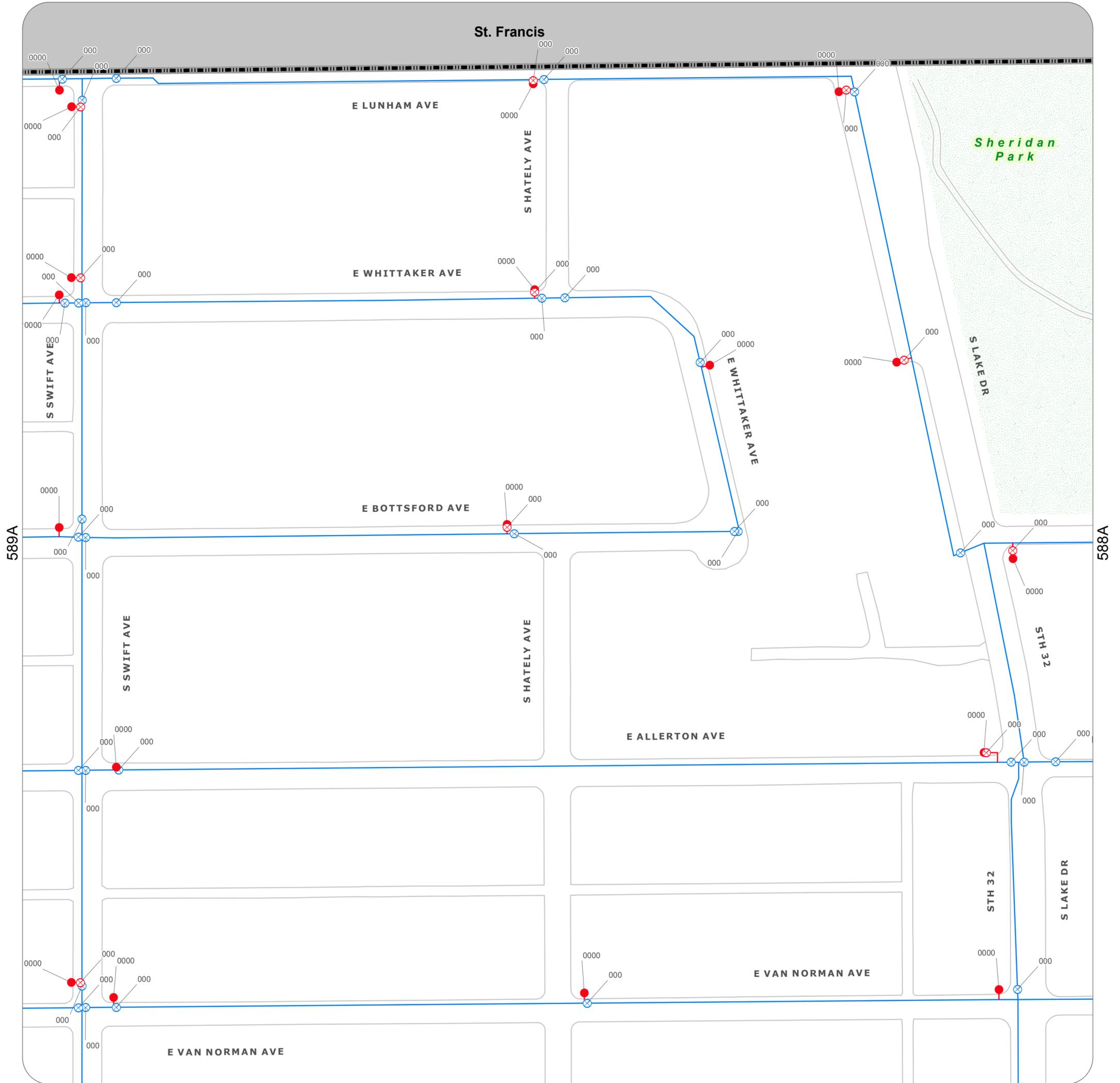


Note: quarter-quarter sections labeled in red are not included in book



Water Plat

1"=100' (1:1200)



- Edge of Traveled Right-of-Way
- Cudahy City Limit
- HYDRANT VALVE
- HYDRANT
- WATER VALVE
- WM REDUCER
- WATER MAIN
- HYDRANT LEAD
- WATER MAIN TEE

Building an Enterprise Address Geodatabase for Varied Municipal Operations

Kevin Bruhn and Brooks E. Kelley

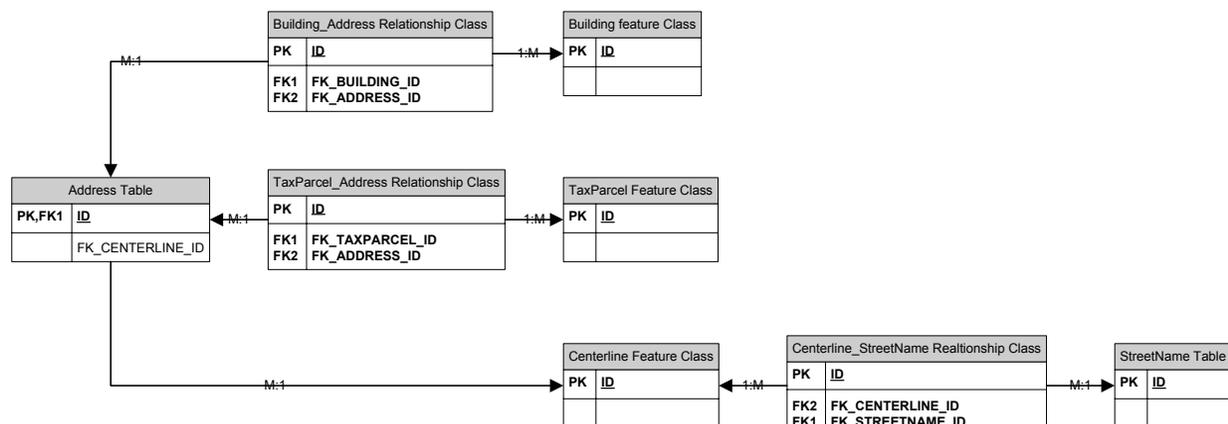
The Milwaukee County Land Information Office (MCLIO) is responsible for producing a complete and accurate address system. This has proved to be a challenge due to the lack of address maintenance custodial rights. Each of 19 municipalities within Milwaukee County maintains their own addresses for their own internal purposes. This means that they lack a common format and many have legacy systems and processes in place. Thus restricting their flexibility to standardize or change to a new format. Regardless, there are numerous underlying reasons to consolidate the various local address information into a single centralized enterprise database whereby the MCLIO can support and supply addressing information to a wide array of consumers including 911 authorities, police incident dispatch, facility asset and tracking, mailing purposes, and public inquiries.

The MCLIO believes this challenge can be overcome through standardizing and flattening of the key components in the addressing system. Utilizing the power of RDBMS (Relational Database Management System) and GIS server software including Microsoft SQL Server and ArcGIS Server Basic (nee ArcSDE) coupled with a clever geodatabase structure designed to harness this power, the MCLIO are able to produce an address configuration that can accommodate the many data acquisition methods and variations in format. This means the data can be stored centrally in a highly efficient and non-redundant manner but served to many users in the manner in which they're most familiar.

RDBMS, Relationships, and Normalization

Within RDBMS, information about things such as addresses, buildings, and centerlines are stored as records within tables. Attributes of these records are stored in fields. Individual records within different tables are related to one another through common field values or keys. The process of efficiently allocating information within one or more tables is known as Normalization.

For example, a parcel may have zero or more addresses and be associated with zero or more buildings. Likewise, a building may be located on one or more parcels and be associated with zero or more addresses – which may be different than those of associated parcel(s). Finally, a section of a street may be associated with zero or more addresses and, in turn, zero or more parcels and/or buildings. Diagrammatically, these relationships can be depicted as follows:



This ER Diagram (short for “entity-relationship diagram”) presents the address, street name, buildings, centerline, and tax parcel tables as well as the association or intersection tables that model the many-to-many relationships between them. Note that all tables contain a unique primary key and these keys are the basis for all relationships. Also note that certain tables, and all association tables, contain foreign keys. These foreign keys allow repeating primary key values. Taken together these primary and foreign keys facilitate one-to-many relationships. For example, one centerline record can be associated with many address records.

De-normalization and Views

De-normalization is, as the name implies, the opposite of normalization i.e. the process of re-introducing redundancy. De-normalization at the data level is often done for the sake of performance. De-normalization at the presentation level is always done for human interpretation. Within RDBMS such as Oracle or SQL Server, de-normalization can be accomplished through SQL-based queries and formalized within views.

Structured Query Language, more commonly known as SQL, is the language of the modern RDBMS. Think of it as the means by which to “talk” to the database. Except instead of an actual stimulating conversation, one’s interaction will be in terms of rather rigid, well-structured queries. For example, the following query would present all fields within the addresses table as well those related records in the centerline table:

```
SELECT
*
FROM
ADDRESS A,
CENTERLINE C,
WHERE
A.FK_CENTERLINE_ID = C.ID
```

This is useful as one can now determine which individual addresses are associated with each street segment. SQL-based queries can range in complexity from simple ones such as this to much, much more sophisticated ones.

continued...

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Views are queries persisted within the database. They look like ordinary tables. They simplify user interaction by encapsulating (and hiding) complexity. A view based on the previous query, for example, would provide users a single, de-normalized, table-like source for all address information. Put another way, a user would not have to know the underlying mechanics of how these tables are related but only that there's a single, easy-to-use source of address information.

Maintenance

Maintaining a normalized geodatabase, such as this sample one, is surprisingly easy provided you understand the design and the interaction of the geodatabase and underlying database. This is especially true when it comes to versioned-based editing.

Many people have implemented core RDBMS objects such as views and triggers only to discover that they did not work as planned. More often than not, this could be traced back to versioning. Keep in mind, the default version within a versioned geodatabase, is still a version and should not be confused with the underlying base tables. The base tables are only updated when data is compressed from the delta tables. For many implementations this may only occur when the geodatabase is unregistered as versioned.

To overcome this limitation, the option to move edits to base was added at ArcSDE version 9.2. This option allows edits to be reconciled and posted not only to the default version but also the base tables. While this option does impose certain limitations (in terms of topologies, archiving AKA "history", and geodatabase replication), it guarantees better synchronicity between the default version and base tables. This means users of both ArcGIS and other client application "see" the same thing. It also provides better support for views as these are based on the base tables, not a version.

Another area of concern is keeping the centralized enterprise address geodatabase in sync with other external address systems; most notably the MSAG (Master Street Address Guide) datasets used by the County's various 911 authorities. To help ensure this, all data modified within the address database is reconciled against up-to-date copies of the County's various MSAG tables using SQL queries. When conflicts are detected, differences are resolved by all parties involved.

Supporting Varied Operations

Now, the true power and elegance of the RDBMS "concept" is the separation of data storage (in tables) and the presentation of this data (via queries and views). GIS users in particular should appreciate the merits of this. Consider the flexibility provided by storing spatial data in a single location and then symbolizing it many different ways within many different map documents (that can all be used concurrently). Contrast this with the CAD world, for example, where the image, for all practical purposes, is the database. The first concept is flexible; the second is ridged.

So, using RDBMS views, different users can "see" the same data in different ways. For example, one 911 authority may want the source address fields parsed/concatenated one way with a specific set of field names while another 911 authority may want these same fields parsed/concatenated a different way with an entirely different set of field names. This can be done using SQL-based layer views within the enterprise geodatabase. Put another way there would be two layer views on the same source tables that return feature records in a user-specified format.

Taken further these user-specific layer views can constitute the first step of a data movement process using ETL (extract, transform, and load) tools such as ESRI's Data Interoperability extension or InfoGeographics' GeoConnector product. Back to the 911 example – suppose the first 911 authority needs their view-based information in file geodatabase format while the second needs their view-based information in shapefile format. Further suppose the first 911 authority's service area is changing faster than the second one's and

for this reason the first 911 authority needs its information refreshed once a week (whereas the second 911 authority is content to have its information refreshed once a month).

Not a problem. The data movement process for the first 911 authority can be configured to export their view-based information to file geodatabase format every week whereas the data movement process for the second 911 authority can be configured to export their view-based information to shapefile format every month. Both data movement processes could end with the information being “shipped” directly to the end-user via the Internet.

This is but one, rather simple, example of the utility of a well-designed RDBMS-based enterprise geodatabase for supporting varied operations.

Conclusion

Overall, the new enterprise address geodatabase is helping the MCLIO realize efficiencies in several areas. First, the centralized data repository makes maintenance and overall management easier. As partners provide updates and corrections to the centralized database, the model is poised to scale along with the additions. Along with additions, a more granular approach is possible whereby internal addresses can be modeled too. Second, the “move to base” editing makes the maintenance available to the views that populate the model. The views created from the flattened files are flexible enough to adapt to the complexity of the model. Third, and perhaps most importantly, the new model makes deployment and distribution easier. The MCLIO can customize the delivery to clients needs. If there is a need for geocoding, routing, or primary/secondary addressing, it can alter the views or queries to fill the specific request. The technology is allowing the MCLIO to begin supporting the various needs and consumer demands.

Currently the MCLIO are in the testing phase of the enterprise addressing system. The new relational model is designed to meet the original goals and expectations that initiated the redesign. The MCLIO is looking forward to implementing the new system within its production environment to be utilized by all the various address partners and user agencies in Milwaukee County.

- Milwaukee County GIS Specialist Kevin Bruhn can be reached at (414) 278-3927 or kbruhn@milwcnty.com
- InfoGeographics, Inc. Senior Consultant Brooks E. Kelley can be reached at (231) 995-8266 or bkelly@infogeographics.com

The advertisement for North Point Geographic Solutions features a blue and white color scheme. At the top left is a compass rose logo with the text 'NORTH POINT GEOGRAPHIC SOLUTIONS' and the website 'www.northpointgis.com'. Below the logo, it states 'JSA GIServices is now North Point Geographic Solutions. Same great services, easier name!' and 'WWW.NORTHPOINTGIS.COM'. A central list of services includes 'WEB MAPPING APPLICATIONS', 'DESKTOP CUSTOMIZATION', 'DATA MANAGEMENT', 'SERVER OR DESKTOP BASED GIS SOLUTIONS', and 'INTRODUCING THE GEOMESH DATA VIEWER'. A testimonial from UPM-Blandin Paper Company is on the right, and contact information is at the bottom.

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**DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: June 10, 2010
SUBJECT: Internet Access to the Milwaukee County Plats of Survey Project Status

BACKGROUND

The Southeastern Regional Planning Commission, under requirement of the Wisconsin State Statute, serves as Surveyor for Milwaukee County. As such, the Commission is responsible for receiving and filing copies of land survey plats prepared by land surveyors for real property parcels in Milwaukee County. The Commission has maintained the files concerned since 1984 and those filings are currently in hard copy format.

At its regular meeting held March 24th 2009, the MCAMLIS Steering Committee approved a staff recommendation authorizing MCAMLIS and Commission Staff to jointly conduct efforts such that the existing hard copy files be converted to and maintained in digital format to facilitate user access through the Internet via the Milwaukee County Land Information Office (MCLIO) Interactive Mapping website. At the conclusion of this effort the responsibility for maintaining the files would shift to the Milwaukee County Automated Mapping and Land Information System and be managed under the direction of the MCAMLIS Project manager.

Activities – 3/10 through 6/10/10

- Phase 1: Plat Conversion and Internet Application**

	Total	Completed	% Complete	% Remaining	\$\$	Est. \$\$
Scanning Drawers	40	40	100%	0%	\$45,154	\$44,000
Phase Management	200	72	64%	36%	\$3,191	\$5,000
Total			96%	4%	\$48,345	\$49,000

- Phase 2: Digital File Indexing and Website Enhancement**

	Total	Completed	% Complete	% Remaining	\$\$	Est. \$\$
Address Match	45,750	45,750	100%	0%	\$0	\$0
Address Missing	27,980	27,345	98%	2%	\$17,784	\$33,700
Address Data Entry	8,000	0	100%	0%	\$0	\$0
New Plats	6,000	0	0%	100%	\$0	\$6,300
Total	87,730	73,095	83%	17%	\$17,784	\$40,000

- Completed scanning production using Mid City Blue services

- Indexed and deployed 90,000 documents utilizing the MCLIO Interactive Mapping Service website (see status map attached)

NEXT

- Continue indexing remaining ROD Plat of Survey documents (about 500 remain)
- Begin 2009 Plat of Survey Documents (about 1,300 received)

Attach: Plat of Survey Project Status Map



**DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: June 11, 2010

SUBJECT: 2010 Regional Orthophotography Program; Pictometry AccuPlus Comparison and Oblique Imagery Project Status

BACKGROUND

At five-year intervals in years ending in zero and five, SEWRPC typically acquires aerial photography/orthophotography sufficient to cover its seven-county planning jurisdiction and immediate environs. The 2010 program envisioned the acquisition of 1-foot pixel, color, and digital orthophotography for the entire seven county region. Milwaukee County, however, has requested a project approach that combines the acquisition of 6" Orthophotography and Oblique Imagery in the form of Pictometry International Corporation's AccuPlus product as an alternative to meet the underlying image requirements of the regional planning commission. In consideration of the requested approach it was determined that a comparative study would be required to establish the suitability of the AccuPlus technology to address the Commission's requirements.

The MCAMLIS Steering Committee approved this project at its 9/22/2009 meeting authorizing the comparative evaluation of orthophotographs produced by conventional photogrammetric technology and by the "AccuPlus" technology developed by the Pictometry International Corporation of Rochester, New York. The conventional orthophotographs concerned will be prepared by the firm of Aero-Metric, Inc. of Sheboygan, Wisconsin under the 2010 Regional Orthophotography Program. Federal funds from the Surface Transportation Program will be utilized to fund the study. STP-M funds will be combined with MCAMLIS matching funds to complete the project funding requirements.

A Technical Advisory Committee (TAC) comprised of representatives of Pictometry, Aero-Metric, USGS, WISDOT, MCAMLIS, a LIO and the Commission will oversee and guide the project.

ACTIVITIES THIS PERIOD – 3/10 – 6/10

1. Executed contract letter agreement between Milwaukee County and SEWRPC for acquisition of the standard 6" Regional Orthophoto Program
2. Executed contract letter agreement between Milwaukee County and SEWRPC for acquisition of the Pictometry AccuPlus and to conduct a comparative study
3. Both companies completed the acquisition phase during the period 4/5-4/24

NEXT

1. Schedule and deploy deliverables beginning eom August
2. Schedule the 1st meeting of the TAC

* * * * *



DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: June 11, 2010
SUBJECT: COMMUNITY DEVELOPMENT BLOCK GRANT - EMERGENCY ASSISTANCE PROGRAM (CDBG-EAP) GRANT REQUEST TO OBTAIN LiDAR IMAGE DATA

BACKGROUND

Federal monies were made available under the Wisconsin Small Cities Community Development Block Grant-Emergency Assistance Program, administered by the State of Wisconsin, Department of Commerce, Bureau of Community Finance, for the purpose of disaster recovery. These funds were specifically being made available to the 31 counties in Wisconsin that were made eligible for disaster relief due to the flooding event that occurred between June 5th and July 25th, 2008.

Milwaukee County did not participate in earlier supplemental relief programs related to this flood event, although three communities within Milwaukee County did participate; the Cities of Milwaukee, Wawautosa and West Allis. The current program extends to counties included in the declared flood disaster areas for acquisition of LiDAR data to be used to assist in the generation of FEMA certified "Accuracy Assessment Report" products.

GRANT REQUIREMENTS

The MCAMLIS Steering Committee at its meeting held December 8th, 2009 approved a staff recommendation to allow the MCAMLIS Steering Committee to oversee a CDBG-EAP grant application that was submitted to the Wisconsin State Department of Commerce prior to the 12/4/2009 deadline on behalf of Milwaukee County. In so doing the MCAMLIS Staff formulated an approach that emphasized both the long standing efforts of the MCAMLIS Steering Committee, and the Committee's experiences gained over the many years that it has been involved with/and dedicated to collecting and distributing map information throughout Milwaukee County.

The CDBG-EAP grant award requirements affecting the MCAMLIS Steering Committee are herein listed:

- Milwaukee County must actively pursue citizen participation in the grant process through the development and implementation of a Citizen Participation Plan (CPP);
 - the CPP included as part of the grant application authorizes the MCAMLIS Committee to direct the MCAMLIS Project Manager to formulate the creation of the Citizen Participation Committee;

- o the MCAMLIS Project Manager, guided by the MCAMLIS Steering Committee acts to nominate members to the Citizen Participation Committee;
- o the Citizen Participation Committee conducts any required public hearings; and
- o the Milwaukee County Board at its March 2010 meeting adopts the CPP.

ACTIVITIES THIS PERIOD – 3/10 – 6/10

1. the MCAMLIS staff completed procurement required to obtain LiDAR professional services from Pictometry International Inc. for the county and;
2. the MCAMLIS staff formulated and executed a LiDAR acquisition plan with Pictometry International Inc., and;
3. the MCAMLIS staff solicited additional formal competitive vendor responses to obtain LiDAR derived reports and products via professional services for t from Pictometry International Inc. for the county once the LiDAR data is available, and;
4. the LiDAR acquisition flight was performed by Pictometry International through the week of 4/10

NEXT

5. the MCAMLIS Project Manager will continue the LiDAR data acquisition process, estimated to be completed by eom August 2010, and;
6. the MCAMLIS Project Manager will prepare and distribute derived reports and data to agencies as may be required under contract with the Wisconsin Department of Commerce.

Attach: none

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: SEWRPC Staff

DATE: June 1, 2010

**SUBJECT: STATUS REPORT ON THE MILWAUKEE COUNTY
FLOODLAND MAPPING PROJECT**

This memorandum sets forth the progress made on the Milwaukee County Floodland Mapping project from March 1, 2010 through May 31, 2010. This status report addresses project progress in the following three major areas:

- Data Acquisition
- Hydrologic and Hydraulic Modeling
- Floodland Map Preparation

Progress is summarized in the attached Exhibit 1 and is graphically summarized on the map attached hereto as Exhibit 2.

DATA ACQUISITION

During the reporting period, the following data acquisition activities were carried out:

- As indicated by Exhibit 1, data acquisition activities are substantially completed for all study areas, except the Root River watershed.
- When additional data needs are identified as work proceeds, the acquisition of the data will be coordinated with the Milwaukee Metropolitan Sewerage District (MMSD), the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Department of Transportation (WisDOT), and the counties and municipalities concerned.

HYDROLOGIC AND HYDRAULIC MODELING

During the reporting period, progress on hydrologic and hydraulic modeling included the following:

Menomonee River Watershed

- Worked on refining the hydraulic model for Grantosa Creek.

Milwaukee River Watershed

- Refined the hydrologic/hydraulic model of Beaver Creek.

FLOODLAND MAP PREPARATION

There was no work on floodland maps during this reporting period.

PROPOSED SCHEDULE FOR COMPLETION OF PROJECT

While it was previously intended that the project be completed by the end of 2010, it is now scheduled to be completed by December 31, 2011. Completion of the project has been delayed by the need to efficiently allocate staff resources to other short-term projects, including watercourse system plan preparation for MMSD. In part, the need for that watercourse planning derives from preparation of updated floodland maps under the MCAMLIS project.

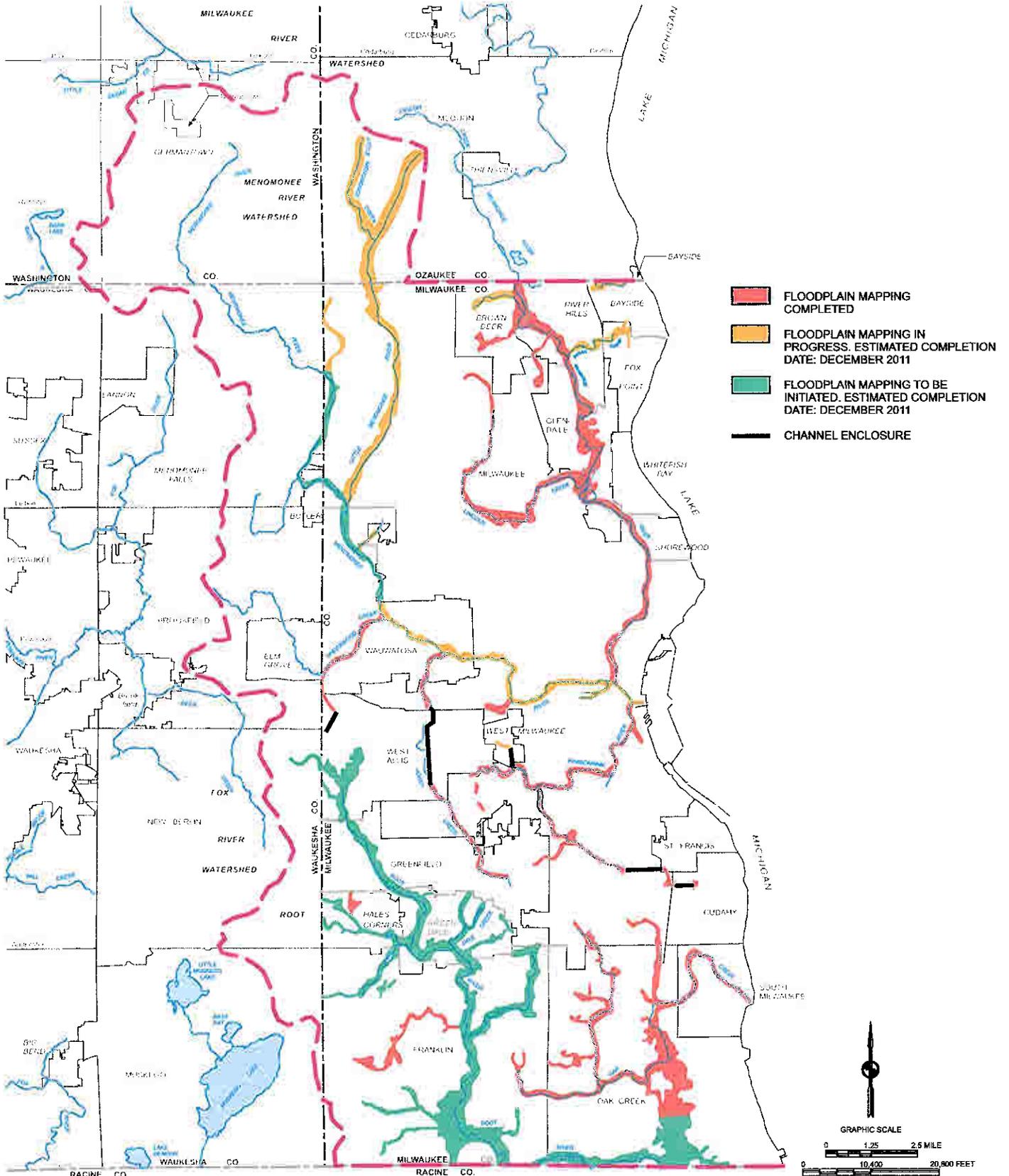
* * *

Exhibit 1
STATUS OF MCAMLIS MILWAUKEE COUNTY FLOODLAND MAPPING PROJECT: May 31, 2010

Major Area	Data Acquisition (percent complete)	Hydrologic and Hydraulic Modeling (percent complete)	Floodland Map Preparation (percent complete)
Kinnickinnic River Watershed	100	100	85
Lake Michigan Direct Drainage Area - Fish Creek	100	100	80
Menomonee River Watershed	100	100	75
Milwaukee River Watershed	100	100	90
Oak Creek Watershed	100	100	100
Legend Creek (Root River Watershed)	100	100	100
Lake Michigan Coastal Flooding Areas	100	NA	40
Root River Watershed	100	NA	10

Exhibit 2

STATUS OF FLOODPLAIN MAPPING IN MILWAUKEE COUNTY: MAY 31, 2010



Source: SEWRPC.

Summary MCAMLIS
6/3/2010

MCAMLIS Financial Report	Year-End 2009	AS OF 6/3/2010
12/31/09 Balance (Balance Sheet)*	\$ 949,873.62	\$ 893,145.27
Revenue Activity		
2010 YTD Activity \$1.00	\$ 146,536.00	\$ 47,578.00
2010 YTD Activity \$4.00	\$ 579,944.00	\$ 194,200.00
Other Revenue	\$ 17,324.00	\$ 17,472.00
Total Revenues	\$ 743,804.00	\$ 259,250.00
Expenditure Activity (YTD) including Encumbrances		
Personnel Services	\$ -	\$ 159,537.00
Services	\$ 1,015,795.92	\$ 787,249.00
Commodities	\$ 2,861.55	-
Capital Outlay	\$ 1,465.51	-
Crosscharges	\$ 307,087.54	\$ 25,327.00
Total Expenditures	\$ (1,327,210.52)	\$ (972,113.00)
2009 YEAR-END BALANCE	\$ 366,467.10	\$ 180,282.27

Remaining Unrestricted Balances Based on 12-31-09 Close

12/31/09 Balance (Balance Sheet)*	\$ 949,873.62	\$ 893,145.27
Remaining Unrestricted Balance \$1.00 Fee	\$ 240,361.79	\$ 170,844.76
Remaining Unrestricted Balance \$4.00 Fee	\$ 709,511.83	\$ 722,300.51

Outstanding Authorized Commitments (Non-Encumbered) 2010-Onward

\$4.00 Fee

Project Expenditures for \$4 Fee (Encumbrances + Actual)	\$ (846,401.32)	\$ (741,360.70)
Additional Authorized Expenditures	\$ (141,436.50)	\$ (37,412.50)
\$4 Fee Other Expenditures	\$ (297,449.05)	\$ (24,077.00)
\$4 Fee Remaining Projected Expenditures	-	-
Remaining Unrestricted Balance \$4.00 Fee	\$ 709,511.83	\$ 722,300.51
Revenue for \$4 Fee	\$ 579,944.00	\$ 194,200.00
\$4 Fee Remaining Projected Revenues**	-	\$0.00
Reserve Revenue, not to be expended	\$ (70,000.00)	\$ (60,500.00)
Remaining Unrestricted Balance \$4.00 Fee	\$ (53,042.36)	\$ 53,150.31
Remaining Restricted Balance \$4.00 Fee	\$ 88,394.14	\$ 90,562.81

\$1.00 Fee

Project Expenditures for \$1 Fee (Encumbrances + Actual)	\$ (151,443.49)	\$ (65,577.39)
Additional Authorized Expenditures	\$ (205,198.26)	\$ (59,047.37)
2009 \$1 Fee Other Expenditures	\$ (12,500.04)	\$ (1,250.00)
2009 \$1 Fee Remaining Projected Expenditures	-	-
Remaining Unrestricted Balance \$1.00 Fee	\$ 240,361.79	\$ 170,844.76
2009 Revenue for \$1 Fee	\$ 133,142.00	\$ 47,578.00
2009 \$1 Fee Remaining Projected Revenues**	\$21,858.00	-
Reserve Revenue, not to be expended	\$ (17,500.00)	\$ (15,000.00)
Remaining Unrestricted Balance \$1.00 Fee	\$ 8,720.00	\$ 77,548.00
Remaining Restricted Balance \$1.00 Fee	\$ 213,918.26	\$ 136,595.37

Note: The \$1 Fee Revenue can be used for no other purpose than Register of Deeds projects. Any amount not expended in this manner cannot be used for other MCAMLIS tasks.

* Balance includes both \$1.00 and \$4.00 fee revenue; Based on data provided by John La Fave and the 2007 ending operating balance, the balance sheet account was divided between the two funds.

** John La Fave has estimated that the total documents to be recorded in 2011 is 125,000.

Note: The amount of the reserve fund balance, as determined by the committee, is set at ten percent of current budgeted revenues. This equals \$75,500 in 2010, of which \$60,500 is for the \$4 fee and \$15,000 is for the \$1 fee.

MCAMLIS Financial Report	Year-End 2009	TOTALS
12/31/09 Balance (Balance Sheet)*	\$ 893,145.27	\$ 893,145.27
2010 Revenue Activity**		
2010 YTD Activity \$1.00	\$47,578.00	
2010 YTD Activity \$4.00	\$194,200.00	
Other Revenue \$	17,472.00	
Total Revenue 2010		\$259,250.00
2010 Expenditure Activity (YTD) including Encumbrances		
Personnel Services	\$159,537.00	
Services	\$787,249.00	
Commodities	\$0.00	
Capital Outlay	\$0.00	
Crosscharges	\$25,327.00	
Total Expenditures 2010		(\$972,113.00)
2010 Year-End Balance:		\$ 180,282.27

Remaining Unrestricted Balances Based on 12-31-09 Close

12/31/09 Balance (Balance Sheet)*	\$ 893,145.27
Remaining Unrestricted Balance \$1.00 Fee	\$ 170,844.76
Remaining Unrestricted Balance \$4.00 Fee	\$ 722,300.51

Outstanding Authorized Commitments (Non-Encumbered) 2010-Onward
\$4.00 Fee

2010 Expenditures for \$4 Fee Projects (Encumbrances + Actual)	\$ (741,360.70)
Additional Authorized Expenditures	\$ (37,412.50)
2010 \$4 Fee Other Expenditures	\$ (24,077.00)
Remaining Unrestricted Balance \$4.00 Fee	\$ 722,300.51
2010 Revenue for \$4 Fee	\$ 194,200.00
Reserve Revenue, not to be expended	\$ (60,500.00)
Remaining Unrestricted Balance \$4.00 Fee	\$ 53,150.31
Remaining Restricted Balance \$4.00 Fee	\$ 90,562.81

\$1.00 Fee

2010 Expenditures for \$1 Fee Projects (Encumbrances + Actual)	\$ (65,577.39)
Additional Authorized Expenditures	\$ (59,047.37)
2010 \$1 Fee Other Expenditures	\$ (1,250.00)
Remaining Unrestricted Balance \$1.00 Fee	\$ 170,844.76
2010 Revenue for \$1 Fee	\$ 47,578.00
Reserve Revenue, not to be expended	\$ (15,000.00)
Remaining Unrestricted Balance \$1.00 Fee	\$ 77,548.00
Remaining Restricted Balance \$1.00 Fee	\$ 136,595.37

Note: The \$1 Fee Revenue can be used for no other purpose than Register of Deeds projects. Any amount not expended in this manner cannot be used for other MCAMLIS tasks.

* Balance includes both \$1.00 and \$4.00 fee revenue; Based on data provided by John La Fave and the 2007 ending operating balance, the balance sheet account was divided between the two funds.

** John La Fave has estimated that the total documents to be recorded in 2011 is 125,000.

Note: The amount of the reserve fund balance, as determined by the committee, is set at ten percent of current budgeted revenues. This equals \$75,500 in 2010, of which \$60,500 is for the \$4 fee and \$15,000 is for the \$1 fee.

Year Authorized	Project Description	Amount Authorized	Amount Paid 2002-2009	Amount Paid 2010	Amount Encumbered 2010	2010 Total Amount Paid (Encumbrances + Actual)	Total Amount Paid for Project (2002-2010)	Remaining Unpaid Balance	Complete
2002	Large Format Scanner	\$ 13,090.00	\$ 13,090.00	\$ -	\$ -	\$ -	\$ 13,090.00	\$ -	Yes
2003	Improvements to Computer System	\$ 240,000.00	\$ 240,000.00	\$ -	\$ -	\$ -	\$ 240,000.00	\$ -	Yes
2003	Electronic Recording	\$ 45,000.00	\$ 30,550.81	\$ -	\$ -	\$ -	\$ 30,550.81	\$ -	Yes
2003	External Hard Drive/Two SNAP Servers	\$ 40,000.00	\$ 40,000.00	\$ -	\$ -	\$ -	\$ 40,000.00	\$ -	Yes
2003/2005	Digital Images; Conversion of Microfiche	\$ 400,000.00	\$ 400,000.00	\$ -	\$ -	\$ -	\$ 400,000.00	\$ -	Yes
2005	Scanning A Card	\$ 50,000.00	\$ 50,000.00	\$ -	\$ -	\$ -	\$ 50,000.00	\$ -	Yes
2005	Improvements to Computer System II	\$ 450,000.00	\$ 450,000.00	\$ -	\$ -	\$ -	\$ 450,000.00	\$ -	Yes
2007	Improvements to Computer System III	\$ 150,000.00	\$ 150,000.00	\$ -	\$ -	\$ -	\$ 150,000.00	\$ -	Yes
2008	Improvements to Computer System IV	\$ 150,000.00	\$ 150,000.00	\$ -	\$ -	\$ -	\$ 150,000.00	\$ -	Yes
2009	Improvements to Computer System V	\$ 120,000.00	\$ 90,375.24	\$ 29,624.76	\$ -	\$ 29,624.76	\$ 120,000.00	\$ -	Yes
2009	Improvements to Computer System VI	\$ 95,000.00	\$ -	\$ 13,135.38	\$ 22,817.25	\$ 35,952.63	\$ 95,000.00	\$ 59,047.37	No
2009	Enterprise Address System*	\$ 65,000.00	\$ 65,000.00	\$ -	\$ -	\$ -	\$ 65,000.00	\$ -	Yes
Total		\$1,818,090.00	\$1,679,016.05	\$42,760.14	\$22,817.25	\$65,577.39	\$1,744,593.44	\$59,047.37	

Data from John La Fave, Register of Deeds as of 9/10/09

NOTES

* On September 22, 2009, the MCAM/LIS Steering Committee authorized expenditure authority for the Enterprise Address System for \$65,000.

2010 Outstanding Commitments - 2010 as of 6/11/2010

Organization 1923-Automated Land Information System
\$4,00 Fee

Vendor Name	Description	Amount Authorized	Amount Paid - Prior Years	2010 Amount Encumbered	Amount Paid 2010	Total Amount Paid 2010 (Encumbrances + Actual)	Remaining Unpaid Balance
SOUTHEASTERN WI REGIONAL	MCAMLIS Floodland Mapping Phase 2	\$ 436,000.00	\$ 161,300.00	\$ 274,700.00	\$ -	\$ 274,700.00	\$ -
SOUTHEASTERN WI REGIONAL	County Surveyor (per year*)	\$ 77,175.00	\$ -	\$ -	\$ 77,175.00	\$ 77,175.00	\$ -
CITY OF MILWAUKEE	Cadastral Address Maintenance (per year*)	\$ 87,852.00	\$ -	\$ 65,889.00	\$ 21,963.00	\$ 87,852.00	\$ -
MILWAUKEE COUNTY	Enterprise Address System***	\$ 272,000.00	\$ 163,540.30	\$ 32,448.26	\$ 76,011.44	\$ 108,459.70	\$ -
Quarles & Brady	Copyright Review**	\$ 10,000.00	\$ 5,477.50	\$ -	\$ -	\$ -	\$ 4,522.50
LIDAR Project		\$ 10,000.00	\$ 5,110.00	\$ -	\$ -	\$ -	\$ 4,890.00
LIDAR Acquisition Grant		\$ 94,380.00	\$ -	\$ 94,380.00	\$ -	\$ 94,380.00	\$ -
MILWAUKEE COUNTY	Internet Access to Plats of Survey****	\$ 89,000.00	\$ 47,230.00	\$ 28,761.95	\$ 13,008.05	\$ 41,770.00	\$ -
MILWAUKEE COUNTY	2010 Orthophotography Comparative Study	\$ 85,024.00	\$ -	\$ 57,024.00	\$ -	\$ 57,024.00	\$ 28,000.00
TOTAL		\$ 1,161,431.00	\$ 382,657.80	\$ 653,203.21	\$ 188,157.49	\$ 741,360.70	\$ 37,412.50

Data from Milwaukee County Advantage System and Gary Drent, A&E as of November 2009.

Notes

*Per Year authorizations are reauthorized each year therefore they do not include prior year expenditures or authorizations.

** On September 30, 2008 the MCAMLIS Steering Committee authorized two additional expenditure authorities for existing projects: \$7,500 for the Copyright Review project and \$11,594 for the Topographical Mapping Project.

*** On March 24, 2009 the MCAMLIS Steering Committee authorized \$65,000 of additional expenditure authority for the Enterprise Address System. On September 22, 2009, the MCAMLIS Steering Committee authorized reducing expenditure authority by \$65,000 BUT increasing expenditure authority in the \$1 fee by the same for this project.

**** On September 22, 2009, the MCAMLIS Steering Committee reduced the amount authorized for the Internet Access to Plats of Survey by \$47,000 pursuant to the recommendation of the MCAMLIS project manager.

***** On September 22, 2009, the MCAMLIS Steering Committee authorized expenditure authority of \$85,024 for the Orthophotography project.

2010 Fiscal Report - MCAMLIS					
Rev / Exp	Revenue / Expense Name	Budget Amount	Actual Amount	Encumbrance	Net Amount
2299	OTHER STATE GRANTS & REIMB	\$ 94,360.00			
STATE GRANTS & REIMBURSEMENT		\$ 94,360.00	\$ -	\$ -	\$ -
3237	RETAINED FEES -- \$4.00 PORTION	\$ 605,000.00	\$ 194,200.00	\$ -	\$ (410,800.00)
3238	RETAINED FEES -- \$1.00 PORTION	\$ 150,000.00	\$ 47,578.00	\$ -	\$ (102,422.00)
RECORD & FILING FEES		\$ 755,000.00	\$ 241,778.00	\$ -	\$ (513,222.00)
3896	SERV PROVIDED - GIS CHARGES	\$ 40,000.00	\$ 16,667.00	\$ -	\$ (23,333.00)
INTERNAL SERVICES PROVIDED		\$ 40,000.00	\$ 16,667.00	\$ -	\$ (23,333.00)
4999	OTHER MISC REVENUE	\$ 5,000.00	\$ 805.00	\$ -	\$ (4,195.00)
OTHER REVENUE		\$ 5,000.00	\$ 805.00	\$ -	\$ (4,195.00)
Total Revenues		\$ 894,360.00	\$ 259,250.00	\$ -	\$ (540,750.00)
5001	DIRECT LABOR CHARGED	\$ -	\$ 38,572.00	\$ -	\$ (38,572.00)
5002	OFFTIME CHARGED	\$ -	\$ 7,642.00	\$ -	\$ (7,642.00)
5003	FRINGE BENEFITS CHARGED	\$ -	\$ 41,656.00	\$ -	\$ (41,656.00)
5004	INDIRECT OVERHEAD CHARGED	\$ -	\$ 18,577.00	\$ -	\$ (18,577.00)
5051	DIRECT LABOR APPLIED	\$ -	\$ (16,189.00)	\$ -	\$ 16,189.00
5052	OFFTIME APPLIED	\$ -	\$ (3,131.00)	\$ -	\$ 3,131.00
5053	FRINGE BENEFITS APPLIED	\$ -	\$ (17,916.00)	\$ -	\$ 17,916.00
5199	SALARIES - WAGES BUDGET	\$ 122,151.00	\$ 51,969.00	\$ -	\$ 70,182.00
5312	SOCIAL SECURITY TAXES	\$ 9,413.00	\$ 3,990.00	\$ -	\$ 5,423.00
5407	OPEB LIABILITY	\$ 29,024.00	\$ -	\$ -	\$ 29,024.00
5420	EMPLOYEE HEALTH CARE	\$ 27,195.00	\$ 12,665.00	\$ -	\$ 14,530.00
5421	EMPLOYEE PENSION	\$ 21,899.00	\$ 10,558.00	\$ -	\$ 11,341.00
5422	LEGACY HEALTHCARE	\$ 24,281.00	\$ 7,736.00	\$ -	\$ 16,545.00
5423	LEGACY PENSION	11077	3408	\$ -	\$ 7,669.00
PERSONAL SERVICES		\$ 245,040.00	\$ 159,537.00	\$ -	\$ 85,503.00
6050	CONTRACT PERS SERV - SHORT	\$ 10,000.00	\$ -	\$ -	\$ 10,000.00
6080	POSTAGE	\$ 500.00	\$ -	\$ -	\$ 500.00
6147	PROF. SERV.-DATA PROCESS	\$ 35,000.00	\$ 11,676.00	\$ -	\$ 23,324.00
6148	PROF. SERV-RECURRING OPER	\$ 721,912.00	\$ 240,777.00	\$ 512,781.00	\$ (31,646.00)
6149	PROF. SERV-NON RECURR OPER	\$ 94,360.00	\$ -	\$ -	\$ 94,360.00
6636	INTERNET EXPENSES	\$ 297.00	\$ -	\$ -	\$ 297.00
6637	R/M COMPUTER EQUIP	\$ 22,700.00	\$ 20,800.00	\$ -	\$ 1,900.00
6803	AUTO ALLOWANCE	\$ 300.00	\$ -	\$ -	\$ 300.00
6812	MEETINGS OTHER AUTH TRAVL	\$ 6,000.00	\$ 615.00	\$ 600.00	\$ 4,785.00
SERVICES		\$ 891,069.00	\$ 273,868.00	\$ 513,381.00	\$ 9,460.00
7910	OFFICE SUPPLIES	\$ 630.00	\$ -	\$ -	\$ 630.00
7917	DP SUPPLIES	\$ 200.00	\$ -	\$ -	\$ 200.00
COMMODITIES		\$ 830.00	\$ -	\$ -	\$ 830.00
8010	DEPRECIATION - SYSTEM	\$ 1,095.00	\$ -	\$ -	\$ 1,095.00
DEBT & DEPRECIATION		\$ 1,095.00	\$ -	\$ -	\$ 1,095.00
8558	COMPUTER EQUIPMENT-REPL>\$500	\$ 20,000.00	\$ -	\$ -	\$ 20,000.00
CAPITAL OUTLAYS		\$ 20,000.00	\$ -	\$ -	\$ 20,000.00
9702	TECHNICAL SUPPORT & INFRA	\$ 6,829.00	\$ 2,276.00	\$ -	\$ 4,553.00
9706	PRO SERV DIV SERVICES	\$ 42,171.00	\$ -	\$ -	\$ 42,171.00
9719	RISK MANAGEMENT SERVICES	\$ 171.00	\$ 86.00	\$ -	\$ 85.00
9742	DAS SERVICES	\$ 5,000.00	\$ 2,500.00	\$ -	\$ 2,500.00
9768	APPLICATIONS CHARGES - NETW	\$ 2,632.00	\$ 877.00	\$ -	\$ 1,755.00
9769	APPLICATIONS CHARGES - MAINFR	\$ 134.00	\$ 45.00	\$ -	\$ 89.00
9771	HRIS APPLICATION	\$ 905.00	\$ -	\$ -	\$ 905.00
9774	WORKERS COMP & WC PAY	\$ 745.00	\$ 372.00	\$ -	\$ 373.00
9776	TELEPHONE APPLICATION	\$ 681.00	\$ 227.00	\$ -	\$ 454.00
9777	INSURANCE SERVICES	\$ 8,985.00	\$ 4,493.00	\$ -	\$ 4,492.00
9778	WORKERS COMP ADMIN	\$ 126.00	\$ 63.00	\$ -	\$ 63.00
9779	CENTRAL SERVICE ALLOCATION	\$ 2,743.00	\$ 1,371.00	\$ -	\$ 1,372.00
9781	CH COMPLEX SPACE RENTAL	\$ 25,363.00	\$ 12,684.00	\$ -	\$ 12,679.00
9788	PERSONAL COMPUTER CHARGES	\$ 1,000.00	\$ 333.00	\$ -	\$ 667.00
CROSSCHARGES		\$ 97,485.00	\$ 25,327.00	\$ -	\$ 72,158.00
Total Expenses		\$ 1,255,519.00	\$ 458,732.00	\$ 513,381.00	\$ 187,951.00
Grand Totals		\$ (361,159.00)	\$ (199,482.00)	\$ (513,381.00)	\$ (352,799.00)

Balance Sheet Account Reconciliation		
2007 Ending Balance		1,395,572.97
2008 Fund Transfer		(600,000.00)
2008 Year End Balance		154,300.65
2009 Year End Balance		(56,728.35)
		893,145.27
\$4 Fee Balance Sheet		
2007 Balance		1,098,594.15
2008 Adjustment (Fund Transfer)		(600,000.00)
2008 Year End Balance		210,917.68
2009 Year End Balance		12,788.68
		722,300.51
\$1 Fee Balance Sheet		
2007 Balance		296,978.82
2008 Adjustment (Fund Transfer)		0.00
2008 Year End Balance		(56,617.03)
2009 Fund Transfer		(75,000.00)
2009 Year End Balance		5,482.97
		170,844.76

State of Wisconsin



2009 Senate Bill 507

Date of enactment: **May 12, 2010**
Date of publication*: **May 26, 2010**

2009 WISCONSIN ACT 314

AN ACT *to renumber and amend* 59.72 (4); *to amend* 16.967 (7) (a) (intro.), 59.43 (2) (ag) 1., 59.43 (2) (e), 59.43 (2) (i), 59.72 (3) (b), 59.72 (5) (a), 59.72 (5) (b) (intro.) and 59.72 (5) (b) 3.; and *to create* 16.967 (3) (f), 16.967 (3) (g), 16.967 (7m), 59.43 (2) (L), 59.43 (4) (c), 59.43 (4) (d), 59.72 (2), 59.72 (3m), 59.72 (4) (b), 59.72 (5) (b) 1m. and 59.72 (6) of the statutes; **relating to**: changing the fees collected by a register of deeds, the redaction of social security numbers from electronic documents, and changes to the land information program.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 16.967 (3) (f) of the statutes is created to read:

16.967 (3) (f) Review reports received under s. 59.72 (2) (b) and determine whether county expenditures of funds received under sub. (7) and s. 59.72 (5) (b) have been made for authorized purposes.

SECTION 2. 16.967 (3) (g) of the statutes is created to read:

16.967 (3) (g) Post reports received under s. 59.72 (2) (b) on the Internet.

SECTION 3. 16.967 (7) (a) (intro.) of the statutes is amended to read:

16.967 (7) (a) (intro.) A county board that has established a county land information office under s. 59.72 (3) may apply to the department on behalf of any local governmental unit, as defined in s. 59.72 (1) (c), located wholly or partially within the county for a grant for any of the following projects, except that a county shall complete the project under subd. 1. and make public records in the land information system accessible on the Internet before the county may expend any grant moneys under this paragraph for any other purpose:

SECTION 4. 16.967 (7m) of the statutes is created to read:

16.967 (7m) **SUSPENSION OF AID.** If the department determines that grants under sub. (7) or retained fees under s. 59.72 (5) (b) have been used for unauthorized purposes, the department shall notify the county or local governmental unit of the determination. The notice shall include a listing of unauthorized expenditures. The county or local governmental unit shall have not less than 30 days to contest the determination or resolve the unauthorized expenditures. If the unauthorized expenditures are not resolved in a manner acceptable to the department, the department may suspend the eligibility of the county or local governmental unit that made unauthorized expenditures to receive further grants or to retain further fee revenues.

SECTION 5. 59.43 (2) (ag) 1. of the statutes is amended to read:

59.43 (2) (ag) 1. Subject to s. 59.72 (5) and except as provided in par. (L), for recording any instrument entitled to be recorded in the office of the register of deeds, ~~\$11 for the first page and \$2 for each additional page~~ **\$25**, except that no fee may be collected for recording a change of address that is exempt from a filing fee under s. 185.83 (1) (b) or 193.111 (1) (b).

* Section 991.11, WISCONSIN STATUTES 2007-08 : Effective date of acts. "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication as designated" by the secretary of state [the date of publication may not be more than 10 working days after the date of enactment].

SECTION 6. 59.43 (2) (e) of the statutes is amended to read:

59.43 (2) (e) Subject to s. 59.72 (5) and except as provided in par. (L), for filing any instrument which is entitled to be filed in the office of register of deeds and for which no other specific fee is specified, \$11 for the first page and \$2 for each additional page \$25.

SECTION 7. 59.43 (2) (i) of the statutes is amended to read:

59.43 (2) (i) ~~For~~ Except as provided in par. (L), for recording certificates and for preparing and mailing documents under s. 867.045 or 867.046, \$25.

SECTION 8. 59.43 (2) (L) of the statutes is created to read:

59.43 (2) (L) For recording any instrument under par. (ag), filing any instrument under par. (e), and recording certificates and preparing and mailing documents under par. (i), \$30 if the county uses \$5 of each \$30 fee received under this paragraph to make social security numbers from electronic format records not viewable or accessible on the Internet under sub. (4) (c) and s. 59.72 (6), until the earliest of the following:

1. Completion of the making of social security numbers from electronic format records not viewable or accessible on the Internet under sub. (4) (c) and s. 59.72 (6).

2. Unless the register of deeds has been granted an extension by the department of administration, January 1, 2012. The register of deeds may request the department of administration to extend the time period under this subdivision by one year. The department of administration may grant the extension and may renew the extension for additional one-year periods.

3. January 1, 2015.

SECTION 9. 59.43 (4) (c) of the statutes is created to read:

59.43 (4) (c) With regard to any instrument filed with or recorded by a register of deeds before April 1, 2006, which the register of deeds makes available for viewing or download on the Internet, the register of deeds shall make a reasonable effort to make social security numbers from the transferred instrument's electronic format not viewable or accessible on the Internet.

SECTION 10. 59.43 (4) (d) of the statutes is created to read:

59.43 (4) (d) No later than March 31 annually, every register of deeds of a county that has not completed making social security numbers from electronic format records not viewable or accessible on the Internet under par. (c) shall submit to the department of administration a report regarding the progress made by the county during the preceding year in making social security numbers from electronic format records not viewable or accessible on the Internet under par. (c), including a statement of the number of instruments transferred to an electronic format in the preceding year, the number of these instru-

ments from which social security numbers were made not viewable or accessible on the Internet in the preceding year, the number of instruments remaining from which social security numbers remain to be made not viewable or accessible on the Internet, and the estimated time needed to review the remaining instruments for making social security numbers not viewable or accessible on the Internet.

SECTION 11. 59.72 (2) of the statutes is created to read:

59.72 (2) DUTIES. (a) If the county has established a county assessor system under s. 70.99, the board shall provide Internet access to countywide property tax assessment data, and, if the county maintains land records that identify the zoning classification of individual parcels, the board shall post on the Internet land records that identify the zoning classification of individual parcels.

(b) No later than June 30 following the end of any year in which a county that accepts a grant under s. 16.967 (7) or retains any fees under sub. (5) (b), the county land information office shall submit to the department of administration a report describing the expenditures made with the moneys derived from those grants or retained fees.

SECTION 12. 59.72 (3) (b) of the statutes is amended to read:

59.72 (3) (b) Within 2 years after the land information office is established, develop and receive approval for a countywide plan for land records modernization. For any county in which land records are not accessible on the Internet, the plan shall include a goal of providing access to public land records on the Internet. The plan shall be submitted for approval to the department of administration under s. 16.967 (3) (e).

SECTION 13. 59.72 (3m) of the statutes is created to read:

59.72 (3m) LAND INFORMATION COUNCIL. (a) If the board has established a land information office under sub. (3), the board shall have a land information council consisting of not less than 8 members. The council shall consist of the register of deeds, the treasurer, and, if one has been appointed, the real property lister or their designees and the following members appointed by the board for terms prescribed by the board:

1. A member of the board.
2. A representative of the land information office.
3. A realtor or a member of the Realtors Association employed within the county.
4. A public safety or emergency communications representative employed within the county.

4m. The county surveyor or a registered professional land surveyor employed within the county.

5. Any other members of the board or public that the board designates.

(am) Notwithstanding par. (a), if no person is willing to serve under par. (a) 3., 4., or 4m., the board may create or maintain the council without the member designated under par. (a) 3., 4., or 4m.

(b) The land information council shall review the priorities, needs, policies, and expenditures of a land information office established by the board under sub. (3) and advise the county on matters affecting the land information office.

SECTION 14. 59.72 (4) of the statutes is renumbered 59.72 (4) (a) and amended to read:

59.72 (4) (a) A board that has established a land information office under sub. (3) and a land information council under sub. (3m) may apply to the department of administration for a grant for a land information project under s. 16.967 (7).

SECTION 15. 59.72 (4) (b) of the statutes is created to read:

59.72 (4) (b) A board shall use any grant received by the county under s. 16.967 (7) (a) and any fees retained under sub. (5) (b) to design, develop, and implement a land information system under s. 16.967 (7) (a) 1. and to make public records in the system accessible on the Internet before using these funds for any other purpose.

SECTION 16. 59.72 (5) (a) of the statutes is amended to read:

59.72 (5) (a) Before the 16th day of each month a register of deeds shall submit to the department of administration \$7 ~~\$10~~ from the fee for recording or filing ~~the first page of~~ each instrument that is recorded or filed under s. 59.43 (2) (ag) 1. or (e), less any amount retained by the county under par. (b).

SECTION 17. 59.72 (5) (b) (intro.) of the statutes is amended to read:

59.72 (5) (b) (intro.) ~~-A- Except as provided in s. 16.967 (7m), a county may retain \$5 \$8 of the \$7 \$10 submitted under par. (a) from the fee for recording or filing the first page of each instrument that is recorded or filed~~

under s. 59.43 (2) (ag) 1. or (e) if all of the following conditions are met:

SECTION 18. 59.72 (5) (b) 1m. of the statutes is created to read:

59.72 (5) (b) 1m. The county has created a land information council under sub. (3m).

SECTION 19. 59.72 (5) (b) 3. of the statutes is amended to read:

59.72 (5) (b) 3. The county uses \$4 ~~\$6~~ of each \$5 ~~\$8~~ fee retained under this paragraph to develop, implement, and maintain the countywide plan for land records modernization and \$1 ~~\$2~~ of each \$5 ~~\$8~~ fee retained under this paragraph for the provision of land information on the Internet, including the county's land information records relating to housing.

SECTION 20. 59.72 (6) of the statutes is created to read:

59.72 (6) LAND RECORDS MODERNIZATION. With regard to land records modernization as described in sub. (3) (b), if a register of deeds transfers an instrument that was filed or recorded with the register of deeds before April 1, 2006, to an electronic format, as described in s. 59.43 (4), the register of deeds shall make a reasonable effort to make social security numbers from the transferred instrument's electronic format not viewable or accessible on the Internet.

SECTION 21. Initial applicability.

(1) The treatment of sections 59.43 (2) (ag) 1., (e), and (L) and (4) (c) and 59.72 (5) (a) and (b) (intro.), 1m., and 3. and (6) of the statutes first applies to an instrument that is presented to a register of deeds for recording or filing, or that is transferred to an electronic format, on the effective date of this subsection.

(2) The treatment of sections 16.967 (7m) and 59.72 (4) (b) of the statutes first applies to grants received or fees retained on the effective date of this subsection.

SECTION 22. Effective date.

(1) This act takes effect on the 30th day beginning after the day of publication.

**MILWAUKEE COUNTY
REGISTER OF DEEDS OFFICE**

Inter-Office Communication

Date: May 12, 2010

To: County Executive Scott Walker

From: John La Fave, Register of Deeds

Subject: Notice that the Register of Deeds 2011 Budget will Create Two Land Information Positions in the County Land Information Office (Register of Deeds)

In 1989, County Board resolution File No. 89-747 authorized and designated the Office of the Register of Deeds as the County Land Information Office. The County Board also adopted resolution File No. 90-707 in 1990, which approved the execution by the Register of Deeds and the Director of DOA of a cooperative agreement between Milwaukee County and utility companies. The cooperative agreement established the Milwaukee County Automated Land Information System (MCAMLIS) whose purpose is to engage in land records modernization programs. After one-time financial contributions were made from utilities, land information activities have since been and continue to be funded solely by fees retained from recording fees collected in the Register of Deeds, as per state statute.

In prior years through 2004, Project Management of MCAMLIS work projects were performed by SEWRPC. After 2004 MCAMLIS chose to have Milwaukee County perform the Project Management function.

MCAMLIS fully funds the payroll and work activities of two positions currently located in the Department of Public Works, Architectural and Engineering Division, Support Services Section.

- The Project Manager for MCAMLIS (county title GIS Supervisor)
- GIS Specialist

MCAMLIS has also funded one Geographic Info Tech position located in the Register of Deeds.

As the designated County Land Information Office, Register of Deeds will propose in the 2011 budget to create these two MCAMLIS-funded positions in the Register of Deeds department. The two specific employees who now work for and with MCAMLIS in the two positions located in DTPW would transfer to the new positions in the County Land Information Office located in Register of Deeds. DTPW may choose to continue to keep the two DTPW positions in existence for its own purposes.

Due to outsourcing/downsizing of the data entry section in Register of Deeds, Room 103 has plenty of space available to dedicate to Land Information activities in the form of seven cubicles and adjacent work/storage space.

Having these two positions into the Register of Deeds will place them in the county designated County Land Information Office. They would work alongside the Geographic Info Tech already based in Register of Deeds. They will also be near the tax/property listing section that provides ownership and parcel information to suburban assessors, title companies and the general public.

Bringing all of these positions together in one location will provide greater efficiency of operation for County Land Information Office activities.

cc: Jack Takerian, Interim Director of the Dept. of Transportation and Public Works
Gary Drent, Fiscal & Budget Manager, DTPW
Josh Fudge, Fiscal Mgt Analyst (covers MCAMLIS)
Antionette Thomas-Bailey, Fiscal Mgt Analyst (covers ROD)
William Shaw, MCAMLIS Project Manager
Donald Nehmer, Chairperson MCAMLIS Steering Committee



DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: June 21, 2010

SUBJECT: MCAMLIS PROGRAM STRATEGIC ASSESSMENT FOR 2010 – 2013

INTRODUCTION

At its meeting held on December 8, 2009, the MCAMLIS Steering Committee directed project staff to update and extend the MCAMLIS Program Strategic Assessment last approved by the Steering Committee at its meeting held on June 10, 2003. Portions of this were referenced and updated in the "MCAMLIS Program Status Report" presented by the outgoing MCAMLIS Project Manager and accepted by the Steering Committee at its meeting held December 14, 2004. It was subsequently incorporated in the form of the "MILWAUKEE COUNTY UPDATE TO LAND RECORDS MODERNIZATION PLAN: 2005" and approved by the Steering Committee at its meeting held on July 11, 2006. This memorandum has been prepared in response to the December 8, 2009 directive.

The revenue analysis contained in the preceding Strategic Assessment has been updated and extended to include revenues received for the balance of 2009.

The list of committed work projects set forth in the preceding Strategic Assessment has been updated to reflect additional projects authorized by the Steering Committee since June 2003.

The general format and order of the presentation contained in this memorandum follows that of the June 2003 memorandum to allow for easy comparisons between the two memoranda.

REVENUES

The MCAMLIS program revenues are generated from four sources: 1) locally retained document filing fees collected under the provision of the WLIP, 2) WLIP grant awards, 3) utility member contributions, and 4) recently added category made up of commercial digital data license sales. The amount actually received from these sources over the period from calendar year 1990 through calendar year 2009 are set forth in Table 1.

Table 1

Year	Document Filing Fees (\$4 Portion)	Document Filing Fees (\$1 Portion)	WLIP Grant Receipts	Utility Contributions	Commercial License Sales	Total
1990	\$101,886			\$312,000		\$413,886
1991	\$324,983			\$312,000		\$636,983
1992	\$612,592			\$312,000		\$924,592
1993	\$676,093		\$150,000	\$362,000		\$1,188,093
1994	\$647,355		\$200,000	\$362,000		\$1,209,355
1995	\$503,342		\$165,000	\$50,000		\$718,342
1996	\$574,328		\$138,500	\$50,000		\$762,828
1997	\$644,508		\$55,300	\$50,000		\$749,808
1998	\$769,820		\$139,226	\$50,000		\$959,046
1999	\$773,078		\$152,270	\$50,000		\$975,348
2000	\$609,683		\$103,895	\$170,000		\$883,578
2001	\$743,977	\$72,968	\$325,997			\$1,142,942
2002	\$918,012	\$230,597	\$197,979			\$1,346,588
2003	\$1,178,762	\$295,988	\$223,055			\$1,697,805
2004	\$782,340	\$195,585	\$34,136			\$1,012,061
2005	\$975,396	\$243,849	\$92,589			\$1,311,834
2006	\$811,560	\$203,773	\$300			\$1,015,633
2007	\$706,828	\$176,702	\$22,799			\$906,329
2008	\$564,332	\$141,383	\$300		\$22,941	\$728,956
2009	\$579,944	\$146,536	\$300		\$15,294	\$742,074
Totals	\$13,498,819	\$1,707,381	\$2,001,646	\$2,080,000	\$38,235	\$19,326,081

Source: Milwaukee County Department of Administrative Services.

Locally Retained Document Filing Fees

The document recording fee retained locally under the provision of the WLIP continues to be the largest source of funding to date for the MCAMLIS Program. The \$13,498,819 obtained from this source from 1990 through 2009 accounts for about 70% of all MCAMLIS program revenues. During the period 1992 through 2009 annual revenue obtained from this source has ranged from a low of \$503,342 in 1995, to a high of \$1,178,762 in 2003, averaging about \$726,223 per year over this period. Over the most recent five full years, or the period 2005 through 2009, revenue obtained from this source has averaged about \$727,623.

Beginning in calendar year 2005, a \$4 document filing fee (now revised through Statutes effective June 2010 to \$6) may be expected to be the primary source of funding for the

MCAMLIS program. Accordingly, under provisions of 2009 Wisconsin Act 314 the \$1 document filing fee, in effect since 2001, is now assessed at \$2. Unlike the \$6 document filing fee, which can be expended by the MCAMLIS program for a wide range of tasks intended to implement the adopted Milwaukee County Land Records Plan, Wisconsin Act 314 includes expenditure restrictions on the use of the \$2 retained fee. The effect of these restrictions is reflected in the expenditure section of this memorandum.

Grant Awards

Grant awards received by the MCAMLIS Steering Committee from the WLIP remain the third largest source of revenue for the MCAMLIS program. The \$2,001,646 obtained from this source has accounted for about 10% of all MCAMLIS program revenues. Revenue from this source has ranged from its recent low of \$300 to a high of \$325,997 in 2001.

In view of policy decisions made by the WLIP and budgetary decisions made by the Wisconsin Department of Administration, the WLIP grant program for land records modernization was significantly curtailed, as expected, at the end of calendar year 2003. In calendar year 2004 and forward the WLIP began adopting a grant award policy that provides for counties to receive a minimum award in cases where a county's prior calendar year filing fee revenue falls below a specified amount. This award is referred to as a 'base budget grant'. It is improbable that MCAMLIS would ever meet the threshold required to be eligible for this type of grant. Notwithstanding, an annual \$300 training stipend from the WLIP is expected to continue for future years unless the current policy for this program is changed.

In 2010 Milwaukee County received a grant award totaling \$94,380 for purposes of acquiring LiDAR and LiDAR derived products. The grant was obtained through the Wisconsin Department of Commerce, and was the first of its kind to be administered through the MCAMLIS Steering Committee. It is unclear at this point whether future grants of this type will be pursued given that acceptance of each grant opportunity will depend on the conditions placed on a possible future award and the impact these may have on public policy at the time.

Utility Contributions

Contributions from Wisconsin Bell (now AT&T), the Wisconsin Electric Power Company, the Wisconsin Gas Company (now dba/We Energies) and the Milwaukee Metropolitan Sewerage District have been the second largest source of MCAMLIS Program revenue. The \$2,080,000 received from this source has accounted for about 11% of all program revenues. Under the terms of the Cooperative Agreement that created the MCAMLIS program, each of these utilities agreed to provide \$520,000 toward the creation of the countywide automated base maps that constituted the first major undertaking of the MCAMLIS program. Contributions from Wisconsin Bell, Wisconsin Electric and Wisconsin Gas were completed during 1994. The MMSD contribution was completed during 2000. Accordingly, no further revenue can be expected from this source.

Commercial License Sales

Sales of licenses to allow the commercial distribution of MCAMLIS copyright protected data were authorized by the MCAMLIS Steering Committee beginning in 2008. Five licenses for

Countywide Parcel data have been executed, accounting for a total revenue of \$38,235 or less than 1% of overall program revenue. It is unclear whether this source of revenue can continue in light of copyright revisions authorized by the MCAMLIS Steering Committee in 2009. These revisions specifically terminate the private utility member interest in the MCAMLIS digital data copyright protections and place these into the charge of the MCAMLIS Steering Committee. Nonetheless it is expected that some portion of this revenue may continue into the future.

Anticipated Revenue Trend 2010 Through 2013

Anticipated MCAMLIS revenues for the period 2010 through 2013 are set forth in Table 2. Revenue amounts shown for calendar years 2011 through 2013 are estimates based upon staff analysis in consultation with the Milwaukee County Register of Deeds.

Table 2

Year	Document Filing Fees (\$6 Portion)	Document Filing Fees (\$2 Portion)	WLIP Grant Receipts	Utility Contributions	Commercial License Sales	Total
2010*	\$570,000	\$171,000	\$94,680		\$4,600	\$840,280
2011	\$780,000	\$260,000	\$300		\$4,600	\$1,044,900
2012	\$780,000	\$260,000	\$300		\$4,600	\$1,044,900
2013	\$780,000	\$260,000	\$300		\$4,600	\$1,044,900
Totals	\$2,910,000	\$951,000	\$95,580	\$0	\$18,400	\$3,974,980

These revenue projections assume that, barring changes to the State Statutes, the \$6 fee, the \$2 fee, the WLIP training stipend, in addition to a small but continuing revenue stream associated with commercial data license sales, will make up the primary sources of funding for the MCAMLIS program through calendar year 2013.

Revenues from the \$6 document filing fee for the period 2011 through 2013 are assumed to average \$780,000, calculated using an estimated filing rate of 130,000 documents per year. Given the unprecedented economic conditions of the day, the assumed \$780,000 level appears to be a suitably conservative estimate. There was only 1 prior year, 1995, where there were fewer filings with the exception of the current year 2010 now estimated at 114,000 document filings.

Revenues from the \$2 document filing fee for the period 2011 through 2013 are estimated based on the expected \$6 fee receipts and accordingly projected to be one-third of those or \$260,000.

Based upon the assumptions contained in this analysis, total revenue available to fund the MCAMLIS work program may be expected to remain relatively constant at \$1,044,900 starting with 2011 through calendar year 2013.

* Changes in recording fees raising the \$4 fee to \$6; the \$1 to \$2 fee are estimated based on an effective date of July 1, 2010

ANTICIPATED EXPENDITURE LEVELS AND COMMITTED WORK TASKS: 2010 THROUGH 2013

Anticipated 2010 Through 2013 Expenditure Levels

The amounts anticipated to be available for funding MCAMLIS work tasks for the period 2010 through 2013 are set forth in Table 3. Table 3 represents a filing fee structure whereby calendar years 2011 through 2013 estimates are based on a \$6 fee and a \$2 filing fee. The MCAMLIS Budget has been recalculated for calendar year 2010 based on retained fee changes effective June 14, 2010. Table 3 sets forth a total estimated expenditure level of \$1,044,900 for each of the three calendar years 2011 through 2013.

Table 3*

Work task	2010	2011	2012	2013
Estimated Total Expenditure Authority Available	\$840,280	\$1,044,900	\$1,044,900	\$1,044,900
10% Reserve Fund Holdback	-\$74,560	-\$104,490	-\$104,490	-\$104,490
Encumbered balance carryover		\$274,700		
Balance carryover from prior year	\$309,739			
Subtotal	\$1,075,459	\$1,215,110	\$940,410	\$940,410
<u>Projects obligated by previous action of the Steering Committee</u>				
MCAMLIS Floodland Mapping		\$274,700		
Enterprise Address System	\$41,809			
2010 Orthophotography Acquisition	\$57,024			
LiDAR Acquisition CDBG Grant	\$94,380			
Internet Access to Plats of Survey	\$41,770			
ROD Improvements Projects (V, VI)	\$124,625			
Subtotal	\$359,608	\$274,700	\$0	\$0
<u>Projects Requiring Authorization from the Steering Committee for Continuation of Previously Committed Work Tasks</u>				
2012 Pictometry Ortho/Oblique Imagery			\$67,245	\$67,245
Subtotal	\$0	\$0	\$67,245	\$67,245
<u>On-going Project Management and Database Maintenance Tasks</u>				
Milwaukee County Register of Deeds Cadastral Map and Street Address Database Maintenance	\$42,171			
City of Milwaukee Cadastral Map and Street Address Database Maintenance	\$87,852	\$87,852	\$87,852	\$87,852
Milwaukee County Surveyor	\$77,175	\$77,175	\$77,175	\$77,175
MCAMLIS Project Management, Cadastral Map Maintenance & Program Staff	\$245,040	\$453,979	\$453,979	\$453,979
WLIP Training Grant	\$300	\$300	\$300	\$300
MCLIO Operations	\$149,536	\$102,217	\$102,217	\$102,217

* Under provisions of 2009 Wisconsin Act 314 authorizing \$6 and \$2 filing fees

<u>Subtotal</u>	\$602,074	\$721,523	\$721,523	\$721,523
<u>Total Expenditure</u>	\$961,682	\$996,223	\$788,768	\$788,768
Estimated Amount Available to Undertake New Work Tasks	\$113,777	\$218,887	\$151,642	\$151,642

In addition, in association with the assumption that the \$6 filing fee will generate revenue of approximately \$780,000 annually to fund MCAMLIS work tasks, it needs to be noted that shortfalls in this amount would have significant impacts on the actual expenditure levels that can be budgeted annually. Occasional collection shortfalls can probably be dealt with successfully. Accordingly, continued document filing levels characteristic of the middle 1990s and most recently revisited in 2008 through the current year 2010 are expected to provide adequate revenue although further declines would pose adverse impacts on future amounts available for expenditure. This uncertainty will have to be monitored on a year-by-year basis and will need to be reflected, as may be necessary, in annual MCAMLIS budgets continuing with the budget for calendar year 2011.

Committed Work Tasks

Also shown in Table 3 are work tasks considered by project staff to be “committed” by past Steering Committee actions. The first group of these tasks represents active projects currently under contract or recently authorized by the Steering Committee, one of which will have expenditure obligations beyond the current 2010 budget year. Included in this group of work tasks are the MCAMLIS Floodland Mapping Project first authorized by the MCAMLIS Steering Committee in 2004 and continuing through 2011 totaling \$274,700; the Enterprise Address System (EAS) Project authorized in 2006 totaling \$41,809; the 2010 Orthophotography Acquisition authorized in 2009 totaling \$57,024; the Register of Deeds Improvement Projects (V, VI) authorized in 2009 totaling \$124,625; the Internet Access to Plats of Survey Project authorized in 2009 totaling \$41,770 and the LiDAR Acquisition Project authorized in 2009 and totaling \$94,380.

The second category of projects considered committed for the purpose of this analysis includes projects which are not currently under contract but which represent continuations of previously authorized work programs. Making up this category is the 2012 Pictometry Ortho/Oblique Imagery Project that requires consideration by the Steering Committee in 2011 to authorize further update of both oblique and orthophotography in 2012 for a total of \$134,490.

Also shown as commitments in Table 3 are estimates of current and future expenses associated with the continuation of the MCAMLIS Cadastral Map and Street Maintenance work performed by the Register of Deeds Office and the City of Milwaukee, the Milwaukee County Surveyor’s annual work program, the expenses associated with MCAMLIS project management and staff, and the expenses associated with MCLIO operations including professional services associated with website deployment, hardware/software maintenance and upgrades, staff training and short-term staff augmentation.

Assuming that the work tasks set forth in the current funding scenario represented by Table 3 are undertaken at the estimated budget amounts, approximately \$114,000 would be available to

undertake new work initiatives in 2010, with additional budget flexibility of approximately \$219,000 in calendar year 2011 and reduced amounts of \$151,642 in 2012 and 2013.

Locally retained \$2 Document Filing Fee

The requirements for expenditure of the \$2 locally retained document filing fee have an effect on decisions on how to allocate available funds for future tasks. 2009 Wisconsin Act 314 states that these receipts must be used "... for the provision of land information on the internet including the county's land information records related to housing."

The \$2 locally retained document filing fee will continue to be collected unless authorization is revoked or modified through changes to current law. Through 2009, there has been \$1,707,381 collected under this fee and the MCAMLIS Committee has authorized six separate Register of Deeds Improvement tasks in accordance with guidelines promulgated by the WLIB. These guidelines are attached to this memorandum as Exhibit A.

The Steering Committee has authorized a range of software and hardware upgrades to implement improvements to methods utilized in which documents are recorded, indexed and imaged within the Register of Deeds Office. The remaining authorization of \$124,625 is intended to carry on earlier digital imaging work tasks that began in 2004, providing for documents dating back to the mid 1980's. Most recently, the Steering Committee authorized an expenditure of \$65,000 from this fund in support of access to records through use of the Milwaukee County Interactive Mapping Service via the Internet.

Beyond the current task allocation, continued use of the \$2 filing fee funds for sole purpose of digital imaging and indexing documents is not anticipated. In Lieu of expending the \$2 fee for purposes of document scanning and indexing, the 2009 Wisconsin Act 314 made additional funding, through a special filing fee of \$5 per document, that the Register of Deeds intends to use for document imaging and indexing purposes. This special fee is intended to offset the cost of redacting personal identifiers e.g., individual social security numbers from recorded documents prior to their electronic release. The redacting of personal identifiers is currently being accomplished as part of the Register of Deeds scanning procedures, making use of the \$2 fee and therefore this effort is a legitimate use of the newly authorized \$5 fee. Although the \$5 redaction fee is scheduled to sunset in 2014, it is expected that the current backlog of Register of Deeds documents yet to be scanned can be completed within the sunset period utilizing this special fee alone.

PROGRAM ORGANIZATION AND STAFFING

Land Information Office Organization and Staff

Heretofore, the MCAMLIS Steering Committee has largely been removed from the day-to-day program management and project staffing concerns related to work performance in meeting its objectives. Project management through the period 1990 through 2004 was provided through annual letter agreement between the Regional Planning Commission and the Steering Committee. This agreement provided overall program management and work coordination services. Through these agreements, program initiatives were completed under various contracts with MCAMLIS to perform work tasks either through use of internal Commission staff e.g.,

Cadastral Maintenance, Flood Hazard Mapping, or through a combination of Commission staff and external resources e.g., topographic mapping, professional services consulting etc. In 2005, the MCAMLIS Program management became the responsibility of Milwaukee County and was, for a short time, organized within the Parks Department. Beginning in 2006, it was reorganized within the division of Architecture, Engineering and Environmental Services, a division of the Department of Transportation and Public Works.

Over the period of time that Milwaukee County has provided program management services there has been a significant shift in the MCAMLIS Program from that of developing a system of uniform, countywide, large-scale digital maps and street address database to that of maintaining these earlier initiatives and further enhancing their utility through the use of technology and services. As such, permanent staff supported by MCAMLIS has assumed operational duties related to the MCAMLIS Program. The growth of these operational commitments is reflected in the budget years 2011-2013 whereby overall staffing requirements are increased from having a Project Manager, a GIS Specialist and a half-time GIS Technician to include an additional 1.5 GIS Technicians whereby staff will grow from 2.5 to 4 positions.

The emerging emphasis toward sustaining both the MCAMLIS Program legacy systems and expanding their utility and relevance in the coming years is the over-arching objective reflected in staffing the strategic assessment presented in this memorandum.

Land Information Council

Accordingly, combined with the revision of the aforementioned recording fee structures, the 2009 Wisconsin Act 314 sets forth requirements for each County Board, as a condition of participating in the Land Information Program, must formally appoint a LAND INFORMATION COUNCIL. The land information council must consist of not less than 8 members whose membership shall include the register of deeds, the treasurer, and, if one has been appointed, the real property lister or their designees and the following members for terms prescribed by the board:

1. A member of the board.
2. A representative of the land information office.
3. A realtor or a member of the Realtors Association employed within the county.
4. A public safety or emergency communications representative employed within the county.
5. The county surveyor or a registered professional land surveyor employed within the county.
6. Any other members of the board or public that the board designates.

Notwithstanding, if no person is willing to serve, one or more of the listed member positions, the board may create or maintain the council without the member designated.

MCAMLIS Steering Committee

The Milwaukee County Board, through adoption of county resolution 90-707(a) dated December 8th, 1990, directed establishment of a Steering Committee to direct, coordinate and

oversee the creation and development of the Milwaukee County Automated Mapping and Land Information System. This resolution further specified that the Steering Committee shall consist of a voting representative from the following: Wisconsin Bell; Wisconsin Gas Company; Wisconsin Electric Power Co.; Milwaukee County Register of Deeds; Milwaukee County Department of Public Works; Milwaukee County Department of Administration; Milwaukee County Surveyor; the City of Milwaukee; the Intergovernmental Cooperation Council of Milwaukee County and; the Milwaukee Metropolitan Sewerage District.

Table 4 is included below for comparison of the required committee memberships.

Table 4

<u>Members</u>	<u>Land Information Council</u>	<u>MCAMLIS Steering Committee</u>
Register of Deeds	Required	Required
County Treasurer	Required	
Real Property Lister	Required	
County Board Supervisor	Required	
Land Information Office	Required	Required
Realtor or Realtors Association	Required	
Public Safety or Emergency Communications	Required	
County Surveyor	Required	Required
Municipal Government	Optional	Required (2)
Major Utilities	Optional	Required (4)
County Department	Optional	Required (2)
Total Membership	8	11

Land Information Council Responsibilities

The land information council shall review the priorities, needs, policies, and expenditures of a land information office established by the board and advise the county on matters affecting the land information office.

MCAMLIS Steering Committee responsibilities

The Steering Committee shall oversee and decide on all policy matters relating to the conduct of the subject work program including but not limited to, proposed contracts and specification and the selection of contractors. Any decisions relating to the technical specifications of the work to be performed shall require a unanimous vote of the Steering Committee. All other matters shall require simple majority of all members of the Steering Committee.

MCAMLIS Committee and Land Information Council

With regard to continued program responsibilities and ongoing operations, the Wisconsin Act 314 has set in motion the possibility of a significant realignment of historical program emphasis whereby Utility, Municipal and County Department interests are under-represented on the Land Council, and Realtor, Property Lister, County Board, Safety and County Treasurer will have a designated voice where heretofore there has been no direct representation.

This may pose problems regarding the MCAMLIS Programs historical emphasis on accurate and sustained mapping efforts e.g., Cadastral, Topographic and Image based products that are critical to the management and maintenance of land information on a countywide basis. The disciplines embraced by the Land Information Council as specified do not necessarily embody the same concentration of technical, cartographic and engineering underpinning that are evident in the Steering Committee makeup. Thus, Land Council appointees will presumably need some introduction in this regard to reach a working level of understanding.

There also needs to be consideration of how the Milwaukee County Land Information Program including the new Council will interact, given authority and responsibilities earlier afforded the Steering Committee. The County Board clearly delegated to the Steering Committee the authority to “oversee and decide on all policy matters relating to the conduct of the subject work program including, but not limited to, proposed contracts and specification and the selection of contractors”. Wisconsin Act 314 states that the Council “shall review the priorities, needs, policies, and expenditures of a land information office established by the board and advise the county on matters affecting the land information office”. The Wisconsin Act 314 language appears to leave decision-making authority to the Land Information Office and provides for the Land Information Council to review and advise the actions of the Land Information Office. In this regard, it may be appropriate to consider organizing the Land Information Office (MCLIO) such that the MCLIO assumes a similar role currently filled by the Steering Committee. The Land Information Council would then interact with the MCLIO and provide review and advise in a manner that would be analogous to that of a formalized advisory group.

The County Board needs to act on this matter to first define the roles, responsibilities and organization of Land Information Office, recommending these be similar to the Steering Committee while preserving the technical, engineering and cartographic emphasis of the past. Next, the County Board must act to provide for the Land Information Council as prescribed in the 2009 Wisconsin Act 314. The Milwaukee County Register of Deeds, in his capacity as the Land Information Officer is in the process of drafting a resolution(s) to this effect.

WEB MAPPING ENVIRONMENTS AND THEIR IMPACT ON THE MCAMLIS WORK PROGRAM

While Geodatabase technology and its capability to perform transactional database maintenance has been universally adopted by the MCAMLIS program beginning in 2003, currently there is an ongoing explosion of software technology utilized by a myriad of computer desktop and personal hand held devices whose focus is on mapping and Geographic Information Systems. These are all included in a complex of Web Mapping Environments and

can range from simple applications used to display crime location maps to complex integrated applications used to coordinate real-time emergency response. The evolution of this technology is now occurring and is the manner in which a major component of the MCAMLIS digital maps and map databases are currently organized, displayed and deployed.

The MCLIO Interactive Mapping Service environment (launched in March 2009) exploits a wealth of spatially related technologies and integrates the digital data that the MCAMLIS program has collected over decades. This service is used to generate, display and deploy maps and attribute databases e.g., Tax Parcel and Plats of Survey in a seamless web enabled interactive mapping environment. This level of integration provides that both map features and attribute features can be accessed and manipulated by an integrated complex of software capable of supporting both PUBLIC and SECURE feature access over the Internet.

MCAMLIS adopted this approach beginning in March 2009 and has since integrated more than 150 geodatabase feature datasets, including utility information obtained from MCAMLIS partners, through the use of this technology. The MCLIO website, averaging more than a quarter million accesses per month, can now automatically prepare and distribute analysis and data to user organizations throughout Milwaukee County, the public at large and elsewhere. Likewise, the Cities of Franklin, West Allis and Milwaukee among others have made or are making a similar transition to this technology.

The use of this technology and approach by MCAMLIS serves as a basis to complete the cycle of providing seamless land information systems and data to Milwaukee County government and public interests, which is integrated into a suite of services accessed via the Internet. The advent of this capability has been truly transformative in that MCAMLIS has entered into an arena of land information service and integration that heretofore was not fully understood. Overcoming hurdles in this regard has taken decades and the foresight of the Steering Committee in making the proper investments in both data and technology over this time period is to be commended.

POTENTIAL FUTURE WORK TASKS

The following proposed work tasks represent tasks that, at this time, have either been discussed by the Steering Committee or that are currently under active investigation by project staff, but have yet to be presented to the Steering Committee for consideration and approval. All expenditure amounts set forth in the narrative are approximate amounts for the purposes of planning future annual work programs. At the time that annual contracts would be negotiated for the pursuit of any of these projects, final project budgets would be developed by project staff and presented to the Steering Committee for review and approval. The order in which these potential tasks are presented is not intended to imply any order of priority.

Projects Developed for the use of the \$2 Locally Retained Document Filing Fee

A strategy for expending these receipts needs to be further developed especially given that digital imaging of recorded documents located in the Register of Deeds Office will not necessarily be funded through this mechanism, leaving open the door to further explore the use of the internet for access to land information. In this regard there are a number of opportunities for MCAMLIS to assist in coordination and funding of web enabled countywide efforts e.g.,

continued basemap and infrastructure support, election and voter registration, disaster and risk management, location-based business intelligence, land use, housing, and asset management e.g., pavement & sign inventories among others.

Replacement Topographic Mapping

On occasion the Steering Committee has discussed the desirability of undertaking additional projects to acquire replacement topographic mapping. Since the acquisition of countywide digital topographic mapping in 2005 and the completion in 2009 of topographic mapping including the Marquette Interchange there has been no ongoing program or work task authorized by the MCAMLIS Committee to undertake a topographic replacement program.

The analysis that led to approval by the Steering Committee of the \$3.2 million project in 2005 considered the useful life of the prior topographic mapping to be roughly 10 years. The average cost per square mile was over \$13,000 in 2005 and assuming no change in cost over this period, would require an annual set aside of approximately \$260,000 in each year, beginning in 2010 for the program to fully fund replacement topographic mapping in 2015.

The 2005 analysis did not account for the possibility of the using alternative technologies e.g., image technology capable of detecting changing topography and planimetrics through a combination of LiDAR and other forms of imaging e.g., infrared, orthophotography, oblique and hyper-spectral. In 2009 MCAMLIS staff piloted the use of LiDAR for purposes of evaluating LiDARs utility to assist in updating the topographic map series. In this regard, staff found that there was significant opportunity to conditionally utilize LiDAR, assisted by other imaging to detect incremental topographic and planimetric changes with some precision. The resulting information can be used to identify and guide feature specific update efforts that utilize a combination of traditional or non-traditional photogrammetric techniques.

In 2009 the MCAMLIS Steering Committee authorized staff to enter into a program to acquire LiDAR capable of producing 1 foot contour data throughout Milwaukee County. A project would need to be authorized by the Steering Committee, directing staff to further develop the necessary software and methods capable of wholesale change detection between the 2005 topographic mapping product and 2010, utilizing the newly acquired LiDAR data. Given the experience of the 2009 pilot, it is highly probable that a maintenance program could be developed around multiple technologies that could in effect manage and incrementally maintain the countywide topographic base map at a fraction of the cost of more traditional means. An estimate to continue this evaluation includes specialized change detection software at a cost of \$12,000. Further scoping of this effort would be required to establish the overall cost of countywide topographic map production. However, at this time it is believed that the updates could be completed through utilization of existing staff with opportunities to augment with temporary staff utilizing MCLIO operating resources that can be allocated for this purpose. Total cost including staff, software \$12,000 and 2012 LiDAR update \$20,000 is estimated at a total of \$32,000.

Maintenance of MCAMLIS Format Cadastral Mapping Covering the City of Milwaukee

At its meeting held on December 8th, 2009, the MCAMLIS Steering Committee requested MCAMLIS project staff to begin an evaluation led by the Milwaukee County Register of Deeds—in consultation with the City of Milwaukee and the Milwaukee County representatives—the process for maintenance of the MCAMLIS format cadastral mapping that is currently performed by the City of Milwaukee Geographic Information Systems staff. The current procedures for integrating these data have been in place since October 2008 whereby the City of Milwaukee provides cadastral mapping services under annual contract to MCAMLIS. The ongoing cost of this agreement was questioned in light of similar services performed by the Milwaukee County Register of Deeds Office in conjunction with its maintenance of MCAMLIS cadastral maps for the balance of the county.

The agreement between the City and MCAMLIS that is in place today was adopted over time, and dates back to December 3, 2002 when an interagency evaluation recommended that the City and County cadastral mapping should be performed solely by the Milwaukee County Register of Deeds staff. Through subsequent years, the dual-responsibility approach in place today was adopted and codified in 2005 when the MCAMLIS Steering Committee accepted a recommendation by the City of Milwaukee to allow the hiring of staff whose work would be funded by MCAMLIS to perform this work at the City.

MCAMLIS Address Database Enhancement

At its meeting held August 22nd, 2006, the MCAMLIS Steering Committee authorized staff to proceed to further develop the MCAMLIS Address Database. The resulting program work effort has continued to the present and is now maintained as the MCAMLIS Enterprise Address System whereby street, parcel, building and unit addresses are fully integrated across the entire county. The bulk of this work has been completed and the remaining effort is scheduled to be completed through 2010. Once the work is fully in production, maintenance automation tools will be required to manage the database as address component updates are required and maintenance is performed. The cost estimate for this software is \$20,000.

Milwaukee County Plat-of-Survey Records

At its meeting held March 24th, 2009, the MCAMLIS Steering Committee approved the consolidation of plat-of-survey records held by the Milwaukee County Surveyor and the Milwaukee County Register of Deeds Office to be digitally scanned and a system be devised to allow these to be presented to the public in a map parcel indexed format. In total, there were approximately 90,000 documents with the bulk of this work being completed through May of 2010. There remain approximately 500 plat of survey documents to be indexed and an additional 1300 new 2010 documents to be scanned and indexed. Annual maintenance is anticipated to include approximately 2,000 new surveys. The cost estimate for performing the annual indexing and web posting is estimated to be \$5,500.

Pictometry Oblique, Orthophotography

At its meeting held September 22nd, 2009, the MCAMLIS Steering Committee approved the acquisition of Pictometry International Inc. AccuPlus certified orthophotography. This project was presented and approved along with a project to acquire digital orthophotography included

with the SEWRPC 2010 Regional Orthophotography Program. The nature of this dual acquisition allows that a comparison can be made to determine if the two orthophotography acquisition techniques are certifiably equivalent through the execution of a rigorous comparative study. The comparative study was commissioned as part of an agreement between Milwaukee County, Pictometry International, Inc., Aerometric Engineering and SEWRPC and included in the 2010 Regional Orthophotography Program. A favorable outcome of the comparative study would declare that the Pictometry AccuPlus product can be certified by the Planning Commission and therefore eligible for counties in the region to elect to use Pictometry among other vendor choices in future regional acquisition programs. The next acquisition period for orthophotography in Milwaukee County is anticipated for the spring/summer of 2012. The total cost of the Pictometry AccuPlus flight in 2012 is expected to be \$134,490.

Ash Tree Inventory utilizing Hyper-Spectral Imagery

On occasion the Steering Committee has discussed the possibility of utilizing MCAMLIS funding to provide mapping assistance to suburban communities outside the City of Milwaukee for purposes of an ash tree inventory. The need for an inventory is especially acute in locations where the emerald ash borer has been identified. As more public and private resources are focused on ash borer infestation there appears to be a space for MCAMLIS to assist in the coordination of the mapping effort as well as provide technical support and data deployment services. The cost estimate of \$190,000 is provided.

Thermal Map of Milwaukee County

This particular image technology has not been formally discussed among members of the Steering Committee, nonetheless staff has included it here as a possible strategy for a future undertaking by the MCAMLIS Program. With the current emphasis placed on green technology the measurement of thermal heat loss is critical to the establishment of remedial programs investing in this technology. The MCAMLIS Program could undertake an initiative to build capacity for mapping thermal loss and radiation that would be used by other programs and projects related to this subject. A scope of work would be required to fully develop this effort and therefore no estimate is provided at this time

Historical Aerial Photo Geo-rectification

Various land information programs in adjacent counties have successfully pursued recovery and geo-rectification of historical aerial black and white photography dating back to the mid 1930s. MCAMLIS staff have obtained variously dated un-rectified or poorly rectified digital datasets from UW Milwaukee AGS Library and UW Madison, Arthur Robinson Library. These data have not been fully geo-rectified and in some cases original prints would need to be re-scanned to obtain improved resolution. This effort could be undertaken at minimal cost through use of student and intern labor along with the use of precision scanning equipment located at the Register of Deeds Office. There are 3 flights being considered: 1936-37, 1956, and 1963. Each flight series labor is estimated to cost approximately \$4,000 for a total estimate of \$12,000.

RECOMMENDED MCAMLIS WORK PROGRAM: 2010 THROUGH 2013

Based upon the preceding analysis of anticipated revenue and potential work tasks, a recommended MCAMLIS work program for 2010, 2011, 2012, and 2013 is presented in Table 5. It should be clear from the preceding analysis that difficult task choices will confront the MCAMLIS Steering Committee over the foreseeable future. In light of this, it is the project staff recommendation that the program emphasis continue to be first directed to the creation and maintenance of uniform, countywide system of digital, large-scale base maps, the maintenance of the Enterprise Address System database, the advancement and maintenance of a robust web mapping services environment, and to provide outreach and technical assistance to municipal and institutional government agencies. The work program set forth in Table 5 reflects this recommendation.

Table 5

Work task	2010	2011	2012	2013
MCAMLIS Floodland Mapping		\$274,700		
Enterprise Address System	\$41,809			
2010 Orthophotography Acquisition	\$57,024			
LiDAR Acquisition CDBG Grant	\$94,380			
Internet Access to Plats of Survey	\$41,770	\$5,500	\$5,500	\$5,500
ROD Improvements Projects (V,VI)	\$124,625			
2012 Pictometry Ortho/Oblique Imagery			\$67,245	\$67,245
Milwaukee County Register of Deeds Cadastral Map and Street Address Database Maintenance	\$42,171			
City of Milwaukee Cadastral Map and Street Address Database Maintenance	\$87,852	\$87,852	\$87,852	\$87,852
Milwaukee County Surveyor	\$77,175	\$77,175	\$77,175	\$77,175
MCAMLIS Project Management, Cadastral Map Maintenance & Program Staff	\$245,040	\$453,979	\$453,979	\$453,979
WLIP Training Grant	\$300	\$300	\$300	\$300
MCLIO Operations	\$149,536	\$102,217	\$102,217	\$102,217
Projects for Expenditure of the \$2 Document Filing Fee	\$4,605	\$141,843	\$141,843	\$141,843
Replacement Topographic Mapping	\$12,000		\$20,000	
Ash Tree Inventory (Hyper-Spectral Imagery)		\$190,000		
Milwaukee County Thermal Map				
Historical Aerial Photography		\$4,000	\$4,000	\$4,000
Estimated Total Expenditures	\$978,287	\$1,337,566	\$960,111	\$940,111
Estimated Total Expenditure Authority Available	\$1,075,459	\$1,215,110	\$940,410	\$940,410
Estimated Unrestricted Remaining balance	\$97,172	-\$122,456	-\$19,701	\$299
Amount Held in Reserve	\$74,560	\$104,490	\$104,490	\$104,490

Recommended Work Tasks

- It is recommended that the Steering Committee authorize MCAMLIS Staff to proceed with the evaluation of change detection technology in concert with the 2010 acquisition of LiDAR, Oblique and Orthophotography and to further recommend a scope of work

and estimated cost of employing this technology to manage and maintain the replacement requirements of the topographic base map series.

- It is recommended that the Steering Committee request that the Milwaukee County Intergovernmental Coordination Council member on the Committee with assistance from the MCAMLIS Project Manager solicit input from the ICC membership with regard to the need and utility of an “Ash Tree Inventory” including suburban communities outside the City of Milwaukee. Their findings and analysis should be brought back to the MCAMLIS Steering Committee in time for its consideration of this matter and if warranted to allow sufficient coordination time to mobilize an effort to solicit potential cost share partners and to perform this work given the available funding by late August 2011.
- It is recommended that the Steering Committee request the Milwaukee County Register of Deeds with assistance from the MCAMLIS Project Manager to develop a list of projects that meet conditions for expenditure of the \$2 locally retained document filing fee for calendar years 2011-2013 and to request the Milwaukee County Register of Deeds to submit this list along with estimated fiscal requirements to the Steering Committee for its information, and for needed committee action to budget for the expenditure of these receipts as part of the overall MCAMLIS Program.

SUMMARY

The analysis set forth in this memorandum demonstrates that the Steering Committee has numerous opportunities to consider program growth without jeopardizing the core functions of the MCAMLIS Program; that is, maintaining and sustaining a system of uniform, countywide, large-scale digital maps and street address database while recognizing the needs of Milwaukee County and its constituent municipalities. The budget years of 2011-2013 include sufficient increases in Project Management and program staff resources to undertake these core maintenance functions, while leaving significant room for advancing technology and specialized services e.g., Ash Tree Inventory, web mapping environment deployment, and timely map products that will be beneficial throughout Milwaukee County. While there are shortfalls in the estimated funding that is listed in 2 out of the 4 years, there remains ample time for the committee to address these potential shortfalls before a full commitment of the resources would be necessary. In light of this, staff recommends that the MCAMLIS work program set forth in Table 5 would direct the necessary resources to sustain and grow the MCAMLIS Program through the next 4 years.

* * * * *

Exhibit A

Office of Land Information Services
Wisconsin Department of Administration

**GUIDELINES FOR THE USE OF THE
ADDITIONAL DOLLAR RETAINED BY THE COUNTY**

The 2001-2003 Wisconsin State Biennial Budget, 2001 Wisconsin Act 16, enacted legislation relating to the recording fees retained by the county. Specifically, s. 59.72 (5) (b) 3., Wis Stats., now provides as a condition for retaining those fees, that:

“The county uses \$4 of each \$5 fee retained under this paragraph to develop, implement, and maintain the county wide plan for land records modernization, and \$1 of each \$5 fee retained under this paragraph to develop and maintain a computerized indexing of the county’s land information records relating to housing, including the housing element of the county’s land use plan under s. 66.1001(2)(b), in a manner that would allow for greater public access via the Internet.”

Section 66.1001 (2) (b), Wis. Stats., describes the housing element as:

“A compilation of objectives, policies, goals, maps and programs of the local governmental unit to provide an adequate housing supply that meets existing and forecasted housing demand in the local governmental unit. The element shall assess the age, structural, value and occupancy characteristics of the local governmental unit’s housing stock. The element shall also identify specific policies and programs that promote the development of housing for residents of the local governmental unit and provide a range of housing choices that meet the needs of persons of all income levels and of all age groups and persons with special needs, policies and programs that promote the availability of land for the development or redevelopment of low-income and moderate-income housing, and policies and programs to maintain or rehabilitate the local governmental unit’s existing housing stock.”

This document is intended to provide guidelines for the use of \$1 of the \$5 retained under s. 59.72 (5) (b) 3, Wis. Stats. These funds are available for land records modernization activities with respect to developing and maintaining computerized housing information, including data related to the housing element of a comprehensive plan, and making that data accessible to the public via the Internet.

The Land Information Board-emanuelled Ad Hoc Committee on Strategic Initiatives has identified the following as areas of eligible expenditures.

1. Property Tax Assessment Information assessable via the Internet.
The Board is working on a tax assessment file that will offer seamless statewide queries over the Internet. This file will be populated with existing tax assessment data from the counties and will be a focus of the strategic initiative.

2. Current Housing Supply and Forecasted Demand of Residential, Commercial, Industrial and Other Lands
 - Number and Type of Housing Units (single family, duplex, multi-family, mobile home, etc.)
 - Owner Occupancy, Rented, Vacant
 - Condition of Housing Stock
 - Census Data (trends in population, economic conditions, household characteristics, income and economic factors)
 - Developable Land
3. Affordable and Special Needs Housing Information
 - Market Rents
 - Subsidized Housing
4. Housing Sales Information

Eligible Expenditures of this \$1 retained fees to achieve the above would include:

1. Computer Hardware
2. Computer Web-Enabling Software
3. In-House Staff Time Including Database Design
4. Vendor Contracting
5. Metadata Development – *Please note, the development of metadata is a requirement for all data collected and maintained with Land Information Program-revenues, whether they are retained fees or grant funds.*



**DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: June 11, 2010
SUBJECT: MCAMLIS Copyright and Data Distribution Policies Status

BACKGROUND

The Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee approved a project directing staff to implement recommended revisions to existing MCAMLIS Copyright and Data Distribution Policies.

This project was formulated as a result of Steering Committee approval of the Utilities Sub-Committee recommendations regarding MCAMLIS Copyright and Data Distribution Policies. The Utilities Sub-Committee recommendations were as follows:

- The Utilities Sub-Committee interest in the MCAMLIS Copyright should be dissolved and that action should be taken to affect this change;
- MCAMLIS Staff should continue to work, assisted by Mr. Schwartz, Attorney, Quarles & Brady LLP, to compose an appropriate letter to AT&T requesting a statement from them regarding their continuing interest in the MCAMLIS Copyright;
- MCAMLIS Staff (assisted by Mr. Schwartz) should report the impact of this action and recommend suitable alternative policy to the Steering Committee once action to dissolve the copyright had been taken.

ACTIVITIES THIS PERIOD – 6/09 - 6/10

- MCAMLIS Staff obtained draft revisions of the MCAMLIS Commercial and Non-Commercial Data license agreement specifying MCAMLIS as the having copyright interests as per Carl Swartz

NEXT

- MCAMLIS Steering Committee review the proposed copyright exhibits and advise staff as to their further intentions to maintain licensing requirements related to MCAMLIS Copyright materials and the need to further administer material distribution via license agreement
- Proceed with development of MCAMLIS Requisition and Distribution Policy

Attach: Revised MCAMLIS License Agreement

* * * * *



DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

DATA REQUISITION AND DISTRIBUTION GUIDELINES

BACKGROUND

The Milwaukee County Automated Mapping and Land Information System (MCAMLIS) is a public-private consortium begun in 1990 by and between Milwaukee County, the Milwaukee Metropolitan Sewerage District, Wisconsin Bell, the Wisconsin Electric Power Company, and the Wisconsin Gas Company. A Steering Committee comprised of representatives from each of the above entities plus representatives from the City of Milwaukee and the Intergovernmental Cooperation Council of Milwaukee County oversees all activities of the consortium.

MCAMLIS was formed to develop and maintain the automated mapping base essential for the creation of a modernized land information system for Milwaukee County. In so doing, MCAMLIS oversees the implementation of the Milwaukee County land records modernization plan, originally set forth in the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) Community Assistance Planning Report No. 177, Feasibility Study for a Milwaukee County Automated Mapping and Land Information System. Accordingly, the Milwaukee County Land Information Modernization Plan is required to be revised every 5 years. Subsequent revisions of this plan were developed over time with the most recent being approved by the Wisconsin State Department of Administration on July 11th, 2006. The mapping effort detailed in the County plan builds upon historic, coordinated base mapping efforts carried out by Milwaukee County, the Milwaukee Metropolitan Sewerage District, the cities and villages in the County, and the SEWRPC.

In December 1993, the Steering Committee executed a formal License Agreement pertaining to matters of copyright ownership and use of MCAMLIS derived data. With respect to mapping products, the License Agreement distinguishes between hard copy; as derived from the digital mapped materials; and the actual digital mapped materials. Under the License Agreement, the Steering Committee has taken copyright title to both hard copy maps and digital materials included under implementation of the adopted County plan.

As included in an implementation study completed in 1991 and subsequently refined and modified overtime, the MCAMLIS work program consists of the following:

- The completion of the location and remonumentation of all U. S. Public Land Survey corners in the County, including the centers of the sections.
- The completion of high-order horizontal and vertical control surveys to establish the State Plane Coordinates and elevations of the U. S. Public Land Survey corners.
- The completion of large-scale topographic base maps in digital form at a scale of one-inch equals 100 feet with two-foot contour intervals.
- The completion of companion cadastral maps to the topographic maps in digital form at a scale of one inch equals 100 feet providing detailed information on the location and

configuration of all real property boundaries, including the boundaries of all streets and public ways and other public land holdings; and assigning a parcel identification number (tax key number) to each ownership parcel to enable the linking of geographic with non-geographic data files.

- Street address data for all parcels in Milwaukee County.

All MCAMLIS mapping products are based upon the Wisconsin State Plane Coordinate System, South Zone (North American Datum of 1927) and referenced to the National Geodetic Vertical Datum of 1929.

DATA SHARING POLICY GUIDELINES AND PROCEDURES

As noted above, the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) program was created in response to the need for the development of an automated mapping base for use by Milwaukee County, the local units of government in Milwaukee County, and the private utilities. At the outset, it was recognized that an infusion of monetary resources from the private sector was necessary to create an automated mapping base for the County in a timely fashion. In response to this need, We Energies (formerly Wisconsin Gas Company and Wisconsin Electric Power Company), and AT&T (formerly SBC AMERITECH, Wisconsin Bell) invested significant private capital in the MCAMLIS program.

In order to protect their investments, the private utility members of MCAMLIS were originally granted the MCAMLIS copyright to the mapping base in its digital form. The utility member copyright interest has since been dissolved and starting in 2009 the MCAMLIS Steering Committee holds all MCAMLIS copyrights. The overall goal of the MCAMLIS program has been, and continues to be, the construction of the automated mapping system that is consistent with the standards specified in the County plan, and to make the end products created as a result of the MCAMLIS program available to the widest possible range of users in a fair and efficient manner. Monies generated as a result of the sale of MCAMLIS derived data to commercial entities--other than those commercial entities requesting data for non-commercial, internal use--are to be returned to the MCAMLIS budget, and used in the continued development of the MCAMLIS automated mapping base. The MCAMLIS program is not, and was not intended to be, a for profit venture. Accordingly, the Data Requisition and Distribution Guidelines presented herein are intended to embody a spirit of fair and reasonable access to the MCAMLIS database. The MCAMLIS Steering Committee has formulated the following policies attendant to the distribution and use of the copyrighted mapped data developed under the MCAMLIS program.

Accommodation of Requests

All requests for MCAMLIS data shall be made through the MCAMLIS Project Manager.

MCAMLIS Project Manager
Milwaukee County Land Information Office
Department of Transportation and Public Works
2711 West Wells Street, Room 426
Milwaukee, Wisconsin 53208-3509
Telephone (414) 278-2176
Fax (414) 223-1982

Distribution and Use of Print Ready Electronically Formatted Materials

It is no longer the policy of the MCAMLIS Steering Committee to make available selected MCAMLIS products in hard copy form at the cost of reproduction and distribution. All such products are now made available as printer ready electronically formatted documents and can be obtained through the use of readily available Internet browser technology. This includes records of control survey stations , control survey summary diagrams, plat of survey documents and certified survey maps. Digital images of these materials may be accessed directly from the Milwaukee County Land Information Office website located at maps.milwaukeecounty.org . These products are made available at no cost.

Distribution and Use of Digital Materials

The Steering Committee has established a policy that distinguishes between the commercial and noncommercial use of the digital maps produced under the MCAMLIS program. Noncommercial use is defined to include the periodic internal use of selected digital mapping materials--not the entire digital mapping file--by private firms and individuals. For noncommercial purposes, it is the general policy of the MCAMLIS Steering Committee to make available duplicate copies of the copyrighted digital MCAMLIS products subject to reimbursement of the cost of reproduction, handling, and distribution. Local units of government within or outside of Milwaukee County; State and Federal agencies; private firms and individuals requesting digital data for internal, noncommercial use; and nonprofit organizations may request duplicate copies of the digital topographic and cadastral map files. The MCAMLIS data are typically made available as specified within customized boundaries—area of interest (AOI). A boundary description of the AOI should accompany requests directed to the MCAMLIS Project Manager.

Current cost guidelines for obtaining such duplicate digital mapping files, intended to cover the costs of reproduction, handling, and distribution, are attached as Exhibit A. These guidelines reflect average costs associated with the reproduction, handling, and distribution of digital files as those files are presently stored. All monies received by the MCAMLIS Project Manager under this section will be retained by the MCAMLIS program as reimbursement for the actual expenses incurred.

Any party requesting duplicate digital files containing MCAMLIS copyrighted mapped data will be required to execute a license agreement in addition to paying for the costs of duplication set forth on Exhibit A. A copy of the license agreement is attached as Exhibit B. The license agreement provides the conditions under which the categories of noncommercial users described above may use the digital map data and prohibits the user from providing access to the data in digital form by a third party except in the case of 3rd parties working as agents of a Licensee or in cases where a Licensees internal guidelines require them to directly respond to a public open records request. The MCAMLIS Project Manager is authorized by the MCAMLIS Steering Committee to act on the Steering Committee's behalf for action in a timely manner regarding requests for a license to obtain and use the digital MCAMLIS mapping files. The MCAMLIS Project Manager will review the request for consistencies with the policies set forth herein. The MCAMLIS Project Manager will not unreasonably refuse to provide access to the digital materials where the intended use is for a governmental, educational, non-profit, or internal

private purpose. The MCAMLIS Project Manager will make findings and act to approve or disapprove the request. The MCAMLIS Project Manager will then formulate an appropriate response with respect to each request and shall report all requests for licenses and specific determinations with respect thereto to the Steering Committee.

For commercial purposes, that is, where private firms or individuals seek to acquire all or substantially all of the digital files for internal or external use, it is the general policy of the MCAMLIS Steering Committee to make available duplicate copies of the digital copyrighted MCAMLIS mapping files in the native format within which the data is maintained. The Steering Committee will consider requests for duplicate digital copyrighted files for commercial purposes on a case-by-case basis. Requests should be directed to the MCAMLIS Project Manager at the address noted above. The Project Manager will report all such requests to the Steering Committee for their consideration and determination. The Steering Committee will make findings and act to approve or disapprove the request. If the Steering Committee disapproves the request, it shall be denied. All actions to approve a request shall include the terms of a license agreement. The MCAMLIS Project Manager will then carry out the Steering Committee's direction with respect to each request.

As a matter of general policy, it is the intent of the MCAMLIS Steering Committee to usually require any commercial entity requesting a duplicate copyrighted digital file of the MCAMLIS mapping database to acquire that database at a cost of \$7,647 per feature class e.g., tax parcel. This amount is derived from \$520,000 --representing a full cost equivalent of each utility member's investment whereby the complete database herein restricted by copyright, if acquired would total this sum. The total amount will be paid directly to the MCAMLIS Steering Committee and will be used by that Committee in furtherance of the objectives of the MCAMLIS program. All commercial entities intending to acquire a duplicate digital file of the copyrighted MCAMLIS mapping database for commercial purposes as defined above will be required to enter into a license agreement for the use of that database. That license agreement--which will be generally based upon the standard license agreement set forth in Exhibit B, but which will be adapted on a case-by-case basis as directed by the Steering Committee--will govern how, if at all, the commercial entity may provide access to the data in digital form by a third party and will provide for appropriate payment or payments.

MCAMLIS DATA AVAILABILITY

The following represents the availability of MCAMLIS print formatted electronic copy and digital data as of June 17, 2010:

- Records of control survey stations have been completed and are available for all U. S. Public Land Survey section and quarter section corners in the County.
- Control survey summary diagrams prepared for six-square-mile areas are available for the entire County.
- Digital files of large-scale topographic base maps are available from MCAMLIS for all of Milwaukee County.
- Digital files of continuously maintained cadastral maps are available from MCAMLIS for all of Milwaukee County. .

- Street centerline, parcel address and building address data are available for all of Milwaukee County.

The status of available digital map products under the MCAMLIS program is continually changing. Interested parties should contact the MCAMLIS Project Manager to inquire about the availability of additional products.

* * *

Exhibit A

MCAMLIS DIGITAL MATERIAL DISTRIBUTION
COST SCHEDULE FOR NON-COMMERCIAL USERS*

Digital Format**	Digital Base Materials Area of Interest (AOI)	
	Minimum Request including 1 st .5 hour of labor	Each Additional Hour of Labor***
ArcGIS (specify format)	\$ 65.00	\$ 75.00
Microstation DGN	\$ 65.00	\$ 75.00
AutoCAD DWG/DXF	\$ 65.00	\$ 75.00

Plus shipping costs and sales taxes where applicable.

Fees are waived for government agencies; MCAMLIS partner organizations, non-profit and academic purposes

** The three digital formats included in the table are the most frequently requested. Delivery in other formats may not be feasible. Any party desiring to explore delivery in other formats will be expected to pay the costs entailed in determining the feasibility of such delivery.

*** Ordered simultaneously with additional labor beyond the 1st .5 hour required to satisfy a request selection.

Source: MCAMLIS Project Manager; June 17, 2010

EXHIBIT B

Continued on the next page

**MILWAUKEE COUNTY AUTOMATED MAPPING
AND LAND INFORMATION SYSTEM**

**LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL USE
OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS**

WHEREAS, the Milwaukee County Automated Mapping and Land Information System Steering Committee (the "Steering Committee"), a committee whose members currently are the Southeastern Wisconsin Regional Planning Commission, Milwaukee County, Wisconsin Bell Telephone now dba/"AT&T", Wisconsin Electric Power Company and Wisconsin Gas now dba/"We Energies", The City of Milwaukee, the Milwaukee Metropolitan Sewerage District, and the Intergovernmental Cooperation Council of Milwaukee County, is the copyright owner of certain digital base mapping materials developed under the Milwaukee County Automated Mapping and Land Information System (hereinafter referred to as "MCAMLIS"); and

WHEREAS, the MCAMLIS program is presently being administered by the Milwaukee County Department of Parks and Public Infrastructure, through an employee designated as the MCAMLIS "Project Manager"; and

WHEREAS, _____ a unit or agency of government, a not-for-profit organization, an educational institution, or a private firm or individual seeking MCAMLIS digital data for internal, non-commercial use, (hereinafter referred to as the "Requestor"), has filed a request with the MCAMLIS Project Manager to obtain duplicate files of the digital MCAMLIS base mapping materials (hereinafter referred to as the "digital base maps"); and

WHEREAS, the Steering Committee is willing to permit the Requestor to obtain the digital base maps subject to the following conditions and understandings:

1. Within ten days after the later of the execution of this License Agreement or the Project Manager's receipt of the Paragraph 6 payment, the Steering Committee will provide Requestor with one digital copy of the current MCAMLIS _____ file, in _____ format. Subject to the limitations set forth below, the Steering Committee agrees not to object to the Requestor using, reproducing, modifying, and/or displaying the digital base maps; preparing or distributing in non-digital form reports incorporating the base maps derived from the digital files; and distributing the base maps and reports in non-digital form to all parties concerned.
2. The Steering Committee agrees not to object to the Requestor making duplicate copies of the digital base map files for its own internal use. Such files, however, are intended only for the use of the employees and agents of the Requestor; and the Requestor and its employees and agents are expressly prohibited from providing copies of the digital base map files to any other party.
3. The Requestor agrees to use the digital base maps only for noncommercial purposes; that is, for governmental and educational purposes and for private purposes when a private firm or individual periodically uses selected digital materials -- not the entire MCAMLIS digital files -- for internal use.
4. The Requestor agrees to hold the digital base map files in confidence and prevent any third party from having access to those files or to any materials in digital form derived therefrom except as otherwise authorized by the Steering Committee by special agreement with the Requestor.

5. The distribution or use of the digital base maps in violation of the foregoing provisions shall be deemed a copyright violation and shall automatically terminate all rights of the Requestor relative to the digital base maps or any materials derived therefrom.
6. The Requestor agrees to reimburse the Steering Committee (via payment to the Project Manager), if requested, in the amount set forth in the attached cost schedule in connection with obtaining a copy or copies of the digital base maps.
7. The Requestor understands that the digital base maps and materials are being provided AS IS, WITHOUT ANY WARRANTY BY THE STEERING COMMITTEE OR ITS MEMBERS OR THE PROJECT MANAGER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND WITHOUT ANY WARRANTY OF ACCURACY. The Requestor hereby agrees to indemnify, defend, and hold harmless the Steering Committee, its members, and the Project Manager, and their subcontractors, from any claims arising out of the Requestor's use of the digital base maps or any information or materials derived therefrom.
8. The Requestor understands that none of the Steering Committee, or its members, or the Project Manager, or their subcontractors, has any obligation to supplement or update any of the digital base maps provided. Should, however, the Steering Committee or its members provide any updated digital base maps to the Requestor, such updated maps shall automatically be covered hereunder.
9. In the event that MCAMLIS derived hardcopy maps depicting the MCAMLIS copyright have been modified by Requestor, the Requestor shall describe such modification and depict the modification as clearly distinguishable from the original MCAMLIS base maps. The Requestor agrees not to misrepresent modified maps as being the original MCAMLIS base maps, nor to state or imply that modifications made by Requestor were reviewed or approved by MCAMLIS.

AGREED TO:

Requestor: _____

By: _____ Date: _____

Title: _____

Steering Committee

By: _____ Date: _____

Title: Project Manager

MILWAUKEE COUNTY AUTOMATED MAPPING
AND LAND INFORMATION SYSTEM

LICENSE AGREEMENT PERTAINING TO THE COMMERCIAL USE OF
COPYRIGHTED DIGITAL BASE MAPPING MATERIALS

WHEREAS, the Milwaukee County Automated Mapping and Land Information System Steering Committee (the "Steering Committee"), a committee whose members currently are the Southeastern Wisconsin Regional Planning Commission, Milwaukee County, Wisconsin Bell Telephone now dba/"AT&T", Wisconsin Electric Power Company and Wisconsin Gas LLC now dba/"We Energies", The City of Milwaukee, the Milwaukee Metropolitan Sewerage District, and the Intergovernmental Cooperation Council of Milwaukee County, is the copyright owner of certain digital base mapping materials developed under the Milwaukee County Automated Mapping and Land Information System (hereinafter referred to as "MCAMLIS"); and

WHEREAS, the MCAMLIS program is presently being administered by the Milwaukee County Department of Transportation and Public Works, through an employee designated as the MCAMLIS "Project Manager"; and

WHEREAS, _____ (hereinafter referred to as the "Requestor"), is seeking access to the digital form of MCAMLIS for the uses specified herein, and has filed a request to obtain a copy of the current digital MCAMLIS copyrighted base mapping materials (hereinafter referred to as the "digital base maps"); and

WHEREAS, the Steering Committee is willing to permit the Requestor to obtain the digital base maps, subject to the following conditions and understandings;

1. Within ten days after the execution of this License Agreement, Requestor shall pay the Steering Committee (via payment to the Project Manager) a licensee fee of \$_____ U.S. Dollars, and also a reproduction fee of \$_____ U.S. Dollars to offset the costs of producing and providing the copies of the digital materials. Within ten days after the Steering Committee has received these payments, the Steering Committee shall provide Requestor with one digital copy of the current MCAMLIS _____ materials, in _____ format.

2. Once the Steering Committee has received the paragraph 1 payments, subject to the limitations set forth below, the Steering Committee agrees not to object to Requestor's:

(a) internal use (e.g. using, reproducing, modifying, and internally displaying) of the digital base map files;

(b) preparing or distributing in non-digital form reports incorporating materials derived from the digital files;

(c) distributing base maps and reports in non-digital form; and

(d) Exhibit 1 uses and commercializing of the Exhibit 1 digital base map files and materials derived therefrom.

Except to the extent and for the purposes permitted herein (e.g. as specified in paragraphs 2(a) - (d) and Exhibit 1), Requestor may not distribute copies of the digital materials received under this License Agreement outside its company, and shall hold those digital materials confidential. Hence, the Requestor agrees not to use, and to prevent those it retains in connection with these activities from using, the digital base maps, or materials derived therefrom, for any purposes beyond those authorized herein. However, where it needs the assistance of a third party consultant to help create the Exhibit 1 derivative materials it may permit the consultant to access the digital materials, if the consultant also agrees to the confidentiality and use restrictions of this License Agreement.

3. The authorizations hereunder are non-exclusive.

4. The distribution or use of the digital base maps, or materials derived therefrom, in violation of the foregoing provisions shall be deemed a copyright violation and shall automatically terminate all rights of the Requestor relative to the digital base maps or any materials derived therefrom.

5. The Requestor understands that the digital base maps and related materials are being provided AS IS, WITHOUT ANY WARRANTY BY THE STEERING COMMITTEE OR ITS MEMBERS OR THE PROJECT MANAGER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND WITHOUT ANY WARRANTY OF ACCURACY. The Requestor hereby agrees to indemnify, defend, and hold harmless the Steering Committee, its members, and the Project Manager, and their subcontractors, from any claims arising out of the

Requestor's or Requestor's customers use of the digital base maps or any information or materials derived therefrom.

6. The Requestor understands that none of the Steering Committee, or its members, or the Project Manager, or their subcontractors, has any obligation to supplement or update any of the digital base maps provided under this License Agreement. Should, however, the Steering Committee or its members provide any updated digital base maps to the Requestor, such updated maps shall automatically be covered hereunder.

7. In the event that materials supplied hereunder have been modified by Requestor yet still bear a reference to the Steering Committee or its members, the Requestor shall make clear in what it commercializes that the materials that Requestor has created are not the original form of the original MCAMLIS materials. In this regard, the Requestor agrees not to misrepresent what was in the original MCAMLIS base maps, nor to state or imply that modifications made by Requestor were approved or reviewed by the Steering Committee or its members.

AGREED TO:

Requestor: _____

By: _____ Date: _____

Title: _____

Steering Committee

By: _____ Date: _____

Title: MCAMLIS Project Manager

EXHIBIT 1

Additional Terms Of Use

Notwithstanding any limitations and restrictions set forth in the attached License Agreement, with respect to creating the derivative products, and providing the services using them, set forth below, Requestor may copy the data received under the License Agreement, adapt and incorporate the data for the commercial purposes described below, and use the resulting materials for the commercial purposes in the manner described below:

(a) Requestor may store the data on Requestor's secure internal network and may use the data to create a derivative parcel layer database to be retained, used and licensed solely by Requester. Requestor will not resell or redistribute the data files as received from the Steering Committee.

Requestor shall be the sole owner of all intellectual property rights (and all proprietary interests) with respect to whatever it or those it commissions adds to the data or other materials received from the Steering Committee under this License Agreement, and shall not be required to provide either any copies of such derivative products. However, nothing herein is intended to transfer to Requestor any copyright rights in the underlying data provided by the Steering Committee.

Date: June 22, 2010

To: MCAMLIS Steering Committee Members

From: David W. Baraniak
President, Trifecta GIS North America

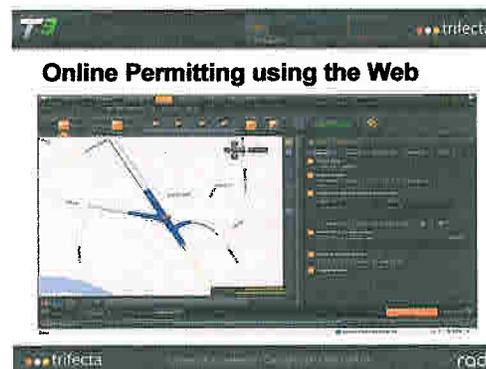
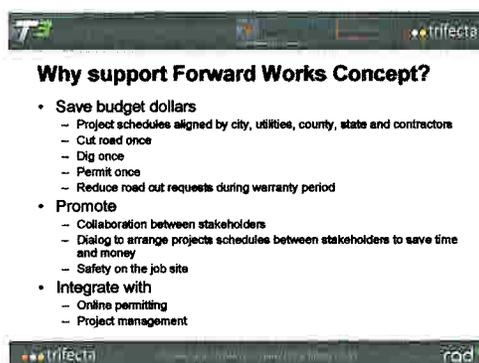
Re: Member Involvement in Trifecta's Pilot Forward Works Program

I am writing to invite Members with current and proposed infrastructure programs to participate in a Trifecta Global Infrastructure Solutions, LTD (Trifecta) sponsored "Forward Works" (FW) pilot program. The goal is to replicate the success of the FW program now operational in New Zealand within the US.

The FW concept is to populate a web browser program with proposed infrastructure projects supplied by municipalities, utilities and state agencies that are planned for the next three to six years. Once the data is populated for the seven county southeastern Wisconsin region, members will be able to view opportunities to collaborate on future projects as well as identify possible conflicts where projects are overlapping. Password access will control access to member data.

The six month pilot program will commence on July 1, 2010 and end on December 31, 2010. Trifecta will host the web site at no charge and with no charges to each participant. The participants will be required to submit their data in accordance with a predetermined set of attributes, including georeferenced project centerlines. At the end of the pilot, a report will be authored by Trifecta describing the benefits received or lack thereof by the parties. After the pilot is completed, we will match member input with our costs and propose a reasonable monthly fee for continuing the program.

If You have questions or need additional information, please contact me at 262-385-2301 or via email, david.baraniak@trifectagis.com.



SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607

TELEPHONE (262) 547-6721
FAX (262) 547-1103

Serving the Counties of:

KENOSHA
MILWAUKEE
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RACINE
WALWORTH
WASHINGTON
WAUKESHA



MEMORANDUM

TO: County and Municipal Engineers, Surveyors and Land Information System Managers

FROM: SEWRPC

DATE: June 16, 2010

SUBJECT: CONTROL SURVEY DATUM TRANSFORMATIONS

Since early 1964 the Regional Planning Commission has recommended to its constituent counties and municipalities the use of a unique system of survey control as a basis for the compilation of large-scale topographic and cadastral maps, as a basis for the conduct of land and engineering surveys, and as a basis for the development of automated parcel-based land information and public works management systems. This system of survey control is based upon two survey datums, the North American Datum of 1927 (NAD 27) and the National Geodetic Vertical Datum of 1929 (NGVD 29). The Federal government has promulgated two new datums, the North American Datum of 1983 and the North American Vertical Datum of 1988. The realization of these datums within the seven-county southeastern Wisconsin Region are designated NAD 83 (2007) and NAVD 88 (2007) respectively.

Importantly, the Wisconsin Department of Transportation (WisDOT) has developed and made operable, within the Region, a network of continuously operating reference stations (CORS), intended to facilitate the conduct of Global Positioning System (GPS) surveys on a Real-Time Kinetic (RTK) basis within the Region. This network of stations is based upon the two new Federal datums as those datums have been realized within the Region.

In order to facilitate potential use of the new Federal datums within the Region, the Commission has developed a computational system that facilitates the ready bidirectional transformation of State Plane Coordinate positions and bench mark elevations between Commission recommended and the new Federal datums. The development and use of this computational system is described in the enclosed report, SEWRPC Technical Report No. 49, *Bidirectional Transformation of Legacy and Current Survey Control Data Within Southeastern Wisconsin*, May 2010.

Importantly, the report also describes how GPS surveys within the Region may be readily conducted on the Commission recommended NAD 27 horizontal datum and NGVD 29 vertical datum by following the procedures set forth in Appendix G of the enclosed report. GPS surveys can be made using WisDOT CORS network, while remaining on the Commission Legacy Survey Control System.

We trust that the enclosed report will be of both interest and use to you in the continued conduct of land and engineering surveys within the Region and in the development and maintenance of parcel-based land information and public works management systems.

Should you have any questions concerning the enclosed report, or the application of its recommendation in your work, please do not hesitate to contact the Commission staff.

* * *

KWB/lgh
#151858 v1 - Control Survey Datum Transformations

Enclosure