

MINUTES
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
EXECUTIVE COMMITTEE

Thursday, January 24, 2013

2:18 p.m.

SEWRPC Office Building
Commissioners' Conference Room
W239 N1812 Rockwood Drive
Waukesha, Wisconsin 53187-1607

Present:

Excused:

Committee Members:

David L. Stroik, Chairman
Gilbert B. Bakke
Thomas H. Buestrin
Michael A. Crowley
James T. Dwyer
Nancy L. Russell
Daniel S. Schmidt
Gustav W. Wirth, Jr.

William R. Drew, Vice-Chairman
Adelene Greene

Staff:

Kenneth R. Yunker
Elizabeth A. Larsen
Debra A. D'Amico

Executive Director
Business Manager
Executive Secretary

ROLL CALL

Chairman Stroik called the meeting to order at 2:18 p.m. Roll call was taken and a quorum declared present. Mr. Yunker noted that Mr. Drew and Mr. Greene had asked to be excused.

APPROVAL OF MINUTES OF MEETING OF NOVEMBER 15, 2012

Chairman Stroik asked if there were any changes or additions to the November 15, 2012, meeting minutes.

On a motion by Ms. Russell, seconded by Mr. Wirth, and carried unanimously, the minutes of the Executive Committee meeting held on November 15, 2012, were approved as published.

ADMINISTRATIVE COMMITTEE REPORT, MR. DWYER REPORTING

Chairman Dwyer reported that the Administrative Committee, at its meeting held just before the Executive Committee meeting, had taken the following actions:

1. Reviewed and approved disbursements for four financial periods: Year 2012 Nos. 24, 25, and 26, and Year 2013 No. 1, extending over the period November 5 to December 30, 2012.
2. Reviewed and approved the Statement of Projected Revenues and Expenditures for January 2013.

There being no questions or comments, on a motion by Mr. Wirth, seconded by Ms. Russell, and carried unanimously, the Administrative Committee report was approved.

REPORT ON CONTRACTS

Chairman Stroik asked Ms. Larsen to review the proposed contracts noting that the Committee members had received a report with a table listing 11 contracts prior to the meeting. Ms. Larsen then briefly reviewed these contracts with the Committee.

In response to an inquiry by Mr. Schmidt, concerning who on the Commission staff will be assigned to work with the Kenosha County Housing Authority, Mr. Yunker stated that Mr. Christopher Parisey of the Community Assistance Division staff has been assigned this task. He noted that Mr. John Meland is working part-time as a Commission staff member and is available for assistance during the transition period.

In response to an inquiry by Ms. Russell, concerning the contract with Tetra Tech, Inc. and the contract completion date of November 27, 2012, Ms. Larsen stated that the contract completion date of November 27, 2102, is correct. She noted the work was completed as of that date.

In response to a second inquiry by Ms. Russell, concerning differing County surveyor contract amounts between Waukesha, Walworth, and Ozaukee Counties, Mr. Yunker indicated that the amounts are based on agreements reached with the counties for which the Commission acts as County Surveyor, that the costs to the Commission are most equitably apportioned to these counties based on the number of U.S. Public Land System (USPLSS) corners within each of the counties (50 percent of total cost) and the amount of urban development within each of the counties (50 percent).

[Secretary's Note:

Appendix A to the minutes is a memorandum prepared by Commission staff in early 2012 which describes the County Surveyor function and activities, the work conducted by the Commission as County Surveyor for then four counties (the Commission now also acts as the County Surveyor for Ozaukee County) and the costs of the Commission County Surveyor program and its apportionment to the participating Counties.]

There being no further questions or comments, on a motion by Mr. Schmidt, seconded by Mr. Wirth, and carried unanimously, the report relative to the contracts was accepted and placed on file (copy of report attached to Official Minutes).

CONSIDERATION OF AMENDMENT TO THE 2013-2016 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM

Mr. Yunker presented Resolution 2013-01, amending the 2013-2016 Regional Transportation Improvement Program (TIP).

Mr. Yunker noted the amendment contains 27 projects and has been reviewed and unanimously approved by the Commission Advisory Committees for Transportation System Planning and Programming for the Kenosha, Milwaukee, and Racine Urbanized Areas, and that it has been determined that the projects included in the amendment are in conformance with the regional transportation plan. He then briefly reviewed the 27 projects in the amendment.

There being no inquiries or comments, on a motion by Mr. Wirth to approve Resolution No. 2013-01, seconded by Mr. Schmidt, and carried unanimously by a vote of 8 ayes and 0 nays, Resolution 2013-01 was approved (copy of Resolution 2013-01 attached to Official Minutes).

WORK PROGRAM REPORTS

Mr. Yunker reviewed a table entitled, "*Work Program Progress Report.*" He noted that the Report shows the progress of key regional, as well as, local community and county assistance efforts under each Commission staff division's section of the report (copy of report attached to Official Minutes).

In response to an inquiry by Chairman Stroik, relative to the outcome of the Socio-Economic Impact Analysis (SEI) of the regional housing plan, Mr. Yunker stated that the comments of the Commission Planning and Research Committee on the SEI were discussed with the University of Wisconsin-Milwaukee staff who prepared the SEI. He noted that there will be a summary in Appendix K of the regional housing plan that was prepared by Commission staff that will be reviewed by the Planning and Research Committee at the February 5, 2013, meeting.

CORRESPONDENCE/ANNOUNCEMENTS

Mr. Yunker reported that there was no correspondence or announcements.

ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 2:34 p.m., on a motion by Mr. Wirth, seconded by Mr. Schmidt, and carried unanimously.

Respectfully submitted,

Kenneth R. Yunker
Deputy Secretary

APPENDIX A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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MEMORANDUM

TO: Southeastern Wisconsin Regional Planning Commission Administrative Committee

FROM: Southeastern Wisconsin Regional Planning Commission Staff

DATE: January 27, 2012

SUBJECT: RECENT ACTIVITIES UNDER COMMISSION COUNTY SURVEYOR SERVICES

PURPOSE OF MEMORANDUM

By memorandum dated February 25, 2003, the Commission staff briefed members of the Commission Intergovernmental and Public Relations Committee about Commission efforts to promote sound surveying and mapping practice throughout the Region. That memorandum stimulated discussion within the Intergovernmental and Public Relations Committee concerning the role of the Commission in assisting its constituent counties to meet their statutory County Surveyor responsibilities. As a result of that discussion, the Commission determined to continue to provide County Surveyor services on request to its constituent counties. The purpose of this memorandum is to inform the Commission Administrative Committee about the status of the Commission County Surveyor services provided in response to the 2003 Commission decision.

CONTEXT OF COUNTY SURVEYOR ACTIVITIES

Introduction

Since it became operational in 1961, the Commission has provided technical guidance and advice to its constituent counties and municipalities with respect to surveying and mapping. This guidance and advice has taken the form of the publication of planning guides on official mapping and land subdivision control; the preparation of contracts and specifications for large-scale topographic and cadastral mapping projects carried out by counties and municipalities within the Region; the promotion of the creation of a survey control network within the Region to support such mapping; and the provision of technical guidance and advice concerning the conduct of both plane and geodetic surveys in support of county and municipal planning and engineering activities. As the counties and municipalities within the Region acted to implement the Commission recommendations, the Commission staff activities in the survey and mapping area necessarily increased, and the Commission became directly involved in both the conduct of field surveys in support of mapping operations, as well as in the administration of control survey and mapping projects for counties and municipalities.

In 1984, pursuant to State legislation and with the agreement of the Milwaukee County Board, the Commission initiated the direct provision of County Surveyor services to Milwaukee County. In 1999 the Commission similarly initiated the direct provision of County Surveyor services to Walworth County; in 2000 to Waukesha County, and in 2006 to Kenosha County. This memorandum is intended to brief the Administrative Committee on the activities carried out under the Commission provision of County Surveyor services to the four counties concerned.

Importance of Surveying and Mapping to Good Public Planning and Engineering

Accurate large-scale topographic and cadastral (real property ownership) maps are essential to good municipal planning and engineering. Such maps did not exist anywhere within the Region when the Commission was created in 1960. Accordingly, the Commission promoted the preparation of large-scale topographic and cadastral maps suitable for municipal planning and engineering and for the creation of what have come to be known as automated, parcel-based, land information systems and companion automated public works management systems.

The preparation of large-scale topographic and cadastral maps and the efficient conduct of surveying and mapping activities in support of municipal planning and engineering operations, requires the establishment of a high order survey control network in an area. Such a network consists of a framework of monumented points whose horizontal and vertical positions on the surface of the earth have been accurately established by field surveys. Subsequent surveys and map details are adjusted to that network, and surveys and maps are checked against that network. For public works engineering, land surveying, official mapping, and the creation of automated, parcel-based, land information and public works management systems, it is essential that the survey control network provide for the accurate correlation of real property boundary line and topographic data. It is also essential that the network be permanently monumented on the ground, and that a record of pertinent data on each control survey station be created and maintained so that the control survey system is readily usable for all subsequent surveying and mapping activities in the area concerned.

Commission-Recommended Control Survey Network

In 1961 the Commission developed and recommended the establishment within the Region of a unique system of survey control intended not only to facilitate the conduct of engineering and land surveys, but also to coordinate the conduct of such surveys throughout the Region. Importantly, the recommended control survey system was also intended to provide the foundation for the preparation of accurate and readily correlatable topographic and cadastral maps that could provide the foundation for the creation of automated parcel-based land information and public works management systems usable by private as well as public agencies. The Commission-recommended control survey system combines the originally separate U.S. Public Land System (USPLSS) and the State Plane Coordinate System (SPCS) into one integrated survey control system. The former is fundamentally a legal system facilitating the description and location of real property boundaries, the preparation of accurate cadastral maps, and the conduct of land surveys. The latter is a scientific system facilitating the preparation of accurate topographic maps and the conduct of scientific and engineering surveys.

Properly implemented and maintained, the recommended survey control network provides monumented stations of known horizontal and vertical position on both the USPLSS and SPCS systems at half-mile intervals throughout the area concerned. This greatly facilitates the conduct of engineering and land surveys and, importantly, coordinates such surveys throughout the seven-county Region. Such coordination is particularly important for the creation of good parcel-based land information and public works management systems; and for the conduct of certain planning and engineering efforts, including the conduct of hydraulic structure inventories; the determination of flood flows and stages and the accurate delineation of flood hazard areas; the accurate mapping of wetlands; the sound development of areawide sanitary sewerage, water supply, and stormwater management systems; the preparation of accurate as-built plans and profiles of constructed facilities; and the collection of certain types of planning data, such as land use data, on a reliable, areawide basis.

The Commission-recommended control survey network also serves to perpetuate the USPLSS within the Region by utilizing the USPLSS section and quarter-section corners, including the centers of sections and meander corners, as the monumented stations of the control survey network.

Status of Recommended Control Survey Network

As of January 1, 2012, through the actions of the counties, of some of the municipalities, and of the Commission itself, the Commission-recommended control survey network has been put in place throughout all seven counties of the Region. All of the approximately 11,800 USPLSS corners within the Region had been remonumented and their positions on the SPCS established by high order geodetic surveys. The elevations of these monumented corners have also been established together with the elevations of ancillary benchmarks. Consequently, a high order, regional control survey network is now in place within the Region. This network is, as much an integral part of the infrastructure of the Region as are its streets and highways and its publicly and privately owned utility systems.

COUNTY SURVEYOR FUNCTIONS

The perpetuation of the USPLSS is essential for the proper identification, description and stability of real property boundaries; for the mapping of such boundaries; and for the delineation of such boundaries on the ground through the conduct of land surveys. The location of the monumented corners of the USPLSS are the basis for the description and location of all real property boundaries, and for the legal description and location of all city, village, and civil town boundaries; for annexation or other changes to such boundaries, and for the exercise of such land use control measures as zoning, and official mapping. Wisconsin law makes the perpetuation of the USPLSS—which was originally established within the Region by the Federal government in 1836—the responsibility of the County Surveyor, a position which may, depending upon the preference of the County Boards concerned, be either an elected or appointed position. Pursuant to State law, the county Surveyor must be a registered land surveyor.

Within the seven-county Southeastern Wisconsin Region, the USPLSS corners are an integral part of the high order control survey network which has been established within the Region. This fact, in effect, expands the primary responsibility of the County Surveyor from simply perpetuation of the USPLSS, to the attendant perpetuation of the high order control survey network. This requires geodetic as well as plane surveying skills, and the ability to conduct high order horizontal positioning surveys to establish State Plane Coordinate positions of the USPLSS corners; and high order vertical positioning surveys to establish the elevations of the monuments and ancillary benchmarks. As already noted, the control survey network is an integral part of the infrastructure of the Region and it is important that the capital invested in the creation of this system be preserved, and the continued utility of the network be maintained along with the continued utility of the USPLSS.

The corner monuments, and the ancillary witness marks and benchmarks, which comprise the control survey system within the Region are subject to damage, disturbance, destruction, and burial by rural and urban land use development and redevelopment activities; by roadway and utility construction and reconstruction; from degradation of the physical monuments themselves as a result of the actions of roadway salt and frost heave; and, in some cases, from vandalism. Experience indicates that from three to six percent of the monuments comprising the two integrated systems may be expected to be destroyed or rendered unusable annually. A significant effort is therefore required annually to perpetuate, and maintain the utility of the two integrated systems.

Properly perpetuating the USPLSS corners and the attendant witness marks and benchmarks and the control survey data base requires a strong sense of responsibility and commitment as well as technical expertise. It was the lack of such commitment, particularly in the first half of the Twentieth Century that led the Commission to recommend in the latter part of that Century substantial reinvestment in the USPLSS and the creation of an attendant control survey system within the Region. The required sense of responsibility and commitment must reside not only in the individual assigned to carry out the County Surveyor duties, but also in the elected officials that govern the counties. Moreover, the individual who serves as County Surveyor

needs technical expertise not only in land surveying, but—given the interrelationship between the USPLSS monuments and the control survey system—in geodetic surveying and photogrammetry as well. Such expertise needs to extend to knowledge of state-of-the-art survey instrumentation, including total station and global positioning system technology. Expertise is also required relative to the application of computer software programs used to perform adjustments of traverses and horizontal control survey networks, and of differential level circuits and vertical control survey networks.

COUNTY SURVEYOR ACTIVITIES

Perpetuation of U.S. Public Land survey System Corners

The work of perpetuating the U. S. Public Land Survey System corners typically occurs under one or the other of two situations: The first such situation occurs when the County Surveyor, in accordance with State law, notice is served on the County Surveyor that a corner monument is to be disturbed or destroyed, and will require replacement. The second such situation occurs when the County Surveyor is advised by a potential user, or otherwise discovers, that a corner monument has been illegally destroyed without notice.

In the first situation the perpetuation work requires the conduct of a preconstruction survey involving the inspection of the existing monumentation and attendant witness and benchmarks that are to be disturbed or destroyed through construction activities; the setting of temporary witness and benchmarks outside of the construction zone; and the transfer of existing benchmark elevations to the temporary benchmarks. Following completion of the construction activities the corner concerned is remonumented, new permanent ancillary benchmarks erected, and the State Plane Coordinates and elevation of the new monument together with, the elevation of the new benchmarks are obtained by field survey. The lengths and bearings of the one-quarter section lines emanating from the corner are also checked by field survey.

The conduct of such preconstruction surveys requires careful and timely coordination with State, county, city, village, and town public works officials and with the staffs of public utilities to ascertain the timing of the initiation and completion of the construction activities concerned. This is necessary to permit both the conduct of the preconstruction surveys and the replacement of the monuments concerned without—for example—requiring pavement cuts in new roadway pavements for the setting of the corner monuments. The County Surveyor needs to maintain good contacts with State, county, and local units and agencies of government and with the private utilities most commonly engaged in construction projects within the County in order to achieve the coordination needed for the most cost effective perpetuation of the USPLS system monumentation.

The second situation requires substantially more work in that the original position of the corner must be determined by high-order traverse or global positioning surveys tied to existing real property boundary lines and corners in the local area, and to the areawide control survey network. The elevations of the new benchmarks must be determined by often lengthy differential level surveys. The lengths and bearings of the emanating one-quarter section lines must be resurveyed.

In each case, field notes must be kept of the work done and new records documenting the remonumentation prepared.

The number of USPLSS corners requiring remonumentation within a County annually will vary with a number of factors including the amount of land use development and redevelopment taking place within the County, changes in farming practices and field layouts, and—particularly—on the amount of street and highway and utility construction and reconstruction activities. This variability is illustrated by the following table setting forth corner remonumentation work accomplished in the four counties for which the Commission provided County Surveyor services over the last five calendar years.

County	Number of USPLSS Corners Remonumented Annually Under Commission County Surveyor Services					
	2011	2010	2009	2008	2007	Average
Kenosha	49	51	24	18	18	32
Milwaukee	67	45	34	60	89	59
Walworth	21	39	42	43	19	33
Waukesha	49	46	79	61	112	69
Total	186	181	179	182	238	193

Maintenance of U.S. Public Land Survey System and Control Survey Station Records

Pursuant to State law, the County Surveyor must prepare and maintain a record of each USPLSS corner and survey control station. The record sheets indicate the location of the corner in the USPLSS, the State Plane Coordinate, and elevation of the monument marking the corner, the location and elevation of the ancillary bench marks. The record includes a location sketch which carefully depicts the setting of the corner monumentation with respect to such features as buildings, roadway pavements and sidewalks, power poles, trees and other pertinent features; describes the required attendant witness marks and bench marks, and provides measured distances from those marks to the monumented corner concerned.

The record sheet also includes a certificate of the County Surveyor which sets forth the history of the monumentation of the corner concerned, including the dates of the original monumentation and the dates of all remonumentation; the responsible parties involved for the monumentation and remonumentation, and the reasons for which the remonumentation was necessary. This certificate provides invaluable information and assurance to public and private land and public works engineering surveyors, and property owners, that the location of the corner has been properly perpetuated.

The Office of the County Surveyor also collects and maintains historical records such as field notebooks used by former County Surveyors, plats of surveys, and copies of pertinent documents from local private land surveying and engineering firms, for use in researching and validating the location of USPLSS corners within the County. The Office of the County Surveyor also maintains control survey summary diagrams providing data on the State Plane Coordinates of the USPLS System corners, the lengths and bearings of the one-quarter section lines, and the areas of the one-quarter sections for use in the conduct of land and engineering surveys and in maintaining automated land information and public works management systems.

OTHER COUNTY SURVEYOR ACTIVITIES

The County Surveyor is, from time-to-time, called upon to provide support services to county and municipal staffs including the staff of the Milwaukee Metropolitan Sewerage District. Such services include the extension of the USPLSS and control survey data to users; the provision of technical guidance and advice to county and municipal land information system staff in the creation of property boundary maps and related materials; the use of measurement and location instruments and technologies; and the preparation of contracts and specifications for, and administration of, large-scale topographic mapping proposals. The County Surveyor is also, from time-to-time, called upon to perform boundary and other surveys in support of county and municipal operations.

Some examples of the miscellaneous services provided by the County Surveyor to the counties served follow. All such services were provided at the specific request of cognizant county officials.

Kenosha County

- Conduct survey to resolve major property boundary line dispute related to USPLSS corner location in the Town of Brighton. This effort involved the participation by the County Corporation Counsel and County Planning Director.
- Conduct survey to resolve dispute concerning flood elevations and floodplain boundary locations in Village of Pleasant Prairie prior to land subdivision development.

- Provide benchmarks and benchmark elevations for regulation of levels of Lake Mary and Elizabeth Lake.

Milwaukee County

- Conduct analysis of comparative ability of conventional photogrammetric and newly developed photogrammetric techniques to provide orthophotography meeting National Map Accuracy Standards. This analysis involved the conduct of high order field surveys to determine the coordinate positions of 100 picture points on two sets of orthophotographs for comparative analysis.
- Locate and map hazards to air navigation in approach zones to General Mitchell International Airport.
- Serve as member of Milwaukee County Automated Mapping and Land Information System steering committee.

Walworth County

- Conduct land survey and prepare Certified Survey Map delineating County Courthouse Square in Elkhorn. This survey provided the basis for County and City agreement on disputed ownership of the Courthouse Square and framing streets.
- Provided counsel to Register of Deeds on creation of Assessors Plat of Lost Nation Park area fronting on Lauderdale Lake in Town of LaGrange.
- Conducted land surveys and prepared plats of survey for six parcels of County-owned land: three salt sheds, one in Town of East Troy, one in Town of Darien, and one in Town of Bloomfield; the Webster House Museum in City of Elkhorn; the Walworth County Historic Burial Ground in Town of Geneva; and the County Law Enforcement Center in the Town of Geneva. In addition, at County request, an exterior boundary survey and plat was prepared of the Walworth Center Cemetery in the Town of Walworth.
- Assist Walworth County Land Information Council in preparing a plan for updating the County topographic maps.

Waukesha County

- Conduct survey to verify encroachment of apartment building onto County park land in the City of Waukesha.
- Develop equations for bidirectional transformation of data on legacy and current horizontal and vertical survey datums.
- Delineate and monument locations of section line to assist local land surveyor in determining property boundaries for development by Lac La Belle Recreation Center in the City of Oconomowoc.
- Provide counsel on existence and resolution of a gap in property boundaries potentially blocking County recreational trail extension in the Village of Dousman and Town of Ottawa.
- Provide benchmark elevations for conduct of County hydraulic structure inventory on Scuppernong Creek.
- Conduct survey and map extensive wetlands in Town of Lisbon.

FUNDING

Based upon consideration of the aforereferenced 2003 staff memorandum, the Commission determined that the cost of providing County Surveyor services to its constituent counties should be apportioned based 50 percent on the number of USPLSS corners within each of the counties, and 50 percent on the amount of urban land within each of the counties. Based upon this allocation the cost of the services in calendar year 2012 will be \$42,458 for Kenosha County, \$78,719 for Milwaukee County, \$71,145 for Walworth County, and \$114,750 for Waukesha County. Currently the total of \$307,072 may not fully cover the total cost of the services, particularly including overhead costs. The funding necessary to cover full costs is provided by State and Federal contributions under the Commission overall work program budget. State and Federal transportation agencies also clearly benefit from the County Surveyor services.

SUMMARY AND CONCLUSION

The Regional Planning Commission in 1984 began to provide County Surveyor services on request to its constituent counties. In 2012 the Commission will provide such services to four counties: Kenosha Milwaukee, Walworth, and Waukesha. Pursuant to State law, those services perpetuate the U.S. Public Land Survey System within the counties concerned. Perpetuation of that system is essential for the proper identification, description, and stability of real property boundaries; for mapping of such boundaries; and for the delineation of such boundaries on the ground through the conduct of land surveys. The Commission County Surveyor services also serve to maintain the continued utility of the control survey network which at the recommendation of the Commission has been created within the Region and which is as much a part of the infrastructure of the Region as are its street and highway, sanitary sewerage, water supply, and storm water management systems. That control survey system is integrated with the U.S. Public Land Survey System, and as such facilitates the conduct of engineering and land surveys within the counties concerned, coordinates the conduct of such surveys throughout the Region, provides the foundation for the preparation of accurate and readily correlatable topographic and cadastral maps, and provides one of the key foundational elements for the creation of automated parcel-based land information and public works management systems usable by private as well as public agencies within the Region.

The provision of County Surveyor services by the Commission to its constituent counties is an example of the kind of shared services that eliminates unnecessary duplication of costly staff expertise and equipment. Such elimination is increasingly being sought by elected officials and citizen leaders concerned with good public administration. County Surveyor services have been and are being provided by the Commission in a cost effective manner, and have apparently, for over two decades now, met well the needs of the diverse user communities concerned.

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Appendix A - ExeComJan12Min (00201722).DOC