# Champaign County GIS Consortium Work Plan & Report Membership Year 2016



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# Introduction

This Work Report & Plan provides time estimates and descriptions of services that will be provided in the following fiscal year. Costs associated with these services are also outlined in the document. In addition, three-year projections of both labor/services and costs are provided for reference.

# **Section 1. CCGISC Tasks**

The Champaign County GIS Consortium (CCGISC) tasks are categorized into three groups: 1) core services and support functions, 2) work tasks and 3) technical service contracts. Core service and support function tasks are fundamental to the operation of the CCGISC. Work tasks are new initiatives identified by the CCGISC members that will continue to improve efficiency, decision making, communication, education and recordkeeping within their member organizations. Technical service contracts provide GIS related support to agencies on a contractual basis. Together, these tasks assist in accomplishing the goals set forth in the Intergovernmental Agreement.

## Section 1A. Core Services and Support Functions

Core services and support functions are grouped into five general categories - GIS Data Layers, Consortium Support, Data Distribution, Management, and Education and Training. Anticipated time allocation for each of these categories is found below. Time allocation estimates are based on current and historic allocation data as well as staff input. In addition, narratives are provided for each of the five categories.

Champaign County GIS Consortium  Core Services and Support Function Comparison	FY2015 Weeks	FY2016 Weeks	Explanation
CCGISC Core Services and Support Functions			
GIS Data Layers			
Annual Maintenance and Quality Control	88.00	88.00	Allocated time remains consistent with previous fiscal year
Improvement Tasks	25.00	25.00	Allocated time remains consistent with previous fiscal year
Total:	113.00	113.00	
Consortium Support	25.00	25.00	Allocated time remains consistent with previous fiscal year
Data Distribution	30.00	30.00	Allocated time remains consistent with previous fiscal year
Management	44.00	44.00	Allocated time remains consistent with previous fiscal year
Education and Training	6.00	6.00	Allocated time remains consistent with previous fiscal year
CCGISC Core Services & Support Functions Total:	218.00	218.00	

## Section 1A-1. GIS Data Layers

One of the missions of CCGISC is to provide Consortium members with up-to-date, high quality regional GIS data. To provide this service, it is necessary to **maintain** and **improve** the existing, or "core" GIS data layers.

## **Annual Maintenance and Quality Control**

The performance of maintenance and quality control procedures are methods utilized by CCGISC staff to provide high quality GIS data. The majority of the data layers are in constant transition to reflect the changes of the features the layers represent. When changes are reported to CCGISC staff, the layers are updated in a timely manner. In addition, quality control procedures are executed to maximize data accuracy.

## **Improvement Tasks**

The first priority of the CCGISC staff is to maintain and refine the core GIS layers, services, and support functions. Improvement tasks are divided into two categories 1) short-term tasks that are finite and will be completed within the next 3-years and 2) ongoing tasks that require periodic review or refinement.

In fiscal year 2016 twenty-five (25) weeks of staff time has been reserved for improvement tasks. The table below contains a brief description of the identified improvement tasks, an estimate of the total time needed to complete the task and the anticipated completion year.

	Identified Improvement Tasks	Description	Time Estimate (weeks)	Anticipated Completion Year
Sh	ort-term			
		Script to validate database integrity i.e. parcel		
1.	Develop Address Database Quality Control Scripts	numbers, proper jurisdication, landmark reference,	5.0	2016
		etc.		_
2.	Make CCGISC Website ADA Accessible	Finalize ADA compliancy for CCGISC website	3.0	2016
3.	Implement Parcel Fabric	Migrate parcel data to ESRI's comprehensive Parcel Fabric solution should it be determined a viable option after 2015 test	18.0	2017
4.	Create ISO Metadata	Migrate existing metadata to ISO format; create ISO metadata for layers	15.0	2018
5.	Migrate Sales Database to SQL Server	Migrate sales base from access to SQL server and create web-based interface	6.0	2018
6.	Automate Technical Service Contract Invoices	Create database and generate invoice	4.0	2017
7.	Develop Guest Viewer for Addressing Interface	Provide read-only access to Address Interface	4.0	2017
On	-going			
_	Development of Workflow and Quality Control	Continue to update and develop workflow and	4.0 /year	ongoing
1.	Procedures	quality control procedure	4.0 /year	ongoing
2.	ADA Website Accessibility	Ensure new website additions ADA compliant	2.0 /year	ongoing
3.	Review and Update SDE layers, Tables and Feature Datasets	Review design of SDE feature datasets and feature classes	3.0 /year	ongoing

## **Section 1A-2. Consortium Support**

A basic function of CCGISC is to assist member agencies through the promotion and use of GIS technology and data. To accomplish this function, CCGISC staff assists members with technical support issues and small projects. In addition, staff provides members data updates and viewing applications as well as fills data release requests.

## Section 1A-3. Data Distribution

CCGISC is charged with the responsibility of distributing and promoting the use of the GIS. To meet this goal, CCGISC utilizes a variety of distribution methods and platforms including but not limited to the following:

- Tax Map Atlas website and CD
- CCGISC web site
- Document distribution through a web enabled document file server
- Data sales
- Web mapping applications (Address, Public)
- ArcSDE database connections and published services

## Section 1A-4. Management

Management includes program and project management as well as database management and server administration. Program management is carried out by the GIS Director. Program management tasks include, but are not limited to, the preparation of committee meeting documents and responding to committee meeting requests, budgetary and fiscal tasks, and technology improvement plans. In addition to the Policy Committee there are a number of working subcommittees including Address Standardization, Work Plan and Report, and Technology Improvement that require coordination efforts and documentation development.

## Section 1A-5. Education and Training

GIS software and applications continually evolve. Education and training is necessary to maintain and improve CCGISC staff skills. The CCGISC staff typically attends at least one local conference a year and is encouraged to experiment and research tools that may improve efficiency levels. In addition, webinars, workshops, and other training and education outlets are utilized.

## Section 1B. Work Tasks

A GIS constantly evolves and grows because it provides a wide variety of benefits. CCGISC work tasks are projects identified by the CCGISC members that increase efficiency and improve decision making within their member organizations. As work tasks are completed, the resulting products are added to core services.

Work tasks are determined by the CCGISC Work Plan Subcommittee and ultimately accepted by the member organizations with approval of this document by the CCGISC Policy Committee. The work tasks are listed in prioritized order in the table below.

Work Tasks	Description	Time Estimate (weeks)	Completion Date (fiscal year)
Implement ArcReader Replacement     (continued from 2015)	Develop AcrGIS Online Applications to replace various ArcReader files	2.0	2016
Remove Vertices from Street Centerlines     (continued from 2015)	Remove the unnessecary vertices from the Street Centerline file. This will involve redrawing many of the streets and transfering attributes. Quality Control will need to be performed throughout this process.	6.0	2016
Add Impedance Information to derive Routes from     Street Centerlines (continued from 2015)	Gather impedence information needed for routing (speed limits, stop signs, stop lights, one way streets)	4.0	2016
Reconcile Address data between existing County-wide     Databases (continued from 2015)	Compare and reconcile County Clerk address database to CCGISC centralized address database	3.0	2016
5. Map Drainage Districts and Subdistricts	Utilize Circuit Clerk documents to map drainage districts and sub-districts	27.0	2018
6. Map Drainage District Tiles	Utilize Circuit Clerk documents to map drainage tiles	7.0	2018
7. Add Theoretical Address Ranges on Street Centerlines	Develop script to add theoretical address ranges; street centerlines to contain both actual and theoretical address ranges	3.0	2016
8. Develop ArcGIS Online Web Applications	Develop Web Applications that pertain to entire county i.e. construction, polling places	4.0	2018

In fiscal year 2016 it is estimated that 21 weeks of staff-time are available for work tasks. The table above includes time estimates and the anticipated completion year for each task.

## **Section 1C. Technical Service Contracts**

Technical service contracts provide GIS related support to agencies on a contractual basis. In fiscal year 2016 service contracts will account for approximately 10% (\$55,000) of the total revenue. It is anticipated that contractual agreements with the following agencies will be in place in FY2016.

- Piatt County
- City of Champaign
- Urbana-Champaign Sanitary District
- Village of Mahomet

# **Section 1D. Accomplished Highlights**

The table below highlights a number of the CCGISC staff accomplishments in fiscal year 2015.

Acc	omplished Highlights
1.	Created Clip & Ship Download Site
_	Created SQL Address Database Views to Distribute Member Agency
2.	Addresses through Enterprise Geodatabase
3.	Created Address Interface Reference Guide
4.	Upgraded Website from .Net 2.0 to .Net 4.5 Framwork
5.	Automated Transfer of Address Data to METCAD
6.	Created Program to Retain METCAD Overrides when Transfering Street
0.	Centerline and Address Point Data
7.	Automated Annexation and Administrative Boundary QC Tasks
8.	Implemented ArcGIS Server Image Extension
9.	Began Migration of ArcReader to ArcGIS Online Applications
10.	Mapped Easements to 2006
11.	Transferred Mahomet Township Parcel Data to Parcel Fabric for Testing
12.	Completed Modeling for Hazardous Mitigation Plan using HAZ-US
13.	Automated Geolocator Updates (to be completed prior to fiscal year end)

# **Section 2. Three-year Projections**

Three-year projections were calculated for labor/service and program costs. These projections are illustrated in the tables below.

# **Section 2A. Labor Allocation Projections**

Champaign County GIS Consortium	FY2016	FY2017	FY2018							
3-Year Labor/Service Allocation Projection	Number of Weeks	Number of Weeks	Number of Weeks							
CCGISC Core Services and Support Functions										
GIS Data Layers	<b></b>									
Annual Maintenance and Quality Control										
Cadastral/Land Based*										
1. Tax Parcels										
2. Parcel Points										
3. Annotation (100-scale and 400-scale)										
4. Subdivisions/Subdivision Table										
5. Parcel Platted Subdivisions										
6. Easements (new and historic)			000000000000000000000000000000000000000							
7. Road Right-of-Ways (new and historic)										
8. County & PLSS Townships, Sections & Quarter Sections			***************************************							
9. Corner, Corner Coordinate, Monument										
10. Tax Map Index										
11. Condominium Table										
12. Farm Land Use										
Administrative Boundaries										
13. Municipal Boudaries and Extra-Territorial Jurisdictions (ETJ)										
14. Annexations										
15. Political Townships										
16. Taxing Districts - 16 Districts (current and previous revenue years)										
17. Voting Precincts										
18. County Board Districts										
Transportation & Location										
19. Street Centerlines										
20. Railroads										
21. Address Points (Addressing)										
Natural Features										
22. Stream & Lakes										
Orthophotography & LiDAR										
23. Orthophotography										
24. Elevation Data - LiDAR & Terrain										
25. Ortho Index										
Emergency Service Layers										
26. CivilMunicipal Boundary										
27. Cemetery and Trailer Parks										
Annual Maintenance and Quality Control	88.0	88.0	88.0							
Improvement Tasks	25.0	29.0	28.0							
GIS Data Layers Total:	113.0	117.0	116.0							
Consortium Support	25.0	25.0	25.0							
Data Distribution	30.0	30.0	30.0							
Management	44.0	44.0	44.0							
Education and Training	6.0	6.0	6.0							
CCGISC Core Services & Support Functions Total:	218.0	222.0	221.0							

Champaign County GIS Consortium  3-Year Labor/Service Allocation Projection	FY2016 Number of Weeks	FY2017 Number of Weeks	FY2018 Number of Weeks
Work Tasks			
Implement ArcReader Replacement     (continued from 2015)	2.0	-	-
Remove Vertices from Street Centerlines     (continued from 2015)	6.0	-	-
3. Add Impedance Information to derive Routes from Street Centerlines (continued from 2015)	4.0	-	-
4. Reconcile Address data between existing County-wide Databases (continued from 2015)	3.0	-	-
5. Map Drainage Districts and Subdistricts	3.0	12.0	12.0
6. Map Drainage District Tiles	-	3.0	4.0
7. Add Theoretical Address Ranges on Street Centerlines	3.0	-	-
8. Develop ArcGIS Online Web Applications	-	2.0	2.0
Work Tasks Total:	21.0	17.0	18.0
Technical Service Co	ntracts		
1. Piatt County	15.0	15.0	15.0
2. Urbana-Champaign Sanitary District	3.0	3.0	3.0
3. City of Champaign	14.0	12.0	12.0
4. Village of Mahomet	3.0	3.0	3.0
5. Other	2.0	4.0	4.0
Local Contract Total:	37.0	37.0	37.0
Total Allocation:	276.00	276.00	276.00
Total Available Weeks:	276.00	276.00	276.00
Percent Allocated:	100%	100%	100%

For projection purposes the number of working weeks for full-time GIS staff is estimated at 46 weeks for FY2016, FY2017 and FY2018: 6 staff \*46 weeks = 276 working weeks.

# **Section 2B. Financial Projections**

Champaign County GIS Consortium  3-Year Fiscal Projection	2	FY2016 2.0% Increase	FY2017 2.5% Increase	FY2018 2.5% Increase		
Projected Revenue						
Member Contributions	\$	426,449	\$ 437,114	\$	448,045	
Local Government Reimbursements	\$	14,200	\$ 14,200	\$	14,200	
Base Station & Maintenance Consolidation (pass through funds)	\$	14,202	\$ 14,202	\$	14,202	
Technical Services Contracts	\$	54,000	\$ 54,000	\$	54,000	
Map & Data Sales	\$	12,500	\$ 12,500	\$	12,500	
Other Revenue	\$	100	\$ 100	\$	100	
Total Revenue:	\$	521,451	\$ 532,116	\$	543,047	
Projected Expenses						
Personnel						
Salaries	\$	305,740	\$ 311,855	\$	318,092	
Benefits	\$	108,714	\$ 113,063	\$	117,585	
Total Personnel	\$	414,454	\$ 424,917	\$	435,677	
Commodities	\$	18,250	\$ 18,250	\$	18,250	
Services						
Equipment Maintenance ( ESRI, Hardware, Software, GeoExpress, etc.)	\$	44,000	\$ 44,000	\$	44,000	
Audit Fees	\$	8,200	\$ 8,200	\$	8,200	
Computer Services	\$	4,500	\$ 4,500	\$	4,500	
Other	\$	14,010	\$ 14,010	\$	14,010	
Total Services	\$	70,710	\$ 70,710	\$	70,710	
Interfund Expenditure	\$	12,500	\$ 12,500	\$	12,500	
Capital Outlay	\$	5,500	\$ 5,500	\$	5,500	
Total Expenses:	\$	521,414	\$ 531,877	\$	542,637	
Revenue to Expenditure*	\$	37	\$ 239	\$	410	

### General Notes:

- A 2% membership increase is included in FY2016 budget; Projections include 2.5% membership increase in FY2017 and FY2018, without increases CCGISC will experience deficit budgets beginning in FY2016
- Assumes stable technical service contracts/local government reimbursement in FY2017 and FY2018

### Personnel Notes:

- FY 2016 includes a 1.5% increase in salaries
- Assumes 2% salary increase in FY2017 and FY2018
- Assumes 6 full-staff in FY2016, FY2017 and FY2018
- Benefit rates assume a 4% increase in FY2017 and FY2018

## Commodity Notes:

- Assumes Commodites will remain stable in FY2017 and FY2018

#### Service Notes:

- Equipment maintenance includes pass-through expenditures for base station and software maintenance
- Assumes no change in audit fees or computer services in FY2017 and FY2018
- Inlcudes additional \$1,000.00 expenditure for Professional Services in FY2016, FY2017 and FY2018 to cover costs of required web accessibility consultant

# **Section 3. Budget Index**

# Exhibit I – Line-Item Consortium Budget

Champaign County GIS Consortium Approved Budget		
January 1, 2016 - December 31, 2016		
, ,	FY20	016 Budget
Fund 850.111 Summary		roposed
	2.09	% Increase
CHAMPAIGN CITY	\$	60,504
URBANA CITY	\$	34,485
VILLAGE OF RANTOUL	\$	22,594
UNIVERSITY OF ILLINOIS	\$	30,595
CHAMPAIGN COUNTY	\$	267,280
VILLAGE OF SAVOY	\$	12,278
VILLAGE OF MAHOMET	\$	12,915
LOCAL GOVT REIMBURSEMENT	\$	14,200
FEDERAL, STATE & LOCAL SHARED REVENUE	\$	454,851
TECHNICAL SERVICE CONT.	\$	54,000
FEES AND FINES	\$	54,000
		400
INVESTMENT INTEREST	\$ \$	100
SALE OF MAPS, DATA MISCELLANEOUS	\$ <b>\$</b>	12,500
INISCELLANEOUS	ş	12,600
REVENUE TOTALS	\$	521,451
REG. FULL-TIME EMPLOYEES	\$	305,740
TEMP. SALARIES & WAGES	\$	
SOCIAL SECURITY-EMPLOYER	\$	23,389
IMRF - EMPLOYER COST	\$	26,355
WORKERS' COMPENSATION INS	\$	1,682
UNEMPLOYMENT INSURANCE	\$	3,072
EMPLOYEE HEALTH/LIFE INS	\$	54,216
PERSONNEL	\$	414,454
		=00
STATIONERY & PRINTING	\$	500
OFFICE SUPPLIES	\$	3,500
BOOKS,PERIODICALS & MAN.	\$	500
COPIER SUPPLIES	\$ \$	1,200
POSTAGE, UPS, FED EXPRESS	\$ \$	350
GASOLINE & OIL EQUIPMENT LESS THAN \$5000	\$ \$	200 12,000
COMMODITIES	ب \$	18,250
		10,230
AUDIT & ACCOUNTING SERVCS	\$	8,200
ATTORNEY/LEGAL SERVICES	\$	1,000
PROFESSIONAL SERVICES	\$	1,500
JOB-REQUIRED TRAVEL EXP	\$	750
UTILITIES	\$	3,000
COMPUTER/INF TCH SERVICES	\$ \$	4,500
TELEPHONE SERVICE	\$	500 44,000
EQUIPMENT MAINTENANCE	\$	,
EQUIPMENT RENTALS OTHER SERVICE BY CONTRACT	\$	200 200
LEGAL NOTICES, ADVERTISING	\$ \$	500
BUSINESS MEALS/EXPENSES	\$	300
PHOTOCOPY SERVICES	\$	300
DUES AND LICENSES	\$	1,400
CONFERENCES & TRAINING	\$	3,000
MISC	\$	60
JANITORIAL SERVICES	\$	1,300
SERVICES	\$	70,710
ELIDNISHINGS OFFICE FOLID	,	
FURNISHINGS, OFFICE EQUIP  CAPITAL	\$ <b>\$</b>	5,500
CAPITAL	ş	5,500
TO GENERAL CORP FUND 080	\$	-
INTERFUND EXPENDITURE	\$	12,500
EXPENDITURE TOTALS	\$	521,414
Projected FY2015 Fund Balance	\$	265,996
FY2016 Revenue to Expenditure	\$	37
Orthophotography Reserve	\$	(60,500)
Restricted Reserve - 10% FY2015 Revenue	\$	(51,064)

Line-Item Budget Notes:

- 2% Membership Increase
- Consortium Member Revenue Line Item includes Base Station and Software Maintenance pass-through money.
- Membership Contribution for Consortium FY2016 requested in July of 2016
- 1.5% Salary Increase

# Exhibit II - Orthophotography Budget

FY2016 Fund Balance	\$	92,250									
FY2015 Assessment	\$	31,750									
FY2015 Fund Balance	\$	60,500									
FY2016 Total Assessment	\$	31,750									
UNIVERSITY OF ILLINOIS	\$	3,016.25									
VILLAGE OF SAVOY	\$	1,111.25									
VILLAGE OF MAHOMET	\$	1,111.25									
VIALLAGE OF RANTOUL	\$	1,428.75									
CITY OF URBANA	\$	3,333.75									
CITY OF CHAMPAIGN	\$	5,873.75									
CHAMPAIGN COUNTY \$ 15,875.00											
January 1, 2016 - December 31, 2016											
Orthophotography Assessment											
Champaign County GIS Consortium											

## Orthophotography Budget Notes:

• No Assessment Increase Requested

# Exhibit III - Member Contribution History: 2005-2016

### **GIS CONSORTIUM MEMBER ASSESSMENT HISTORY**

Contribution History 2005 - 2016

GIS CONSORTIUM																2015		2016
MEMBER ALLOCATIONS	20	005		2006		2007	2008	2009	2010	2011	2012		2013	2014	29	2015 6 Increase	29	2016 % Increase
Champaign County	\$ 20	07,000	\$	214,245	\$	214,245	\$ 214,245	\$ 214,245	\$ 214,245	\$ 214,245	\$ 255,790	\$	255,790	\$ 255,790	\$	260,906	\$	266,124
City of Champaign	\$ 4	43,912	\$	45,454	\$	46,319	\$ 50,889	\$ 51,843	\$ 51,843	\$ 51,843	\$ 57,043	\$	57,043	\$ 57,043	\$	58,184	\$	59,348
City of Urbana	\$ 2	26,471	\$	27,400	\$	27,961	\$ 28,154	\$ 28,729	\$ 30,674	\$ 30,674	\$ 32,034	\$	32,034	\$ 32,034	\$	32,675	\$	33,329
Village of Rantoul	\$ 1	12,538	\$	12,978	\$	13,294	\$ 13,488	\$ 13,818	\$ 13,818	\$ 13,818	\$ 14,247	\$	14,247	\$ 14,247	\$	14,532	\$	14,823
Village of Mahomet	\$	7,955	\$	8,234	\$	8,470	\$ 8,663	\$ 8,913	\$ 8,913	\$ 8,913	\$ 10,676	\$	10,676	\$ 10,676	\$	10,890	\$	11,108
Village of Savoy	\$	8,370	\$	8,664	\$	8,907	\$ 9,101	\$ 9,357	\$ 10,196	\$ 10,196	\$ 10,690	\$	10,690	\$ 10,690	\$	10,904	\$	11,122
University of Illinois	\$ 2	25,000	\$	25,875	\$	26,781	\$ 27,718	\$ 28,550	\$ 28,550	\$ 28,550	\$ 29,406	\$	29,406	\$ 29,406	\$	29,995	\$	30,595
Total:	\$33	31,246	Ç	\$342,850	,	\$345,977	\$352,258	\$355,455	\$ 358,239	\$ 358,239	\$ 409,886	\$4	09,886	\$ 409,886	\$	418,086	\$	426,449

Note: The membership contributions remained stable for 3 budget years - FY2012 through FY2014, 2% increase in FY2015, and an approved 2% increase in FY2016

# Exhibit IV - Orthophotography Contribution History: 2012-2016

# GIS CONSORTIUM ORTHOPHOTOGRAPHY ASSESSMENT HISTORY

Contribution History 2012 - 2016

GIS CONSORTIUM MEMBERS	2012	2013	2014	2015	2016
Champaign County	\$14,375.00	\$14,375.00	\$14,375.00	\$ 15,875.00	\$15,875.00
City of Champaign	\$ 5,321.19	\$ 5,321.19	\$ 5,321.19	\$ 5,873.75	\$ 5,873.75
City of Urbana	\$ 2,988.21	\$ 2,988.21	\$ 2,988.21	\$ 3,333.75	\$ 3,333.75
Village of Rantoul	\$ 1,329.30	\$ 1,329.30	\$ 1,329.30	\$ 1,428.75	\$ 1,428.75
Village of Mahomet	\$ 995.93	\$ 995.93	\$ 995.93	\$ 1,111.25	\$ 1,111.25
Village of Savoy	\$ 997.22	\$ 997.22	\$ 997.22	\$ 1,111.25	\$ 1,111.25
University of Illinois	\$ 2,743.15	\$ 2,743.15	\$ 2,743.15	\$ 3,016.25	\$ 3,016.25
Total:	\$28,750.00	\$28,750.00	\$28,750.00	\$31,750.00	\$31,750.00

Note: No orthophotography assessment increase is requested for FY2016.