



# CITYWIDE GIS CADME TECHNOLOGY UPGRADE PROJECT

Innovation and Technology  
Department

City Council  
January 8, 2019

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## BACKGROUND

1. 1989-1996: The City of Riverside designed, built and implemented Computer Automated Design Mapping & Engineering "CADME"
2. CADME has been widely used throughout the City for the past 20 years
3. 2008-2009: Due to the aging system and increasing difficulty of maintaining the system the City recognized the need to upgrade from CADME to a modern GIS platform



2

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## BACKGROUND (CONT.)

4. 2010: The Board of Public Utilities approved an agreement with Telvent Miner & Miner, currently operating under the name Schneider Electric, to begin the process of migrating from CADME to Esri's ArcGIS platform
5. This scope of work included developing an Extract, Transfer and Load (ETL) process, which was required to move data from CADME to ArcGIS



3

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## BACKGROUND (CONT.)

6. This agreement accomplished approximately 20% of the overall effort needed for the entire system transition
7. 2016: ETL project concluded and City staff from Riverside Public Utilities (RPU) and other departments collaborated to develop a plan to complete the transition from CADME to the new ArcGIS platform



4

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## BACKGROUND (CONT.)

8. August 2017: RPU staff issued a RFP to form an extension of staff consulting panel to provide a range of technical support services and expert assistance
9. December 10, 2018: Board of Public Utilities recommended City Council approve:
  - a. the Master Professional Consultant Services Agreements for the Geographic Information System services consulting panel for a two-year term and a total compensation not to exceed \$1,000,000



5

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## BACKGROUND (CONT.)

per contract for a maximum cumulative total of \$2,750,000; and

- b. Recommended that the City Council authorize the City Manager, or his designee, to execute the Master Professional Consultant Agreements for the Geographic Information System services and each supplemental agreement when a project is assigned; and



6

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## BACKGROUND (CONT.)

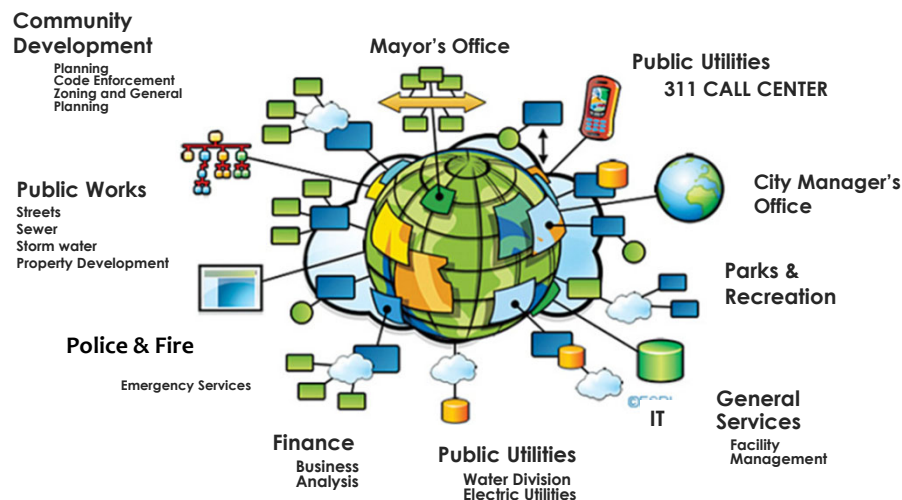
- c) Approved Work Order No. 1911437 for a total of \$1,206,521 to fund the Riverside Public Utilities share of the Citywide Geographic Information System Technology Upgrade Project.



7

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## WHERE IS GIS USED



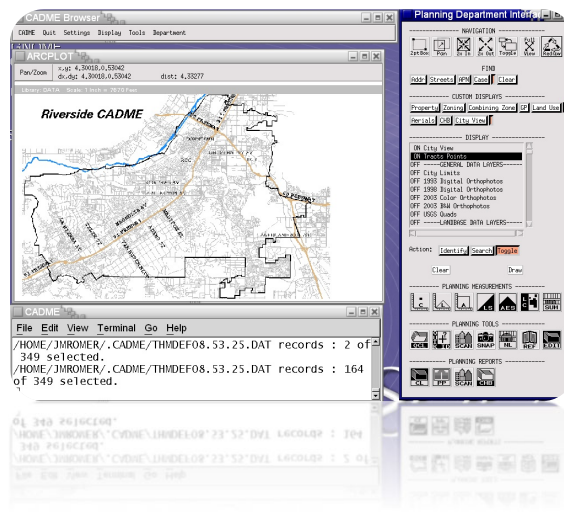
8

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## HOW IS GIS USED IN THE CITY?

### CADME

- a. Building and Safety
- b. Planning
- c. Public Utilities
- d. Public Works
- e. 400 +/- GIS Layers
- f. Approximately 325 Users in 2018



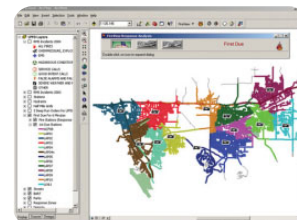
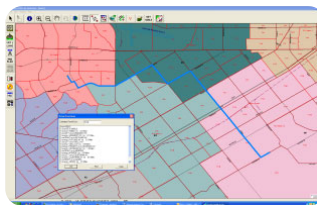
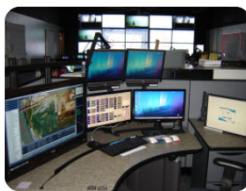
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9

## HOW IS GIS USED IN THE CITY?...

### Public Safety

- a. CAD
- b. RMS
- c. Advance Tactical Mapper (ATM)
- d. Crime View Dashboard
- e. Fire View



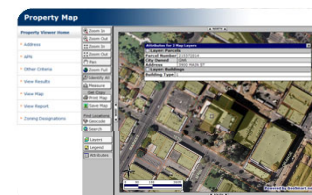
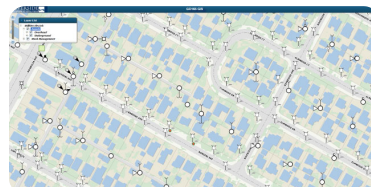
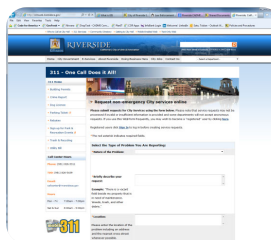
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10

## HOW IS GIS USED IN THE CITY?...

### City Services

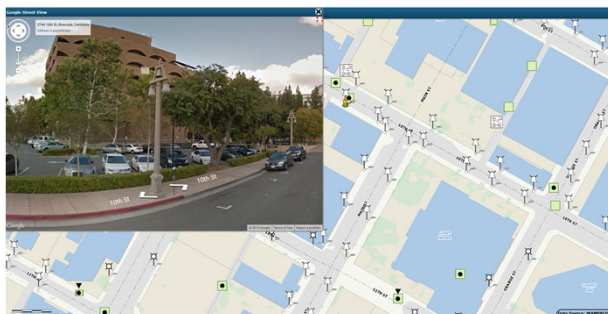
- a. 311
- b. GO165
- c. Property Viewer
- d. Graffiti Abatement



11

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## GO 165 ELECTRIC UTILITY FIELD MAPPING



**Schedule Information**

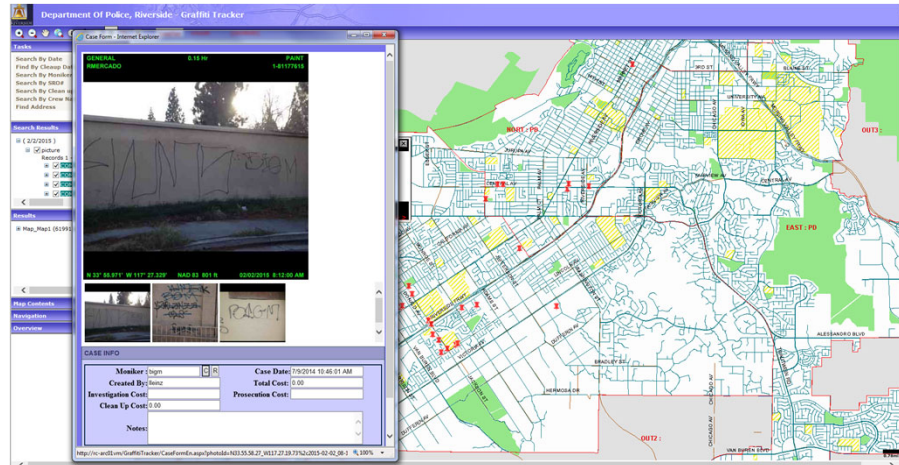
Crew: 6123	Date Range: 11/18/2014 - 11/19/2014
Supervisor: KELLY STARKEY	Superintendent: DAVE MCLELLAN
Supr Cell Phone: 951-840-8629	Supr Cell Phone: 951-323-6937
Project ID: 145012	Subproject ID: 02
Work Order No: 0216421	Work Order Task No: 02
Service Request No:	Expense Code: 070623XX
Task Description: CONSTRUCTION/ INSTALL GO 165 Pole Replacement* 2002 Ream 10 @ Poplar St, Pole 10143 Replace per Infor: Invasive Pole Inspection, Maintenance - Replace Pole, MDC#4-Within 3 years.	
Asset Record Type: E	Asset ID: 00143
Map Page/Grp: 25-3	Planner: EMBUT

12



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## GRAFFITI TRACKER



13

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## GIS CADME MIGRATION BENEFITS

1. Modern Infrastructure
2. Resiliency
3. Cyber Security
4. Mobility
5. Open Data
6. Streamlines Data From Multiple Sources
7. Internal/External Collaboration
8. Enables Visualization Of Data



14

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## PROJECT OVERVIEW

1. Transition City from CADME to ArcGIS
2. Managed by IT Project Manager
3. Project team consists of representatives from each department
4. Request for Proposal No. 1738 developed an extension-of-staff consultant list to provide a range of technical support services and expert assistance



15

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## RFP 1738 PROCUREMENT PROCESS

1. Competitive Procurement
2. 13 Responses, 5 Selected
3. Evaluation Criteria:
  - a. Demonstrated competence and qualifications
  - b. Estimated fees
  - c. Quantity of consultants and staff available
  - d. Location of consultants and staff

Vendor	Ranking
UDC	1
PSOMAS	2
Nobel Systems	3
DCSE	4
Wind Lake Solutions	5
SSP Innovations	6
Albert A Webb & Associates	7
Comtech LLC	8
Telvent USA	9
Sure Power Consulting	10
Paramount Software Solutions	11
TEK Systems	12
FAAZ	13



16

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## COST ALLOCATION BY DEPARTMENT

City Department	No. of Licenses	Allocation (%)	Total Project Costs
City Attorney's Office	9	3%	\$ 97,826
City Clerk	1	0%	\$ 10,870
City Council	0	0%	\$ -
City Manager	10	3%	\$ 108,696
Community Development	57	18%	\$ 619,565
Finance	4	1%	\$ 43,478
Fire	13	4%	\$ 141,304
General Services	7	2%	\$ 76,087
Innovation and Technology	11	3%	\$ 119,565
Library	1	0%	\$ 10,870
Mayor's Office	1	0%	\$ 10,870
Museum	0	0%	\$ -
Park & Recreation	14	4%	\$ 152,174
Police	14	4%	\$ 152,174
Public Utilities - Electric	70	22%	\$ 760,870
Public Utilities - Water	41	13%	\$ 445,652
Public Works- Administration	39	12%	\$ 423,913
Public Works - Streets	8	2%	\$ 86,957
Public Works - Solid Waste	2	1%	\$ 21,739
Public Works - Sewer	20	6%	\$ 217,391
<b>Total</b>	<b>322</b>	<b>100%</b>	<b>\$ 3,500,000</b>

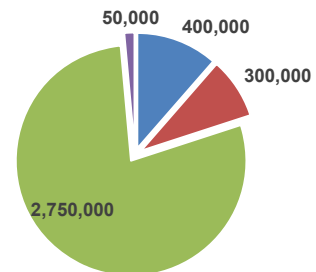


17

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## PROJECT BUDGET

Line Item	Expense	Capital	Total
Software & Hardware	-	\$400,000	\$400,000
IT Labor	\$50,000	\$250,000	\$300,000
Professional Services	\$200,000	\$2,550,000	\$2,750,000
Other	\$25,000	\$25,000	\$50,000
<b>Total</b>	<b>\$275,000</b>	<b>\$3,225,000</b>	<b>\$3,500,000</b>



■ Software & Hardware  
 ■ IT Labor  
 ■ Professional Services  
 ■ Other



18

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## COST ALLOCATION BY FUND SOURCE

Fund	Fund Name	No. of Licenses	Allocation (%)	Total Amount
101	General Fund	187	58.1%	\$ 2,032,610
510	Electric Fund	70	21.7%	\$ 760,870
520	Water Fund	41	12.8%	\$ 445,651
540	Refuse Fund	3	0.9%	\$ 32,609
550	Sewer Fund	20	6.2%	\$ 217,390
570	Public Parking Fund	1	0.3%	\$ 10,870
	Total	322	100.0%	\$ 3,500,000



19

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## RECOMMENDATIONS

That the City Council:

1. Approve five (5) Master Professional Consultant Services Agreements in response to Request for Proposal No. 1738 for the Geographic Information System services consulting panel for a two-year term in an amount not to exceed \$1,000,000 per contract and a maximum cumulative amount of \$2,750,000;
2. Authorize the City Manager, or his designee, to execute the five (5) Master Professional Consultant Services Agreements for the Geographic Information System services and each supplemental agreement when a specific project is awarded; and



20

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## RECOMMENDATIONS (CONT.)

3. Authorize an interfund transfer of \$2,032,610 from the General Fund (101) to the General Capital Fund (401) and approve a supplemental appropriation in the same amount in both General Capital Fund Transfers In (0000401-985101) and the GIS Technology Upgrade project expense account (9907000-470696).

