



Office of the City Manager

CONSENT CALENDAR
October 12, 2021

To: Honorable Mayor and Members of the City Council
 From: Dee Williams-Ridley, City Manager
 Submitted by: Savita Chaudhary, Director, Information Technology
 Subject: Contract No. 112798-1 Amendment: Geographic Technologies Group for Additional Geographic Information System (GIS) Projects

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to amend Contract No. 112798-1 with Geographic Technologies Group (GTG) for Geographic Information System (GIS) professional services, for a total not to exceed \$100,000 and for a total contract value of \$499,411 from September 14, 2016 to June 30, 2023.

FISCAL IMPACTS OF RECOMMENDATION

This amendment will add \$100,000 to the current contract for a new total not to exceed amount of \$499,411. Funding in the amount of \$100,000 is available in the FY 2022 budget in the Department of Information Technology's FY 2022 IT Cost Allocation Fund (Fund 680).

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| \$100,000 | FY 2022: 680-35-377-6002-000-472-612990 (IT Cost Allocation, GIS, IT Professional Services) |
| \$100,000 | Total FY 2022 Professional Services |

CURRENT SITUATION AND ITS EFFECTS

The GIS Master Plan development and planning process was a citywide effort involving key staff representing multiple departments. Geographic Technologies Group (GTG) has provided reliable consulting services and has proven to be a strong partner in this development and planning process. Two additional GIS projects are required for the City of Berkeley under the GIS Master Plan. Each project complements the City's five-year GIS Master Plan strategy developed in 2017 and completed in 2021.

The first project for FY 2022 is reworking the Parcel Condition widget. Over time, overlapping of some of the parcel layers has uncovered issues regarding the centroid point (of a parcel). This project will refactor the widget to dynamically create the parcel centroid point and ensure compatibility with other layers.

The second project involves expanding GIS services to include implementing and providing training for the ArcGIS HUB, which is a public portal for viewing GIS and related data. Scope for this year includes HUB set up and set up of a Redistricting site. This is urgent work due to the redistricting project going on now. It allows for internal review of potential district maps and views that can be shared with the public as appropriate.

The third project is replacement of the City's existing "Crime Mapping" solution. This is an urgent project that is highest priority. The Crime Mapping software has had repeated failures in the last year and we need to replace it.

The fourth item is a contingency of \$15,000 for GIS layer tasks that come up during the year. These tasks will be individually costed as they arise and that cost will be paid as the tasks are completed.

The fifth item is for training and education for Berkeley Staff for the ArcGIS Hub solution and for the Crime Mapping solution. This training will include making updates to the Hub and publishing information, as well as administering the Hub.

BACKGROUND

In May 2016, the City issued a Request for Proposals (RFP) for a Geographical Information Systems (GIS) Master Plan under Specification No.16-11041-C. Of the nine responses, Geographic Technology Group (GTG) best met the City's operational, technology, and fiscal requirements.

The GIS Master Plan development and planning process was a citywide effort involving key staff representing many departments. GTG conducted surveys, interviews and onsite workshops with city staff to do an assessment and analysis of the City's current Enterprise GIS. GTG evaluated the readiness of existing system infrastructure (hardware, software, and network) to support enterprise GIS and maintain service during disasters, assessed parcels and address data sets to meet GIS business needs and Enterprise authoritative source requirements, and developed a governance plan that outlines the administration, maintenance, and support for the enterprise GIS.

In June 2017, Council approved a GTG recommendation that added seven additional GIS projects to compliment the strategy developed in 2016. All projects completed as of June 30, 2019. These projects included:

1. **Comprehensive GIS data assessment of our GIS system and establish a benchmark of data accuracy;**
2. **Establish a Public Portal solution (<https://www.cityofberkeley.info/gisportal/>);**
3. **Assess of GIS Policies and Procedures and update as needed;**

4. **Develop a Mobile GIS Plan to address** the mobile device needs for the upcoming projects for work order, fleet and facilities management.
5. **Develop Key Performance Indicators (KPIs) for GIS to** allow the City of Berkeley to accurately measure GIS performance, quantify the City's accomplishments, and articulate the benefits GIS provides to the community.
6. **Establish City of Berkeley GIS Newsletter to** provide transparency and accountability by keeping stakeholders and community members in the loop through easily accessible media.
7. **Develop GIS Training Curriculum, a** formal ongoing GIS training plan through the GIS SharePoint portal with links to free resources for GIS training available to employees.

This work was completed in FY 2021 and has led to a robust GIS program used by many departments and by the public. The new work for FY 2022 is an extension of that progress in collecting and reporting GIS data and providing data analysis.

In 2021, we added a GreenCity GIS for Park Inventory which includes a comprehensive inventory of all infrastructure (buildings, benches etc) and trees in the City of Berkeley's Parks and medians.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

This project will move the City forward in attaining its goals of becoming a viable environmentally sustainable city. While the main project is to provide up to date detailed information on crimes in the city which will enable users to have situational awareness and allow for remote detailed analysis, there are additional benefits to be realized.

Information collected coupled with existing data gives the city, staff and community to collaborate better. Economic potentials, racial, social, equality improvements, environmental preservation, land use etc. are some objectives to name a few that can be accomplished.

Some examples already in use are the city's GIS portal map that has the data like bike lanes, bike boulevards and safe bike racks that enable people to identify areas for safe bicycle usage in the city. City staff also use GIS maps for sewer location, street lights, park infrastructure and other items for internal maintenance.

All this information optimizes efficiency, reduces operational costs and promotes reduction in fossil fuel consumption. This all aligns with the city's goal to reduce greenhouse gas emissions by 2050 to 80% below 2000 levels per Climate Action Plan goals.

In addition, Geographic Technologies Group will conduct all of their work remotely, saving both travel costs and greenhouse gas emissions related to travel.

RATIONALE FOR RECOMMENDATION

Geographic Technologies Group is well versed in the requirements for public sector GIS. GTG has created and implemented over 200 comprehensive GIS Master Plans for local government. Clients include the California cities of Concord, Pasadena, West Sacramento, West Hollywood and Roseville. GTG has developed the GIS Community Portal for our city and the staff is recommending continuing using their services for the expansion of the functionality of the existing portal.

GIS technologies are powerful tools for improving the quality, accuracy, efficiency, and responsiveness of government services provided by the City of Berkeley. An Enterprise GIS guides a citywide approach to GIS, focused on:

- Using mutually accepted standards, policies, and business practices;
- Encouraging collaborative GIS efforts among City, government, and related organizations;
- Integrating GIS technologies into City business operations;
- Supporting emergency and disaster planning, response, and recovery; and
- Maximizing the cost-effectiveness of GIS investments.

The GIS Steering Committee established the Enterprise GIS Program in 2008 provides central shared resources to support these goals. The program currently includes the following GIS services: Data Services, Online Mapping Services, Applications, Software License Management, and Training and Support.

ALTERNATIVE ACTIONS CONSIDERED

Staff considered planning and executing these projects without GTG, however the staff considered it would be beneficial to get an outside perspective that could bring with them industry best practices and experience working with other local municipalities to help setup a framework that the City can use for the next three years and beyond. In addition, it is helpful that design of the Hub is consistent with common practices and an up to date design. GTG has set up Hubs for many cities and other government entities.

CONTACT PERSON

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Attachments:

1: Resolution

RESOLUTION NO. ##,###-N.S.

CONTRACT NO. 112798-1 AMENDMENT:
GEOGRAPHIC TECHNOLOGIES GROUP FOR ADDITIONAL GIS PROJECTS

WHEREAS, on May 12, 2016, the City issued a Request for Proposals (RFP) for a Geographical Information Systems (GIS) Master Plan (Specification No.16-11041-C) and received nine qualifying vendor responses; and

WHEREAS, the RFP review committee evaluated each proposal and determined that the Geographic Technologies Group proposal best met the City's operational, technological, and fiscal requirements; and

WHEREAS, on November 02, 2016, the original contract was signed to develop a GIS Master Plan; and

WHEREAS, on September 08, 2017, the original contract was amended to include additional tasks to conduct a comprehensive GIS data assessment, deploy a web-based public facing GIS portal, develop GIS policies and SOPs for the City, and establish a one-year GIS work plan; and

WHEREAS, on September 10, 2019 the contract was amended to add two additional projects to enhance the functionality of recently deployed GIS Community portal, and a comprehensive inventory of the City of Berkeley's parks system to prepare for upcoming work order; and

WHEREAS, on August 3, 2020, the contract was amended to add two additional projects to digitize Park boundaries and land use and to set up a web and dashboard applications for City of Berkeley GreenCity GIS software; and

WHEREAS, the contract needs to be amended for five additional projects to enhance our ability to publish data internally and to the public, including crime mapping data; and

WHEREAS, funding for this project in the amount of \$100,000 is available in the Department of Information Technology's Fiscal Year FY 2022 Cost Allocation fund.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to execute a contract with Geographic Technologies Group for Geographical Information Systems (GIS) Master Plan, for a total not to exceed \$100,000, and for a total contract value of \$499,411 from September 14, 2016 to June 30, 2023.

