Amendment to Capital Area Emergency Communications District Interlocal Contract for Next Generation 9-1-1 Database Program

The Capital Area Emergency Communications District ("CAECD") is a regional emergency communications district and political subdivision of the State of Texas organized and operating under Chapter 772, Subchapter G of the Health and Safety Code, as amended. Williamson County ("County" or "the County") is a Texas County that has agreed to participate in the District as authorized by Chapter 772 of the Health and Safety Code. CAECD and County entered into an agreement on October 3, 2018 under Chapter 791 of the Government Code so that County can participate in CAECD in implementing the Next Generation 9-1-1 emergency communications system in the district. This amendment is authorized under Section 14.3 of the interlocal agreement (ILA).

The purpose of this amendment to the CAECD 9-1-1 GIS ILA with Williamson County is to:

1. Formally identify project representatives for CAECD and County for this ILA who are authorized to make decisions on behalf of each party and identify the process for updating project representatives in the future.
2. Update Section 4.1 of the ILA with respect to contract term.
3. Clarify Sections 2.1, 6.1, and 6.2 of the ILA starting October 1, 2019 and extending to March 31, 2020.

1 Project Representatives and Records Location

1.1 CAPCOG Project Representative

The individual named below is CAPCOG's Project Representative, who is authorized to give and receive communications and directions on behalf of the CAECD. All communications including all payment requests must be address to the CAPCOG Project Representative or his or her designee. The CAPCOG Project Representative may indicate a designee through an e-mail to County's Project representative.

Name: Craig Eissler Phone Number: (512) 916-6184

Title: GIS Program Manager E-mail: ceissler@capcog.org

Address: 6800 Burleson Road, Building 310, Suite 165, Austin, TX 78744

1.2 County Project Representative

The individual named below is County's Project Representative, who is authorized to give and receive communications and directions on behalf of County. All communications including all payment requests must be address to the County Project Representative or his or her designee.

Name: George Strebel Phone Number: (512) 943-1474

Title: GIS Manager E-mail: gstrebel@wilco.org

Address: 301 SE Inner Loop, Ste 107, Georgetown, TX 78626

1.3 Submittal of Payment Requests

Payment requests must be submitted to the CAPCOG Project Representative.

1.4 Designated Location for Records Access and Review

County designates the physical location below for record access and review pursuant to any applicable provision of this contract:

301 SE Inner Loop, Ste 107, Georgetown, TX 78626

2 Amendments Regarding Contract Term and Cancellation

Section 4.1 of this ILA is amended as follows:

"This contract takes effect on October 1, 2018, and shall continue ~~for a period of two years~~ until March 31, 2020 unless terminated sooner under Section 11, ~~Thereafter, this contract shall automatically renew each year on October 1 until a Party provides written notice of termination to the other Party no less than sixty days prior to the end of the term.~~"

3 Contract Clarification Starting October 1, 2019

As CAPCOG progresses in its preparations to deploy Next-Gen 9-1-1, new tools are going to become available to CAPCOG and County starting October 1, 2019, that will enable CAPCOG and County an enhanced ability to identify and correct errors in the 9-1-1 GIS database. Attachment C, which clarifies the process and expectations starting October 1, 2019, is incorporated into this ILA.

This amendment is executed in duplicate originals.

WILLIAMSON COUNTY, TEXAS

By: Bill Gravell

Name: Bill Gravell Jr.

Title: County Judge

Date: 10/8/19

Date of County governing body approval:

10/8/19

CAPITAL AREA EMERGENCY COMMUNICATIONS DISTRICT

By: Betty Voights

Name: Betty Voights

Title: Executive Director

Date: 10/14/19

Attachment C: Transitional Provisions for 9-1-1 GIS ILA for October 1, 2019 – March 31, 2020

1 Section 2.1.A of ILA

Section 2.1.A of the ILA currently reads as follows:

> *"Coordinate 9-1-1 GIS activities within the County and municipalities in the County to develop and enhance the 9-1-1 GIS coverage required by Mapped ALI and the CAPCOG NG9-1-1 Transitional GIS Data Requirements, Attachment B, to this contract. The County must develop, compile and maintain current, seamless countywide coverage for street centerlines, address points, Emergency Service Zones (ESZs) and city limits in both the incorporated and unincorporated areas of the County."*

This shall be clarified to mean that County is the entity with primary responsibility for the quality of the data within its "provisioning boundary" of the 9-1-1 GIS database. The provisioning boundary is defined by the National Emergency Number Association (NENA) as "the authoritative polygon layer that defines the geographic area of 9-1-1 GIS data responsibility." County's fulfillment of this role requires that it adheres to specific database standards and best management practices for databases identified in Section 2 of this Attachment C, and a transition workflow cycle identified by CAPCOG's GIS program in section 7 of this Attachment C.

2 Section 2.1.B of ILA

Section 2.1.B of the ILA currently reads as follows:

> *"Provide to CAPCOG GIS datasets described in Section 2.1.A that are in accordance with the CAPCOG NG9-1-1 Transitional GIS Data Requirements, Attachment B. This document describes the technical requirements and expectations for GIS data maintenance and monthly submissions."*

This shall be clarified to mean that County is responsible for providing CAPCOG with the 9-1-1-GIS County database within its provisioning boundary described in Section 2.1.A of the ILA in accordance with *CAPCOG NG9-1-1 Transitional GIS Data Requirements, Attachment B*. This document and associated data model (schema) are based on NENA database standards, in the NENA-STA-006.1-2018 document titled, NENA Standard for NG9-1-1 GIS Data Model.[1] It describes technical requirements for 9-1-1 GIS database management. These standards are continuously evolving and CAPCOG may periodically update the data model (schema) requirements for the region. Currently, GIS databases must include at least the following core data layers:

[1] Available online at: https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006_ng9-1-1_gis_dat.pdf (accessed 9/18/2019).

1. Address points,
2. Streets (road centerlines),
3. Emergency service zones (ESZs), and
4. City limit boundaries.

For the purposes of the 9-1-1 GIS database, CAPCOG will maintain the authoritative versions of Provisioning Boundaries, Public Safety Answering Point (PSAP) boundaries, and Emergency Service Boundaries (ESBs) for the region, each of which will be necessary for NextGen 9-1-1. CAPCOG will provide the current versions of these boundaries to County in October 2019. County must inform CAPCOG of city annexations, changes to ESBs, or any other boundary changes that will otherwise affect County's Provisioning Boundary, PSAP Boundaries, or ESBs. Any changes to current boundaries must be agreed upon between CAPCOG, County, and any adjoining data provisioning providers. For any changes to ESBs, County will need to prepare the proposed updated data layers and submit these to CAPCOG. CAPCOG will implement any changes that may be agreed upon, and will provide any updated Provisioning Boundary, PSAP boundaries, and ESB boundaries back to County.

Beginning with data submissions due December 2, 2019, in addition to the core 9-1-1-GIS data mentioned above being submitted, County must also include all three data layers:

1. Provisioning Boundary,
2. PSAP Boundary, and
3. ESBs.

In October 2019, CAPCOG will send County a guidance document further describing the expectations for the Provisioning Boundary, PSAP Boundaries, and ESBs, as well as related GIS data.

3 Section 2.1.C of the ILA

Section 2.1.C of the ILA currently reads as follows:

> *"Submit by the first business day of each month to CAPCOG's GIS Department a copy of updated GIS datasets for street centerlines, address points, ESZ boundaries, and city limit boundaries. All files submitted to CAPCOG must be in ESRI File geodatabase format, and must be in a common projected coordinate system. CAPCOG agrees to perform quality assurance/quality control procedures through the 5th business day of the month, including any coordination necessary with the County that may involve the County making corrections to mandatory components of their work – See Attachment B requirements. By the 7th business day of the month, CAPCOG will begin pushing the updated/corrected GIS datasets to the mapping servers designated by CAECD. It is expected that by the 9th business day of each month the GIS datasets will be updated."*

This shall be clarified to mean that County is responsible for the currency and accuracy of its provisioning boundary of CAPCOG's 9-1-1 GIS database, and that in order for this to occur, County must

follow a workflow cycle specified by CAPCOG's GIS program in a timely and thorough manner. At a minimum, County is required to perform quality control checks using ArcGIS and the specialized tools in the software (i.e. topology), and adhere to the workflow identified in Section 7 of this Attachment C. Ideally, County will enhance this system with additional quality control methods and processes beyond those required in this contract.

CAPCOG will serve as the regional quality assurance workflow coordinating entity and the secondary data quality control checkpoint. CAPCOG's role will be limited to verifying data quality using the same tools shared with the County to collaboratively identify or explain errors.

4 Section 2.1.D of the ILA

Section 2.1.D of the ILA currently reads as follows:

> *"Enter into contracts for joint data development and information sharing among the County, cities, central appraisal district, and other public entities and private interests located within the County so as to enhance the effectiveness of emergency service delivery related to 9-1-1 GIS coverage. If the County is unable to acquire any required Mapped ALI GIS data, as described in Section 2.1.A, from one of the entities listed above, then County must develop it independently."*

This shall be clarified to mean that the County is responsible for all data within its provisioning boundary, and that it is the County's responsibility to ensure that any data submitted to it by any third party must also meet all of CAPCOG's data standards, not just data in unincorporated areas. Therefore, the County's collaboration with cities is imperative.

5 Sections 2.1.F and 2.1.I of the ILA

Section 2.1.F of the ILA reads as follows:

> *"Resolve conflicts and problems related to the 9-1-1 GIS data maintained by County. If any issue regarding the GIS data arises which the County cannot resolve on its own, the County must contact CAECD within two business days in order to determine the best course of action to resolve the issue."*

Section 2.1.I of the ILA reads as follows:

> *"Resolve any discrepancies between GIS datasets as determined necessary by CAPCOG through its regular validation testing, in a timely fashion. Upon correction of any identified errors, resubmit the revised GIS datasets to CAPCOG in a timely fashion."*

Section 2.1.F of the ILA shall not be construed as shifting the responsibility for resolving conflicts and problems related to the 9-1-1 GIS data from the County to CAPCOG. While CAPCOG GIS staff will continue to provide technical assistance to County Project Representatives in helping them identify the

best way to resolve conflicts and problems, this assistance shall not extend to actually performing the work necessary to correct these errors.

Section 2.1.I of the ILA shall be construed as requiring resolution of both "new" and "legacy" errors, as described below:

- A "**new error**" is any error that occurs for the 1st time in the County's monthly 9-1-1 GIS Database Update
- A "**legacy error**" is any error in the County's 9-1-1 GIS Database Update that was also present in its previous 9-1-1 GIS Database Update

CAPCOG estimates that approximately 90% of the errors in the current 9-1-1 GIS database are "legacy" errors. CAPCOG's current GIS database structure cannot directly differentiate between these two error types, but starting October 2019, the database updates must include updated 'Last Modified' date fields as per database format guidelines described in Attachment B that will enable identification of errors that recur in subsequent database updates. If the 'Last Modified' date field is not known, or is otherwise null, leave the value null.

Global Unique IDs (GUIDs) will also be required as identified in Section 7 of this Attachment C.

Starting with CAPCOG's performance report to the County for the November 2019 data submission, errors will be identified as new errors or legacy errors based on whether the error was also identified in the report for the October 2019 database update.

All errors are categorized as "critical" (which MUST be fixed), "significant," and "other."

- **Critical Errors:** Errors found by the AT&T/Intrado Enterprise Geospatial Database Management System (EGDMS) QC software that cause, or have a potential of causing, a critical fault in the routing of a 9-1-1 emergency service request call to the correct PSAP
    - Data with critical errors will NOT be uploaded to the Next-Gen 9-1-1 system
- **Significant Errors**: Errors found by the GeoComm Data Hub that cause, or have a potential of causing, a critical fault in Computer Aided Dispatch (CAD) mapping platforms or other related systems
- **Other Errors**: Errors that do not fall under the above categories
- All "new errors" identified as "critical errors" in the November 2019 update, or any subsequent update, are expected to be resolved prior to the next monthly update
- "**Critical error rate**" is defined as being the total number of "critical" errors divided by the total number of address points within the County's provisioning boundary. Note that this ratio is used as a way to normalize the number of errors relative to each county's population.
- During this transition period, County MUST make progress each month in reducing the overall critical error rate as identified by EGDMS for data within its provisioning boundary.
- It is CAPCOG's goal that by March 31, 2020, County will have a "critical" error rate of no more than 1%.
- In January 2020, CAPCOG will conduct an extensive performance review in order to assess the County's progress in working towards this goal. CAPCOG will work with the County from January through March to resolve any critical errors remaining in the January 2, 2020, 9-1-1 GIS Database Update.

6 Section 6 of the ILA: Performance Reports

Section 6.1 of the ILA states the following:

> *"CAECD agrees each quarter to distribute electronically a performance report to the County GIS Coordinator."*

Section 6.2 of the ILA states the following:

> *"County agrees to address errors identified in the performance reports."*

Section 6.1 of the ILA shall be clarified to mean that County has access to the quality control tools to generate the performance reports themselves. However, starting on the 6th business day of each month, CAPCOG's Project Representative or a designee will begin compiling a comprehensive performance report of "critical", "significant, and "other" errors as identified by EGDMS and Data Hub, as well as other performance criteria described in Section 7 of this Attachment C. CAPCOG will distribute the performance report to County's Project Representative at least 10 business days prior to the end of the month (rather than just once a quarter), beginning in November 2019. Section 6.2 shall be clarified as requiring County to address those errors as described above.

7 Transition Workflow Cycle

CAPCOG has developed a workflow cycle for the October 1, 2019 – March 31, 2020, transition period in an effort to establish a process by which County will be expected to not only provide CAPCOG with 9-1-1 GIS data as it traditionally has, but to also begin identifying and correcting 9-1-1 GIS data errors as referenced in Section 2.1.I of the ILA through self-checks and utilization of specialized QC software provided by CAPCOG in order to get County's overall critical error rate to no more than 1% by March 31, 2020. The QC software that CAPCOG will provide to County are:

- AT&T/Intrado Enterprise Geospatial Management System (EGDMS)
    - EGDMS is a cloud-based QC platform that will be used for identifying critical errors and will ultimately supply 9-1-1 GIS data to CAPCOG's Next-Gen9-1-1 system within the next year
- GeoComm Data Hub (Estimated November 2019)
    - Data Hub is a cloud-based QC platform that will be used to identify "significant" and "other" errors

During this transition period, CAPCOG will provide to County all necessary documentation, data, and information in order to allow County adequate time to prepare 9-1-1 GIS data layers for upload to their EGDMS account as well as Data Hub when it becomes available. User guides detailing QC software functionality and expectations, as well as, 9-1-1 GIS errors will be provided to County by CAPCOG.

During this transition period, County must also create Globally Unique IDs (GUIDs) for all data in each of the required data layers, beginning with the data update due November 1, 2019. GUIDs are required by NENA in a Next-Gen 9-1-1 system in order to allow for detection of changes in data over time. In

October 2019, CAPCOG will provide County with a guidance document (referenced earlier) that will include instructions on how to create GUIDs.

County Project Representative will be required to participate in training opportunities for EGDMS and Data Hub as specified by CAPCOG. County Project Representative should also have those who will work with 9-1-1- GIS data attend training sessions. Training sessions for these QC systems will include extensive information about how to configure and use each platform. It is ultimately County's Project Representative's responsibility to ensure that all of County's staff working with 9-1-1 GIS data are adequately trained in the use of these tools.

The following describes some of the key features of the timeline and process that will be followed under the contract during this transition period as a modification to the timeline and process described in Section 2.1.C of the ILA:

- County will continue to update the 9-1-1 GIS database within its provisioning boundary and submit data to CAPCOG on the 1st business day of each month for upload to the PSAP servers for October (due October 1, 2019) and November (due November 1, 2019).
- Starting with the database update due on December 2, 2019, and on the 1st business day of the month thereafter, County must submit the same data provided to CAPCOG to EGDMS on the same business day as these data are submitted to CAPCOG. County's EGDMS account is currently available for use and, upon notification by CAPCOG's Project Representative of operational functionality of the system, County is encouraged to upload new data continuously as it becomes available before this submission deadline, and use information from the system to correct errors. These requirements will also be apply to Data Hub submissions, upon notification by CAPCOG's Project Representative of operational functionality of that system.
- County must retrieve errors identified by these systems and work to resolve them prior to the next submission of data. At a minimum, County must work to resolve all new critical errors within this time frame.
- The database will be considered "final" for each month as of 5:00 pm on the fifth business day of the month.
- On the 6th business day of the month, CAPCOG will begin compiling a comprehensive performance measure report that will contain, at a minimum, one or more of following metrics:
    - "Critical" error reports as delivered by the EGDMS;
    - "Significant" and "Other" errors as delivered by the Data Hub;
    - Percent change in error counts;
    - Timeliness of data submission;
    - "New" data and "Legacy" data counts over past month; and
    - Use of "Last_Modified" date field.
- By the 10th business day prior to the end of the month, CAPCOG will supply this performance report to County Project Representative.

Dates described in this contract are based on CAPCOG's calendar, which will be provided to County. The following table summarizes the milestones during this transition period:

Table 1. 9-1-1 GIS Key Milestones October 1, 2019 - March 31, 2020

Milestone	October	November	December	January	February	March
Database Update due to CAPCOG	10/1/2019	11/1/2019	12/2/2019	1/2/2020	2/3/2020	3/2/2020
Database Update Submitted to EGDMS and DataHub	n/a	n/a	12/2/2019	1/2/2020	2/3/2020	3/2/2020
Database Update Finalized	10/7/2019	11/7/2019	12/6/2019	1/8/2020	2/7/2020	3/6/2020
CAPCOG Pushes Database to PSAP	10/9/2019	11/11/2019	12/10/2019	1/10/2020	2/11/2020	3/10/2020
Database Available at PSAP	10/11/2019	11/13/2019	12/12/2019	1/14/2020	2/13/2020	3/12/2020
CAPCOG Distributes Performance Report	10/18/2019	11/14/2019	12/16/2019	1/16/2020	2/17/2020	3/18/2020