

Capital Area Council of Governments Interlocal Agreement for 9-1-1 Geographic Information System Database Management FY 2023

1. Parties and Purpose

- 1.1. The Capital Area Council of Governments ("CAPCOG") is a regional planning commission and political subdivision of the State of Texas organized and operating under the Texas Regional Planning Act of 1965, as amended, chapter 391 of the Local Government Code. One of CAPCOG's functions includes the operation of the Capital Area Emergency Communications District ("CAECD" or "the District") a regional emergency communications district of the State of Texas organized and operating under Chapter 772, Subchapter G of the Health and Safety Code, as amended. On behalf of the District, CAPCOG desires to ensure the highest quality in its 9-1-1 Geographic Information System (GIS) data in order to ensure the success of the region's transition to Next Generation 9-1-1 emergency communications service within the District.
- 1.2. Williamson County ("PUBLIC AGENCY") is Texas County that has agreed to participate in maintaining and updating the district's 9-1-1 GIS database and exercises its authority under Section 251.013 of the Texas Transportation Code to name public roads and assigning address numbers to property located in unincorporated areas of the county.
- 1.3. This Interlocal Agreement (ILA) is entered into between CAPCOG and PUBLIC AGENCY under Chapter 791 of the Texas Government Code in order to compensate the PUBLIC AGENCY for the work required to maintain and update the district's 9-1-1 GIS database.
- 1.4. For the purpose of carrying out CAPCOG's duties and obligations under this agreement, the parties understand and agree that references to CAPCOG includes its employees, officers, directors, volunteers, agents (including the Capital Area Council of Governments – CAPCOG), and their representatives, individually, officially, and collectively.

2. Goods and Services

- 2.1. PUBLIC AGENCY agrees to carry out the scope of work in Attachment A in accordance with the data requirements in Attachment B.

3. Cooperative Purchasing

- 3.1. CAPCOG may periodically identify opportunities to cooperatively purchase goods or services for the 9-1-1 GIS data for participating organizations.
- 3.2. If PUBLIC AGENCY chooses to participate in a cooperative purchase of 9-1-1 GIS goods or services organized by CAPCOG, PUBLIC AGENCY agrees that CAPCOG may deduct the cost of PUBLIC AGENCY's share of those goods or services from the contract price otherwise payable to the PUBLIC AGENCY.

4. Effective Date and Term of Contract

- 4.1. This contract takes effect October 1, 2022, and terminates on September 30, 2023, unless terminated earlier under Section 10.

5. Contract Price and Payment Terms

- 5.1. For work performed under this agreement, CAPCOG agrees to compensate PUBLIC AGENCY an amount not to exceed \$449,313.85.
- 5.2. PUBLIC AGENCY agrees to invoice CAPCOG as follows for deliverables as described in Attachment A for these quarters:

October 1, 2022 – December 31, 2022: \$112,328.46, invoice due by close of business, Tuesday, January 9, 2023

January 1, 2023 – March 31, 2023: \$112,328.46, invoice due by close of business, Friday, April 7, 2023;

April 1, 2023 – June 30, 2023: \$112,328.46, invoice due by close of business, Monday, July 10, 2023; and

July 1, 2023 – September 30, 2023: \$112,328.47, invoice due by close of business, Friday, October 6, 2023.

Timely submission of invoices will be considered in CAPCOG's evaluation of PUBLIC AGENCY's performance of this ILA, and CAPCOG reserves the right to reject any invoice submitted more than 90 days after the end of each quarter.

- 5.3. PUBLIC AGENCY agrees to submit a performance report along with each invoice in accordance with the scope of work in Attachment A. If CAPCOG determines that PUBLIC AGENCY has not meet performance expectations described in Attachment A, CAPCOG will provide a written explanation to PUBLIC AGENCY, and PUBLIC AGENCY agrees to provide, within five business days, a comprehensive explanation of the performance deficiency and a plan for achieving performance targets during the next quarter.
- 5.4. CAPCOG agrees to pay invoices within 30 days after receiving a correct invoice, after CAPCOG determines that the PUBLIC AGENCY has fulfilled its obligations for the quarter in accordance with Attachment A.
- 5.5. CAPCOG reserves the right to reject in whole or part a quarterly invoice in part or in whole if PUBLIC AGENCY has not adequately fulfilled its obligations under this ILA.

6. Compliance with Applicable Law and Policy

- 6.1. PUBLIC AGENCY agrees to comply with all applicable law and policy in carrying out this ILA.

7. Independent Contractor, Assignment, and Subcontracting

- 7.1. PUBLIC AGENCY is not an employee or agent of CAPCOG, but furnishes goods and services under this ILA solely as an independent contractor.

- 7.2. PUBLIC AGENCY may not assign its rights or subcontract its duties without the written consent of CAPCOG. An attempted assignment or subcontract in violation of this section is void.
- 7.3. If CAPCOG consents to PUBLIC AGENCY's subcontracting of duties, each subcontract is subject to all of the terms and conditions of this ILA, and PUBLIC AGENCY agrees to furnish a copy of this ILA to each subcontractor and furnish, upon request, a copy of PUBLIC AGENCY's contract with any subcontractor to CAPCOG.
- 7.4. If PUBLIC AGENCY wishes to assign the role of project representative to anyone other than a PUBLIC AGENCY employee to serve as its project representative for this ILA, it shall provide documentation to CAPCOG that the subcontractor consents to serve in this capacity.

8. Records and Monitoring

- 8.1. PUBLIC AGENCY agrees to maintain records adequate to document its performance and costs of carrying out this ILA at PUBLIC AGENCY's offices.
- 8.2. Subject to additional requirements of section 8.3, PUBLIC AGENCY agrees to preserve the records for three fiscal years after receiving final payment under this ILA.
- 8.3. If an audit or information in the records is disputed or the subject of litigation, PUBLIC AGENCY agrees to preserve the records until the dispute or litigation is finally concluded, regardless of the ending or early termination of this contract.
- 8.4. Upon advance and reasonable notice to the PUBLIC AGENCY, CAPCOG is entitled to inspect and copy, during normal business hours at PUBLIC AGENCY's offices where they are maintained, the records maintained under this contract for as long as they are preserved. CAPCOG is also entitled to visit PUBLIC AGENCY's offices, talk to its personnel, and audit its records, all during normal business hours, to assist in monitoring its performance under this contract.
- 8.5. CAPCOG reserves the right to visit PUBLIC AGENCY's offices to monitor performance of this contract at least during the performance period to ensure compliance with applicable law and policy. If CAPCOG exercises this option, it will provide PUBLIC AGENCY with a written monitoring report within 30 calendar days of the visit. The report will describe any compliance issues and schedule a follow-up visit if necessary.
- 8.6. CAPCOG agrees to notify PUBLIC AGENCY at least 24 hours in advance of any intended visit under this Section other than as described in Section 8.5. Upon receipt of CAPCOG's notice, PUBLIC AGENCY agrees to notify the appropriate department(s) specified in the notice of CAPCOG's intended visit.

9. Nondiscrimination and Equal Opportunity

- 9.1. PUBLIC AGENCY shall not exclude anyone or entity from participating in PUBLIC AGENCY's duties under this ILA, deny benefits under this ILA, or otherwise discriminate against anyone in carrying out this contract because of any protected category under CAPCOG's personnel policies, which include race, color, religion, sex, age, disability, handicap, veteran status, national origin, sexual orientation, or gender identity.

- 9.2. If PUBLIC AGENCY procures goods or services with funds made available under this ILA, PUBLIC AGENCY agrees to comply with CAPCOG's affirmative action procurement policy, which is set out in CAECD's 9-1-1 Policies and Procedures Manual.

10. Early Termination of Contract

- 10.1. If CAPCOG or PUBLIC AGENCY breaches a material provision of this ILA, the other may notify the breaching party describing the breach and demanding corrective action. The breaching party has five business days from its receipt of notice to correct the breach, or to begin and continue with reasonable diligence and in good faith to correct the breach. If the breach cannot be corrected within a reasonable time as agreed by the parties, despite the breaching party's reasonable diligence and good faith effort to do so, the non-breaching party may terminate the contract or may invoke the dispute resolution process of section 11.
- 10.2. If this ILA is terminated under this section, CAPCOG and PUBLIC AGENCY are entitled to compensation for goods and services provided the other before receiving notice of the suspension or termination. However, neither CAPCOG nor PUBLIC AGENCY is liable to the other for costs it paid or incurred under this contract made after or in anticipate of its receipt of notice of suspension or termination. The fraction of the maximum amount owed for each period described in sections 5.1 and 5.2 will be calculated based on the quarterly amount and fraction of CAPCOG business days during that quarter when the PUBLIC AGENCY carried out work pursuant to this ILA.
- 10.3. Termination for breach under Section 10.1 does not waive either party's claim for direct damages resulting from the breach, and both CAPCOG and PUBLIC AGENCY among other remedies may withhold from compensation owed the other an amount necessary to satisfy its claim against the other.
- 10.4. The termination of this contract does not affect PUBLIC AGENCY's duty to preserve its records and permit inspection, copying, and auditing of its records and visitation of its premises and personnel under section 8.

11. Dispute Resolution

- 11.1. The parties desire to resolve disputes arising under this ILA without litigation. Accordingly, if a dispute arises, the parties agree to attempt in good faith to resolve the dispute between themselves. To this end, the parties agree not to sue one another, except to enforce compliance with this section 11, toll the statute of limitations, or seek an injunction until they have exhausted the procedures set out in this Section 11.
- 11.2. At the written request of either party, each party shall promptly appoint one non-lawyer representative to negotiate informally and in good faith to resolve any dispute arising under this ILA. The representatives appointed shall promptly determine the location, format, frequency, and duration of the negotiations.
- 11.3. If the representatives cannot resolve the dispute within 30 calendar days after the first negotiation meeting, the parties agree to refer the dispute to the Dispute Resolution Center of Austin for mediation in accordance with the Center's mediation procedures by a single

mediator assigned by the Center. Each party agrees to pay half the cost of the Center's mediation services.

- 11.4. The parties agree to continue performing their duties under this contract, which are unaffected by the dispute, during the negotiation and mediation process.
- 11.5. If mediation does not resolve the parties' dispute, the parties may pursue their legal and equitable remedies.
- 11.6. A party's participation in or the results of any mediation or other non-binding dispute resolution process under this section or the provisions of this section shall not be construed as a waiver by party of: (1) any rights, privileges, defenses, remedies, or immunities available to a party; (2) a party's termination rights; or (3) other termination provisions or expiration dates of this ILA.
- 11.7. Nothing shall prevent either party from resorting to judicial proceedings if (a) good faith efforts to resolve a dispute under these procedures have been unsuccessful, or (b) interim resort to a court is necessary to prevent serious and irreparable injury to a party or to others.

12. Notice to Parties and Project Representatives

- 12.1. Notice to be effective under this ILA must be in writing and received by the party against whom it is to operate. Notice is received by a party: A) when it is delivered to the party personally; B) on the date shown on the return receipt if mailed or registered or certified mail, return receipt requested, to the party's address specified in 12.2 or 12.3 and signed for on behalf of the party; or C) three business days after its deposit in the United States mail, with first-class postage affixed, addressed to the party's address specified in Section 12.2 or 12.3.
- 12.2. CAPCOG's address is 6800 Burleson Road, Building 310, Suite 165, Austin, TX 78744, Attn: Executive Director
- 12.3. PUBLIC AGENCY's address is: 301 SE Inner Loop, Suite 107, Georgetown TX 78526, Attn: Judge William Gravell Jr.
- 12.4. A party may change its address by providing notice of the change in accordance with Section 12.1
- 12.5. Devon Humphrey, CAPCOG GIS Program Manager, is CAPCOG's Project Representative, who is authorized to give and receive communications and directions on behalf of CAPCOG. All communications including all payment requests must be addressed to the CAPCOG's Project Representative or his designee. CAPCOG's Project Representative may indicate a designee through an e-mail to PUBLIC AGENCY's project representative. CAPCOG's Project Representative's phone number is (512) 916-6034, and his e-mail is dhumphrey@capcog.org
- 12.6. George Strebel is PUBLIC AGENCY's Project Representative, who is authorized to give and receive communications and directions on behalf of PUBLIC AGENCY. All communications including all payment requests must be addressed to the PUBLIC AGENCY's Project Representative or his designee. The PUBLIC AGENCY's Project Representative may indicate a


designee through an e-mail to CAPCOG's project representative. PUBLIC AGENCY's Project Representative's phone number is (512) 943-1474, and his e-mail is gstrebel@wilco.org.

13. Miscellaneous

- 13.1. Each individual signing this contract on behalf of a party warrants that he or she is legally authorized to do so and that the party is legally authorized to perform the obligations undertaken. The undersigned warrants that he or she: A) has actual authority to execute this contract on behalf of the governing body identified in this agreement; and verifies the governing body, by either minute order, resolution, or ordinance approved this agreement as required by Texas Government Code Section 791, as amended
- 13.2. This ILA shall be construed and interpreted in accordance with the laws of the State of Texas. Venue for all disputes hereafter shall be solely in Travis County.
- 13.3. This ILA states the entire agreement of the parties, and may be amended only by a written amendment executed by both parties, except that any alterations, additions, or deletions to the terms of this ILA which are required by changes in Federal or State law or regulation are automatically incorporated into this contract without written amendment hereto and shall become effective on the date designated by such law or regulation.
- 13.4. The following Attachments are part of this ILA: A) Scope of Work; and B) Data Requirements.
- 13.5. This contract is executed in duplicate originals.

WILLIAMSON COUNTY

CAPITAL AREA COUNCIL OF GOVERNMENTS

By: 
Bill Gravell (Aug 10, 2022 13:12 CDT)

Name: William Gravell Jr.

Title County Judge

Date: Aug 10, 2022

By: _____

Betty Voights

Executive Director

Date: _____

Date of PUBLIC AGENCY Governing Body Approval:

Aug 10, 2022

Attachment A: Scope of Work

Overview

The goal of this scope of work is to facilitate the exchange of geospatial information between PUBLIC AGENCY and CAPCOG to help ensure that efficient and accurate response to emergency calls and text messages in all areas of the Capital Area Emergency Communications District (CAECD). In order to accomplish this:

1. Calls and texts must be routed to the correct public safety answering point (PSAP);
2. The correct emergency service provider must be dispatched to the appropriate location; and
3. The emergency responders must be able to know the most efficient route to reach that location.

Definitions

Core 9-1-1 GIS data terminology:

1. **9-1-1 GIS Database**: The geospatial database maintained and updated by the PUBLIC AGENCY that includes, at a minimum, all address points (SSAPs), road centerlines (RCLs), PSAP boundaries, Emergency Service Boundaries (ESBs), Emergency Service Zone (ESZ) boundaries, and city limit (municipal) boundaries for the PUBLIC AGENCY's provisioning boundary
2. **Data Layer**: Also known as a Feature Class, is a group of geographic features that reside in a table of information with corresponding locations on the earth (map) represented as either points, lines, or polygons.
3. **Address Points (SSAPs)**: A data layer of points identifying sites or structures associated with a street address, or the location of access to a site or structure, but may also represent landmarks.
4. **Road (Street) Centerlines (RCLs)**: A data layer of lines estimating the centerline of a roadway that contains information such as road name, road classification, and address range
5. **City Limit (Municipal) Boundary**: A polygon data layer representing the geographic extent of a city's administrative boundary, not including any extra-territorial jurisdiction. Updates to City Limit boundaries are used to update PSAP, ESB, and ESZ boundaries.
6. **Automatic Location Information (ALI) Database**: A tabular database of landline telephone numbers with associated location information used to route 9-1-1 calls to a PSAP.
7. **Legacy Master Street Address Guide (MSAG) Database**: A tabular database of street names and house number ranges within their associated communities defining ESZs and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.

Specialized NG9-1-1 GIS terminology:

1. **Provisioning Boundary**: The authoritative polygon data layer that defines the PUBLIC AGENCY's geographic area of 9-1-1 GIS responsibility. This should be the entire extent of the PUBLIC AGENCY's administrative boundary, plus any other adjacent areas or minus areas within its administrative boundaries as agreed to between the PUBLIC AGENCY and another city or county. Provisioning boundaries may only be modified with express written concurrence between the PUBLIC AGENCY, adjacent PUBLIC AGENCIES, and CAPCOG.

The provisioning boundary should include the area that the PUBLIC AGENCY assigns address points and road names under its own authority, plus any other areas that the PUBLIC AGENCY does not have such authority, but with which it has entered into an exclusive agreement to obtain this information for the 9-1-1 GIS database. Situations that may warrant a change to a provisioning boundary include (but are not limited to): municipal annexations, disannexations, consolidation of two or more municipalities, formation of new municipalities, changes in PSAP service areas, and changes in emergency responder service areas.

2. **PSAP boundary**: The authoritative polygon data layer representing the geographic area within a provisioning boundary served by a single 9-1-1 call center (a PSAP), to which all emergency requests are initially routed.
3. **Emergency Service Boundary (ESB)**: A polygon data layer that represents the geographic area of responsibility for emergency response providers within the geographic extent of the provisioning boundary. Each 9-1-1 GIS database includes, at a minimum, a law ESB layer, a fire ESB layer, and an Emergency Medical Services (EMS) ESB layer.
4. **Emergency Service Zone (ESZ)**: A polygon data layer representing the area within a provisioning boundary served by a unique combination of law, fire, and EMS responders. ESZs are optional for inclusion in the NG9-1-1 GIS database.
5. **Database Schema**: Also known as Data Model, is the database structure with regard to field properties, including data type, field value constraints, etc. Converting one database schema to another involves field-matching (field-mapping) and other compatibility considerations.
6. **Geo-MSAG**: A geospatially-based database that replaces the MSAG and is created and managed using a road centerline GIS dataset. A city or county must first transition from a traditional tabular MSAG to a Geo-MSAG before it can transition to NG9-1-1. In order to qualify to initiate the transition to a Geo-MSAG, a county must achieve at least 98% match between ALI to RCL records as described later in this document.
7. **Globally Unique IDs (GUIDs)**: A unique identifier that is assigned to each record (feature) in an PUBLIC AGENCY's 9-1-1 GIS database; a GUID uniquely identifies a feature both within the PUBLIC AGENCY's 9-1-1 GIS database provisioning boundary and across all 9-1-1 GIS databases.

Quality Control terminology:

1. **Enterprise Geospatial Data Management System (EGDMS)**: A cloud-based quality control platform provided by AT&T/Intrado used for identifying critical errors that affect call and dispatch routing that will be used by the PUBLIC AGENCY to provision (determines acceptable) data to CAPCOG's NG9-1-1 system for call routing. EGDMS does not assess "significant" errors that affect dispatch.
2. **DataHub**: a cloud-based quality control platform provided by GeoComm that, in addition to being able to identify critical errors, can also identify "significant" and "other" errors in a PUBLIC AGENCY's 9-1-1 GIS database. DataHub is the system that will provide data to a call taker's map display in the near future.
3. **New Error**: Any error present in the PUBLIC AGENCY's 9-1-1 GIS database update for the first time.
4. **Legacy Error**: Any error in the PUBLIC AGENCY's 9-1-1 GIS database update that was also present in a preceding update.

5. **Accuracy Rate**: The percentage of features that have been assessed by EGDMS, DataHub, or both, as being free of errors or matching a related database.
6. **Error Rate**: The percentage of features that have been assessed as having a critical error, significant error, or as not matching a related database.
7. **Critical Error**: Any error in the PUBLIC AGENCY's 9-1-1 GIS database assessed by EGDMS or DataHub that cause, or have a potential of causing, a critical fault in the routing of a 9-1-1 emergency service request call or text to the correct PSAP; the EGDMS system prevents data with critical errors from being uploaded to the NG9-1-1 system. Examples include (but are not limited to) gaps and overlaps between several of the data layers described above.
8. **Significant Error**: Any error in the PUBLIC AGENCY's 9-1-1 GIS database update found by GeoComm's Data Hub quality control software that cause, or have a potential of causing, a critical fault in Computer-Aided Dispatch (CAD) mapping platforms or other related systems.
9. **Other Error**: Any error in the PUBLIC AGENCY's 9-1-1 GIS database identified by GeoComm's Data Hub quality control software other than a "critical" or "significant" error.

Task 1: Basic Work

Task 1 involves information gathering and data preparation needed for the 9-1-1 GIS database but does NOT involve updating the 9-1-1 GIS database directly.

Task 1.A: PUBLIC AGENCY shall submit to CAPCOG, at least once a month, a comprehensive record of 9-1-1 related information needed for complete and updated 9-1-1 GIS database records for all areas within the PUBLIC AGENCY's Provisioning Boundary consisting of:

1. Street Addresses
2. Roads
3. City limit boundaries
4. Law ESB*
5. Fire ESB*
6. Emergency Medical Service ESB*
7. ESZs*
8. Other pertinent information

*Shall be submitted if changes are requested for CAPCOG approval, otherwise these data are not required to be submitted as part of monthly dataset (see Task 1D).

Data submitted by PUBLIC AGENCY must adhere to requirements laid out in Attachment B.

Task 1B: PUBLIC AGENCY shall enter into and maintain agreements with all other local governments with the authority to assign address points, assign road names and address ranges, alter municipal boundaries, or change the geographic coverage of emergency service providers in order to ensure that these entities provide such data to PUBLIC AGENCY in a timely manner. When such changes occur, PUBLIC AGENCY shall provide CAPCOG with adequate advance notice of any substantive changes that could or should affect PSAP boundaries, ESB boundaries, provisioning boundaries, or any sub-contracting in order for an orderly transition as a result of any pending new agreement, amendment, or agreement termination. PUBLIC AGENCY shall submit a copy of each of these agreements to CAPCOG no later than October 5, 2022.

Task 1C: PUBLIC AGENCY shall be responsible for conveying any relevant information from CAPCOG regarding 9-1-1 GIS database integrity to other local governments and governmental entities partially or wholly within its provisioning boundary.

Task 1D: PUBLIC AGENCY shall provide to CAPCOG information from any County Commissioners' Court meetings or City Council meetings that would affect PUBLIC AGENCY's performance of this contract, including (but not limited to) changes to PSAPs, ESBs/ESZs, annexation, or subcontracting. PUBLIC AGENCY's Project Representative is expected to keep track of County Commissioners Court and City Council meeting agendas to determine if an item may affect the performance of this contract, and notify CAPCOG's project representative of any such issues as soon as possible, but no later than 2 days prior to the Commissioners Court or City Council meeting. Such information includes, but is not limited to, annexation notices, disannexation notices, and interlocal agreements related to emergency services and coverage areas. To the extent possible, CAPCOG will use the ESB and ESZ data submitted by the PUBLIC AGENCY in the 9-1-1 system. However, CAPCOG reserves the right to make adjustments to these data and/or reinstate prior versions if the data submitted by PUBLIC AGENCY are found to have errors. Regardless of any such changes made by local governments within their provisioning boundary, those changes will not be made in the 9-1-1 system until this information is provided to CAPCOG, CAPCOG accepts the information, and makes the corresponding changes in the 9-1-1 system. CAPCOG shall make PUBLIC AGENCY aware of any required changes to these boundaries within three business days of being provided with the polygon data. Note that changes to these data may be sent to CAPCOG at any point during the month. PUBLIC AGENCY is responsible for downloading and using the latest authoritative version of the ESZ/ESB files used in the 9-1-1 system from CAPCOG at the beginning of each month to avoid repetition of errors if they have occurred.

Task 1.E: PUBLIC AGENCY shall send at least one representative to each scheduled 9-1-1 GIS User Group meetings (GMUG) and at least one training workshop hosted by CAPCOG during the performance period of this agreement.

Task 1.F: By October 7, 2022, PUBLIC AGENCY shall submit to CAPCOG a listing of which agencies are responsible for assigning 9-1-1 addresses within all areas of their provisioning boundary. Ideally, this should take the form of a polygon layer identifying each distinct area covered by an agency with addressing responsibility.

Task 2: GIS Work for PSAP Map Updates

Task 2 involves GIS work needed for directly maintaining and updating the 9-1-1 GIS database for use in monthly updates to PSAP mapping applications. This is work that CAPCOG would need to perform if the PUBLIC AGENCY did not do so. CAPCOG's expectation is that this work would be performed by a person, either on staff or subcontracted by the PUBLIC AGENCY, with responsibilities, knowledge, skills, education, and experience comparable to the state's "Geographic Information Specialist II" job description.¹ PUBLIC AGENCY must maintain at least one ESRI ArcGIS software license as specified in Attachment B in order to carry out this work. Task 2 includes the following sub-tasks:

Task 2.A: PUBLIC AGENCY shall submit all information required under Task 1.A that corresponds to GIS data layers in the 9-1-1 GIS database at least once a month. This will be provided in ESRI File

¹ Available online at: <http://www.hr.sao.texas.gov/CompensationSystem/JobDescriptions/>

geodatabase format (.gdb) pursuant to Attachment B and any other CAPCOG guidance on the 1st business day of each month or up to five business days prior to the 1st business day of the month. PUBLIC AGENCY shall first submit road centerline, street address point, city limit boundary data and their respective ALI extract for that month to DataHub in order to identify and address any mismatches between the ALI database and PUBLIC AGENCY's RCL and address point data, "critical" errors, and "significant" errors. PUBLIC AGENCY shall submit city limit boundaries that include the entire extent of any city limits wholly or partially located within its provisioning boundary, including any part of a city limit boundary that extends outside of its provisioning boundary. The quality control systems require the 9-1-1 GIS database to match the standardized database schema (data model) for these systems through field-matching (field-mapping) procedures and other standards.

Task 2.B: PUBLIC AGENCY shall address any errors identified by DataHub validation checks (reports) or CAPCOG Quality Control reports from those systems as soon as possible, but no later than the following conventional monthly submission to CAPCOG. This includes coordination with adjacent PUBLIC AGENCIES and CAPCOG where necessary.

Task 2.C: PUBLIC AGENCY shall address any other discrepancies identified by authorized stakeholders including, but not limited to, PSAP 9-1-1 call-takers.

Task 2.D: At least once a month, PUBLIC AGENCY shall back up the 9-1-1 GIS database and store it in a secure place. PUBLIC AGENCY shall include a record of the dates the database was backed up in the activity reports that are required to be submitted with quarterly invoices.

Task 2.E: In addition, PUBLIC AGENCY shall maintain the ALI database within the PUBLIC AGENCY's provisioning boundary. This includes, but is not limited to, correcting telephone number database errors, maintenance and quality-control of an accurate 9-1-1 call location map.

Task 2.F: If CAPCOG identifies any situations in which a road centerline is coincident with a provisioning boundary, PUBLIC AGENCY is responsible for coordinating with any adjacent agencies sharing responsibility for that road centerline to determine which agency will be responsible for maintaining which portions of the road centerline data prior to the next monthly data submission. Once CAPCOG confirms that both agencies have agreed on a division of responsibility, those road centerline features will be considered the exclusive responsibility of each agency in order to avoid duplication.

Task 3: Updates for Call-Routing

In a NG9-1-1 environment, the GIS database is used not only for PSAP mapping applications, but also to route both cell and landline phone calls to the proper PSAP. Whereas for the monthly PSAP map update, CAPCOG aggregates data submitted from PUBLIC AGENCY with all of the other local governments under contract with CAPCOG and then pushes these data out to the PSAPs, for call routing updates, PUBLIC AGENCY will submit data directly to EGDMS.

Task 3.A: PUBLIC AGENCY shall submit the most recent 9-1-1 road centerline and street address GIS data from Task 2 to EGDMS at least once a month on the first business day of the month or up to five business days prior to that date. While PUBLIC AGENCY may submit updates to EGDMS more frequently than once a month, it will be expected to make at least one submission within this window each month and CAPCOG will only be assessing performance based on PUBLIC AGENCY's submission during this

window. RCL updates submitted by PUBLIC AGENCY to EGDMS will automatically update PUBLIC AGENCY's GeoMSAG.

Task 3.B: To the extent EGDMS identifies any critical errors in the 9-1-1 databases submitted by PUBLIC AGENCY, PUBLIC AGENCY must work on correcting any such errors prior to the next monthly submission. Failure to make progress in correcting critical errors identified in the prior month's submission will be noted in CAPCOG's comprehensive performance reports and should be noted and explained in quarterly reports submitted by PUBLIC AGENCY when submitting an invoice to CAPCOG.

Content of Quarterly Reports

Along with each quarterly invoice, PUBLIC AGENCY will submit an activity report that contains all of the following information related to activities that occurred in the quarter:

- For each applicable governmental entity with administrative boundaries within PUBLIC AGENCY's provisioning boundary, PUBLIC AGENCY shall provide a summary of actions taken each month relevant to the 9-1-1 GIS database, including any new records added since the last update and errors corrected.
- The date and time of the PUBLIC AGENCY's last backup of its 9-1-1 GIS database each month of the quarter.
- Dates and basic summaries (such as total number of features) of data submissions to CAPCOG.
- A summary of any work that involved resolution of boundary issues with other entities, correction of errors and resolution of any other issues related to this contract
- An explanation for any performance issues during the quarter and corrective action that will be taken to address and prevent such issues in the future, including:
 - Late or incomplete data submissions;
 - Failure to meet performance expectations for ALI to RCL match accuracy rates, critical error accuracy rates, or significant error rates; and
 - Any other issue identified by CAPCOG in a performance report.

CAPCOG will provide PUBLIC AGENCY the template to use for activity reports.

Operational Timeline

The following timeline should be used by PUBLIC AGENCY in planning its submission of data to DataHub and CAPCOG for PSAP map updates (Task 2) and to EGDMS for and call-routing updates (Task 3):

Month	Submission Window	Error Correction Window	CAPCOG Pushes out PSAP Map Update
October 2022	9/26/2022 – 10/3/2022	10/4/2022 – 10/7/2022	10/11/2022
November 2022	10/25/2022 – 11/1/2022	11/2/2022 – 11/7/2022	11/9/2022
December 2022	11/22/2022 – 12/1/2022	12/2/2022 – 12/7/2022	12/9/2022
January 2023	12/22/2022 – 1/3/2023	1/4/2023 – 1/9/2023	1/11/2023
February 2023	1/25/2023 – 2/1/2023	2/2/2023 – 2/7/2023	2/9/2023
March 2023	2/22/2023 – 3/1/2023	3/2/2023 – 3/7/2023	3/9/2023
April 2023	3/27/2022 – 4/3/2022	4/4/2022 – 4/7/2023	4/11/2023
May 2023	4/24/2023 – 5/1/2023	5/2/2023 – 5/5/2023	5/9/2023
June 2023	5/24/2023 – 6/1/2023	6/2/2023 – 6/7/2023	6/9/2023

Month	Submission Window	Error Correction Window	CAPCOG Pushes out PSAP Map Update
July 2023	6/26/2023 – 7/3/2023	7/5/2023 – 7/10/2023	7/12/2023
August 2023	6/25/2023 – 8/1/2023	8/2/2023 – 8/5/2023	8/9/2023
September 2023	8/25/2023 – 9/1/2023	9/2/2023 – 9/8/2023	9/12/2023

Review of Deliverables and Invoices

Upon receipt of each quarterly invoice, CAPCOG will divide payment into sixths, reflecting the submission of a complete road centerline and address point database in each of the three months that is useable in that month's PSAP map update:

1. Month 1: complete, updated road centerline database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice
2. Month 1: complete, updated address point database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice
3. Month 2: complete, updated road centerline database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice
4. Month 2: complete, updated address point database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice
5. Month 3: complete, updated road centerline database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice
6. Month 3: complete, updated address point database provided usable for map update by 5th business day of the month: 1/6 of quarterly invoice

CAPCOG Guidance and Direction

In addition to the Performance Reports identified in Task 2.B, CAPCOG may issue technical guidance or direction to PUBLIC AGENCY's Project Representative that provides further clarification, interpretation, and details. Failure to follow any such guidance would constitute a performance deficiency for this agreement.

Attachment B: CAPCOG Next Generation 9-1-1 GIS Data Requirements Version 1 (October 2021)

1 Summary

The following geospatial data and corresponding attribute specifications are required to be regularly maintained by each county for Mapped Automated Location Information (ALI) and use in a Next Generation 9-1-1 system which relies on GIS for call and dispatch routing through the Location Validation Function (LVF) and Emergency Call Routing Function (ECRF).

This document is referenced in the Capital Area Council of Governments Interlocal Agreement for 9-1-1 Geographic Information System Database Management and is commonly called “Attachment B Requirements”.

The GIS Data requirements in this document are a condensed version of, and based upon, data standards created by NENA (National Emergency Number Association) as they are developed and evolve over time. These data model standards should be more thoroughly reviewed in the “NENA Standard for NG9-1-1 GIS Data Model” document. Specifics regarding address point placement methodologies should be reviewed in the “NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1” document. There are other useful resources and training, as well, that CAPCOG has created and can provide.

As per “Task 1.A and Task 2.A” in “Attachment A: Scope of Work”, please provide monthly updates of the 9-1-1 datasets referenced in this document in ESRI file geodatabase format to the GeoComm GIS Data Hub, Intrado EGDMS, and CAPCOG FTP location by close of business the 1st business day of each month. This ensures that data is available for the PSAPs by close of the 7th business day of that month. Submissions may be sent up to five business days before the 1st business day of the next month, but ideally would be sent on the 1st business day as CAPCOG wants to capture as many edits as possible that happen over the course of a given month. Incomplete datasets or other data abnormalities related to requirements may be returned to the county for correction, and must be returned by close of business on the 5th business day, however, this does not guarantee that the submission will be included in the dataset provided to the PSAPs. If there is a situation in which a submission is not possible by the end of the 1st business day of the month, CAPCOG must be made aware and will work with PUBLIC AGENCY to obtain that month’s data.

CAPCOG will update, create, and otherwise manage the PSAP and Provisioning Boundaries for each local jurisdiction and provide these data layers to jurisdiction for Task 2: GIS Work. CAPCOG will also provision these datasets to both quality-control systems for their use in call and dispatch routing as well as map display and reference. As described in Task 1B, PUBLIC AGENCY shall enter into and maintain agreements with all other local governments with the authority to assign address points, assign road names and address ranges, alter municipal boundaries, or change the geographic coverage of emergency service providers in order to ensure that these entities provide such data to county in a timely manner. When such changes occur, local jurisdiction shall provide CAPCOG with adequate

advance notice of any substantive changes that could or should affect PSAP boundaries, ESB/ESZ boundaries, provisioning boundaries, or any sub-contracting in order for an orderly transition as a result of any pending new agreement, amendment, or agreement termination.

PUBLIC AGENCY responsible for the creation and maintenance of the ESZ and ESB data within its provisioning boundary. To the extent possible, CAPCOG will use the ESB and ESZ data submitted by the local jurisdiction in the 9-1-1 system. However, CAPCOG reserves the right to make adjustments to these data and/or reinstate prior versions if the data submitted are found to have errors. Regardless of any such changes made by local governments within their provisioning boundary, those changes will not be made in the 9-1-1 system until this information is provided to CAPCOG, CAPCOG accepts the information, and makes the corresponding changes in the 9-1-1 system. CAPCOG shall make PUBLIC AGENCY aware of any required changes to these boundaries within three business days of being provided with the polygon data. Note that changes to these data may be sent to CAPCOG at any point during the month. The local jurisdiction is responsible for downloading and using the latest authoritative version of the ESZ/ESB files used in the 9-1-1 system from CAPCOG at the beginning of each month to avoid repetition of errors if they have occurred.

Regarding database fields and data types, each is very specific and must follow the exact guidelines outlined below. Remember to keep the field names in your database the same as those listed, and in the same order, and that all entries for every field must be in UPPER CASE. The complete attribute definitions shown in the GIS data tables are described and defined in the “Database Format” sections for each dataset. The data fields shown as Mandatory and Conditional must be present in the data. In the tables below, the column M/C/O is to indicate whether the attribute values is Mandatory (M), Conditional (C), or Optional (O).

- **Mandatory (M)** signifies an attribute value must exist
- **Conditional (C)** signifies that if the attribute information exists in the real world, it must be included. If no value exists for the feature, the individual value is left blank without an empty space (if text), or 0 (if numeric)
- **Optional (O)** signifies an attribute value may or may not be included in the data field

In the GIS data tables below, the **TYPE** column indicates the data type used for the data field.

- **TEXT** – string of alphanumeric characters including any combination of alphabetical letters A-Z and numbers 0-9
- **DATE** – Date and time using ISO 8601 compliant formats which are in the format of YYYY-MM-DD HH:MM:SS
- **DOUBLE** – double precision floating point numeric values with decimals
- **LONG** – whole numeric values ranging from -2,147,483,648 to +2,147,483,647 without decimals in the GIS data tables below, the **WIDTH** column indicates the number of allowable characters within each field.

2 Road Centerlines (RCL)

This line data represents road networks in the CAPCOG region. This layer includes the street names and address ranges used to assign an address.

The performance standard for the Road Centerlines feature class is 98% accuracy. This means that 98% of the database records should be free of critical and significant errors.

2.1 Graphic (Spatial) Edits

Each named street needs to be represented in the GIS graphically and include attribution for all database fields listed below. All unnamed streets included in the street centerline layer are required to have the designation “DRVW” entered in the ‘street name (ST_NAME)’ field and have any other relevant attribute information completed, including the ‘CLASS’ field. When a street centerline is created or edited, several sources and methods can be used, including current aerial imagery, georeferenced survey plats, computer-aided design (CAD) files, parcels, mapping-grade GPS units in the field, or other authoritative sources or methods. The positional accuracy of addressed structures should be within +/- 5 feet of the center of the roadbed (the part on which vehicles travel) noting that when roadways are divided (i.e by a median) the roadbeds on each side should have a centerline drawn. In all cases each new street centerline will need to be split, or checked for gaps, at each jurisdiction and ESN line/boundary intersection. Street segment direction must be correct as well. These items and other geometric relationships are referred to as “topology”, and especially important for NG9-1-1 purposes.

2.2 Database Format

The following table details the data format requirements for the RCL database.

Table 2-1. RCL Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. FAYETTE, TRAVIS
PROVIDER	M	TEXT	75	The name of the regional 911 authority <i>CAPCOG will populate</i>
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
SEGMENTID	O	LONG	DEFAULT	Unique segment ID <i>CAPCOG will populate prior to uploading to PSAP.</i> <i>May also serve as a placeholder field to populate SITEUNGID field</i>
RCL_UNIQID	M	TEXT	100	Globally Unique ID for each road segment. Ex. 894RCL@co.blanco.tx.us
COUNTRY	M	TEXT	2	Country name represented by two capital letters
L_STATE	M	TEXT	2	Left state name by two letters defined by USPS publication 28
R_STATE	M	TEXT	2	Right state name by two letters defined by USPS publication 28
L_COUNTY	M	TEXT	40	Fully spelled county name on the left side of the road
R_COUNTY	M	TEXT	40	Fully spelled county name on the right side of the road
L_MUNI	M	TEXT	100	Name of municipality on Left, if none populate with “UNINCORPORATED”
R_MUNI	M	TEXT	100	Name of municipality on Right, if none populate with “UNINCORPORATED”
L_MUNI_DIV	C	TEXT	100	Name of municipality division on Left, i.e. “WARD 5 FRIENDSHIP DISTRICT”

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
R_MUNI_DIV	C	TEXT	100	Name of municipality division on Right i.e. "WARD 5 FRIENDSHIP DISTRICT"
L_NBRHOOD	O	TEXT	100	Name of neighborhood or subdivision on Left
R_NBRHOOD	O	TEXT	100	Name of neighborhood or subdivision on Right
L_RNG_PRE	C	TEXT	15	Part of an address preceding the numeric address on Left
R_RNG_PRE	C	TEXT	15	Part of an address preceding the numeric address on Right
LF_ADDR	M	LONG	DEFAULT	Left address number at the FROM node
LT_ADDR	M	LONG	DEFAULT	Left address number at the TO node
RF_ADDR	M	LONG	DEFAULT	Right address number at the FROM node
RT_ADDR	M	LONG	DEFAULT	Right address number at the TO node
L_PARITY	M	TEXT	1	E, O, B, Z for Even, Odd, Both, or Zero (if the range is 0 to 0)
R_PARITY	M	TEXT	1	E, O, B, Z for Even, Odd, Both, or Zero (if the range is 0 to 0)
L_POST_COM	C	TEXT	40	City name for the ZIP of an address, as given in the USPS on Left
R_POST_COM	C	TEXT	40	City name for the ZIP of an address, as given in the USPS on Right
L_ZIP	C	TEXT	5	5-digit numeric postal code area on Left
R_ZIP	C	TEXT	5	5-digit numeric postal code area on Right
L_ESN	M	TEXT	5	5-digit Emergency Service Number as identified by ESN on Left. If the ESN number only has 2-3 digits, it must be preceded by zeros
R_ESN	M	TEXT	5	Emergency Service Number as identified by ESN on Right. Must be Preceded by zeros if less than 5 digits, i.e. "00088" for ESN 88
L_MSAG	M	TEXT	30	Valid service community as identified by MSAG on Left
R_MSAG	M	TEXT	30	Valid service community as identified by MSAG on Right
PRE_MOD	O	TEXT	15	Word or phrase separate from type and direction that precedes PRE_DIR i.e. Access, Alternate, Business, Connector, Extension, Scenic, Spur, Ramp Underpass, Overpass
PRE_DIR	C	TEXT	2	Leading directional prefix N, S, E, W, NE, NW, SE, SW
PRE_TYPE	C	TEXT	20	Spelled out word or phrase that precedes and identifies a type of thoroughfare
ST_NAME	M	TEXT	60	Legal street name as assigned by local addressing authority
ST_TYPE	C	TEXT	4	Type of street following the street name, valid entries on USPS Pub 28

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
POST_DIR	C	TEXT	2	Trailing directional suffix N, S, E, W, NE, NW, SE, SW
POST_MOD	C	TEXT	12	Word or phrase separate from type and direction that follows ST_NAME
FULL_NAME	M	TEXT	125	Full street name, should be a concatenation of 4 fields: PRE_DIR, ST_NAME, ST_TYPE and POST_DIR with no trailing or leading spaces
ST_ALIAS	C	TEXT	125	Entire alias street name assigned to street segment
ONE_WAY	O	TEXT	2	B, FT, TF for Both, FROM node to TO node, TO node to FROM node
SP_LIMIT	O	LONG	DEFAULT	Posted speed limit in MPH
CLASS	M	TEXT	4	Street type designation code (See Road Class Codes below)
RDCLS_TYP	O	TEXT	15	See valid Road Class Types below
NOTES	O	TEXT	75	Additional information

2.3 Road Class Codes ('Street Type') Designation

The following list of codes are used in the "Class" field in the RCL Database:

- IH – Interstate
- US – US highways SH – State highways
- FM – Farm to Market, Ranch Road, Ranch to Market
- LS – City Street, County Road, Park Road, Recreational, Frontage Road AC – Access Road, Crossover
- PVT- Private Road TR – Toll Road
- RAMP- On-ramp, Off-ramp
- DW – Driveways

2.4 Road Class I Types

The following list of codes are used in the "RDCLS_TYP" field in the RCL Database:

- Primary Secondary
- Local (City, Neighborhood, or Rural Road) Ramp
- Service (usually along a limited access highway) Vehicular Trail (4WD, snowmobiles)
- Walkway (Pedestrian Trail, Boardwalk) Alley
- Private (service vehicles, logging, oil fields, ranches, etc.) Parking Lot
- Trail (Ski, Bike, Walking / Hiking Trail)

3 Site / Structure Address Points (SSAP)

This point data represents addressable sites, structures, or property entrances that exist within the CAPCOG region.

3.1 Graphic (Spatial) Edits

All addressed site/structures must be represented in the address point layer. When a site/structure point is created or edited, several sources and methods can be used, including aerial imagery,

georeferenced survey plats, computer-aided design (CAD) files, parcels, mapping-grade GPS units in the field, or other authoritative sources and methods. When the actual structure location is known, the symbol should represent the general center of the structure. In other cases, please refer to the “NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1” document. In any case, the positional accuracy of structures or designated site locations should be within +/- 25 feet of their true location or intended designation.

The performance standard for the Site Structure Address Point feature class is 98% accuracy. This means that 98% of the database records should be free of critical and significant errors.

3.2 Database Format

The following table details the data format requirements for the SSAP database.

Table 3-1. SSAP Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. HAYS, WILLIAMSON
PROVIDER	M	TEXT	75	The name of the regional 911 authority <i>CAPCOG will populate</i>
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
SITE_ID	O	LONG	DEFAULT	Unique site ID <i>CAPCOG will populate prior to uploading to PSAP. May also serve as a placeholder field to populate SITEUNQID field</i>
SITEUNQID	M	TEXT	100	Globally unique ID for each address site or structure. Ex. 2545AP@co.lee.tx.us
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State name by two letters defined by USPS publication 28
COUNTY	M	TEXT	40	County name or equivalent fully spelled out
MUNICIPAL	M	TEXT	100	Name of municipality, if none populate with “UNINCORPORATED”
MUNI_DIV	C	TEXT	100	Name of municipality division i.e. “WARD 5 FRIENDSHIP DISTRICT”
NBRHOOD	C	TEXT	100	Name of neighborhood or subdivision where the address is located
ADDNUM_P R E	O	TEXT	15	Part of an address leading the numeric address
ADDR_NUM	M	LONG	DEFAULT	Numeric identifier of a location along a thoroughfare
ADDNUM_SU F	C	TEXT	15	Part of an address following the address number i.e. ½, B
PRE_MOD	O	TEXT	15	Word or phrase separate from type and direction that precedes PRE_DIR i.e. Access, Alternate, Business, Connector, Extension, Scenic, Spur, Ramp Underpass, Overpass

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
PRE_DIR	C	TEXT	2	Leading directional prefix N, S, E, W, NE, NW, SE, SW
PRE_TYPE	O	TEXT	20	Spelled out word or phrase that precedes and identifies a type of thoroughfare
ST_NAME	M	TEXT	60	Legal street name as assigned by local addressing authority
ST_TYPE	C	TEXT	4	Type of street following the street name, valid entries on USPS Pub 28
POST_DIR	C	TEXT	2	Trailing directional suffix N, S, E, W, NE, NW, SE, SW
POST_MOD	O	TEXT	12	Word or phrase separate from type and direction that follows ST_NAME
FULL_NAME	M	TEXT	125	Full street name, must be identical to the site's related road FULL_NAME
ST_ALIAS	C	TEXT	125	Entire alias street name assigned to related street segment
FULL_ADDR	M	TEXT	170	Full address, should be a concatenation of ADDNUM_PRE + ADDR_NUM + ADDNUM_SUF + FULL_NAME with no extra, leading and trailing spaces
ESN	M	TEXT	5	Emergency Service Number associated with the address and community name Preceded by '0' if digits are less than 5
MSAG_COM	M	TEXT	30	Valid service community associated with the location of the address
POSTAL_COM	M	TEXT	40	City name for the ZIP of an address, as given in the USPS
ZIP	C	TEXT	5	5-digit numeric postal code area
ZIP4	O	TEXT	4	ZIP plus 4 code without the dash
BLDG	O	TEXT	75	One among a group of buildings that have the same address
FLOOR	O	TEXT	75	A floor, story or level within a building
UNIT	O	TEXT	75	A suite or group of rooms within a building that share the same entrance
ROOM	O	TEXT	75	A single room within a building
SEAT	O	TEXT	75	A place where a person sits within a building i.e. cubicle
LANDMARK	O	TEXT	150	The name by which a prominent feature is publicly known or Vanity address

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
MILEPOST	C	LONG	DEFAULT	A posted numeric measurement from a given beginning point
SITE_TYPE	C	TEXT	50	Type of feature identified by the address i.e. residential, office, store, school
POINT_X	O	DOUBLE	DEFAULT	Longitude of point in decimal degrees using EPSG: 4326
POINT_Y	O	DOUBLE	DEFAULT	Latitude of point in decimal degrees using EPSG: 4326
NOTES	O	TEXT	254	Additional location information, which is not a building, floor, unit, room or seat
ELEVATION	O	DOUBLE	DEFAULT	Height above Mean Sea Level in meters

4 Emergency Service Zones (ESZ)

This polygon data consists of the intersection of law enforcement, fire district, and emergency medical service and telephone exchange boundaries in the CAPCOG region.

The performance standard for the Site Emergency Service Zones feature class is 100% accuracy. This means all database records should be free of critical errors.

4.1 Graphic (Spatial) Edits

These areas need to accurately reflect the boundaries of each geographically unique combination of fire, law and EMS responder zones. This layer is created and maintained by overlaying with some combination of street centerlines, municipal (i.e. city limit) boundaries, parcels boundaries, or other data to determine each jurisdiction's emergency response service areas. As new emergency response services are added to, or change in an area, this boundary file will need to be modified accordingly.

Communications must be regularly preserved with all fire, law, and emergency medical responders to obtain the information required to maintain updated ESZ boundaries. These ESZ boundaries should adhere to the specifications of CAPCOG's QC systems and have no gaps or overlaps within a topology tolerance of +/- 3 feet. Topology and other geometric relationships between feature classes are especially important for NG9-1-1 purposes. **In addition, it is very important that all features with identical attribute information are merged into one multipartpolygon.**

4.2 Database Format

The following table details the data format requirements for the ESZ database.

Table 4-1. ESZ Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. BASTROP, BURNET
PROVIDER	M	TEXT	75	The name of the regional 911 authority <i>CAPCOG will populate</i>
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
ES_UNQID	M	TEXT	100	ID for each emergency service polygon - <i>CAPCOG will populate</i>
LAW	M	TEXT	60	Name of law service provider
FIRE	M	TEXT	60	Name of fire service provider
MEDICAL	M	TEXT	60	Name of medical service provider
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State name by two letters defined by USPS publication 28
COUNTY	M	TEXT	40	County name fully spelled out
URI	M	TEXT	254	URN/URL for routing. Example: sip:sos@ausxtxem1.travis.tx.us
URN	M	TEXT	50	The URN for the Emergency Service or other Well-Known Service (Example: "urn:service:sos" for a PSAP or "urn:service:sos.ambulance" for an ambulance service)
ESN	M	TEXT	5	ESN of the responding agency preceded by '0' if number of digits < 5
TANDEM	M	TEXT	3	911 Selected Router Code
TANDEM2	C	TEXT	3	911 Selected Router Code
ESSID	M	TEXT	2	Unique tandem routing code <i>CAPCOG will populate</i>
ESNGUID	M	TEXT	8	Concatenation of ESN and ESSID separated by a single forwardslash "/" CAPCOG will concatenate
AVCARDURI	C	TEXT	254	URI for the vCARD of contact information

5 Emergency Service Boundaries (ESB)

This polygon data consists of Emergency Service Boundary layers that define the geographic area for the primary providers of response services in the CAPCOG region.

5.1 The performance standard for the Site Emergency Service Boundaries feature class is 100% accuracy. This means all database records should be free of critical errors.Graphic (Spatial) Edits

Each of these layers is used by the ECRF to perform a geographic query to determine which Emergency Service Providers are responsible for providing service to a location in the event a selective transfer is desired, to direct an Emergency Incident Data Document to a secondary PSAP for dispatch, or to display the responsible agencies at the PSAP. In addition, Emergency Service Boundaries are used by PSAPs to identify the appropriate entities/first responders to be dispatched. Each Emergency Service Boundary layer may contain one or more polygon boundaries that define the primary emergency services for that geographic area. As new emergency response services are added to, or change in an area, this boundary file will need to be modified accordingly. Communications must be regularly preserved with all fire, law, and emergency medical responders to obtain the information required to maintain updated boundaries. These Emergency Service Boundaries should adhere to the specifications of CAPCOG's QC systems and have no gaps or overlaps within a topology tolerance of +/- 3 feet. The ESBs can be created by dissolving the Emergency Service Zones polygon data. These items and other geometric relationships are referred

to as “topology”, and especially important for NG9-1-1 purposes. **In addition, it is very important that all features with identical attribute information are merged into one multipart polygon**

There MUST be a separate Emergency Service Boundary layer for each type of service. The set of Emergency Service Boundaries MUST include, at a minimum, the following:

- Law Enforcement;
- Fire; and
- Emergency Medical Services (EMS).

Other Emergency Service Boundaries MAY include, but are not limited to:

- Poison Control;
- Forest Service; and
- Animal Control.

5.2 Database Format

The following table details the data format requirements for the ESB database.

Table 5-1. ESB Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
DISCRPAGID	M	TEXT	75	Agency that last updated the record, i.e. BASTROP, BURNET
DATEUPDATE	M	DATE	26	Date of last update using ISO 8601 format
EXPIRE	O	TEXT	26	Unique tandem routing code <i>CAPCOG will populate</i>
EFFECTIVE	O	TEXT	26	The date and time when the information in the record is no longer considered valid.
ES_NGUID	M	TEXT	254	Globally unique ID for each emergency service boundary polygon – <i>Ex. 210EMS@blanco.co.tx.us</i>
STATE	M	TEXT	2	State name by two letters defined by USPS publication 28
AGENCYID	M	TEXT	100	A Domain Name System (DNS) domain name which is used to uniquely identify an agency. <i>Ex. austintexas.gov</i>
SERVICEURI	M	TEXT	254	URN/URL for routing. Example: sip:sos@ausxtxem1.travis.tx.us
SERVICEURN	M	TEXT	50	The URN for the Emergency Service or other Well-Known Service*
SERVICENUM	M	TEXT	15	The numbers that would be dialed on a 12-digit keypad to reach the emergency service appropriate for the location. <i>Ex: 911</i>
AVCARDURI	C	TEXT	254	URI for the vCARD of contact information
DISPLAYNAME	M	TEXT	60	Name of the service provider that offers services within the area of an Emergency Service Boundary

6 Municipal Boundary

This polygon data represents municipal boundaries in the CAPCOG region.

The performance standard for the Site Emergency Service Boundaries feature class is 100% accuracy. This means all database records should be free of critical errors.

6.1 Graphic (Spatial) Edits

When city limits change due to annexations, metes and bounds surveys or other related information must be acquired to update the city limit boundaries. Coordinate geometry (COGO) – is one of the preferred methods for calculating coordinate points from surveys and can be used to update the city limit boundaries. These boundaries should adhere to the specifications of CAPCOG’s QC systems and have no gaps or overlaps within a topology tolerance of +/- 3 feet.

6.2 Database Format

The following table details the data format requirements for the Municipal Boundary database.

Table 6-1. Municipal Boundary Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. CALDWELL, LLANO
PROVIDER	M	TEXT	75	The name of the regional 911 authority <i>CAPCOG will populate</i>
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601format
POLY_ID	O	LONG	DEFAULT	Numeric Polygon ID <i>CAPCOG will populate prior to uploading to PSAP. May also serve as a placeholder field to populate MUNIUNQID field</i>
MUNIUNQID	M	TEXT	100	Globally Unique ID for each municipality - . Ex. 9847INCM@austintexas.gov
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State Name (eg: TX)
COUNTY	M	TEXT	40	County name fully spelled out
MUNI_NM	M	TEXT	100	Name of municipality i.e. “AUSTIN”

7 Automatic Location Identification (ALI)

The ALI database consists of landline telephone numbers that have associated location information attributed to them. In order to have these call types route to the proper PSAP and plot to the correct location on a call taker’s map display, the attributes of the data must be correct and must match the road centerline (RCL) and address point feature classes (SSAP).

The performance standard for the ALI database is a 98% match rate between the ALI database and both the RCL and SSAP datasets. This means that 98% of a local jurisdiction’s ALI database should match to both a road centerline feature and address point feature.

7.1 Edits

Match errors between these datasets that are returned by the quality control systems should be reviewed and corrected accordingly. This could mean either by making corrections to the GIS data or by providing suggested changes to the ALI database. The ALI data are not owned by CAPCOG or PUBLIC

AGENCY, but instead by telephone service providers. Suggested edits to the ALI databases should be made by providing Change Requests (CR) via the Intrado 911Net or GIS Director applications

7.2 Database Format

The following fields in the ALI database are used by the Data Hub and EGDMS quality control systems to match the address point and road centerline feature classes to ensure a call routes and plots correctly.

Table 7-1. ALI Database Format

FIELD NAME	CORRESPONDING RCL OR AP FIELD
HOUSE_NUMBER	LT_ADDR, LF_ADDR, RT_ADDR, RF_ADDR, ADDR_NUM
HOUSE_NUMBER_SUFFIX	ADDRNUM_SUF
PREFIX_DIRECTIONAL	PRE_DIR
STREET_NAME	ST_NAME
COMMUNITY	L_MSAG_COM, R_MSAG_COM, MSAG_COM
ESN	ESN
STATE	STATE