

RESOLUTION NO. R-2021-74

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS APPROVING AN INTERLOCAL AGREEMENT TO SUPPORT 9-1-1 GEOGRAPHIC INFORMATION SYSTEM DATABASE MANAGEMENT WITH BASTROP COUNTY, INCLUDING ADDRESSING AND BOUNDARY UPDATES, AS ATTACHED IN EXHIBIT A; AUTHORIZING THE CITY MANAGER TO EXECUTE ALL NECESSARY DOCUMENTS; PROVIDING FOR A REPEALING CLAUSE; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, Bastrop County ("County") has entered into an Interlocal Contract for 9-1-1 Geographic Information System Database Management with the Capital Area Council of Governments ("CAPCOG's Interlocal") to support the Strategic Plan of the Capital Area Emergency Communications District ("CAECD" or "District"); and

WHEREAS, 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; and

WHEREAS, in the CAPCOG Interlocal Contract, the County agreed to perform several duties including entering into and maintaining agreements with all other local governments who have the authority to assign address points, street names and address ranges, alter public safety answering point boundaries, alter emergency service boundaries or alter city limit boundaries; and

WHEREAS, the County and City of Bastrop enter into this Agreement pursuant to the Interlocal Cooperation Act, Chapter 791 of the Government Code so the City of Bastrop is authorized to provide address assignments, street names and address ranges, public safety answering point boundaries, emergency service boundaries and city limit boundaries to the County in a timely manner to help ensure efficient and accurate response to emergency calls and text messages county-wide.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BASTROP, TEXAS:

Section 1: That the City Manager will execute the Interlocal Agreement to Support 9-1-1 Geographic Information System Database Management attached as Exhibit A.

Section 2: All orders, ordinances, and resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Resolution are hereby repealed to the extent of such conflict, and the provisions of this Resolution shall be and remain controlling as to the matters resolved herein.

Section 3: That this Resolution shall take effect immediately upon its passage.

DULY RESOLVED AND ADOPTED by the City Council of the City of Bastrop this 10th day of August, 2021.

APPROVED:



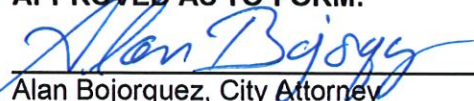
Connie B. Schroeder, Mayor

ATTEST:



Ann Franklin, City Secretary

APPROVED AS TO FORM:



Alan Bojorquez, City Attorney

BASTROP COUNTY AND CITY OF BASTROP

INTERLOCAL AGREEMENT TO SUPPORT 9-1-1 GEOGRAPHIC INFORMATION SYSTEM DATABASE MANAGEMENT

This Interlocal Cooperation Agreement ("Agreement") is between Bastrop County, a political subdivision of the State of Texas ("COUNTY") and the City of Bastrop, general law municipality and political subdivision of the State of Texas ("PUBLIC AGENCY"). The COUNTY and PUBLIC AGENCY may be referred to individually as "Party" and collectively as "Parties."

Whereas, the COUNTY has entered into an Interlocal Contract for 9-1-1 Geographic Information System Database Management with the Capital Area Council of Governments ("CAPCOG's Interlocal") to support the Strategic Plan of the Capital Area Emergency Communications District ("CAECD" or "District").

Whereas, 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; and

Whereas, in the CAPCOG Interlocal Contract, the COUNTY agreed to perform several duties including entering into and maintaining agreements with all other local governments who have the authority to assign address points, street names and address ranges, alter public safety answering point boundaries, alter emergency service boundaries or alter city limit boundaries; and

Whereas, the Parties enter into this Agreement pursuant to the Interlocal Cooperation Act, Chapter 791 of the Government Code so PUBLIC AGENCY is authorized to provide address assignments, street names and address ranges, public safety answering point boundaries, emergency service boundaries and city limit boundaries to the COUNTY in a timely manner to help ensure efficient and accurate response to emergency calls and text messages county-wide.

Now Therefore, in consideration of the obligations described in this Agreement, and the benefits accrued to the citizens of the COUNTY and PUBLIC AGENCY, the Parties do agree as follows:

Section 1. Purpose

The purpose of this Agreement is to ensure the exchange of data and information between the Parties in a timely manner for the maintenance of the District's 9-1-1 GIS database to help ensure efficient and accurate response to emergency calls and text messages in PUBLIC AGENCY's jurisdiction within the COUNTY's provisioning boundary.

Section 2. Agreement Term

This Agreement becomes effective on the date last signed by the Parties and **ends on September 30, 2021**. This Agreement automatically extends for two (2) 12-month extension periods unless either party terminates this Agreement in accordance with the provisions of this Agreement. The initial term or each extension term may be referred to "Term" under this Agreement.

Section 3. PUBLIC AGENCY Cost

PUBLIC AGENCY is responsible for any and all costs incurred to perform its obligations under this Agreement. The COUNTY will not be responsible for this cost.

Section 4. Project Representatives

4.1 Each Party's Project Representative is authorized to give and receive communications and directions on behalf of their Party. All communications must be addressed to the Party's Project Representative or their designee. Each Party's Project Representative may indicate a designee through email to the other Party's Project Representative. The contact information of the Party's Project Representative is as follows:

COUNTY	PUBLIC AGENCY
Julie Sommerfeld, GIS Manager	Allison Land, Senior Planner & GIS Coordinator
804 Pecan Street, Bastrop TX 78602	1311 Chestnut St, Bastrop, TX 78602
512-581-4012	512-332-8843
julie.sommerfeld@co.bastrop.tx.us	aland@cityofbastrop.org

4.2 Should the identity of the Party's Project Representative change, each Party will identify a qualified and competent replacement and promptly notify the other Party of the change. No formal amendment is otherwise required for this section.

Section 5. COUNTY Duties

The COUNTY agrees to carry out duties shown in Exhibit A.

Section 6. PUBLIC AGENCY Duties

PUBLIC AGENCY agrees to carry out the duties shown Exhibit B.

Section 7. Confidential and Proprietary Information

All material submitted to the COUNTY becomes public property and is subject to the Texas Public Information Act upon receipt, unless the disclosure is expressly prohibited by law. If PUBLIC AGENCY does not desire proprietary information to be disclosed, each page must be identified and marked proprietary at time of submittal. The COUNTY will, to the extent allowed by law, endeavor to protect such information from disclosure. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General. If PUBLIC AGENCY fails to identify proprietary information, it agrees that by submission of the information that the material shall be deemed nonproprietary and available upon public request.

Section 8. County Right to Audit

PUBLIC AGENCY agrees representatives of the COUNTY shall have access to, and the right to audit, examine or reproduce, any and all documents of PUBLIC AGENCY related to PUBLIC AGENCY's performance under this Agreement upon COUNTY's advance written notice to PUBLIC AGENCY and scheduling between the Parties. In no event will the COUNTY have the right to inspect records PUBLIC AGENCY deems confidential or proprietary. Audits shall be at the COUNTY's expense.

Section 9. PUBLIC AGENCY Right to Audit

COUNTY agrees representatives of PUBLIC AGENCY shall have access to, and the right to audit, examine or reproduce, any and all documents of the COUNTY's performance under this Agreement upon PUBLIC AGENCY's advance written notice to COUNTY and scheduling between the Parties. In no event will PUBLIC AGENCY have the right to inspect records the COUNTY deems are confidential or proprietary. Audits shall be at PUBLIC AGENCY's expense.

Section 10. Independent Contractor

This Agreement shall not be construed as creating an employer/employee relationship, a partnership, joint enterprise, or a joint venture between the parties. COUNTY and PUBLIC AGENCY are independent contractors. The Parties agree and understand that this Agreement does not grant unto the other Party any rights or privileges established for employees of either the COUNTY or PUBLIC AGENCY.

Section 11. Default

A Party to this Agreement shall be in default ("Event of Default") under this Agreement if the Party (a) fails to fully, timely and faithfully perform any of its material obligations under this Agreement; or (b) fails to provide adequate assurance of performance under Section 12.

Section 12. Right to Assurance

Whenever a Party to this Agreement in good faith has reason to question the other Party's intent to perform, demand may be made to the other Party for written assurance of the intent to perform. In the event that no assurance is given within ten working days after demand is made, the demanding Party may treat this failure as an anticipatory repudiation of the Agreement.

Section 13. Termination for Cause

If either Party commits an Event of Default, the non-defaulting Party shall deliver written notice of such Event of Default to the defaulting Party. Such notice must specify the nature of the Event of Default and inform the defaulting Party that unless the Event of Default is cured within thirty (30) days of receipt of the notice, additional steps may be taken to terminate this Agreement. If the defaulting Party begins a good faith attempt to cure the Event of Default within thirty (30) days, then and in that instance, the thirty (30) day period may be extended by the non-defaulting Party, so long as the defaulting Party continues to prosecute a cure diligently to completion and continues to make a good faith attempt to cure the Event of Default. If, in the opinion of the non-defaulting party, the defaulting Party does not cure the breach within thirty (30) days or otherwise fails to make any diligent attempt to correct the Event of Default, the defaulting party shall be deemed to be in default and the non-defaulting Party may terminate this Agreement. The Parties' rights and remedies under the Agreement are cumulative and are not exclusive of any other right or remedy provided by law.

Section 14. Termination without Cause

Either Party may terminate this Agreement without cause by providing thirty (30) days advance written notice to the other party.

Section 15. Dispute Resolution

Both parties agree to waive the mediation process in case of a dispute. Should any dispute arise, the Agreement may be terminated and any defined and established damages or debt to either party be paid out, which shall constitute the resolution of the dispute.

Section 16. Survival of Obligations

All provisions of this Agreement that impose continuing obligations on the parties, including but not limited agreement purpose, and confidentiality shall survive the expiration or termination of this Agreement.

Section 17. Texas Public Information Act

The Parties agree that this Agreement is subject to the Texas Public Information Act and the Act shall control to the extent of any conflict between the terms of this Agreement and the Act.

Section 18. Current Revenues

This Agreement is authorized by the Interlocal Cooperation Act of Chapter 791 of the Texas Government Code. This Agreement does not require payments from one party to the other. However, to the extent applicable, each party's monetary obligations hereunder are payable only and solely from the current revenues appropriated and available for the performance of such obligations.

Section 19. Assignment

A Party to this Agreement may not assign or transfer its interests under this Agreement.

Section 20. Entirety of the Agreement

This Agreement constitutes the entire Agreement and understanding between the Parties and supersedes all previous agreements, understandings, discussions, or representations concerning its subject matter. This Agreement may not be amended in whole or in part except in a written amendment executed by both Parties to this Agreement.

Section 21. Jurisdiction and Venue

The Parties agree that this Agreement is governed by the laws of the State of Texas and that venue for a dispute arising from this Agreement shall be either in Bastrop County, Texas or in the United States District Court, Western District of Texas, Austin, Texas.

Section 22. Severability

If a term or provision of this Agreement is determined to be void or unenforceable by a court of competent jurisdiction, the remainder of this Agreement remains effective to the extent permitted by law.

Section 23. Notice to Parties

23.1 Notice to be effective under this Agreement 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 registered or certified mail, return receipt requested, 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. Notices to Party's shall be addresses as follows:

COUNTY	PUBLIC AGENCY
County Judge	City Manager
Bastrop County	City of Bastrop
804 Pecan Street	1311 Chestnut Street
Bastrop, Texas 78602	Bastrop, Texas 78602
512-332-7201	512-332-8800

23.2 A Party may change its address by providing notice of the change in accordance with Section 23.1.

Section 24. Governmental Immunity

Nothing in this Agreement shall be deemed to waive, modify, or amend any legal defense available at law or equity to either of the Parties nor to create any legal rights or claims on behalf of any third party. Neither the COUNTY nor PUBLIC AGENCY waives, modifies, or alters to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas.

Section 25. Execution of this Agreement

Parties to this Agreement shall submit certified documentation of approval by the governing body authorized to execute this Agreement. This Agreement may be executed (by original or facsimile) by the Parties in one or more counterparts, each of which shall be considered one and the same agreement.

Section 26. Force Majeure

Neither Party shall be liable for any default or delay in the performance of its obligations under this Agreement if, while and to the extent such default or delay is caused by acts of God, unusual weather conditions, fire, riots, sabotage, acts of domestic or foreign terrorism, or any other cause beyond the reasonable control of such Party ("Force Majeure"). Force Majeure does not include economic or market conditions, which affect a party's cost, but not its ability to perform. The Party invoking Force Majeure shall give prompt, timely and adequate notice to the other Party, by facsimile transmission or telephone confirmed promptly thereafter in writing, and shall use due diligence to remedy the event of Force Majeure, as soon as reasonably possible. In the event of default or delay in Agreement performance due to any of the foregoing causes, then the time for completion of the services will be extended by a mutually agreeable period of time reasonably necessary to overcome the effect of such failure to perform.

Section 25. Exhibits

The following documents are incorporated into and made part of this Agreement:

- Exhibit A.....COUNTY DUTIES
- Exhibit B.....PUBLIC AGENCY DUTIES
- Exhibit C.....CAPCOG INTERLOCAL AGREEMENT FOR 9-1-1 GIS DATABASE MANAGEMENT
- Exhibit D.....USPS PUBLICATION 28 APPENDIX C
- Exhibit E.....ACRONYMS AND DEFINITIONS

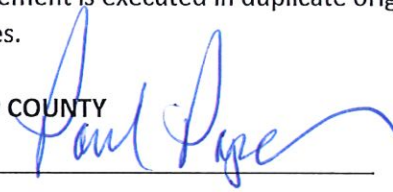
Section 27. Agreement and Signatures

Each individual signing this Agreement 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.

This Agreement states the entire agreement of the Parties, and an amendment to it is not effective unless in writing and signed by all Parties.

This Agreement is executed in duplicate originals. The Agreement is effective on the last date signed by the Parties.

BASTROP COUNTY

By: 

Paul Pape
County Judge

Date: 8/23/21

CITY OF BASTROP

By: 

Paul A. Hofmann
City Manager

Date: 8/13/21

Attest:

By: 

Rose Pietsch, County Clerk

By: 

Ann Franklin, City Secretary

Exhibit A

COUNTY DUTIES

Scope of Work Overview

The goal of the COUNTY's scope of work is to facilitate the exchange of information between itself and the PUBLIC AGENCY to help ensure the efficient and accurate response to emergency calls and text messages in the PUBLIC AGENCY's jurisdiction within the COUNTY's provisioning boundary. Such work helps support the Capital Area Emergency Communications District's ("CAECD's" or "District's") Strategic Plan in accordance with the Capital Area Council of Governments Interlocal Agreement for 9-1-1 Geographic System Database Management, as shown in *Exhibit C of this Agreement*. County task's include:

Section 1. Tasks

COUNTY agrees to the following tasks in PUBLIC AGENCY's jurisdiction within the COUNTY's provisioning boundary:

1. Street Names

In regards to proposed street names COUNTY agrees to:

- 1.1 Review to identify duplicated and sound-alike names;
- 2.1 Provide written determination to PUBLIC AGENCY of its findings within 20 business days following receipt of proposed names; and
- 3.1 Place in reserved status for a period of 2 years proposed names approved by PUBLIC AGENCY and determined by COUNTY to be unique, including phonetically.

2. 9-1-1 GIS Database Management

In regards to the maintenance of the 9-1-1 GIS database COUNTY agrees to:

- 1.2 Carry out the scope of work in accordance with the CAPCOG Interlocal Agreement for 9-1-1 GIS Database Management, as outlined in *Exhibit C of this Agreement*.
- 2.2 Include in it's monthly updates to CAPCOG any valid 9-1-1 related information or data (refer to *Exhibit B of this Agreement*) received from the PUBLIC AGENCY by the 10th business day of the month.

3. GIS Data

In regards to GIS data, COUNTY agrees to provide a copy upon written request by the PUBLIC AGENCY to the extent allowed by laws, rules, regulations and agreements.

4. 9-1-1 Data

In regards to 9-1-1 data, COUNTY agrees to provide information upon written request by the PUBLIC AGENCY to the extent allowed by laws, rules, regulations and agreements.

Exhibit B

Public Agency Duties

Scope of Work Overview

The intent of this scope of work is to facilitate the exchange of information between the COUNTY and the PUBLIC AGENCY to help ensure that efficient and accurate response to emergency calls and text messages in the PUBLIC AGENCY's jurisdiction within the COUNTY's provisioning boundary. Such work is in accordance with the Capital Area Council of Governments Interlocal Agreement for 9-1-1 Geographic System Database Management, shown in *Exhibit C of this Agreement*, which supports the Capital Area Emergency Communications District's ("CAECD's" or "District's") Strategic Plan. 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.

Section 1. Basic Work

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

PUBLIC AGENCY agrees to provide notification, information, and records that are essential for the maintenance of the 9-1-1 GIS database in its jurisdiction within the COUNTY's provisioning boundary within 30 days of approval, assignment or action, unless otherwise noted:

1. Boundaries

In regards to boundaries the PUBLIC AGENCY agrees to:

1.1. Annexations and Disannexations:

- (a) Inform the COUNTY of all proposed annexations and disannexations no later than twenty (20) business days prior to consideration by its governing body and provide the COUNTY a map and description of all subject areas;
- (b) Notify the COUNTY of all approved annexations and disannexations within 24 hours of approval and provide the COUNTY a copy of official documentation and maps; and
- (c) Provide the COUNTY a maintained and updated municipal boundary polygon in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*, as soon as possible following any annexation or disannexation.

1.2. Public Safety Answering Points (PSAP):

- (a) Inform the COUNTY of any proposed change to alter the PSAP boundary no later than twenty (20) business days prior to consideration by its governing body and provide the COUNTY a map and description of all subject areas;
- (b) Coordinate all PSAP boundary changes with the COUNTY;
- (c) Inform the COUNTY of the desired effective date of any PSAP boundary change;
- (d) Notify the COUNTY of all approved PSAP boundary changes within 24 hours of approval and provide COUNTY official documentation and maps; and

- (e) Optionally, provide the COUNTY a maintained and updated PSAP polygon in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

1.3. Emergency Service Boundary (ESB):

- (a) Inform the COUNTY of any proposed changes to alter a law, fire, or emergency medical service ESB no later than twenty (20) business days prior to consideration by its governing body and provide the COUNTY a map and description of all subject area;
- (b) Coordinate all ESB changes with the COUNTY;
- (c) Inform the COUNTY of the desired effective date of all ESB changes;
- (d) Notify the COUNTY of all approved ESB changes within 24 hours of approval and provide COUNTY official documentation and maps; and
- (e) Optionally, provide the COUNTY maintained and updated law, fire, and emergency medical service ESB polygons in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

2. Public Safety Agencies

In regards to public safety agencies (PSA) the PUBLIC AGENCY agrees to:

2.1. First Responders

- (a) Inform the COUNTY of any proposed change in a PSA responsible for providing PSAP, law, fire, or emergency medical service no later than twenty (20) business days prior to consideration by its governing body;
- (b) Coordinate the change of any PSA with the COUNTY;
- (c) Inform the COUNTY of the desired effective date of a change to any PSA;
- (d) Notify the COUNTY of a change to any PSA within 24 hours of approval and provide COUNTY official documentation; and
- (e) Provide the County the name, contact information, and any other relative information of each PSA who provides services within the municipality's jurisdiction.

3. Streets

In regards streets PUBLIC AGENCY agrees to:

3.1. Names

- (a) **Proposed:**
 - (i) Provide the COUNTY with all proposed street names for their review and determination in accordance with *Exhibit A, Section 1, Subsection 1, of this Agreement*;
 - (ii) Prohibit the use of any street names deemed a duplication, including phonetically, within the same postal community and within the COUNTY's provisioning boundary; and
 - (iii) Cancel any nonessential street name held in reservation by the COUNTY.
- (b) **New/Approved:**
 - (i) Ensure any approved street name complies with *Exhibit B, Section 3.1(a), of this Agreement*;
 - (ii) Provide the COUNTY a layout or plat of named streets within 10 business days following the PUBLIC AGENCY's final approval; and

(iii) Optionally, provide the COUNTY a maintained and updated road centerlines in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

(c) Renamed:

- (i) Ensure any renamed street complies with *Exhibit B, Section 3.1(a), of this Agreement*;
- (ii) Coordinate the renaming of any street with the COUNTY;
- (iii) Inform the COUNTY the desired effective date of any renamed street;
- (iv) Provide the COUNTY documentation, including a layout or plat, of any renamed street within 10 business days following the PUBLIC AGENCY's final approval; and
- (v) Optionally, provide the COUNTY a maintained and updated road centerlines in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

3.2. Layout:

- (a) Supply the COUNTY with a map or plat of any street which is:
 - (i) Platted;
 - (ii) Official recognized and named;
 - (iii) Undergoing new construction; or
 - (iv) Altered to change its positional location, including extended or shorted; and
- (b) Provide the COUNTY with documentation, including a layout or plat, of any street which is permanently closed, abandoned, discontinued, or vacated within ten (10) business days following the PUBLIC AGENCY's final approval; and
- (c) Optionally, provide the COUNTY a maintained and updated road centerlines in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

3.3. Address Ranges:

- (a) Provide the COUNTY the address range for every named street segment, including:
 - (i) Low and high address numbers;
 - (ii) Address Parity (odd, even, both) for each side of the street (left, right); and
 - (iii) Direction in which address numbers increase; and
- (b) Provide the COUNTY a map or plat which displays the address range of each named street segment.

3.4. Functional Classifications:

- (a) Provide the COUNTY functional classification of each street; and
- (b) Notify the COUNTY when the functional classification of any street changes.

3.5. Status

- (a) Provide written notification frame to the COUNTY of any street which is:
 - (i) Approved; and
 - (ii) Accepted.

3.6. Traffic Regulations

- (a) Speed Limits:
 - (i) Provide the COUNTY with official documentation of any approved or altered speed limit within 24 hours of approval; and

- (ii) Upon written request, supply the COUNTY detailed information on previously established speed limits.
- (b) Direction of Travel Flow:
 - (i) Provide the COUNTY with official documentation of any street designated for one-way traffic within 24 hours of approval; and
 - (ii) Upon written request, supply the COUNTY detailed information on streets previously designated for one-way traffic.

4. Addresses

In regards to address numbers PUBLIC AGENCY agrees to:

4.1. New:

- (a) Ensure each assigned address complies with and validates against the street name and address range information provided to the COUNTY under *Exhibit B, Section 1, subsections 3.1(b) and 3.3(a), of this Agreement*;
- (b) Notify the COUNTY in writing of each address assignment within 10 business days of assignment. Include with each notice:
 - (i) The full and complete address, including all appropriated address characteristic;
 - (i) A map, or coordinates, with positional accuracy of the structure or designated site location within +/- 25 feet of its true location or intended designation; and
 - (ii) The effective date of the assignment;
- (c) Coordinate all mass address assignments with the COUNTY; and
- (d) Optionally, provide the COUNTY a maintained and updated site/structure address points in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

4.2. Reassigned/Corrected:

- (a) Ensure each reassigned or corrected address complies with and validates against the street name and address range information provided to the COUNTY under *Exhibit B, Section 1, subsections 3.1(b) and 3.3(a), of this Agreement*;
- (b) Notify the COUNTY in writing of each address change or correction within 10 business days of its reassignment. Include with each notice:
 - (ii) The full and complete former address, including all appropriated address characteristic;
 - (iii) The full and complete new address, including all appropriated address characteristic;
 - (i) The effective date of the assignment;
- (c) Coordinate all mass address changes with the COUNTY; and
- (d) Optionally, provide the COUNTY a maintained and updated site/structure address points in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

4.3. Relocation:

- (a) Notify the COUNTY in writing when the spatial location of any addressed structure or site occurs. Include with each notice:
 - (iv) The full and complete address, including all appropriated address characteristic;

- (i) A map, or coordinates, with positional accuracy of the structure or designated site's new location within +/- 25 feet of its true location or intended designation; and
- (ii) The effective date of the change;
- (b) Coordinate all mass address relocations with the COUNTY; and
- (c) Optionally, provide the COUNTY a maintained and updated site/structure address points in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

4.4. Cancellation:

- (a) Notify COUNTY in writing of any address assignment which subsequently cancelled, voided or otherwise deemed invalid for use. The notice shall include:
 - (v) The full and complete address, including all appropriated address characteristic;
 - (i) The effective date; and
- (b) Coordinate all mass address cancellations with the COUNTY; and
- (c) Optionally, provide the COUNTY a maintained and updated site/structure address points in GIS format, as outlined in *Exhibit B, Section 2, of this Agreement*.

5. Subdivision

In regards to subdivisions PUBLIC AGENCY agrees to:

5.1. Plats:

- (a) Ensure all street names which appear on the plat were preapproved in accordance with *Exhibit A, Section 1, of this Agreement*;
- (b) Provide COUNTY a copy of all plats within 10 business days of approval;
- (c) Notify COUNTY of all streets undergoing construction prior to a plat's final approval; and
- (d) Furnish COUNTY a map or plat which prominently displayed street names and address numbers within 10 business of the finalization of address assignments.

Section 2. Discrepancy and Error Resolution Work

Discrepancy and error resolution work involves researching and collecting information necessary to resolve any identified or reported inaccuracy associated with 9-1-1 database but does NOT involve updating the 9-1-1 database directly.

PUBLIC AGENCY agrees to expeditiously research and provide accurate information to the COUNTY that is necessary to resolve any discrepancies or errors identified or reported by an authorized stakeholder. Discrepancies and errors include, but are not limited to:

1. 9-1-1 call errors:

- 1.1. Incorrect Automatic Location Identifier (ALI);
- 1.2. Call Misroute; or
- 1.3. No Record Found (NRF).

2. **Telephone Number (TN) Database errors:**
 - 2.1. Incorrect ALI;
 - 2.2. Missing Master Street Address Guide (MSAG) record; or
 - 2.3. Incorrect MSAG record.
3. **Master Street Address Guide (MSAG) Database errors:**
 - 3.1. Missing MSAG records;
 - 3.2. Incorrect MSAG records;
4. **9-1-1 GIS database errors:**
 - 4.1. Geometry, such as
 - (a) Duplicate Features;
 - (b) Feature Outside Provisioning Boundary;
 - (c) Feature Gap or Overlap; or
 - (d) Road Centerline (RCL) Disconnect;
 - 4.2. Attribute, such as:
 - (a) Mismatch compared to another layer;
 - (b) RCL Parity Issue;
 - (c) Missing Critical Field Value;
 - (d) Unmatched Site/Structure Address Point (SSAP) to ALI Record;
 - (e) Unmatched RCL to MSAG Record;
 - (f) Duplicate Globally Unique Identifications (GUIDs); or
 - (g) Missing Routing Uniform Resource Identifier (URI).
5. **Address errors:**
 - 5.1. Any address reported by a property owner, resident, member of the public, service provider, government entity, etc. for which no 9-1-1 address point exists.
 - 5.2. Any reported address which cannot be validated against a RCL or MSAG Record.

Section 3. GIS Work

GIS work is optional and involves maintaining and updating GIS data related to the 9-1-1 GIS database in the PUBLIC AGENCY's jurisdiction within the COUNTY's provisioning boundary. GIS work does NOT involve updating the 9-1-1 GIS database directly.

When conducting GIS work related to this *Agreement* PUBLIC AGENCY agrees to:

1. Maintenance

Create and maintain current GIS data related to one or more 9-1-1 GIS data layers:

- (a) Site/Structure Address Points (SSAPs);
- (b) Road Centerlines (RCLs);
- (c) Municipal Boundaries;
- (d) PSAP Boundaries;

- (e) Emergency Service Zones (ESZ);
- (f) Law Emergency Service Boundary (ESB);
- (g) Fire ESB; and
- (h) Emergency Medical Service (EMS) ESB.

2. Data Requirement

Follow the GIS data requirements outlined the *CAPCOG NG9-1-1 Transitional GIS Data Requirements*, in accordance with *Exhibit C, Attachment B, of this Agreement*.

3. Quality

Perform quality assurance/quality control measure to ensure GIS data provided to the COUNTY is high quality.

4. Format

Provide GIS data to the COUNTY in ESRI file geodatabase or shapefile format.

5. Coordinate System

Submit GIS data to the COUNTY in a common projected coordinate system.

6. Metadata

Include metadata with all GIS data provided to the COUNTY that includes, at a minimum:

- (a) A description of the data (Summary and Description);
- (b) Definitions of the attributes and the attribute values;
- (c) Time period covered by the data;
- (d) Restrictions to access and/or use of the data;
- (e) Contact information; and
- (f) Keywords that enable users to search and find data.

7. Timely Submittal

Submit GIS data to the COUNTY by the 10th business day of each month.

8. Non-geospatial Data and Information

Continue to submit to the COUNTY all notification, information, and records that are essential for the maintenance of the 9-1-1 GIS database in its jurisdiction within COUNTY's provisioning boundary as outlined in *Exhibit B, Section 1, of this Agreement*.

CAPCOG INTERLOCAL AGREEMENT FOR 9-1-1 GIS DATABASE MANAGEMENT

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

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. Bastrop County ("PUBLIC AGENCY") is a 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.

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, 2020, and terminates on September 30, 2021, 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 \$138,539.00.

5.2. PUBLIC AGENCY agrees to invoice CAPCOG as follows for work performed during these quarters:

October 1 – December 31, 2020: \$34,634.75, invoice due by close of business, Friday, January 8, 2021;

January 1 – March 31, 2021: \$34,634.75, invoice due by close of business, Wednesday, April 7, 2021;

April 1 – June 30, 2021: \$34,634.75, invoice due by close of business, Thursday, July 8, 2021; and

July 1 – September 30, 2021: \$34,634.75, invoice due by close of business, Thursday, October 7, 2021.

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.

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 anticipation 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: 804 Pecan Street, Bastrop TX 78602.
- 12.4. A party may change its address by providing notice of the change in accordance with Section 12.1
- 12.5. Susan Cooper, 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 her e-mail is scooper@capcog.org.
- 12.6. Julie Sommerfield 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 her 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) 581-4012, and her e-mail is julie.sommerfeld@co.bastrop.tx.us.

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) Technical Requirements.
- 13.5. This contract is executed in duplicate originals.

BASTROP COUNTY

CAPITAL AREA COUNCIL OF GOVERNMENTS

By: 
Name: Paul Payne
Title: County Judge
Date: 7/27/2020

By: 
Name: Betty Voights
Title: Executive Director
Date: 8-5-2020

Date of County Governing Body Approval:

7/27/2020

Attachment A: Scope of Work

Overview

The goal of this scope of work is to facilitate the exchange of geospatial information between CAPCOG and the PUBLIC AGENCY to help ensure that efficient and accurate response to emergency calls and text messages in all areas of the Capital Area Emergency Communications District. 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, road centerlines, PSAP boundaries, Emergency Service Boundaries (ESBs), 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:** 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:** 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

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.

Note:

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, consolidation of

two or more municipalities, formation of new municipalities, changes in PSAP service areas, and changes in emergency responder service areas.

2. **Public Safety Answering Point (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 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. **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 will ultimately be used by the PUBLIC AGENCY that provisions (determines acceptable) data for CAPCOG's NG9-1-1 system in the near future
2. **Data Hub:** 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 an PUBLIC AGENCY's 9-1-1 GIS database
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. **Error Rate:** The ratio of total number of errors to total number of features (records) within a specific data layer, or in aggregate for a defined geographic area
6. **Critical Error:** Any error in the PUBLIC AGENCY's 9-1-1 GIS database update found by the AT&T/Intrado Enterprise Geospatial Database Management (EGDMS) or GeoComm's DataHub quality-control software 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.
7. **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
8. **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 1A: PUBLIC AGENCY shall submit, 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. PSAP boundaries
5. Law ESB
6. Fire ESB
7. Emergency Medical Service ESB
8. Other pertinent information

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 PSAP boundaries, or alter ESB boundaries in order to ensure that these entities provide such data to PUBLIC AGENCY in a timely manner. 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.

Task 1C: PUBLIC AGENCY shall be responsible for conveying any relevant information deriving 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, 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.

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

Task 2: GIS Work

Task 2 involves GIS work needed for directly maintaining and updating the 9-1-1 GIS database. 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 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 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. This will be provided in ESRI File geodatabase format (.gdb) pursuant to CAPCOG guidance at least once a month to CAPCOG. PUBLIC AGENCY shall first submit data to EGDMS and Data Hub in order to address any "critical" or "significant" errors. These 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. Based on the recommendations of CAPCOG's GIS Planning Committee, CAPCOG staff will develop performance standards for target error rates, and will communicate these performance standards to PUBLIC AGENCY at a later date through guidance.

Task 2.B: PUBLIC AGENCY shall address any errors identified by EGDMS and Data Hub 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 automatic location information (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, and providing Master Street Address Guide (MSAG) updates and corrections to the database vendor.

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 relevant to the 9-1-1 GIS database or certify that no action was taken relevant to the 9-1-1 GIS database
- If applicable, the date and time of the PUBLIC AGENCY's last backup of its 9-1-1 GIS database
- 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 in the prior month and corrective action that will be taken to address and prevent such issues in the future, including:

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

- o Late or incomplete data submissions;
- o Submission of data with legacy errors;
- o Submission of data with new errors;
- o Failure to meet performance expectations for critical error rates and significant error rates;
- o Any other issue identified by CAPCOG in a performance report.

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

CAPCOG Guidance

In addition to the Performance Reports identified in Task 2.B, CAPCOG may issue technical guidance 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.



CAPCOG NG9-1-1 Transitional GIS Data Requirements Version 2.0 (2017)

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), Location Validation Function (LVF) and Emergency Call Routing Function (ECRF).

This document is referenced in the Capital Area Emergency Communications District Interlocal Contract for Geographic Information System Data and the Capital Area Emergency Communications District Interlocal Contract for Next Generation 9-1-1 Database Program documents and is commonly called "Attachment B Requirements".

The GIS Data requirements in this document are a condensed version of, and based upon, NENA (National Emergency Number Association) standards as they are developed and evolve over time. We are in a lengthy transitional period to Next Generation 9-1-1 (NG9-1-1). 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, as well, and CAPCOG will provide several of these on its own Web Site.

Please provide monthly updates of the 9-1-1 datasets referenced in this document in ESRI file geodatabase format by the 1st business day of each month. Incomplete datasets or other data abnormalities related to requirements may be returned to the county for correction. To be included in that month's PSAP update, the data must be returned to CAPCOG by the 5th business day of that month.

Regarding database fields and data types, each is very specific and must follow the exact guidelines outlined below. For example, the "L_ESN" field must be Text type with a character width of 5. 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** signifies an attribute value must exist
- **Conditional** 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** 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.

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 "DRVV" 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 NGB-1-1 purposes.

2.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/ VALID ENTRIES</u>
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 CAPCOG w/ populate
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	M	LONG	DEFAULT	Unique segment ID CAPCOG w/ populate
RCL_UNQID	M	TEXT	100	ID for each road segment - CAPCOG w/ populate
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"
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 MSAG 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 MSAG 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	<u>Legal</u> 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	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 ROC Codes below)
RDCLS_TYP	O	TEXT	15	See valid Road Class Types below
NOTES	O	TEXT	75	Additional Information

2.2 ROC Codes ('Street Type' Designation)

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

2.3 Road Class Types

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 (AP)

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 0-1-1" 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.

3.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/ VALID ENTRIES</u>
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 CAPCOG will populate
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	M	LONG	DEFAULT	Unique site ID CAPCOG will populate
SITEUNQID	M	TEXT	100	Unique ID for each address site - CAPCOG will populate
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_PRE	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_SUF	C	TEXT	15	Part of an address following the address number i.e. 1/2, B
PRE_MOD	O	TEXT	15	Word or phrase separate from type and direction that precedes PRE_DER 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	O	TEXT	20	Spelled out word or phrase that precedes and identifies a type of thoroughfare
ST_NAME	M	TEXT	60	<u>Legal</u> 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 Precede 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 Varsity address
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 Zone (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.

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 be within +/- 50 feet of their true location with no gaps or overlaps. These items and other geometric relationships are referred to as "topology", and especially important for NGS-1-1 purposes. In addition, it is very important that all features with identical attribute information are merged into one multipart polygon.

4.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/VALID ENTRIES</u>
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 CAPCOG will populate
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
ES_UNQID	M	TEXT	100	ID for each emergency service polygon - CAPCOG will populate
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.law@city.eoc.tx.us
URN	M	TEXT	50	The URN for the Emergency Service or other Well-Known 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 CAPCOG will populate
ESNGUID	M	TEXT	8	Concatenation of ESN and ESSID separated by a single forward slash "/" CAPCOG will concatenate
AVCARDURI	C	TEXT	254	URI for the vCARD of contact information

* Example: "urn:service:sos" for a PSAP or "urn:service:sos.ambulance" for an ambulance service

5 Municipal Boundary

This polygon data represents municipal boundaries in the CAPCOG region.

5.1 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 in the GIS within + or – 50 feet of their true location with no gaps or overlaps

5.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/VALID ENTRIES</u>
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 CAPCOG will populate
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
POLY_ID	M	LONG	DEFAULT	Numeric Polygon ID CAPCOG will populate
MUNIUNQID	M	TEXT	100	Unique ID for each municipality - CAPCOG will populate

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"

Attachment B, Part 2:

Guidance Document for CAPCOG Next Generation 9-1-1-GIS Data (Version 2, 2020)

Guidance Document for CAPCOG Next-Generation 9-1-1 Geographic Information System (GIS) Data

Version 2: April 2020

Introduction:

As the Transition Workflow Cycle of the Next-Generation 9-1-1 Database Program Interlocal Agreement (ILA) describes, our region is moving closer and closer to deploying a Next-Gen 9-1-1 system that enables emergency calls to route to the correct PSAP based on GIS data. This transition begins the process of moving away from our traditional MSAG-based (tabular database) routing system to one that will be faster, more reliable, and enable multimedia such as pictures and videos to be sent to 9-1-1 call takers. However, in order to move to this new system, several changes need to be made to our workflows and data. Perhaps the biggest change is that we will be utilizing new cloud-based software packages to assist with quality-control (QC). One of these solutions will also ultimately become the mechanism by which 9-1-1 GIS data is supplied to PSAPs, which could ultimately be done at any time throughout the month as opposed to just once.

The intention of this document is to serve as a guide for county coordinators in the preparation of this transition, and to provide detailed technical information regarding how to prepare the 9-1-1 GIS data submission. CAPCOG reserves the right to unilaterally update this guidance document at any time.

Summary of Changes:

Below is a list of items we need to accomplish, as outlined in the Transition Workflow Cycle of the ILA.

- Create globally unique IDs (GUIDs) for all features in all feature classes of the GIS database in order to track changes to data over time
- Utilize the "Last_Modified" date field in order to track new and legacy data
- Incorporate emergency service boundaries into data or determine a process to create and manage them
- Determine if changes to PSAP boundary coverage areas need to be made
- Determine if changes to provisioning boundaries need to be made
- Participate in training opportunities for the EGDMS and Data Hub QC platforms
- Field map and upload data to EGDMS and Data Hub
- Retrieve errors from QC software and correct them

Globally Unique IDs (GUIDs):

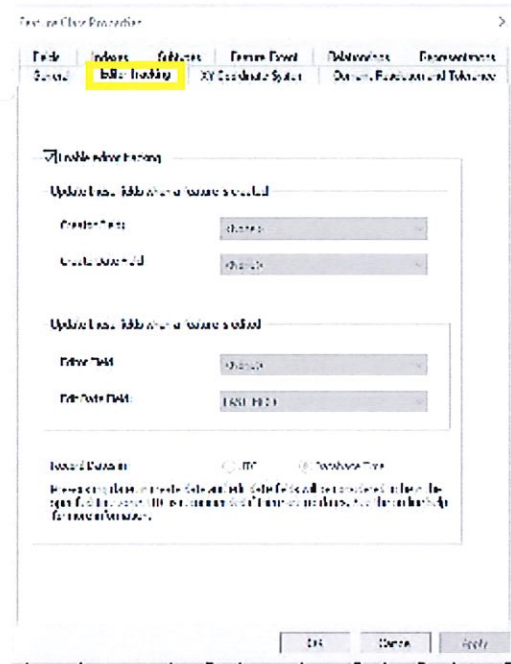
In a Next-Gen 9-1-1 system, a new requirement has been set by NENA (National Emergency Number Association) that stipulates data **must** include Globally Unique IDs, or GUIDs. GUIDs are created by constructing unique feature IDs using a format as described in the associated document provided by CAPCOG.

Each GUID should remain unchanged for the life-span of the GIS data so that it supports the resolution of errors through quality control discrepancy reporting, and allows for us to track changes to data over time.

Using the "LAST_MOD" Field:

Attachment B of the ILA, entitled "CAPCOG NG9-1-1 Transitional GIS Data Requirements" describes a "LAST_MOD" or Last Modified date field in each of the GIS data layers and is marked as mandatory for completion. In order for CAPOG to begin tracking what is 'new' data and what is 'legacy' data, we need this field to be completed in each of the data layers. Our goal in differentiating between these two data types is so that we can determine if progress is being made in data error correction. Use of this field will also be monitored and included in the performance reports that CAPCOG will send out each month.

If there is a GIS feature that was created prior to October 1, 2019 and the LAST_MOD field is NULL or otherwise not known, this field should be populate with a date of 10/1/2019 and will be counted as legacy data. One way to have this field updated automatically when editing or creating features is to use 'editor tracking' on the feature class. This can be done by right-clicking the feature class in ArcCatalog and then selecting 'Properties'. When the Feature Class Properties dialog box opens, select the 'Editor Tracking' tab. The below image shows how this can be set up:



- Check the 'Enable editor tracking' box
- Set the 'Edit Date Field' to LAST_MOD
- Select 'Database Time' to record dates

New Quality-Control (QC) Platforms:

The Capital Area Emergency Communications District (CAECD) has purchased two all-new quality-control systems for our counties to use. These will be used as a means to not only quality control GIS data and return the results of errors but, in the case of the Enterprise Geospatial Database Management System (EGDMS), will actually *provide* data to the functional elements of a NG9-1-1 environment. Again, in NG9-1-1, GIS data is the driver of call routing!

Enterprise Geospatial Database Management System (EGDMS)

Vendors: AT&T and Intrado

The Enterprise Geospatial Database Management System (EGDMS) is a web application that serves as the front-end user interface for the NENA Spatial Interface (SI) requirement. GIS data submitted through EGDMS is validated, coalesced, and used for provisioning to NG9-1-1 (sometimes referred to as i3) systems which are called the ECRF and LVF. These stand for Emergency Call Routing Function and the Location Validation Function. Both of these elements are major components in the NG9-1-1 environment

One of the biggest advantages in moving to this system is that it will enable counties the ability to update PSAP map data much more frequently than our current workflow of just once a month.

EGDMS includes the following features:

- Secure 2-factor authentication
- A file-upload user interface that enables customers to identify the contents of the upload
- Acceptance of file geodatabase files and shapefiles (although no one should be using shapefiles!)
- Attribute field mapping configuration that is customer-driven
- Automated schema change detection and error notification
- Automated email notification for upload and processing status
- GIS data validation report retrieval

A note: CAPCOG will provide a spreadsheet that shows the fields used by EGDMS and the corresponding CAPCOG data model fields. This will aid in the field mapping portion of configuring your agency EGDMS account.

As a QC platform, EGDMS will find "critical" errors as outlined in Transition Workflow Cycle of the ILA. Critical errors have the potential to negatively affect the call routing process and, as such, need to be corrected. Please review the EGDMS user guide for detailed information on the error types!

Each coordinator, and in some cases staff, will be provided a username by Intrado in order to login. Previous Entrust tokens can still be used. Those that do not have Entrust tokens will be provided one by CAPCOG. Entrust tokens are key fobs that provide a unique number that is to be used when accessing EGDMS.

After an initial upload of GIS data has been submitted to EGDMS, Intrado will then provide a subsequent training session in which they will discuss how to retrieve errors from the system.

****EGDMS also provides the user with the ability to mark features as exceptions, however only in the road centerline Feature Class. This is because EGDMS does not look for critical errors in address point, ESZ, or city limits data****

Note: due to technical issues with EGDMS that have not yet been resolved as of February 28, 2020, County will only be required to start using EGDMS after it receives notification from CAPCOG's project representative to do so.

GeoComm GIS Data Hub

Vendor: GeoComm

The GeoComm GIS Data Hub is a robust web-based GIS data management solution that helps transform, quality check (QC), report, aggregate, and provision GIS data using predefined, standardized processes to ensure the timely delivery of GIS data to your 9-1-1 system. Offering virtually unlimited quality-control tools, GIS Data Hub ensures greater accuracy of the data and helps you meet your obligated GIS responsibilities for NG9-1-1. The GIS Data Hub is designed to simplify the user experience. Your system administrator grants access to only content specific to your role, project and/or client. As a System User, your primary role is submitting GIS data for validation.

Data Hub is able to do the following:

- Provide GIS data insights through rigorous quality control and reporting processes
- Transform disparate GIS datasets into a common schema (which is based on the NENA GIS data model)
- Aggregates GIS datasets into a seamless coverage area
- Provides map data packages formatted to meet 9-1-1 mapping and Computer Aided Dispatch (CAD) systems

In addition to also being able to find critical errors like EGDMS, Data Hub will also find "significant" and "other" errors. As described in the Transition Workflow Cycle of the ILA, significant error types are those that negatively impact dispatch systems and other systems used for routing of emergency vehicles. As such, they should be corrected. Other error types are those that, while they may not impact system functionality, are recommended to be corrected to maintain data integrity.

****This QC platform also offers users the ability to create an exceptions field in their GIS data that can be used to keep Data Hub from continuously reporting errors that are not actual (or legitimate) errors****

Please review the Data Hub user guide to find detailed information about the system and what all it is capable of doing.

New GIS Data:

In addition to the traditional GIS data submitted to CAPCOG, there will be some new Feature Classes that will be required for data submissions to EGDMS, Data Hub, and CAPCOG.

Provisioning Boundary:

This polygon layer defines the area of GIS data provisioning responsibility, with no unintentional gaps or overlaps. It should contain (include) all your agency's data within it. The Provisioning Boundary must be

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agreed to by all adjoining data provisioning providers. When submitting GIS data, a 9-1-1 Authority (or 9-1-1 Authority designee) **MUST** only include GIS data for their geographic area of responsibility (provisioning boundary) and **MUST** ensure the data includes coverage for the entire extent of that area. CAPCOG will provide Provisioning Boundaries to all counties with the expectation that we will all work together should they need to be altered. These boundaries are continually updated and as they are finalized, CAPCOG will make updated versions available to all partner 9-1-1 authorities to use in the subsequent month's data upload, and quality-checks should be made only against the provisioning boundaries provided by CAPCOG.

Emergency Service Boundaries:

Not to be confused with Emergency Service Zones (ESZs, sometimes referred to as ESNs) which are polygon layers that represent unique combinations of fire, law, and EMS responder zones for a geographic area, Emergency Service Boundaries are individual GIS data layers that define the geographic area for single response service types. This means that instead of one polygon layer representing all responder types, there are now three separate GIS layers for Law, Fire, and EMS. Each of these layers is used by the NG9-1-1 system to perform a geographic query to determine which Emergency Service Providers are responsible for providing service to a location. Emergency Service Boundaries are used by PSAPs to identify the appropriate entities/first responders to be dispatched. There **MUST** be a **SEPARATE** Emergency Service Boundary layer for each type of service.

The set of Emergency Service Boundaries **MUST** include the following:

- Law Enforcement (LAW)
- Fire
- Emergency Medical Services (EMS)

The addition of ESBs does not mean that our traditional ESZ (sometimes referred to as ESN) layer will be discontinued. CAPCOG still expects counties to maintain and submit ESZ layers as they have. Counties **MAY** maintain the Emergency Service Boundary layers as a combined or single layer for each emergency service, however, when exchanging emergency service boundary information in an NG9-1-1 environment, Emergency Service Boundaries **MUST** be exchanged as individual layers for each emergency service type (e.g. one for law, one for fire, and one for EMS).

ESB maintenance is described in detail in the CAPCOG document titled "Globally Unique IDs (GUIDs)".

Note, these new layers **must** be in the correct schema which CAPCOG will also provide. The schema that will be used is also shown in the associated "EGDMS Field Mapping to CAPCOG" spreadsheet.

*Expected Field Values: With the addition of the ESBs to our workflow, there are a couple of new fields that come with these layers that have haven't used before. Please consult the associated field mapping documentation for further information. The new fields are:

- **Service URI:** In the case of ESBs, this field corresponds to the PSAP covering that area and should **only** be completed if the responding agency is **also** a PSAP
 - **Ex:** *The Leander PD polygon in the LAW ESB for Williamson County would get the associated Service URI for the Leander PD PSAP. However, the polygon for Granger PD's coverage area would NOT get a Service URI as it is not a PSAP. A list of Service URIs for*

each PSAP can be found in the Transitional Guidance folder CAPCOG uploaded to the FTP site.

- **Discrepancy Agency ID:** This is the name of the data source. It will be the name of the county submitting the upload.
- **Agency ID:** Domain name of the agency (county) uploading. A list of these domains can be found in the "How to Create Globally Unique IDs (GUIDs)" document

PSAP Boundaries:

PSAP boundaries are a single GIS layer that is comprised of polygons (in some cases just a single polygon) that show the geographic coverage area for PSAPs within your county. The primary use for this layer is to route and deliver 9-1-1 calls to the correct PSAP, thus making it the most important layer. It is critical that there are no gaps or overlaps between external (at county borders) and internal (borders within the county). This layer will be managed and edited by CAPCOG but it is absolutely imperative that county coordinators work with CAPCOG to ensure things are correct.

CAPCOG will provide to the counties PSAP boundaries we have created and will continually make updates to them as needed and send to county coordinators. Coordinators will need to review this layer and send CAPCOG any suggested edits or questions. CAPCOG created these using the city limits layer submitted by each county. Coordinators should use the latest PSAP boundaries provided by CAPCOG for the subsequent month's data upload. Quality-checks should be made only against the provisioning boundaries provided by CAPCOG.

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

The Capital Area Council of Governments ("CAPCOG") entered into an Interlocal Agreement (ILA) with Bastrop County on October 1, 2020. This amendment is authorized under Section 13.3 of the original ILA, which amendments by mutual agreement. The purpose of this amendment is to update the scope of work and data requirements related to the transition to Next-Generation 9-1-1 (NG9-1-1) that is expected to occur between September 30 and December 31, 2021, and to extend the performance period and add funding to cover the costs of performing work during these months.

AMENDMENT

Section 4: Effective Date and Term of Contract is amended as follows:

4.1: This contract takes effect October 1, 2020, and terminates on ~~September 30~~ December 31, 2021, unless terminated sooner under Section 10.

Section 5: Contract Price and Payment Terms is amended as follows:

5.1: For work performed under this agreement, CAPCOG agrees to compensate Bastrop County an amount not to exceed \$173,838.74.

5.2: Bastrop County agrees to invoice CAPCOG for ~~one-quarter of~~ the amounts listed under section 5.1 within five business days of the end of each of the following quarters and as directed by CAPCOG for work performed during these quarters:

October 1 – December 31, 2020: \$34,634.75, due by close of business, Friday, January 8, 2021;

January 1 – March 31, 2021: \$34,634.75, due by close of business, Wednesday, April 7, 2021;

April 1 – June 30, 2021: \$34,634.75, due by close of business, Thursday, July 8, 2021;

July 1 – September 30, 2021: \$34,634.75, due by close of business, Thursday, October 7, 2021;
and

October 1 – December 31, 2021: \$35,299.74, due by close of business, Monday, January 10, 2022.

Attachment A: Scope of Work is amended as indicated in Attachment A to this document.

Attachment B: Technical Requirements is amended as indicated in Attachment B to this document.

Amendment 1 to CAPCOG ILA for 9-1-1 GIS Database Management

Bastrop County

CAPITAL AREA COUNCIL OF GOVERNMENTS

By: 

By: 

Name: Paul Pape

Betty Voights

Title: County Judge

Executive Director

Date: 8/9/2021

Date: 9/6/21

Date of County Governing Body Approval:

8/9/2021

Attachment A: Scope of Work

Overview

The goal of this scope of work is to facilitate the exchange of geospatial information between CAPCOG and the PUBLIC AGENCY to help ensure that efficient and accurate response to emergency calls and text messages in all areas of the Capital Area Emergency Communications District. 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 landlines telephone numbers with associated location information used to route 9-1-1 calls to a PSAP.](#)
- 5-7. **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.

Note:

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. Public Safety Answering Point (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.
- 5.6. 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 ALL to RCL records as described later in this document.
- 6.7. Globally Unique IDs (GUIDs): A unique identifier that is assigned to each record (feature) in a 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 ultimately be used by the PUBLIC AGENCY ~~that to~~ provisions (determines acceptable) data ~~for to~~ CAPCOG's NG9-1-1 system in the near future. EGDMS cannot assess "significant" errors that affect dispatch.
2. Data Hub: 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.
- 5.6. Error Rate: The ratio of total number of percentage of features that have been assessed as having a critical error, significant error, or as not matching a related database. errors to total number of features (records) within a specific data layer, or in aggregate for a defined geographic area
- 6.7. Critical Error: Any error in the PUBLIC AGENCY's 9-1-1 GIS database update found by the AT&T/Intrado Enterprise Geospatial Database Management (assessed by EGDMS) or GeoComm's DataHub quality control software 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.
- 7.8. 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.
- 8.9. 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. PSAP boundaries
5. Law ESB
6. Fire ESB
7. Emergency Medical Service ESB
- 7.8. ESZs
- 8.9. Other pertinent information

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 PSAP boundaries, or alter ESB boundaries, 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.

Task 1C: PUBLIC AGENCY shall be responsible for conveying any relevant information deriving 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. 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 quarterly 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 2: GIS Work

Task 2 involves GIS work needed for directly maintaining and updating the 9-1-1 GIS database. 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 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's 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. This will be provided in ESRI File geodatabase format (.gdb) pursuant to CAPCOG guidance at least once a month to CAPCOG, or more frequently as specified by CAPCOG once PUBLIC AGENCY has completed the transition to NG9-1-1. PUBLIC AGENCY shall first submit data to EGDMS and Data Hub in order to address any mismatches between the ALI database and PUBLIC AGENCY's RCL and address point data, "critical" errors, ~~or~~ and "significant" errors. These 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. Based on the recommendations of CAPCOG's GIS Planning Committee, CAPCOG staff will develop performance

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

standards for target error rates, and will communicate these performance standards to PUBLIC AGENCY at a later date through guidance.

Task 2.B: PUBLIC AGENCY shall address any errors identified by EGDMS and Data Hub 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 ~~automatic location information (ALI) and MSAG~~ databases 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, and providing ~~Master Street Address Guide (MSAG)~~ updates and corrections to the database vendor. If PUBLIC AGENCY has met the required 98% match between ALI to RCL s determined by Intrado and transitioned to a GeoMSAG, MSAG database updates and management will be made through uploads of the RCL GIS feature class to EGDMS.

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 ~~or certify that no action was taken relevant to the 9-1-1 GIS database, including any new records added since the last update and errors corrected.~~
- ~~If applicable, t~~he 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 ~~in the prior month~~ 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;
 - ~~○ Submission of data with legacy errors;~~
 - ~~○ Submission of data with new errors;~~
 - Failure to meet performance expectations for ALI to RCL match accuracy rates, critical error accuracy rates, ~~and-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.

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.

Prior to transitioning PUBLIC AGENCY to NG9-1-1, CAPCOG will issue an addendum with a modified scope of work that will cover expectations once a transition to NG9-1-1 occurs. CAPCOG also anticipates issuing updated performance goals for critical error accuracy rates, significant error accuracy rates, and frequency of database updates once a local government has transitioned to NG9-1-1 following the 7/23/2021 GISPC meeting.

Attachment B, Part 4:

CAPCOG NG9-1-1 Transitional GIS Data Requirements Version 2.0-3 (2017, re-issue 2021)



CAPCOG NG9-1-1 Transitional GIS Data Requirements Version 2.0-3 (2017/2021)

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](#), [Capital Area Emergency Communications District Interlocal Contract for Geographic Information System Data](#) and the [Capital Area Emergency Communications District Interlocal Contract for Next Generation 9-1-1 Database Program documents](#) 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 \(National Emergency Number Association\)](#) standards as they are developed and evolve over time. ~~We are in a lengthy transitional period to Next Generation 9-1-1 (NG9-1-1). 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 will can provide, several of these on its own Web Site.~~

~~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 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 county to obtain that month's data. To be included in that month's PSAP update, the data must be returned to CAPCOG by the 5th business day of that month.~~

~~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, county 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.~~

~~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. 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. Note~~

that 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.

Regarding database fields and data types, each is very specific and must follow the exact guidelines outlined below. ~~For example, the "L_ESN" field must be Text type with a character width of 5.~~ 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** signifies an attribute value must exist
- **Conditional** 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** 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~~decimals In the GIS data tables below, the **WIDTH** column indicates the number of allowable characters with 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.

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

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/VALID ENTRIES</u>
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 CAPCOG will populate
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	OM	LONG	DEFAULT	Unique segment ID CAPCOG will populate <u>prior to uploading to PSAP.</u> <u>May also serve as a placeholder field to populate SITEUNGID field</u>
RCL_UNIQID	M	TEXT	100	<u>ID for each road segment—CAPCOG will populate</u> 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"
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 MSAG-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 MSAG-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	<u>Legal</u> 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	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 ROC Codes below)
RDCLS_TYP	O	TEXT	15	See valid Road Class Types below
NOTES	O	TEXT	75	Additional Information

2.2 ROC Codes ('Street Type' Designation)

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

2.3 Road Class Types

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 (AP)

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.

3.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/ VALID ENTRIES</u>
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 CAPCOG will populate
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	MQ	LONG	DEFAULT	Unique site ID CAPCOG will populate prior to uploading to PSAP. May also serve as a placeholder field to populate SITEUNQID field
SITEUNQID	M	TEXT	100	Globally Unique ID for each address site or structure. Ex. 2545AP@co.lee.tx.us—CAPCOG will populate
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"
MUNL_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_PRE	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_SUF	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
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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	<u>Legal</u> 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
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.

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 medical 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 be within +/- 50-3 feet of their true location with no gaps or overlaps. 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.

4.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/ VALID ENTRIES</u>
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 CAPCOG will populate
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
ES_UNQID	M	TEXT	100	ID for each emergency service polygon - CAPCOG will populate
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:eee.law@city.eee.tx.us ; sip:sos@ausxtkem1.travis.tx.us
URN	M	TEXT	50	The URN for the Emergency Service or other Well-Known 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 CAPCOG will populate
ESNGUID	M	TEXT	8	Concatenation of ESN and ESSID separated by a single forward slash "/" CAPCOG will concatenate
AVCARDURI	C	TEXT	254	URI for the vCARD of contact information

* Example: "urn:service:sos" for a PSAP or "urn:service:sos.ambulance" for an ambulance service

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 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 be within +/- 3 feet of their true location with no gaps or overlaps and 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
- Emergency Medical Services (EMS)

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

- [Poison Control](#)
- [Forest Service](#)
- [Coast Guard](#)
- [Animal Control](#)

5.2 Database Format

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

56 Municipal Boundary

This polygon data represents municipal boundaries in the CAPCOG region.

5-16.1 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 in the GIS within +/- 50-3 feet of their true location with no gaps or overlaps

5-26.2 Database Format

<u>FIELD NAME</u>	<u>M/C/O</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DESCRIPTION/ VALID ENTRIES</u>
<u>SOURCE</u>	M	<u>TEXT</u>	75	Agency that last updated the record, i.e. CALDWELL, LLANO
<u>PROVIDER</u>	M	<u>TEXT</u>	75	The name of the regional 911 authority CAPCOG will populate
<u>LAST_MOD</u>	M	<u>DATE</u>	26	Date of last update using ISO 8601 format
<u>EFF_DATE</u>	O	<u>DATE</u>	26	Date the new record information goes into effect in ISO 8601 format
<u>POLY_ID</u>	<u>OM</u>	<u>LONG</u>	DEFAULT	Numeric Polygon ID CAPCOG will populate <u>prior to uploading to PSAP. May also serve as a placeholder field to populate MUNIUNQID field</u>
<u>MUNIUNQID</u>	M	<u>TEXT</u>	100	Globally Unique ID for each municipality - Ex. 9847INCM@austin.texas.gov CAPCOG will populate

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
MUNL_NM	M	TEXT	100	Name of municipality i.e. "AUSTIN"

Attachment B, Part 2:

Guidance Document for CAPCOG Next Generation 9-1-1 GIS Data (Version 2, 2020)

Guidance Document for CAPCOG Next Generation 9-1-1 Geographic Information System (GIS) Data

Version 2: April 2020

Introduction:

As the Transition Workflow Cycle of the Next Generation 9-1-1 Database Program Interlocal Agreement (ILA) describes, our region is moving closer and closer to deploying a Next Gen 9-1-1 system that enables emergency calls to route to the correct PSAP based on GIS data. This transition begins the process of moving away from our traditional MSAG-based (tabular database) routing system to one that will be faster, more reliable, and enable multimedia such as pictures and videos to be sent to 9-1-1 call takers. However, in order to move to this new system, several changes need to be made to our workflows and data. Perhaps the biggest change is that we will be utilizing new cloud-based software packages to assist with quality control (QC). One of these solutions will also ultimately become the mechanism by which 9-1-1 GIS data is supplied to PSAPs, which could ultimately be done at any time throughout the month as opposed to just once.

The intention of this document is to serve as a guide for county coordinators in the preparation of this transition, and to provide detailed technical information regarding how to prepare the 9-1-1 GIS data submission. CAPCOG reserves the right to unilaterally update this guidance document at any time.

Summary of Changes:

Below is a list of items we need to accomplish, as outlined in the Transition Workflow Cycle of the ILA:

- Create globally unique IDs (GUIDs) for all features in all feature classes of the GIS database in order to track changes to data over time
- Utilize the "Last Modified" date field in order to track new and legacy data
- Incorporate emergency service boundaries into data or determine a process to create and manage them
- Determine if changes to PSAP boundary coverage areas need to be made
- Determine if changes to provisioning boundaries need to be made
- Participate in training opportunities for the EGDMS and Data Hub QC platforms
- Field map and upload data to EGDMS and Data Hub
- Retrieve errors from QC software and correct them

Globally Unique IDs (GUIDs):

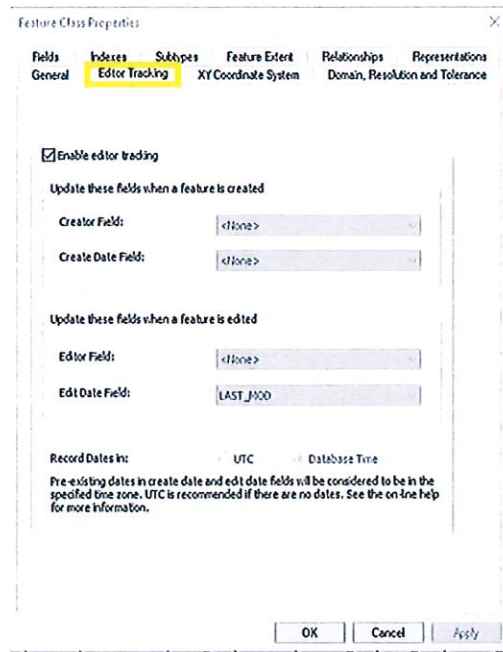
In a Next Gen 9-1-1 system, a new requirement has been set by NENA (National Emergency Number Association) that stipulates data must include Globally Unique IDs, or GUIDs. GUIDs are created by constructing unique feature IDs using a format as described in the associated document provided by CAPCOG.

Each GUID should remain unchanged for the life-span of the GIS data so that it supports the resolution of errors through quality control discrepancy reporting, and allows for us to track changes to data overtime.

Using the "LAST_MOD" Field:

Attachment B of the ILA, entitled "CAPCOG NG9-1-1 Transitional GIS Data Requirements" describes a "LAST_MOD" or Last Modified date field in each of the GIS data layers and is marked as mandatory for completion. In order for CAPCOG to begin tracking what is "new" data and what is "legacy" data, we need this field to be completed in each of the data layers. Our goal in differentiating between these two datatypes is so that we can determine if progress is being made in data error correction. Use of this field will also be monitored and included in the performance reports that CAPCOG will send out each month.

If there is a GIS feature that was created prior to October 1, 2019 and the LAST_MOD field is NULL or otherwise not known, this field should be populate with a date of 10/1/2019 and will be counted as legacy data. One way to have this field updated automatically when editing or creating features is to use "editor tracking" on the feature class. This can be done by right-clicking the feature class in ArcCatalog and then selecting "Properties". When the Feature Class Properties dialog box opens, select the "Editor Tracking" tab. The below image shows how this can be set up:



- Check the 'Enable editor tracking' box
- Set the 'Edit Date Field' to LAST_MOD
- Select 'Database Time' to record dates

New Quality Control (QC) Platforms:

The Capital Area Emergency Communications District (CAECD) has purchased two all-new quality control systems for our counties to use. These will be used as a means to not only quality control GIS data and return the results of errors but, in the case of the Enterprise Geospatial Database Management System (EGDMS), will actually provide data to the functional elements of a NG9-1-1 environment. Again, in NG9-1-1, GIS data is the driver of call routing!

Enterprise Geospatial Database Management System (EGDMS)

Vendors: AT&T and Intrado

The Enterprise Geospatial Database Management System (EGDMS) is a web application that serves as the front-end user interface for the NENA Spatial Interface (SI) requirement. GIS data submitted through EGDMS is validated, coalesced, and used for provisioning to NG9-1-1 (sometimes referred to as i3) systems which are called the ECRF and LVF. These stand for Emergency Call Routing Function and the Location Validation Function. Both of these elements are major components in the NG9-1-1 environment.

One of the biggest advantages in moving to this system is that it will enable counties the ability to update PSAP map data much more frequently than our current workflow of just once a month.

EGDMS includes the following features:

- Secure 2-factor authentication
- A file upload user interface that enables customers to identify the contents of the upload
- Acceptance of file geodatabase files and shapefiles (although no one should be using shapefiles!)
- Attribute field mapping configuration that is customer-driven
- Automated schema change detection and error notification
- Automated email notification for upload and processing status
- GIS data validation report retrieval

As a QC platform, EGDMS will find "critical" errors as outlined in [Transition Workflow Cycle Attachment A: Scope of Work of the ILA](#). Critical errors have the potential to negatively affect the call routing process and, as such, need to be corrected. Please review the EGDMS user guide for detailed

A note: CAPCOG will provide a spreadsheet that shows the fields used by EGDMS and the corresponding CAPCOG data model fields. This will aid in the field mapping portion of configuring your agency EGDMS account.

Each coordinator, and in some cases staff, will be provided a username by Intrado in order to login. Previous Entrust tokens can still be used. Those that do not have Entrust tokens will be provided one by CAPCOG. Entrust tokens are key fobs that provide a unique number that is to be used when accessing EGDMS.

After an initial upload of GIS data has been submitted to EGDMS, Intrado will then provide a subsequent training session in which they will discuss how to retrieve errors from the system.

~~**EGDMS also provides the user with the ability to mark features as exceptions, however only in the road centerline-Feature Class. This is because EGDMS does not look for critical errors in address point, ESZ, or city limits data.**~~

~~Note: due to technical issues with EGDMS that have not yet been resolved as of February 28, 2020, County will only be required to start using EGDMS after it receives notification from CAPCOG's project representative to do so.~~

~~GeoComm GIS Data Hub~~

~~Vendor: GeoComm~~

~~The GeoComm GIS Data Hub is a robust web-based GIS data management solution that helps transform, quality check (QC), report, aggregate, and provision GIS data using predefined, standardized processes to ensure the timely delivery of GIS data to your 9-1-1 system. Offering virtually unlimited quality control tools, GIS Data Hub ensures greater accuracy of the data and helps you meet your obligated GIS responsibilities for NG9-1-1. The GIS Data Hub is designed to simplify the user experience. Your system administrator grants access to only content specific to your role, project and/or client. As a System User, your primary role is submitting GIS data for validation.~~

~~Data Hub is able to do the following:~~

- ~~• Provide GIS data insights through rigorous quality control and reporting processes~~
- ~~• Transform disparate GIS datasets into a common schema (which is based on the NENA GIS data model)~~
- ~~• Aggregates GIS datasets into a seamless coverage area~~
- ~~• Provides map data packages formatted to meet 9-1-1 mapping and Computer Aided Dispatch (CAD) systems~~

~~In addition to also being able to find critical errors like EGDMS, Data Hub will also find "significant" and "other" errors as described in the [Transition Workflow Cycle of the ILA Attachment A: Scope of Work](#), significant error types are those that negatively impact dispatch systems and other systems used for routing of emergency vehicles. As such, they should be corrected. Other error types are those that, while they may not impact system functionality, are recommended to be corrected to maintain~~

~~**This QC platform also offers users the ability to create an exceptions field in their GIS data that can be used to keep Data Hub from continuously reporting errors that are not actual (or legitimate) errors.**~~

~~Please review the Data Hub user guide to find detailed information about the system and what all it is capable of doing.~~

~~New GIS Data:~~

~~In addition to the traditional GIS data submitted to CAPCOG, there will be some new Feature Classes that will be required for data submissions to EGDMS, Data Hub, and CAPCOG.~~

~~Provisioning Boundary:~~

~~This polygon layer defines the area of GIS data provisioning responsibility, with no unintentional gaps or overlaps. It should contain (include) all your agency's data within it. The Provisioning Boundary must be~~

agreed to by all adjoining data provisioning providers. When submitting GIS data, a 9-1-1 Authority (or 9-1-1 Authority designee) **MUST** only include GIS data for their geographic area of responsibility (provisioning boundary) and **MUST** ensure the data includes coverage for the entire extent of that area. CAPCOG will provide Provisioning Boundaries to all counties with the expectation that we will all work together should they need to be altered. These boundaries are continually updated and as they are finalized, CAPCOG will make updated versions available to all partner 9-1-1 authorities to use in the subsequent month's data upload, and quality checks should be made only against the provisioning boundaries provided by CAPCOG.

Emergency Service Boundaries:

Not to be confused with Emergency Service Zones (ESZs, sometimes referred to as ESNs) which are polygon layers that represent unique combinations of fire, law, and EMS responder zones for a geographic area, Emergency Service Boundaries are individual GIS data layers that define the geographic area for single response service types. This means that instead of one polygon layer representing all responder types, there are now three separate GIS layers for Law, Fire, and EMS. Each of these layers is used by the NG9-1-1 system to perform a geographic query to determine which Emergency Service Providers are responsible for providing service to a location. Emergency Service Boundaries are used by PSAPs to identify the appropriate entities/first responders to be dispatched.

There **MUST** be a **SEPARATE** Emergency Service Boundary layer for each type of service.

The set of Emergency Service Boundaries **MUST** include the following:

- Law Enforcement (LAW)
- Fire
- Emergency Medical Services (EMS)

The addition of ESBs does not mean that our traditional ESZ (sometimes referred to as ESN) layer will be discontinued. CAPCOG still expects counties to maintain and submit ESZ layers as they have. Counties **MAY** maintain the Emergency Service Boundary layers as a combined or single layer for each emergency service, however, when exchanging emergency service boundary information in an NG9-1-1 environment, Emergency Service Boundaries **MUST** be exchanged as individual layers for each emergency service type (e.g. one for law, one for fire, and one for EMS).

ESB maintenance is described in detail in the CAPCOG document titled "Globally Unique IDs (GUIDs)".

Note, these new layers **must** be in the correct schema which CAPCOG will also provide. The schema that will be used is also shown in the associated "EGDMS Field Mapping to CAPCOG" spreadsheet.

Expected Field Values: With the addition of the ESBs to our workflow, there are a couple of new fields that come with these layers that have haven't used before. Please consult the associated field mapping documentation for further information. The new fields are:

- **Service URI:** In the case of ESBs, this field corresponds to the PSAP covering that area and should only be completed if the responding agency is also a PSAP
- **Ex:** The Leander PD polygon in the LAW ESB for Williamson County would get the associated Service URI for the Leander PD PSAP. However, the polygon for Granger PD's coverage area would NOT get a Service URI as it is not a PSAP. A list of Service URIs for

each PSAP can be found in the Transitional Guidance folder CAPCOG uploaded to the FTP site.

- *Discrepancy Agency ID: This is the name of the data source. It will be the name of the county submitting the upload.*
- *Agency ID: Domain name of the agency (county) uploading. A list of these domains can be found in the "How to Create Globally Unique IDs (GUIDs)" document*

PSAP Boundaries:

PSAP boundaries are a single GIS layer that is comprised of polygons (in some cases just a single polygon) that show the geographic coverage area for PSAPs within your county. The primary use for this layer is to route and deliver 9-1-1 calls to the correct PSAP, thus making it the most important layer. It is critical that there are no gaps or overlaps between external (at county borders) and internal (borders within the county). This layer will be managed and edited by CAPCOG but it is absolutely imperative that county coordinators work with CAPCOG to ensure things are correct.

CAPCOG will provide to the counties PSAP boundaries we have created and will continually make updates to them as needed and send to county coordinators. Coordinators will need to review this layer and send CAPCOG any suggested edits or questions. CAPCOG created these using the city limits layer submitted by each county. Coordinators should use the latest PSAP boundaries provided by CAPCOG for the subsequent month's data upload. Quality checks should be made only against the provisioning boundaries provided by CAPCOG.

Exhibit D
USPS Publication 28 Appendix C

C1 Street Suffix Abbreviations

The following table lists examples of suffix forms that are primary street suffix names, common street suffixes or suffix abbreviations, and recommended official Postal Service standard suffix abbreviations.

Primary Street Suffix Name	Commonly Used Street Suffix or Abbreviation	Postal Service Standard Suffix Abbreviation
ALLEY	ALLEE	ALY
	ALLEY	
	ALLY	
	ALY	
ANEX	ANEX	ANX
	ANNEX	
	ANNX	
	ANX	
ARCADE	ARC	ARC
	ARCADE	
AVENUE	AV	AVE
	AVE	
	AVEN	
	AVENU	
	AVENUE	
	AVN	
	AVNUE	
BAYOU	BAYOO	BYU
	BAYOU	
BEACH	BCH	BCH
	BEACH	
BEND	BEND	BND
	BND	
BLUFF	BLF	BLF
	BLUF	

	BLUFF	
BLUFFS	BLUFFS	BLFS
BOTTOM	BOT	BTM
	BTM	
	BOTTM	
	BOTTOM	
BOULEVARD	BLVD	BLVD
	BOUL	
	BOULEVARD	
	BOULV	
BRANCH	BR	BR
	BRNCH	
	BRANCH	
BRIDGE	BRDGE	BRG
	BRG	
	BRIDGE	
BROOK	BRK	BRK
	BROOK	
BROOKS	BROOKS	BRKS
BURG	BURG	BG
BURGS	BURGS	BGS
BYPASS	BYP	BYP
	BYPA	
	BYPAS	
	BYPASS	
	BYPS	
CAMP	CAMP	CP
	CP	
	CMP	
CANYON	CANYN	CYN

	CANYON	
	CNYN	
CAPE	CAPE	CPE
	CPE	
CAUSEWAY	CAUSEWAY	CSWY
	CAUSWA	
	CSWY	
CENTER	CEN	CTR
	CENT	
	CENTER	
	CENTR	
	CENTRE	
	CENTER	
	CNTR	
	CTR	
CENTERS	CENTERS	CTRS
CIRCLE	CIR	CIR
	CIRC	
	CIRCL	
	CIRCLE	
	CRCL	
	CRCLE	
CIRCLES	CIRCLES	CIRS
CLIFF	CLF	CLF
	CLIFF	
CLIFFS	CLFS	CLFS
	CLIFFS	
CLUB	CLB	CLB
	CLUB	
COMMON	COMMON	CMN
COMMONS	COMMONS	CMNS
CORNER	COR	COR

	CORNER	
CORNERS	CORNERS	CORS
	CORS	
COURSE	COURSE	CRSE
	CRSE	
COURT	COURT	CT
	CT	
COURTS	COURTS	CTS
	CTS	
COVE	COVE	CV
	CV	
COVES	COVES	CVS
CREEK	CREEK	CRK
	CRK	
CRESCENT	CRESCENT	CRES
	CRES	
	CRSENT	
	CRSNT	
CREST	CREST	CRST
CROSSING	CROSSING	XING
	CRSSNG	
	XING	
CROSSROAD	CROSSROAD	XRD
CROSSROADS	CROSSROADS	XRDS
CURVE	CURVE	CURV
DALE	DALE	DL
	DL	
DAM	DAM	DM
	DM	
DIVIDE	DIV	DV
	DIVIDE	
	DV	

	DVD	
DRIVE	DR	DR
	DRIV	
	DRIVE	
	DRV	
DRIVES	DRIVES	DRS
ESTATE	EST	EST
	ESTATE	
ESTATES	ESTATES	ESTS
	ESTS	
EXPRESSWAY	EXP	EXPY
	EXPR	
	EXPRESS	
	EXPRESSWAY	
	EXPW	
	EXPY	
EXTENSION	EXT	EXT
	EXTENSION	
	EXTN	
	EXTNSN	
EXTENSIONS	EXTS	EXTS
FALL	FALL	FALL
FALLS	FALLS	FLS
	FLS	
FERRY	FERRY	FRY
	FRRY	
	FRY	
FIELD	FIELD	FLD
	FLD	
FIELDS	FIELDS	FLDS
	FLDS	
FLAT	FLAT	FLT

	FLT	
FLATS	FLATS	FLTS
	FLTS	
FORD	FORD	FRD
	FRD	
FORDS	FORDS	FRDS
FOREST	FOREST	FRST
	FORESTS	
	FRST	
FORGE	FORG	FRG
	FORGE	
	FRG	
FORGES	FORGES	FRGS
FORK	FORK	FRK
	FRK	
FORKS	FORKS	FRKS
	FRKS	
FORT	FORT	FT
	FRT	
	FT	
FREEWAY	FREEWAY	FWY
	FREEWY	
	FRWAY	
	FRWY	
	FWY	
GARDEN	GARDEN	GDN
	GARDN	
	GRDEN	
	GRDN	
GARDENS	GARDENS	GDNS
	GDNS	
	GRDNS	

GATEWAY	GATEWAY	GTWY
	GATEWY	
	GATWAY	
	GTWAY	
	GTWY	
GLEN	GLEN	GLN
	GLN	
GLENS	GLENS	GLNS
GREEN	GREEN	GRN
	GRN	
GREENS	GREENS	GRNS
GROVE	GROV	GRV
	GROVE	
	GRV	
GROVES	GROVES	GRVS
HARBOR	HARB	HBR
	HARBOR	
	HARBR	
	HBR	
	HRBOR	
HARBORS	HARBORS	HBR
HAVEN	HAVEN	HVN
	HVN	
HEIGHTS	HT	HTS
	HTS	
HIGHWAY	HIGHWAY	HWY
	HIGHWY	
	HIWAY	
	HIWY	
	HWAY	
	HWY	
HILL	HILL	HL

	HL	
HILLS	HILLS	HLS
	HLS	
HOLLOW	HLLW	HOLW
	HOLLOW	
	HOLLOWS	
	HOLW	
	HOLWS	
INLET	INLT	INLT
ISLAND	IS	IS
	ISLAND	
	ISLND	
ISLANDS	ISLANDS	ISS
	ISLNDS	
	ISS	
ISLE	ISLE	ISLE
	ISLES	
JUNCTION	JCT	JCT
	JCTION	
	JCTN	
	JUNCTION	
	JUNCTN	
	JUNCTON	
JUNCTIONS	JCTNS	JCTS
	JCTS	
	JUNCTIONS	
KEY	KEY	KY
	KY	
KEYS	KEYS	KYS
	KYS	
KNOLL	KNL	KNL
	KNOL	

	KNOLL	
KNOLLS	KNLS	KNLS
	KNOLLS	
LAKE	LK	LK
	LAKE	
LAKES	LKS	LKS
	LAKES	
LAND	LAND	LAND
LANDING	LANDING	LNDG
	LNDG	
	LNDNG	
LANE	LANE	LN
	LN	
LIGHT	LGT	LGT
	LIGHT	
LIGHTS	LIGHTS	LGTS
LOAF	LF	LF
	LOAF	
LOCK	LCK	LCK
	LOCK	
LOCKS	LCKS	LCKS
	LOCKS	
LODGE	LDG	LDG
	LDGE	
	LODG	
	LODGE	
LOOP	LOOP	LOOP
	LOOPS	
MALL	MALL	MALL
MANOR	MNR	MNR
	MANOR	
MANORS	MANORS	MNRS

	MNRS	
MEADOW	MEADOW	MDW
MEADOWS	MDW	MDWS
	MDWS	
	MEADOWS	
	MEDOWS	
MEWS	MEWS	MEWS
MILL	MILL	ML
MILLS	MILLS	MLS
MISSION	MISSN	MSN
	MSSN	
MOTORWAY	MOTORWAY	MTWY
MOUNT	MNT	MT
	MT	
	MOUNT	
MOUNTAIN	MNTAIN	MTN
	MNTN	
	MOUNTAIN	
	MOUNTIN	
	MTIN	
	MTN	
MOUNTAINS	MNTNS	MTNS
	MOUNTAINS	
NECK	NCK	NCK
	NECK	
ORCHARD	ORCH	ORCH
	ORCHARD	
	ORCHRD	
OVAL	OVAL	OVAL
	OVL	
OVERPASS	OVERPASS	OPAS
PARK	PARK	PARK

	PRK	
PARKS	PARKS	PARK
PARKWAY	PARKWAY	PKWY
	PARKWY	
	PKWAY	
	PKWY	
	PKY	
PARKWAYS	PARKWAYS	PKWY
	PKWYS	
PASS	PASS	PASS
PASSAGE	PASSAGE	PSGE
PATH	PATH	PATH
	PATHS	
PIKE	PIKE	PIKE
	PIKES	
PINE	PINE	PNE
PINES	PINES	PNES
	PNES	
PLACE	PL	PL
PLAIN	PLAIN	PLN
	PLN	
PLAINS	PLAINS	PLNS
	PLNS	
PLAZA	PLAZA	PLZ
	PLZ	
	PLZA	
POINT	POINT	PT
	PT	
POINTS	POINTS	PTS
	PTS	
PORT	PORT	PRT
	PRT	

PORTS	PORTS	PRTS
	PRTS	
PRAIRIE	PR	PR
	PRAIRIE	
	PRR	
RADIAL	RAD	RADL
	RADIAL	
	RADIEL	
	RADL	
RAMP	RAMP	RAMP
RANCH	RANCH	RNCH
	RANCHES	
	RNCH	
	RNCHS	
RAPID	RAPID	RPD
	RPD	
RAPIDS	RAPIDS	RPDS
	RPDS	
REST	REST	RST
	RST	
RIDGE	RDG	RDG
	RDGE	
	RIDGE	
RIDGES	RDGS	RDGS
	RIDGES	
RIVER	RIV	RIV
	RIVER	
	RVR	
	RIVR	
ROAD	RD	RD
	ROAD	
ROADS	ROADS	RDS

	RDS	
ROUTE	ROUTE	RTE
ROW	ROW	ROW
RUE	RUE	RUE
RUN	RUN	RUN
SHOAL	SHL	SHL
	SHOAL	
SHOALS	SHLS	SHLS
	SHOALS	
SHORE	SHOAR	SHR
	SHORE	
	SHR	
SHORES	SHOARS	SHRS
	SHORES	
	SHRS	
SKYWAY	SKYWAY	SKWY
SPRING	SPG	SPG
	SPNG	
	SPRING	
	SPRNG	
SPRINGS	SPGS	SPGS
	SPNGS	
	SPRINGS	
	SPRNGS	
SPUR	SPUR	SPUR
SPURS	SPURS	SPUR
SQUARE	SQ	SQ
	SQR	
	SQRE	
	SQU	
	SQUARE	
SQUARES	SQRS	SQS

	SQUARES	
STATION	STA	STA
	STATION	
	STATN	
	STN	
STRAVENUE	STRA	STRA
	STRAV	
	STRAVEN	
	STRAVENUE	
	STRAVN	
	STRVN	
	STRVNUE	
STREAM	STREAM	STRM
	STREME	
	STRM	
STREET	STREET	ST
	STRT	
	ST	
	STR	
STREETS	STREETS	STS
SUMMIT	SMT	SMT
	SUMIT	
	SUMITT	
	SUMMIT	
TERRACE	TER	TER
	TERR	
	TERRACE	
THROUGHWAY	THROUGHWAY	TRWY
TRACE	TRACE	TRCE
	TRACES	
	TRCE	
TRACK	TRACK	TRAK

	TRACKS	
	TRAK	
	TRK	
	TRKS	
TRAFFICWAY	TRAFFICWAY	TRFY
TRAIL	TRAIL	TRL
	TRAILS	
	TRL	
	TRLS	
TRAILER	TRAILER	TRLR
	TRLR	
	TRLRS	
TUNNEL	TUNEL	TUNL
	TUNL	
	TUNLS	
	TUNNEL	
	TUNNELS	
	TUNNL	
TURNPIKE	TRNPK	TPKE
	TURNPIKE	
	TURNPK	
UNDERPASS	UNDERPASS	UPAS
UNION	UN	UN
	UNION	
UNIONS	UNIONS	UNS
VALLEY	VALLEY	VLY
	VALLY	
	VLLY	
	VLY	
VALLEYS	VALLEYS	VLYS
	VLYS	
VIADUCT	VDCT	VIA

	VIA	
	VIADCT	
	VIADUCT	
VIEW	VIEW	VW
	VW	
VIEWS	VIEWS	VWS
	VWS	
VILLAGE	VILL	VLG
	VILLAG	
	VILLAGE	
	VILLG	
	VILLIAGE	
	VLG	
VILLAGES	VILLAGES	VLGS
	VLGS	
VILLE	VILLE	VL
	VL	
VISTA	VIS	VIS
	VIST	
	VISTA	
	VST	
	VSTA	
WALK	WALK	WALK
WALKS	WALKS	WALK
WALL	WALL	WALL
WAY	WY	WAY
	WAY	
WAYS	WAYS	WAYS
WELL	WELL	WL
WELLS	WELLS	WLS
	WLS	

Exhibit E
Acronyms and Definitions

Acronyms

ALI – Automatic Location Identification
ANI – Automatic Number Identification
AP – Address Point
CAPCOG – Capital Area Council of Governments
CAECD – Capital Area Emergency Communications District
E9-1-1 – Enhanced 9-1-1
EMS – Emergency Medical Service
ESB – Emergency Service Boundary
ESN – Emergency Service Number
ESRI – Environmental Systems Research Institute
ESZ – Emergency Service Zone
GIS – Geospatial Information System
GUID – Globally Unique Identification
MSAG – Master Street Address Guide
NENA – National Emergency Number Association
NG9-1-1 – Next Generation 9-1-1
NRF – No Record Found
PSA – Public Safety Agency
PSAP – Public Safety Answering Point
RCL – Road Centerline
SSAP – Site/Structure Address Point
TN – Telephone Number
USPS – United States Postal Service
URI – Uniform Resource Identifier
URN – Uniform Resource Name

Definitions

9-1-1 GIS Database – is the geospatial database maintained and updated by the County that include, at a minimum, address points, road centerlines, Public Safety Answer Point (PSAP) boundaries, Emergency Service Boundaries (ESBs), and city limits (municipal) boundaries for the County's provisioning boundary.

Address Characteristics – are the logical, grammatical order of physical address elements which follow the National Emergency Number Association (NENA) and United States Postal Service (USPS) standards: Address Number, Pre-Directional, Street Name, Street Suffix, Secondary Unit Designator, Secondary Unit Number.

Example, the address characteristics of 525 E. Kneenah St., Apt. 2105 are:

<u>ADDRESS EXAMPLE</u>	<u>ADDRESS ELEMENT</u>	<u>ELEMENT DESCRIPTION: VALID 9-1-1 DATABASE ENTRIES</u>
525	Address Number	Numeric component of the street address.
E	Pre-Directional	Leading directional prefix: N, S, E, W, NE, NW, SE, SW.
Kneenah	Street Name	Official street name approved by the local government authority.
St	Street Suffix	Abbreviation of street type. Refer to USPS Pub. 28 Appx. C1 .
	Post-Directional	Trailing directional suffix: N, S, E, W, NE, NW, SE, SW.
Apt	Secondary Unit Designator	Additional Location information. Refer to USPS Pub. 28 Appx C2 .
2105	Secondary Unit Number	Alphanumeric designation associated with add'l location information.

Address Location Identifier (ALI) – is the automatic display at the Public Safety Answering Point (PSAP) of the caller's telephone number (TN), the address/location of the telephone and supplementary emergency services information of the location from which a 9-1-1 call originates.

Address Number Identifier (ANI) – is the telephone number associated with the call origination, originally associated with the access line of the 9-1-1 caller.

Address Point (AP) – refer to Site/Structure Address Point.

Call Misroute – is the term used to describe when a 9-1-1 call is routed to an incorrect Public Safety Answering Point (PSAP) due to a network or database discrepancy.

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. The Executive Committee is the agency's governing body.

Capital Area Emergency Communications District (CAECD) – is 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. The CAPCOG Executive Committee serves as the district's Board of Managers.

City Limit Boundary – refer to Municipal Boundary

Emergency Service Boundary (ESB) – is a polygon data layer that represents the geographic area of responsibility for a Public Safety Agency within the geographic extent of the County's provisioning boundary. Each 9-1-1 GIS database includes, at a minimum, a law ESB layer, a fire ESB layer, and an emergency medical service (EMS) ESB layer.

Emergency Service Number (ESN) – is a number that is designated in the Master Street Address Guide (MSAG) based on physical address. 9-1-1 Call Centers (PSAPs) receive a display of the ESN information which shows which police, fire and rescue agency serves the telephone number calling 9-1-1.

Emergency Service Responder – refer to Public Safety Agency.

Emergency Service Response Provider – refer to Public Safety Agency.

Emergency Service Zone (ESZ) – is 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.

Enhanced 9-1-1 (E9-1-1) – is a telephone system which includes network switching, database and Public Safety Answering Point premise elements capable of providing automatic location identification data, selective routing, selective transfer, fixed transfer, and a call back number.

Environmental Systems Research Institute (ESRI) – is an international supplier of geographic information system (GIS) software, web GIS and geodatabase management application.

Functional Classification – is a system which define the role a street, or roadway, plays in the overall transportation system.

First Responder – is a peace officer, fire protection personnel, volunteer firefighter, emergency medical services personnel, emergency response operator, emergency services dispatcher or other emergency response personnel employed by an agency.

Geospatial Information System (GIS) – is an integration of hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

GIS Data Layer – 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. Also known as a feature class.

Globally Unique Identification (GUID) – is a unique identifier that is assigned to each record (feature) in the COUNTY's 9-1-1 GIS database; a GUID uniquely identified a feature both within the COUNTY's 9-1-1 GIS database provisioning boundary and across all 9-1-1 GIS databases.

Law Enforcement Agency (LE) – is an agency of the State of Texas, or an agency of a political subdivision of the State authorized by law to employ peace officers.

Refer: Texas Code of Criminal Procedure Section 59.01(5)

Master Street Address Guide (MSAG) – A database of street names and address ranges defining emergency service zones for 9-1-1 purposes. Maintained by county address coordinators via the database provider's portal.

Metadata – is a summary document which provides content, quality, type, creation, and spatial information about a dataset. It can be stored as a text file (TXT), extensible Markup Language (XML), or database record.

Municipal Boundary – is a polygon data layer representing the geographic extent of a city's administrative boundary, not including any extra-territorial jurisdiction

National Emergency Number Association (NENA) – is the national 9-1-1 Association which serves the public safety community as the only professional organization solely focused on 9-1-1 policy, technology, operations, and education issues.

Next Generation 9-1-1 (NG911) – is a system comprised of Emergency Services IP networks (ESInets), IP-based Software Services and Applications, Databases and Data Management processes that are interconnected to Public Safety Answering Point premise equipment. The system provides location-based routing to the appropriate emergency entity. The system uses additionally available data elements and business policies to augment PSAP routing. The system delivers geodetic and/or civic location information and the call back number.

The system supports the transfer of calls to other NG9-1-1 capable PSAPs or other authorized entities based on and including accumulated data. NG9-1-1 provides standardized interfaces for call and message services, processes all types of emergency calls including non-voice (multi-media) messages, acquires and integrates additional data useful to call routing and handling for appropriate emergency entities. NG9-1-1 supports all E9-1-1 features and functions and meets current and emerging needs for emergency communication from caller to Public Safety entities.

NG9-1-1 – refer to Next Generation 9-1-1.

No Record Found (NRF) – is the condition where no Automatic Location Identifier (ALI) information is available for display at the Public Safety Answering Point (PSAP).

Parity – is the odd or even property of an integer. In address matching, parity, is used to locate a geocoded address on the correct side of the street (such as odd numbers on the south or east side and even numbers north or west side.)

Primary Street Name – is an essential street name element which is considered to be the parent name of the street.

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

Public Safety Answering Point (PSAP) boundary – is the authoritative polygon data layer representing the geographic area within a provisioning boundary served by a single 9-1-1 call center (PSAP) to which all emergency requests are initially routed.

Public Safety Answering Point (PSAP) – is a continuously operated communications facility that is assigned the responsibility to receive 9-1-1 calls and, as appropriate, to dispatch public safety services or to extend, transfer or relay 9-1-1 calls to appropriate public safety agencies.

Public Safety Agency (PSA) – is the division of a public agency that provides telecommunications/dispatch, law enforcement, firefighting, medical, or other emergency services, or a private entity that provides emergency medical or ambulance services. Also referred to as emergency service response providers or first responders.

Road Centerline (RCL) – is a data layer of lines estimating the centerline of a roadway that contains information such as road name, road classification, and address range.

Site/Structure Address Point (AP) – is 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.

The address number is the numeric component of a street address which proceeds the primary street name (example: 100 GRANITE DR).

The house number suffix or secondary number is an alphanumeric component of a street address that describe an apartment, room , suites, or other secondary addressing unit that is part of the property description by the house number. (Example: 256 WARD ST, APT A; 256 WARD ST #A.)

Street Centerline – refer to Road Centerline.

Street Name – is an identifying name given to a street that consists of one or more street name elements.

Street Name Elements – in proper logical order are the prefix directional primary street name, street suffix, and the post directional.

Street Name Prefix Directional – is a street name element which precedes the primary street name to indicate the primary direction of the street. For 9-1-1 purposes, the prefix directional is limited to a two-character maximum and shall be one of the eight NENA approved abbreviated directional indicators (i.e., N, E, W, S, NW, SW, NE, and SE).

Street Post Directional – is a street name element which describes the travel limited to a two-character maximum and describes travel direction (i.e., NB, EB, SB, and WB). Only major highways and their service roads have post directional.

Street Suffix – is a street name element which indicates the road type (e.g., ST, DR, AVE, etc.). For 9-1-1 purposes, the street suffix should be abbreviated according to [USPS Publication 28 Appendix C: C1 Street Suffix Abbreviations](#).

United States Postal Service (USPS) – is an independent agency charged with processing and delivering mail and with protecting the mails from loss, theft, or abuse in accordance with U.S. postal laws.

Uniform Resource Identifier (URI) – is a predictable formatting of text used to identify a resource on a network.

Uniform Resource Name (URN) – is a location independent identifier that is designed to be unique and persist over extended periods of time.