



GEOGRAPHIC
TECHNOLOGIESGROUP®

Lassen County
Transportation Commission
Grant-Funded Regional GIS
& Transportation
Modernization



WWW.GEOTG.COM

(888) 757 - 4222

We are an **award-winning, full-service GIS company** that works exclusively with local governments. We are constantly collaborating to ensure the best customer experience for our clients- embracing a culture of knowledge, commitment, and collaboration. We take pride in being **a true Esri Business Partner**.

THE LEADING GIS STRATEGIC PLANNING AND CONSULTING COMPANY





**CUSTOMIZED
SOLUTIONS
COMMITTED
TO CUSTOMER
SUCCESS**

GTG has been wonderful to work with. They are professional, knowledgeable, and always there when we need them. I wish all my consultants were as responsive and thorough. I can always count on GTG!

- Gwinnett County, GA

**HELPING TOWN, CITY AND COUNTY GOVERNMENTS
REALIZE THE FULL POTENTIAL OF GIS FOR OVER 25 YEARS**



25

Years in Business



1000+

Local Government Clients



100%

Client Satisfaction

Geotg.com

What the Grant Funded

The Consultant is to provide the professional services required to complement a comprehensive update of the County's current GIS currently under way through a consultant under contract with the Lassen County Planning and Building Department.

The existing contract would be amended to include the City of Susanville (City) and Susanville Indian Rancheria (SIR) so we can collaboratively accelerate advanced technology for the benefit of partnerships, economic development, and progress toward multi-model transportation and sustainability throughout the entire region.

▪ Task 1: Five-Year GIS Strategic Plan	PLAN
▪ Task 2: Public Web Portal	DESIGN / IMPLEMENT
▪ Task 3: Addressing Tool	DESIGN / IMPLEMENT
▪ Task 4: Parcel Layer Updates	DESIGN / IMPLEMENT
▪ Task 5: Update Zoning/General Plan Designation Layer	IMPLEMENT
▪ Task 6: Update Roads Layer	IMPLEMENT
▪ Task 7: Data Mining and Data Integration	DESIGN / IMPLEMENT
▪ Task 8: GIS Training	DESIGN / IMPLEMENT
▪ Task 9: Create New GIS Layers	DESIGN / IMPLEMENT
▪ Task 10: GIS Administration Support	MAINTAIN AND SUPPORT
▪ Task 11: Miscellaneous GIS Support	MAINTAIN AND SUPPORT

What the Grant Funded

Phase I – Assessment of Current Conditions and Needs

- Regional GIS needs assessment
- Transportation data review
- Multi-modal planning analysis
- Regional data-sharing framework
- Public transparency roadmap



PLAN



DESIGN



IMPLEMENT



MAINTAIN



GIS Needs Assessment

Lassen County Transportation Commission



GIS for Multi-Modal Needs Alignment

Lassen County | CA

Lassen County Transportation
Assessment and Implementation



GIS for Regional Initiatives

Lassen County Transportation Commission | CA

GIS Needs Assessment



1202 Parkway Drive
Goldboro, NC 27534
888.757.4222

Who Participated?



Lassen Transit Service Agency (LTSA)



Susanville Indian Rancheria (SIR)



Welcome to the city of
Susanville

What Did We Find?

Each agency was evaluated using GTG's nationally recognized **Six Pillars of GIS Sustainability**

Weakness in any pillar creates long-term risk to public services, planning, and emergency response



STRATEGIC | TACTICAL | TECHNICAL | LOGICAL | POLITICAL

What Did We Find?

- LCTC and LTSA support **all transportation planning and funding** in Lassen County.
- Today:
 - No centralized GIS system
 - No internal GIS staff
 - Data pulled manually from Caltrans, state portals, and consultants
 - Transit ridership analysis done in **Excel spreadsheets**
 - GIS is used mainly for **grant applications**
 - SPOT system tracks buses, but data is not integrated into GIS
 - This creates inefficiencies, duplication, and limits data-driven planning

What Did We Find?

LTSA needs a **regional transportation GIS platform** that provides:

Core Data

- Evacuation routes
- Wildfire & flood maps
- Bus routes, stops & ridership
- Bike & pedestrian facilities
- Bridges, roads, and weight limits



Decision Support

- Dashboards for traffic, crashes & ridership
- Grant-ready maps and statistics
- StoryMaps to communicate Transportation Plans to the public

Integration

- Caltrans data
- SPOT transit system
- Local land-use data

Public Services

- Trip planning
- Transit visibility
- Trail and OHV route maps

What Did We Find?

City of Susanville

- Susanville is the **economic hub** of Lassen County and is actively pursuing:
 - Economic development
 - Tourism
 - Senior housing
 - Healthcare expansion
 - Complete Streets transportation safety
- Its GIS system is **outdated, fragmented, and risky:**
- Most GIS data is **10+ years old**
- Stored as **shapefiles on a file server**
 - Not hosted in modern GIS platforms
- No metadata or data ownership tracking
- Limited staff training (No ArcGIS Pro usage)
- No public zoning or development maps due to inaccurate data, creating barriers for **developers, planners, and residents**

What Did We Find?

City of Susanville top GIS priorities are:

Economic Development

- Updated zoning & parcels
- Sites available for development
- Utilities & infrastructure layers
- Fire hazard and safety overlays

Public Engagement

- Tourism & recreation maps
- Uptown business district StoryMaps
- Public web GIS viewers

Transportation

- Roads, sidewalks, bike lanes
- Bus routes & stops
- Snowplow routes

Sustainability

- Training
- Succession planning
- Data maintenance standards

What Did We Find?

Susanville Indian Rancheria (SIR)

- SIR is a federally recognized tribe with:
 - Trust lands
 - Housing
 - Healthcare
 - Cultural sites
 - Utilities
 - Transportation systems
- They **have GIS software** (via BIA & Esri Enterprise licenses), but:
 - Data is **20 years old**
 - Little staff capacity
 - No mobile data collection
 - No reliable utility, parcel, or asset layers
 - No secure handling of sensitive sites
- They rely heavily on the **City and County** for modern GIS support



What Did We Find?

SIR needs GIS to support:

Safety & Access

Roads, sidewalks, bus routes
Routes to clinics, jobs & schools

Cultural & Environmental Protection

Sacred sites
Archaeological areas
Cemetery boundaries

Utilities & Assets

Water lines
Power poles
Fire hydrants
Buildings

Economic Development & Tourism

Public engagement maps
Cultural StoryMaps

Governance

Data-sharing agreements
Security policies
Regular GIS coordination



What We Learned

- Every agency needs the same GIS data, but nobody owns a shared system to manage it.
- This results in:
 - Duplicate datasets
 - Outdated information
 - Risk during emergencies
 - Missed grant opportunities
 - Frustrated developers & residents
 - Lost institutional knowledge
- A **regional GIS platform** is the best cost-effective solution



What the Grant Funded (Phase II)

Phase II – Actualization of Findings

- Solutions, Data Accessibility, and Data Sharing Report
- Business Strategy
- *Data Sharing Tools (ArcGIS Hub)*
- *Applications (House within ArcGIS Hub)*



Solutions, Data Accessibility, and Data Sharing Report

Lassen County Transportation Commission | CA

Lassen County Transportation Commission
GIS Needs Assessment and Implementation



Business Strategy Report

Lassen County Transportation Commission | CA

Lassen County Transportation Commission
GIS Needs Assessment and Implementation



PLAN



DESIGN



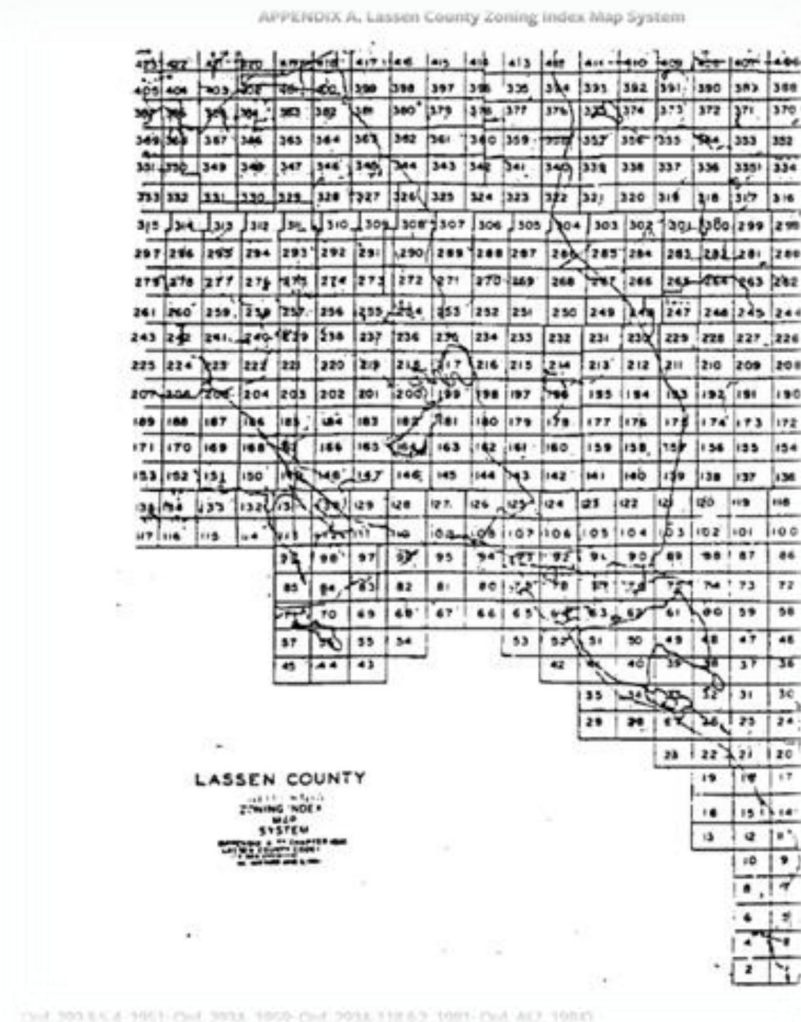
IMPLEMENT



MAINTAIN

Lassen County Zoning Layer Updates

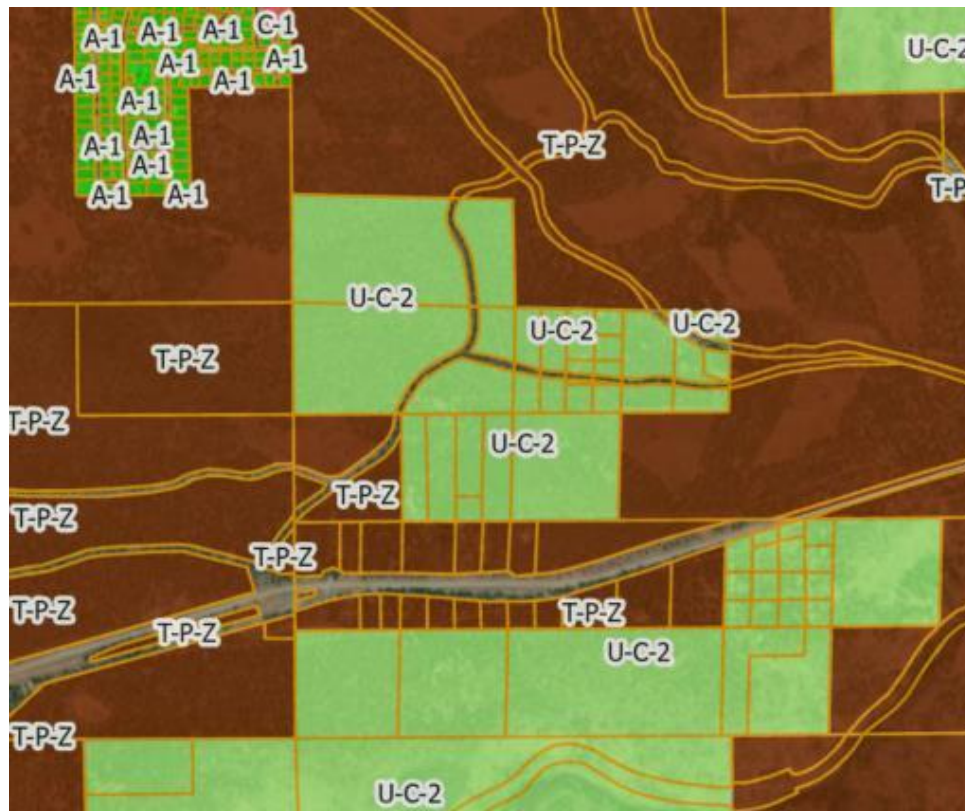
- Goals:
 - Update and publish zoning in a public web viewer
 - Transition from paper zoning index maps to GIS as the authoritative zoning source
- Zoning layer was originally created around 2012 by adding zoning as an attribute to parcels
- Data quality review was needed to verify accuracy of past updates



Ord. 393 & 5.4, 1951; Ord. 393A, 1959; Ord. 393A, 118 & 3, 1981; Ord. 402, 1983

Lassen County Zoning Layer Updates

Reviewed and updated GIS layer for all ordinances from 1951 to present
310 ordinances in total



ORDINANCE NO. 467-A-362 (Sierra Pacific Industries - #2006-059D)

RECLASSIFYING CERTAIN LANDS IN THE UNINCORPORATED AREA OF THE COUNTY OF LASSEN AS TO ZONING REGULATIONS

The following ordinance, consisting of four (4) sections, was duly and regularly passed and adopted by the Board of Supervisors of the County of Lassen, State of California, at a regular meeting of the Board of Supervisors held on the 12 day of May, 2009, by the following vote:

AYES: Supervisors Keefer, Pyle, Dahle and Hanson

NOES: None

ABSTAIN: None

ABSENT: Supervisor Chapman

[Signature]
Chairman, Lassen County Board of Supervisors

Attest: *[Signature]*
County Clerk

I, Susan Osgood, Clerk of the County of Lassen, State of California, and ex-officio Clerk of the Board of Supervisors thereof, do hereby certify that the foregoing ordinance was adopted by said Board of Supervisors at a regular meeting thereof on the 12 day of May, 2009.

[Signature]
Clerk of the County of Lassen, State of California
and ex-officio Clerk of the Board of Supervisors

September 24, 1965 in Book 201 of Lassen County Official records, at Page 679

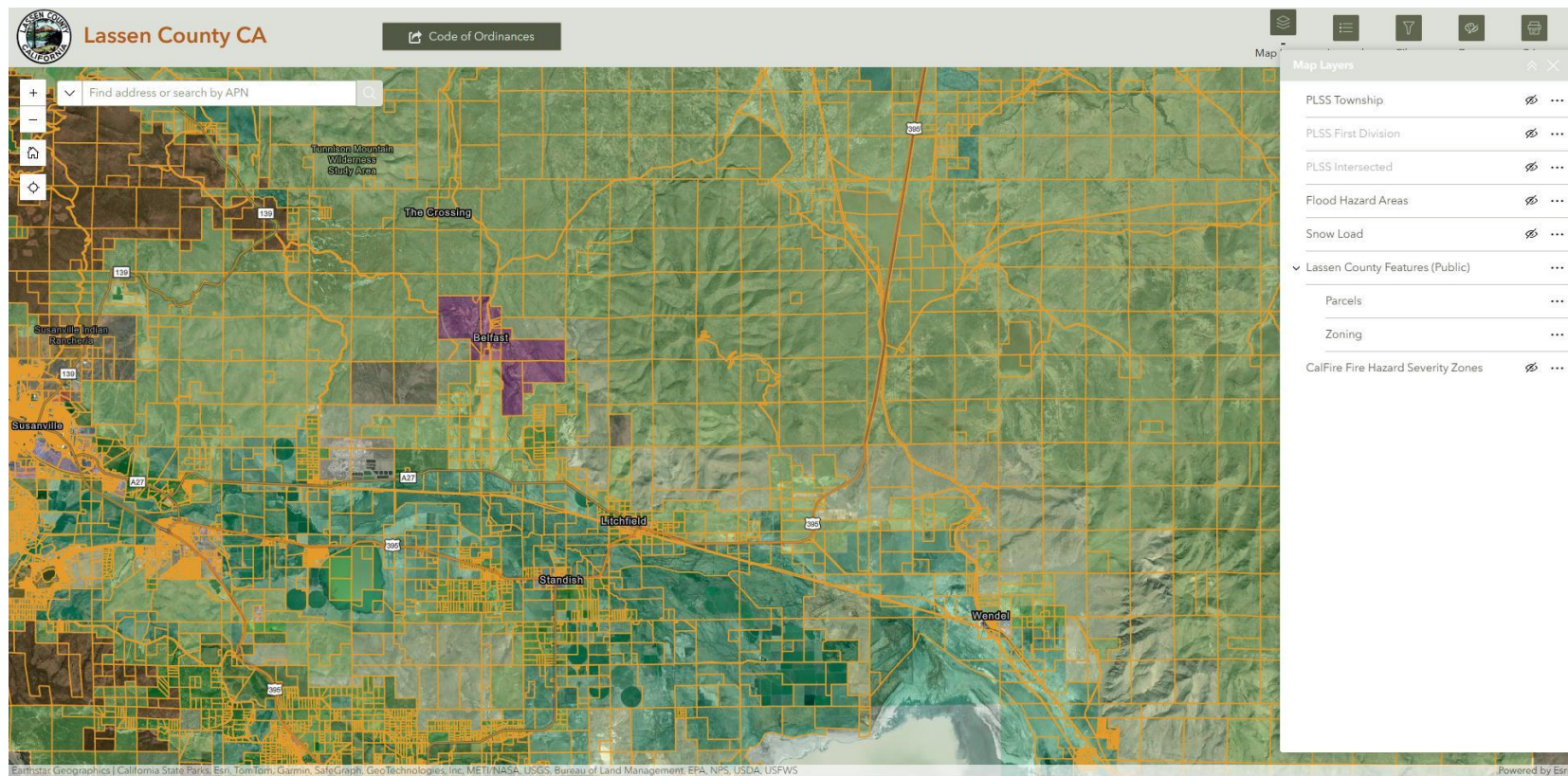
Section 34: The Southeast one-quarter of the Northeast one-quarter

Section 34: A portion of the North half of the south half of section 34, as described in document recorded in Book 203, Official Records, at Page 10, Lassen County.

any of the remaining portion of this Ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and every section, subsection, sentence, clause or phrase thereof, irrespective of the fact any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional or invalid.

Lassen County Zoning Layer Updates

Lassen currently finalizing review of zoning layer for public web viewer



Lassen County Zoning Layer Updates

THE BOARD OF SUPERVISORS OF THE COUNTY OF LASSEN, STATE OF CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION ONE: This ordinance shall take effect thirty (30) days from the date of its passage, and before the expiration of fifteen (15) days after its passage a summary shall be published with the names of the members voting for and against the same, once in a local newspaper of the County of Lassen, State of California.

SECTION TWO: Amend Section 18.10.020 to read as follows:

18.10.020 GIS Zoning Dataset

- (1) Map System Adopted – GIS Zoning Dataset. There is hereby adopted a Geographical Information System (GIS) dataset; the dataset is stored in Lassen's spatial database and comprises polygonal features that serve as a digital representation of the zoning districts within the jurisdiction of Lassen County.
- (2) Contents of GIS Zoning Dataset. These polygonal features contain attribute information delineating zoning districts and referencing the ordinance(s) which created them.
- (3) The zoning shown or described in the applicable zoning ordinance supersedes the zoning shown on the GIS Zoning Dataset. Any errors or zoning changes confirmed by the Planning and Building Services Department and/or the Planning Commission shall result in said GIS Zoning Dataset being appropriately updated as soon as possible. The process governing uncertainty described in Section 18.10.010 shall be followed.
- (4) The Lassen County Planning and Building Services Department is responsible for maintaining and updating the GIS Zoning Dataset, as needed.

SECTION THREE: Appendix A, Lassen County Zoning Index Map System, of Chapter 18.10, Establishment of Districts/Maps, is hereby deleted in its entirety.

SECTION FOUR: Section 18.10.030, Maps on file, is hereby deleted in its entirety.

SECTION FIVE: If any section, subsection, sentence, clause, or phase of this ordinance is for any reason held to be unconstitutional and invalid, such decision shall not affect the validity of the remaining portion of this ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and every section, subsection, sentence, clause or phrase thereof, irrespective of the fact any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional or invalid.



Drafted ordinance revision
going before the board in early
2026 to make GIS the
authoritative source of zoning
mapping.



Why this Matters

FASTER EMERGENCY RESPONSE

analytics **STORY MAPS** PUBLIC ENGAGEMENT

STRONGER ECONOMIC DEVELOPMENT

More Grant Funding

Safer Streets dashboards

BETTER TRANSIT ACCESS

REGIONAL COORDINATION

MAP VIEWER **More transparency**

What We Recommend



1. Establish a Regional GIS Data Hub

- Implement ArcGIS Hub or ArcGIS Enterprise as a centralized platform to manage, share, and access geospatial data. This will streamline workflows, improve transparency, and ensure stakeholders have access to authoritative information.



2. Adopt a Unified Data Governance Framework

- Define and enforce clear policies for data ownership, metadata, access controls, and compliance. A formal governance framework ensures data consistency, privacy, and regulatory alignment across departments and agencies.



3. Implement Monitoring and Reporting

- Establish audit trails, usage analytics, and performance metrics to monitor data quality, enhance accountability, and drive improvement in data practices.



4. Expand GIS Applications for Multimodal Transportation

- Develop applications that integrate walking, biking, transit, and ride-share data to identify service gaps and optimize connectivity. This promotes equitable access and supports climate resilience goals.



5. Strengthen Public Engagement through StoryMaps

- Create interactive maps and narratives using ArcGIS StoryMaps and Experience Builder to promote tourism, cultural awareness, and stakeholder input.



6. Use Digital Twin Technology for Planning

- Apply 3D GIS and simulation tools to model future development, test planning scenarios, and improve interagency coordination. Digital twins enhance strategic planning and public engagement.

Final Thoughts

These efforts aren't just reports; they're a launchpad.

- Identify implementation funding
- **Collect or assimilate authoritative data from internal/external sources.**
- Deploy ArcGIS Hub as the regional open data portal
- Finalize and implement data governance policies
- Build priority GIS applications for transportation, utilities, and planning
- Pilot StoryMap and digital twin projects for community engagement
- Monitor adoption and refine tools based on feedback and metrics

*This positions the region to move from **reactive data use** to **modern, data-driven governance**.*

