Proposal for GIS Database Design and Development Services
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1. Project Understanding & Approach

Our team recognizes the City of Metropolis' need for a robust, up-to-date GIS database to support pedestrian safety and ADA compliance. We propose an efficient, high-accuracy methodology incorporating automation, validation, and interactive mapping tools to ensure long-term usability. This project aims to develop a GIS geodatabase that maps city-maintained signs, pedestrian walk signals, and pedestrian hazards, ensuring ADA compliance and promoting safety and walkability.

2. Deliverables & Methodology

Deliverable 1: ADA Overview & Hazard Definition

- Conduct a comprehensive review of ADA compliance standards at national and local levels.
- Establish a framework for identifying pedestrian hazards such as sidewalk obstructions, curb cuts, and signal deficiencies.

Deliverable 2: Database Validation & Up-to-Date Check

- Inspect the city's databases (traffic control device database, complaint database, and GIS layers) to identify any notable issues.
- Implement automated scripts to identify discrepancies and verify the accuracy of current datasets.

Deliverable 3: Assessment of Citizen Complaints

- Analyze the complaint database to identify recurring issues.
- Cross-reference complaints with field verification and geospatial data to identify unmarked hazards.

Deliverable 4: Mapping of Hazards

- Develop geodatabase feature classes for all identified hazards.
- Capture GPS and attribute data for each hazard location.

Deliverable 5: Mapping of Walk Signals

- Generate a geospatial dataset of pedestrian walk signals.
- Classify signals by operational status, condition, and manufacturer details.

Deliverable 6: Hazard Prioritization by Frequency & Severity

- Rank hazards using a severity-weighted risk analysis.
- Identify high-priority areas for intervention based on frequency and location.

Deliverable 7: Stakeholder Feedback & Reporting

- Develop an interactive web-based dashboard for city officials.
- Provide detailed reports with insights for decision-making.

Deliverable 8: Public-Facing Dashboard & Accessibility

- Integrate all hazard and walk signal maps into a user-friendly dashboard.
- Develop a public-facing interactive map to improve community awareness and engagement.

Deliverable 9: Quality Control & Testing

- Conduct pilot testing in selected areas.
- Refine database structures and methodologies based on stakeholder input.

Deliverable 10: Long-Term Usability & Documentation

- Implement a structured quality control process to verify data accuracy.
- Conduct field validation checks and geospatial analysis for data integrity.
- Ensure consistency across datasets before final deployment.
- Produce a comprehensive manual to guide future agency personnel in independently updating and maintaining the database.

3. Schedule & Staffing

Our team will complete the project within a **10-week** structured timeline, ensuring all tasks align with project milestones. Each deliverable will be managed by a dedicated team member, as follows:

Deliverable	Lead Role	Estimated Duration (Days)
ADA Overview & Hazard Definition	Cristina	3
Database Validation & Updates	Riley	4
Citizen Complaint Validation	Claire	4
Hazard Mapping	Riley	6
Walk Signal Mapping	Cristina	4
Prioritization Analysis	Claire	6
Stakeholder Reporting	Riley	3
Public-Facing Dashboard	Claire	5
Quality Control & Final Validation	Cristina	5
Manual & Long-Term Usability	Riley	5

4. Pricing Proposal

Our cost structure follows a fixed-price model at $100/hour. Below is the breakdown:

Deliverable	Estimated Hours	Cost (@$100/hr)
ADA Overview & Hazard Definition	24	$2,800
Database Validation & Updates	32	$2,600
Citizen Complaint Validation	32	$3,200

Hazard Mapping	48	$4,800
Walk Signal Mapping	32	$3,200
Prioritization Analysis	48	$4,800
Stakeholder Reporting & Feedback	24	$2,400
Public-Facing Dashboard	40	$2,500
Quality Control & Final Validation	32	$2,000
Manual & Long-Term Usability	32	$3,200
Before Overhead Cost **Final Total**	**344**	**$28,300** **$33,470**

5. Conclusion

Our proposal balances accuracy, efficiency, and usability to provide the City of Metropolis with a GIS database that is both comprehensive and actionable. By integrating a public-facing dashboard and providing a structured training manual, we ensure the long-term sustainability of the system. Our structured approach, cost-efficient model, and attention to detail position us as the best value option for this project. We look forward to collaborating with the city to enhance pedestrian safety and ADA compliance through high-quality geospatial analysis.