

GeoGurus



Taking Geo-Spatial Analysis to a Higher Power

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Wimberley Market Days

Site Addressing and Management Analysis

Prepared for Wimberley Lions Club
By GeoGurus – Spatial Analysts

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Introduction

Summary:

The Wimberley Lions Club owns and operates Wimberley Market Days, the second largest flea market in Texas, which is known and cherished for its unique spatial layout and characteristics. The Wimberley Market Days generate capital for donations to Texas Lions Camp for crippled children, scholarships, student foreign exchange and Lions International charities. GeoGurus have identified several areas in which we can assist the Lions Club in the management of Wimberley Market Days. Using geospatial analysis and techniques, GeoGurus will improve the efficiency of operations at Wimberley Market Days and therefore contribute to an increased Wimberley Lions Club donation budget.

Purpose:

Wimberley Market Days has expanded to its current size of about 475 booths since it began at Lions Field in 1972. All booths vary in size and shape, and the arrangement of the numbering system, sequential in order of construction, leads to no decipherable pattern. Vendors and customers have a hard time finding their way around on the day of the event.

GeoGurus will revise the current vendor booth numbering system into a user-friendly, easily-identifiable, sectioned classification system. This system will include a list of amenities for each booth.

GeoGurus will complete a series of cartographic products. These maps will clearly display the new vendor booth addressing system, permit rapid identification of booth attributes and facilitate the identification of booths available for day rental.

Scope:

The study area consists of the Wimberley Lions Club properties in Wimberley, Hays County, Texas. The properties consist of the market area (Lions Field), which is approximately 12.3 acres, and two additional parking lots, which are approximately 6.8 acres altogether.

The Lions Club properties are located on RR 2325 in Wimberley, TX, about 15 miles northwest of San Marcos and 40 miles southwest of Austin. Wimberley is situated at the eastern edge of the scenic central Texas hill country.



Proposal

Data:

The Wimberley Lions Club has provided:

- Base map (.dwg)
- Booth attributes (.xls)
- Various check-in spreadsheets (.xls)
- Organizational Flowcharts

GeoGurus will collect:

- Aerial Imagery
- Global Positioning System (GPS) Data
- Vendor Booth Attribute Information

Methodology:

GeoGurus will conceive a rational index/address system for the enumeration of vendor locations throughout the market site. The index system will codify areas of the market-grounds into similar regions and then address each individual vendor, facility and maintenance location. This system will be extensible to accommodate changes and expansions.

The Wimberley Lions Club has provided a digital base map of the facility created with computer aided design (CAD) technology. This map has a .dwg extension; the scale of the map is unknown. Environmental Systems Resource Institute (ESRI) ArcGIS will be used to geo-reference the base map to the aerial imagery and GPS point locations. By geo-referencing the base map, scale can be established.

GeoGurus will conduct a comprehensive survey of the site. This survey will:

- Confirm the accuracy of the attribute list
- Confirm the accuracy of the base map (i.e. are all vendor locations included)
- Establish an intimate knowledge of the area, which is essential in order to create a logical addressing schematic
- Collect GPS data points
- Determine if additional data is required (i.e. hypsology, hydrography, utility, etc.)

GeoGurus will develop a series of maps for the Wimberley Lions Club. These maps will be divided into two categories: static and dynamic.

The static maps will be developed using ESRI ArcGIS and the Adobe Design Suite. ArcGIS will be used to pre-process data, to remove unnecessary graphics, manipulate the file format. Adobe products will be used to refine the finished product. The static maps will display the new index/address system to help people find their way through the market.

The dynamic maps will be developed using ESRI ArcGIS, the Adobe Design Suite and will be delivered via open-web technology. ArcGIS will be used to design and implement a database of booth attributes relating to the addressed map locations. Each location will then be able to be visualized on a screen displaying both booth attributes and daily availability.

Implications:

Developing a new index/address system will:

- Assist Lions Club volunteers and customers to better orient themselves within the market and reach specific destinations in less time.
- Facilitate emergency services, such as ambulances or fire services, when needed on site.
- Improve the overall Market Day experience.

The development of dynamic web based maps will facilitate the morning check-in process. The dynamic maps will:

- Readily display booth availability.
- Permit rapid identification of booth attributes to vendors.

Budget:

Data Collection

Total hours (10 hours/week * 2 weeks * 3 consultants + 7 hours/week * 2 weeks * 1 consultant + 5 hours/week * 2 weeks * 1 consultant)	84
Hourly Rate	\$22.00
Total	\$1,848.00

Data Analysis / Database Design

Total hours (10 hours/week * 8 weeks * 2 consultants + 10 hours/week * 4 weeks * 1 consultant (webmaster) + 7 hours/ week * 8 weeks * 1 consultant + 5 hours/ week * 8 weeks * 1 consultant)	296
Hourly Rate	\$24.50
Total	\$7,252.00

System Management

	Web Developer	
Total Hours		40
Hourly Rate		\$31.00
Sub-Total		\$1,240.00
	Assistant Manager	
Total Hours		30
Hourly Rate		\$43.25
Sub-Total		\$1,297.50
	Project Manager	
Total Hours		50
Hourly Rate		\$65.00
Sub-Total		\$3,250.00
Total		\$5,787.50

Equipment Costs (for 10 weeks)

Supplies (\$150/workstation * 5 workstations)	\$1,200.00
Maintenance (\$200/workstation per year * 5 workstations / 12 months * 2.5 (months equipment will be in use)	\$ 208.33
Depreciation (\$20,000 [total value of equipment]/36 (equipment life in months) * 2.5 (months equipment will be in use)	\$ 1,388.89
Total	\$ 2,797.22

Data and Software

Design Software	\$ 799.95
Software license for 10 weeks (\$35,000 per year/12 * 2.5 (months in use))	\$ 7,291.67
Total	\$ 8,091.62

Travel Expenses

1000 miles @ \$0.40 cents/mile	\$ 400.00
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TOTAL COSTS

\$26,176.34

Timetable:

	February		March				April			
<i>The Week Ending On</i>	22	29	7	14	21	28	4	11	18	25
<i>Task</i>										
Data Collection	X	X								
Analysis/Database Design		X	X	X	X	X	X	X	X	
Website Development							X	X	X	X
Database Implementation							X	X	X	X

Final Deliverables:

Detailed Report –

- Two Hard Copies
- Data CD/DVD
 - Static Maps in three different sizes (PDF format)
 - Dynamic Mapping System
 - All Data
 - Metadata
 - Instructions Explaining Database System
 - Readme File
 - Report
 - Poster
 - Power Point Presentation

Conclusion:

Establishing a new addressing system for Wimberley Market Days along with static and interactive mapping products, GeoGurus will increase the efficiency of the Lions Club management. The addressing system will direct Markets Days staff, vendors and customers throughout the site with static maps. The dynamic maps will assist Market Days staff in the day vendor check-in process. The implementation of these final products can be built upon in the future should Market Days expand or alter either their site or management.

Participation:

Patrick Wild – Data, Methodology, Final Deliverables, Conclusion

Jessica Spangler – Summary, Scope, Implications, Final Deliverables

Brad Smilgin – Logo, Purpose, Scope, Final Deliverables

Jonathan Flores – Summary, Methodology, Timetable, Final Deliverables

Dennis Wilson – Budget, Final Deliverables