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The material within is intended to give the course participant a solid understanding of general principles in the subject area. As such, the material may not necessarily reflect the official procedures and policies of the Georgia Department of Revenue or the Department's official interpretation of the laws of the State of Georgia. The application of applicability to specific situations of the theories, techniques, and approaches discussed herein must be determined on a case-by-case basis.

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CAVEAT 2017

GIS and CAMA

Mark Lovett & Rusty Scoven

What is GIS?

- In a general sense, the term describes any information system that integrates, stores, edits, analyzes, shares, and displays geographic information.

- GIS applications are tools that allow users to create interactive queries (user-created searches), analyze spatial information, edit data in maps, and present the results of all these operations.

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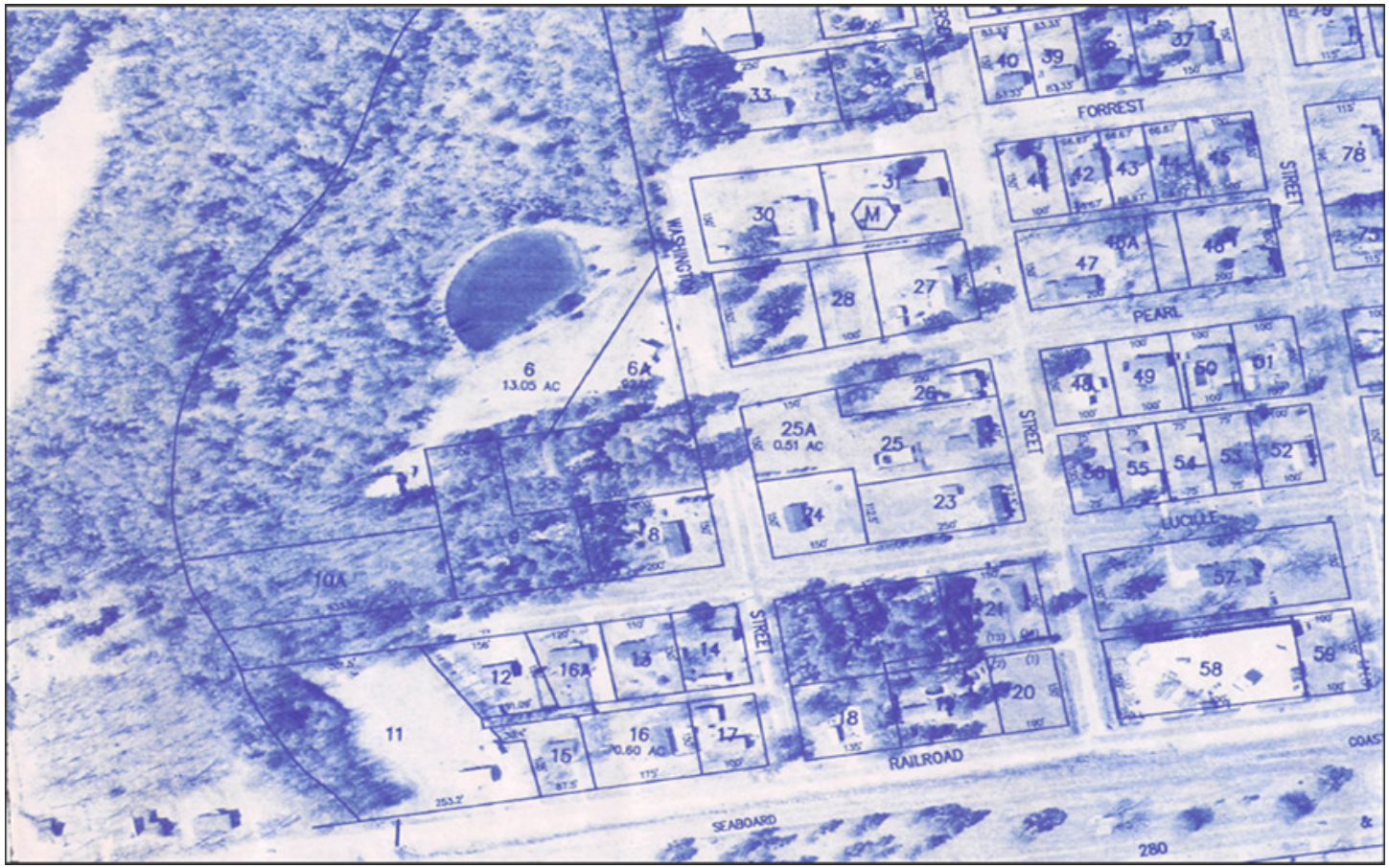
Before GIS….



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DID YOU KNOW?

DOR has on staff one of the first TAO appraisers in Georgia to use GIS?

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Kenny Colson
Stone Age GIS User

Looks more geologic than geographic

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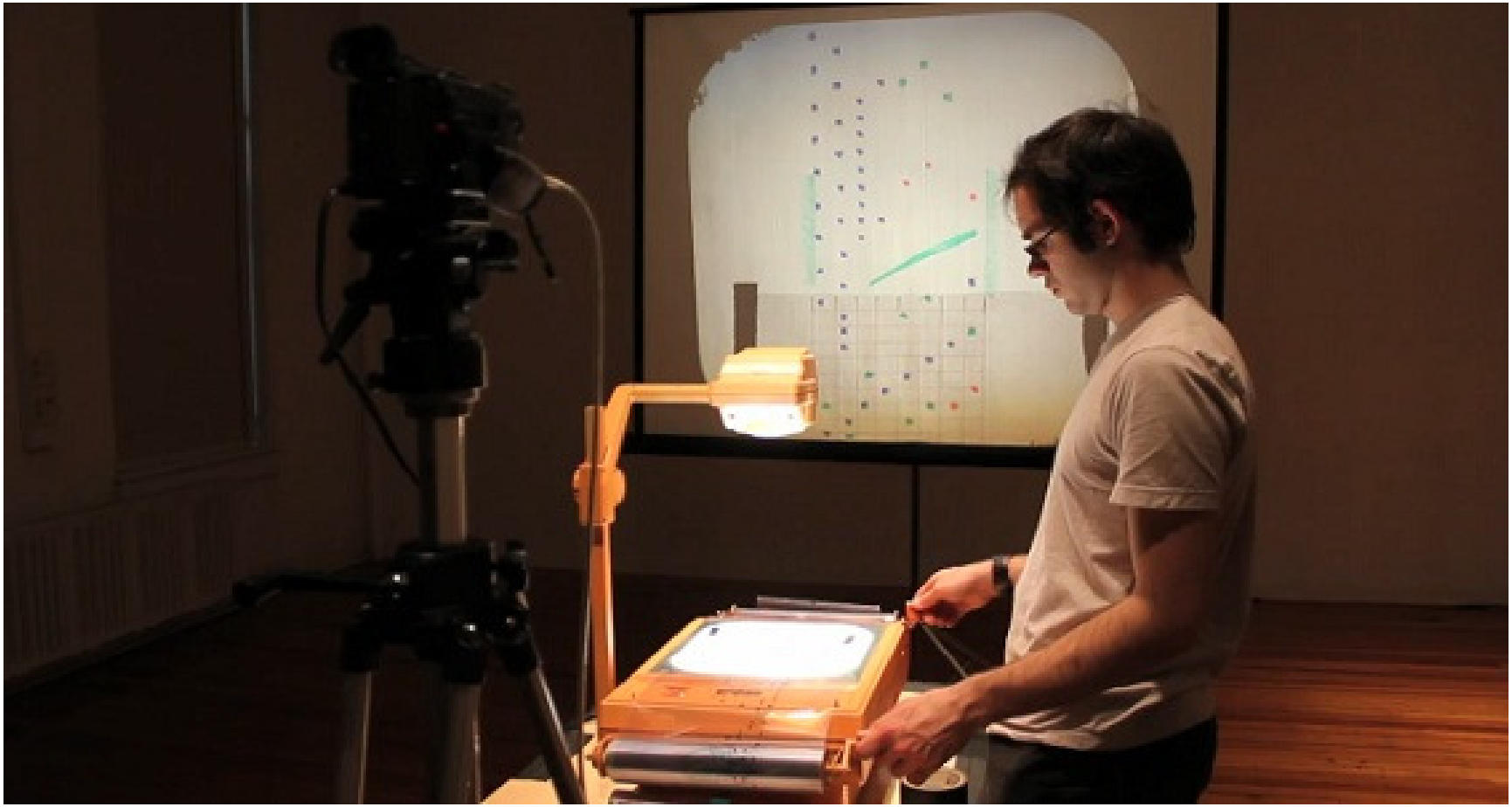
Remember when….



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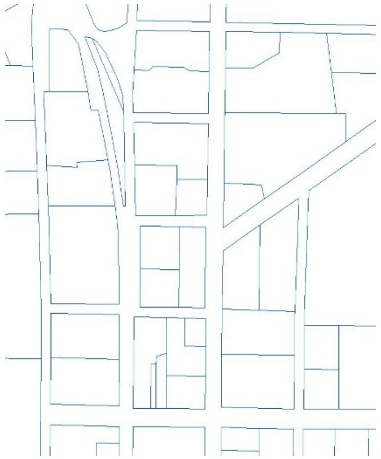
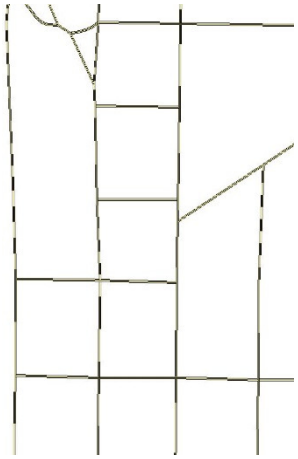
GIS Layers Example

Aerial Photo +

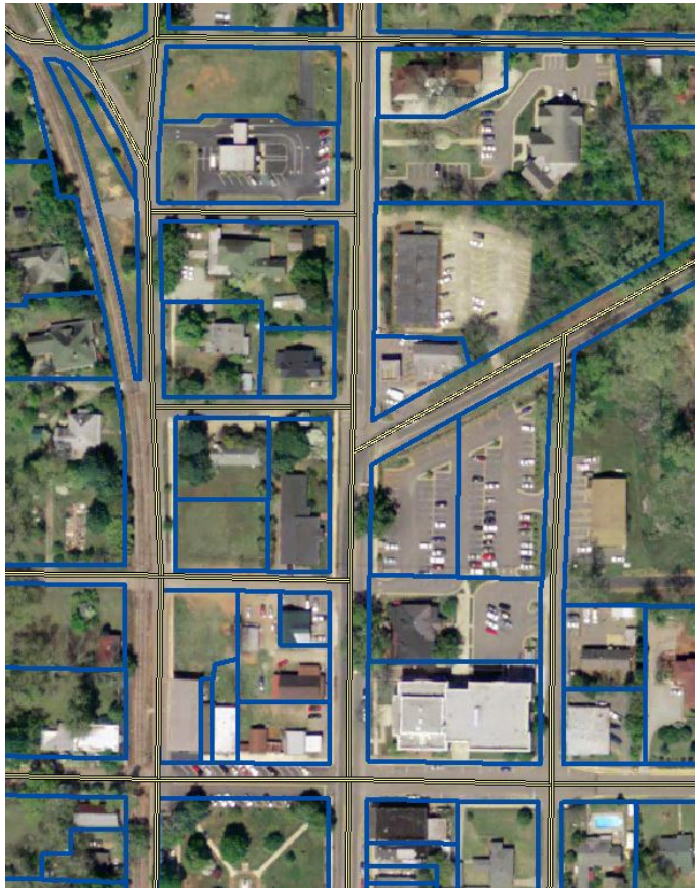


Parcel Lines +



Roads

=



Layers

- **Layer** - Layers are the mechanism used to display geographic datasets. Each layer references a dataset and specifies how that dataset is portrayed using symbols and text labels.

- **Attribute Table** – Table that holds information about the layer(*E.g. Acres, Longitude/Latitude, Address*).

Types of Layers

- **Points** – Typically used to represent a point of interest. (E.g. Fire hydrant, Water Tower)

- **Lines** - Typically used to represent a item too thin to be a polygon. (E.g. Street Centerline, Water Main, RR Track)

- **Polygon** - Typically used to represent a item that is big enough to have boundaries. (E.g. Parcels, Lakes, Structures)

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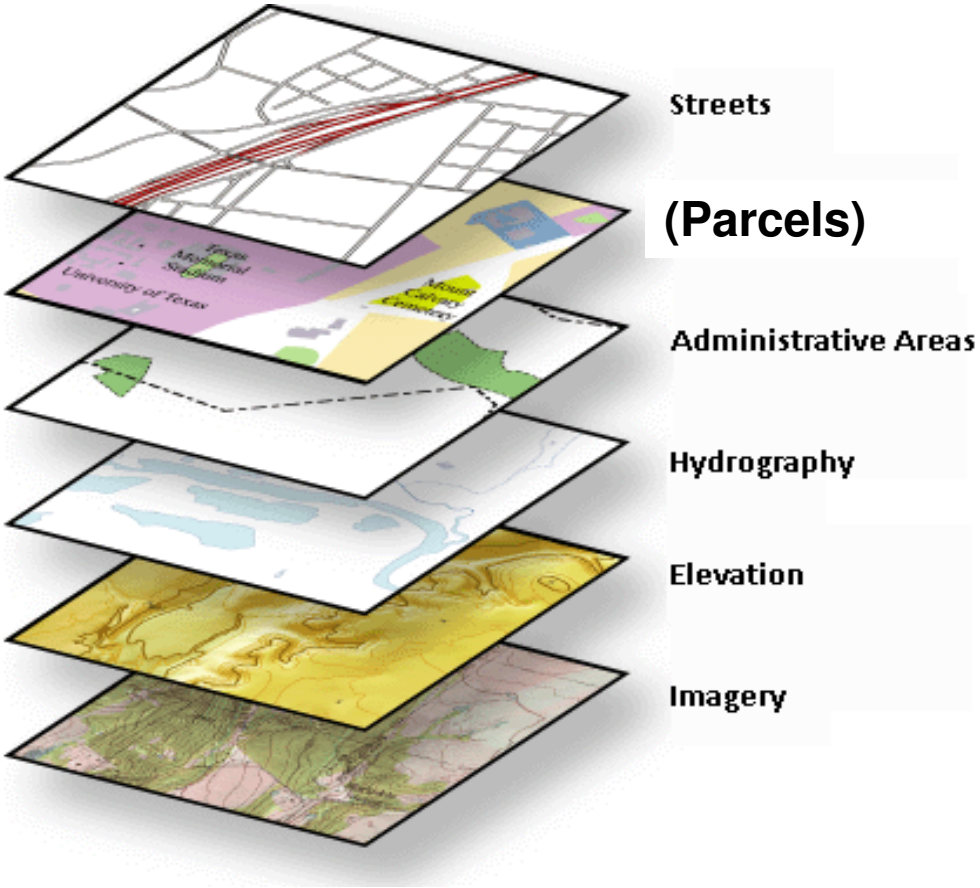
Yes, but why is GIS different from our paper maps?



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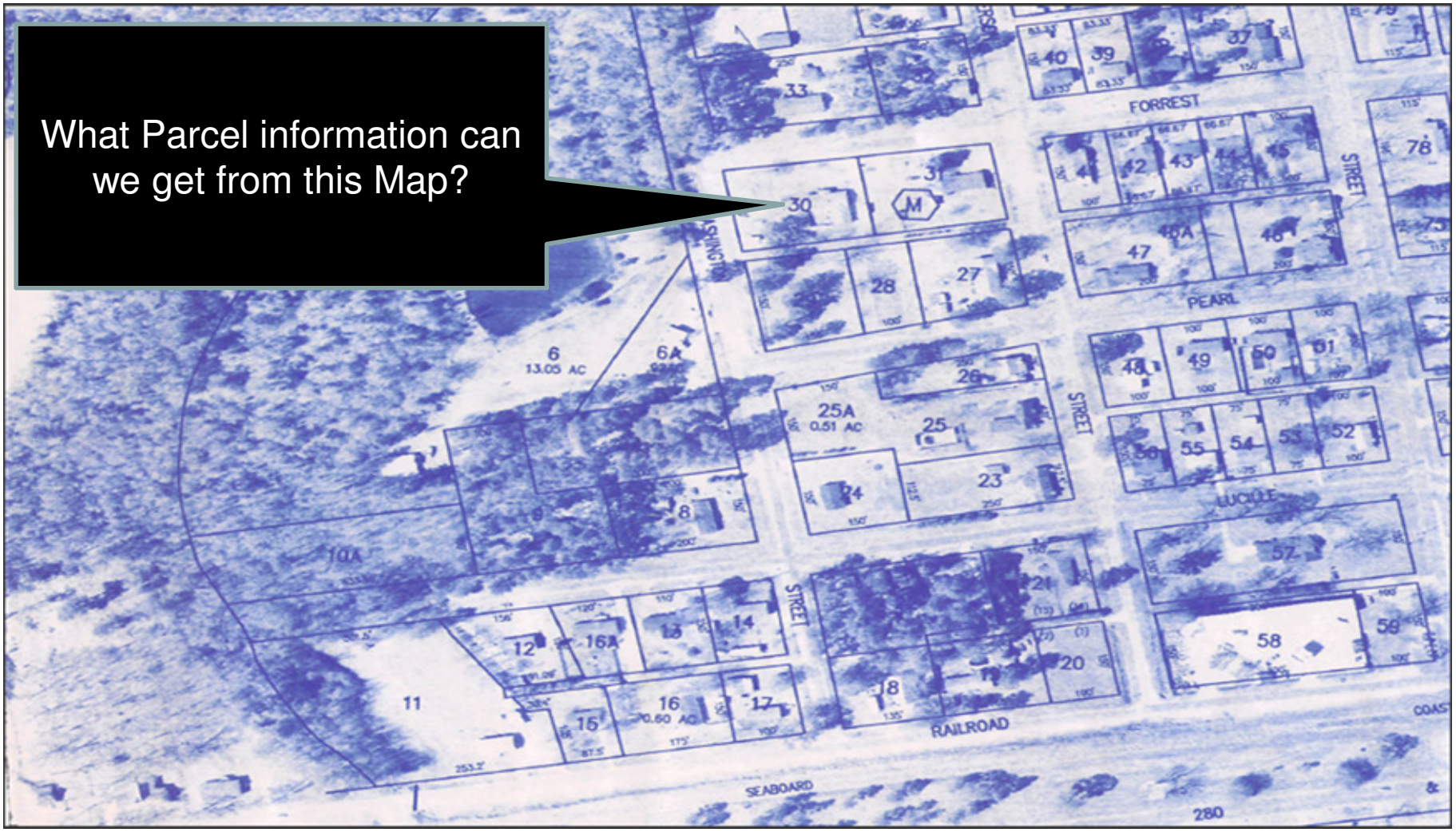

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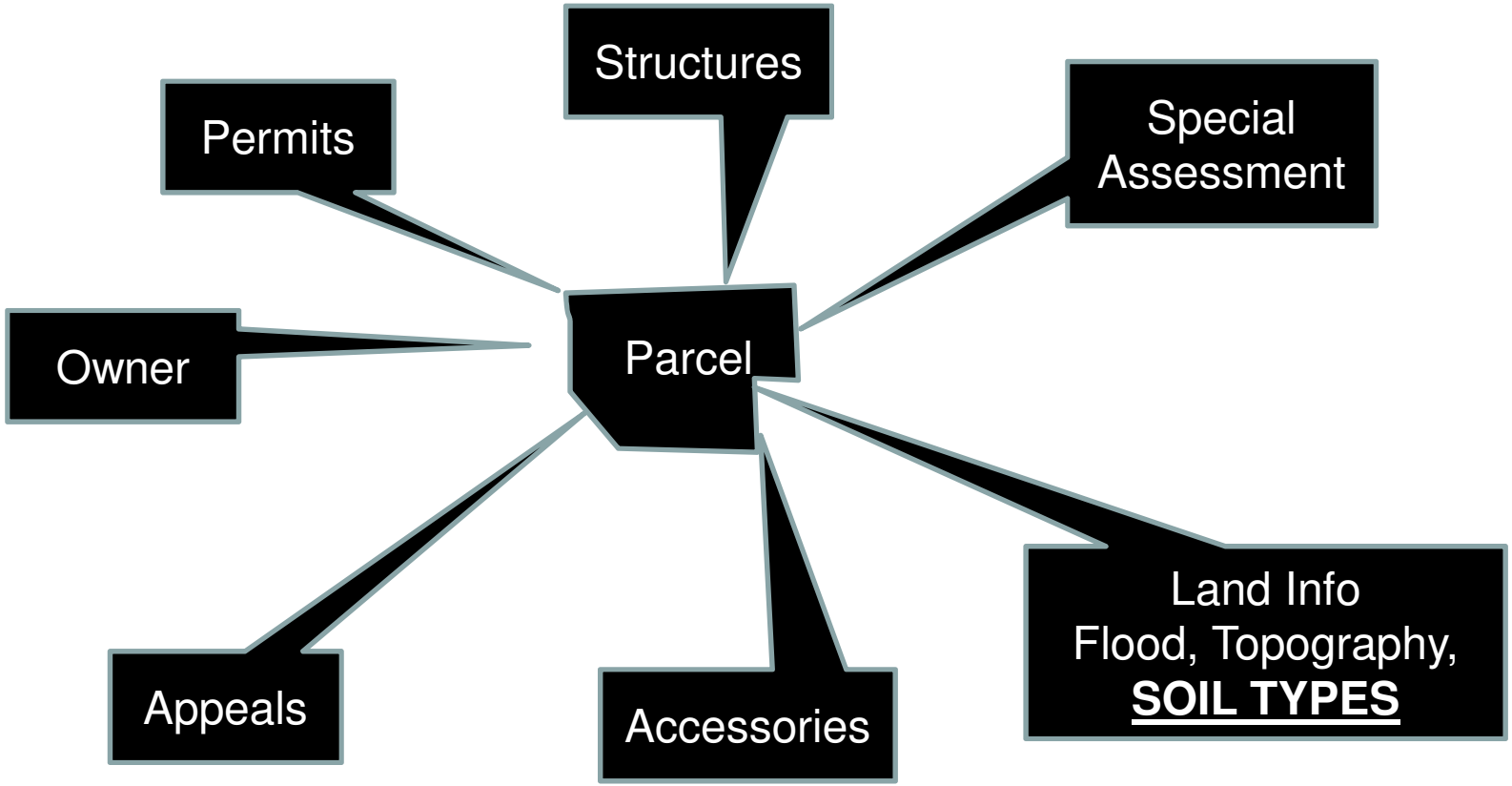

Information Relationship

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Spatial Relationship –

GIS Layers are connected by their location in the world

Questions: How many houses are within a one mile radius?

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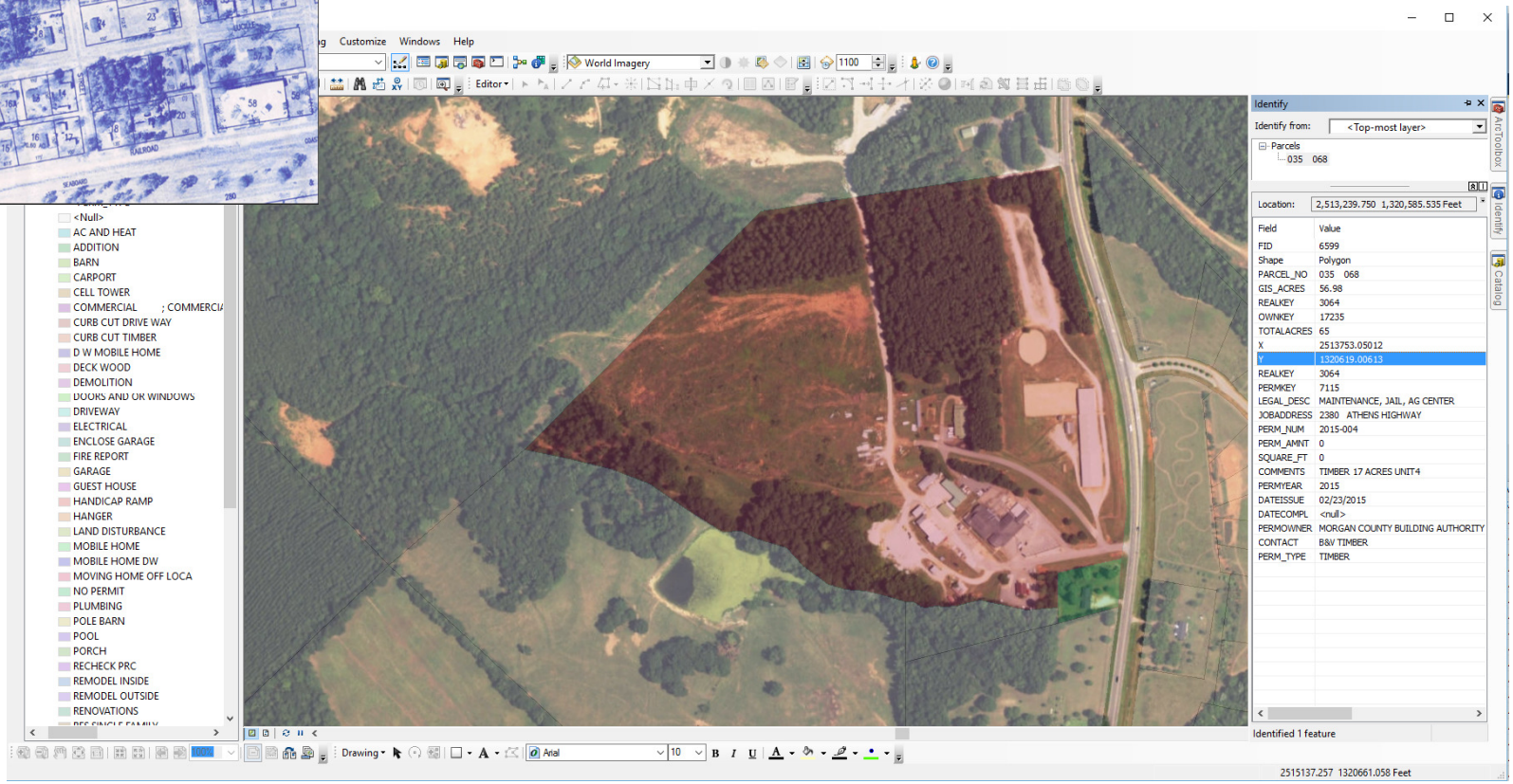
GIS VS Paper Maps



560-11-10-.09

New aerial photographs should be compared to previous aerial photographs to discover new or previously unrecorded construction.

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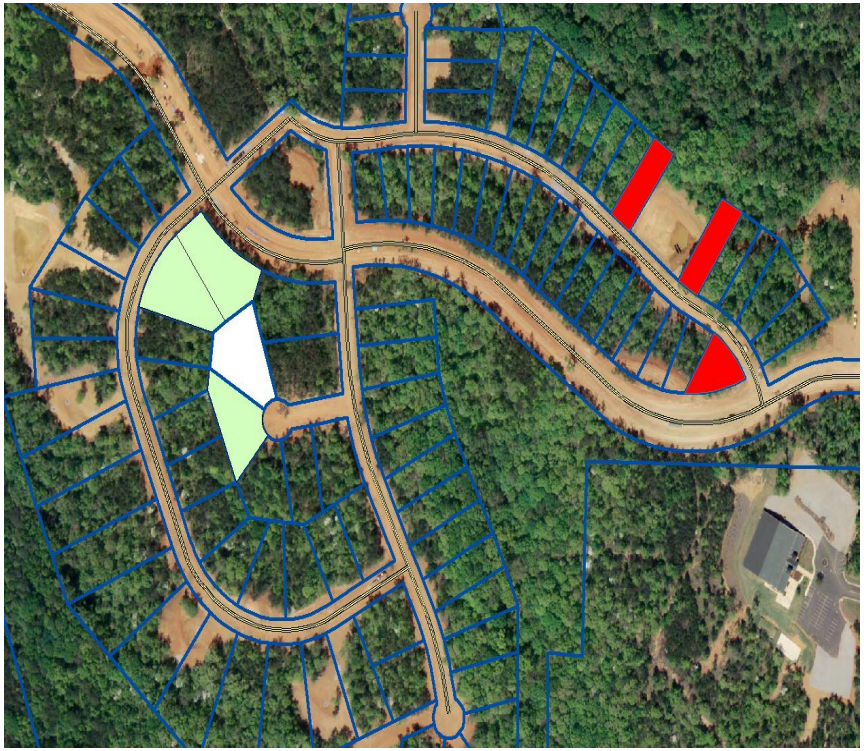
Which makes the most impact?

Map showing comps



Spreadsheet showing comps

A	B	C	D	E	F	G	H	I	J	K	L	M
18607	22086	029 006 00	14	1	45000	215134	2584	1	1.4	5/15/2015	242000	FM
18608	22267	029 006 00	14	1	45000	352589	2927	1	1.25	8/31/2015	301300	FM
18615	22264	029 006 01	14	1	45000	276295	2682	1	1.4	9/10/2015	251300	FM
18616	22087	029 006 01	14	1	45000	286110	2872	1	1.35	5/15/2015	249900	FM
18008	14484	083 005 00	230	1	64000	275053	3890	1	1.5	4/13/2015	265000	FM
20503	21971	083 005 01	230	1	64000	318000	4058	1	1.65	6/17/2015	398000	FM
20504	21972	083 005 01	230	1	64000	276600	3181	1	1.55	12/29/2015	350000	FM
18554	16282	083 005 01	230	1	68500	243043	3207	1	1.45	10/29/2015	323000	FM
20506	22503	083 005 01	230	1	64000	288600	3357	1	1.55	12/31/2015	363770	FM
18559	22431	083 005 01	230	1	68500	341880	3834	1	1.7	11/5/2015	420000	FM
18560	21977	083 005 02	230	1	68500	268080	3486	1	1.6	12/18/2015	348900	FM
19298	21976	083 005 02	230	1	68500	289440	3668	1	1.6	4/13/2015	338000	FM
19245	20721	083 005 03	230	1	64000	289080	3552	1	1.7	7/31/2015	368900	FM
19251	21283	083 005 04	230	1	64000	295200	3922	1	1.65	11/5/2015	370000	FM
19256	21285	083 005 04	230	1	64000	308880	4799	1	1.65	1/30/2015	384900	FM
19643	21994	058 025 00	785	1.08	13000	172954	2596	1	1.3	12/28/2015	191500	FM
19649	22523	058 025 00	785	1.08	13000	178718	2493	1	1.35	10/15/2015	199850	FM
19652	22522	058 025 01	785	1.08	13000	170003	2473	1	1.3	10/16/2015	188500	FM
19657	21964	058 025 01	785	1.08	13000	144945	1550	1	1.3	10/16/2015	159900	FM
19665	22001	058 025 02	785	1.08	13000	174493	2481	1	1.3	2/27/2015	194500	FM
19669	22595	058 025 02	785	1.08	13000	178200	2435	1	1.35	12/10/2015	196700	FM
19676	22235	058 025 03	785	1.08	13000	169874	2527	1	1.3	7/28/2015	185200	FM
19684	21732	058 025 04	786	1.08	15000	227837	2650	1	1.45	9/25/2015	250000	FM
19692	21965	058 025 05	786	1.08	15000	224275	3802	1	1.3	3/26/2015	252400	FM
19706	22188	058 025 06	786	1.08	15000	215914	2934	1	1.4	5/4/2015	240000	FM
19708	21759	058 025 06	786	1.08	15000	245074	3664	1	1.45	6/16/2015	255000	FM
19711	22276	058 025 06	786	1.08	15000	187142	2591	1	1.35	9/11/2015	212500	FM
19713	22278	058 025 07	786	1.08	15000	201658	2870	1	1.35	8/13/2015	228920	FM
19718	22242	058 025 07	786	1.08	15000	215654	3108	1	1.4	12/29/2015	240000	FM
19725	22214	058 025 08	786	1.08	15000	193752	2594	1	1.4	6/2/2015	217500	FM
19728	21329	058 025 08	786	1.08	15000	196603	2684	1	1.4	10/27/2015	219900	FM
19729	22208	058 025 08	786	1.08	15000	200491	2830	1	1.35	5/12/2015	222100	FM

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How about other uses: *CUV / FLPA 2 Acre Exclusions*

(a) Property that otherwise qualifies for current use valuation as bona fide agricultural property shall exclude the entire value of any residence and its 'underlying property'. This provision for excluding the 'underlying property' of a residence from eligibility in the conservation use covenant shall only apply to property that is first made subject to a covenant or is subject to the renewal of a previous covenant. Additionally, the taxpayer shall provide any one of the following types of legal descriptions regarding such 'underlying property':

1. A plat of the 'underlying property' prepared by a licensed land surveyor, showing the location and measured area of the 'underlying property' in question;

2. A written legal description of the 'underlying property' delineating the legal metes and bounds and measured area of the 'underlying property' in question; or

3. Such other alternative property boundary description as mutually agreed upon by the taxpayer and county assessor. An acceptable alternative property boundary description may include a parcel map drawn by the county cartographer or GIS technician.

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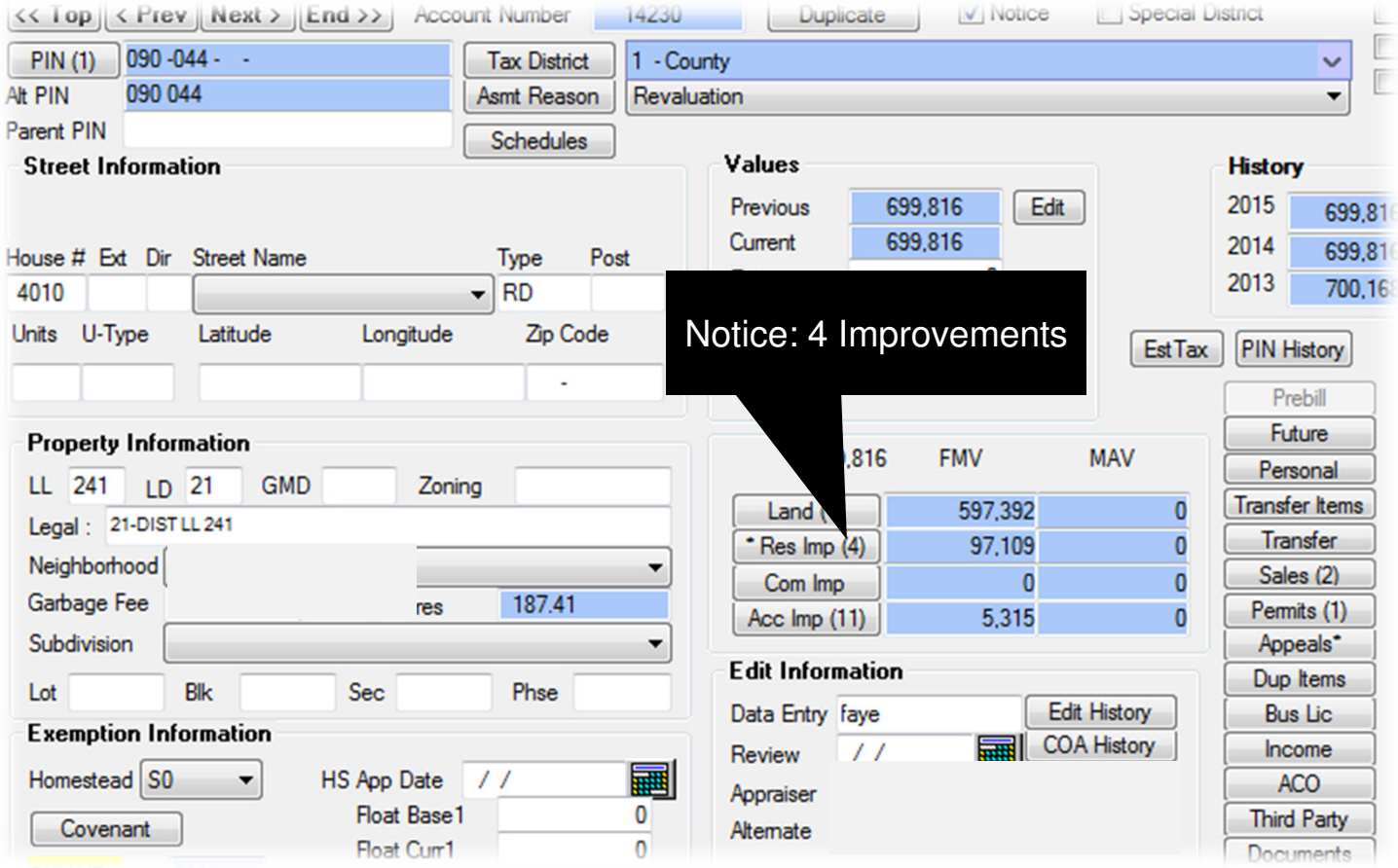

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Remember 2 Acre Exclusion for Each Living Structure

Class: Conservation Use
Strat: Large Tracts
Land Use: Urban / Rural
Total Acres: 187.41
Calculated Acres: 187.41
Override Acres: 0.00
Ovr Date: / /

COV OVR: 0
Total OVR Value: 0
Land Value: 597,392
Last Calc: 597,392
3188 / acre

Acc/Des: 2 C
Ovr Rsn:

Land Influences

4 Improvements x 2 Acres Each, should be 8 Acres, Correct?

Landuse	Productivity	Acres	Ag/Rsvd
Open Land	5	6.00	Ag
Open Land	5	151.41	CUV
Woodlands	4	30.00	CUV

Add subrec
Del subrec
Delete All
Apply Subs

Land Characteristics
Topography
Water
Sewer
Gas
Electricity
Road or Street
Road Class
District Drainage
Neighborhood Status
Zoning

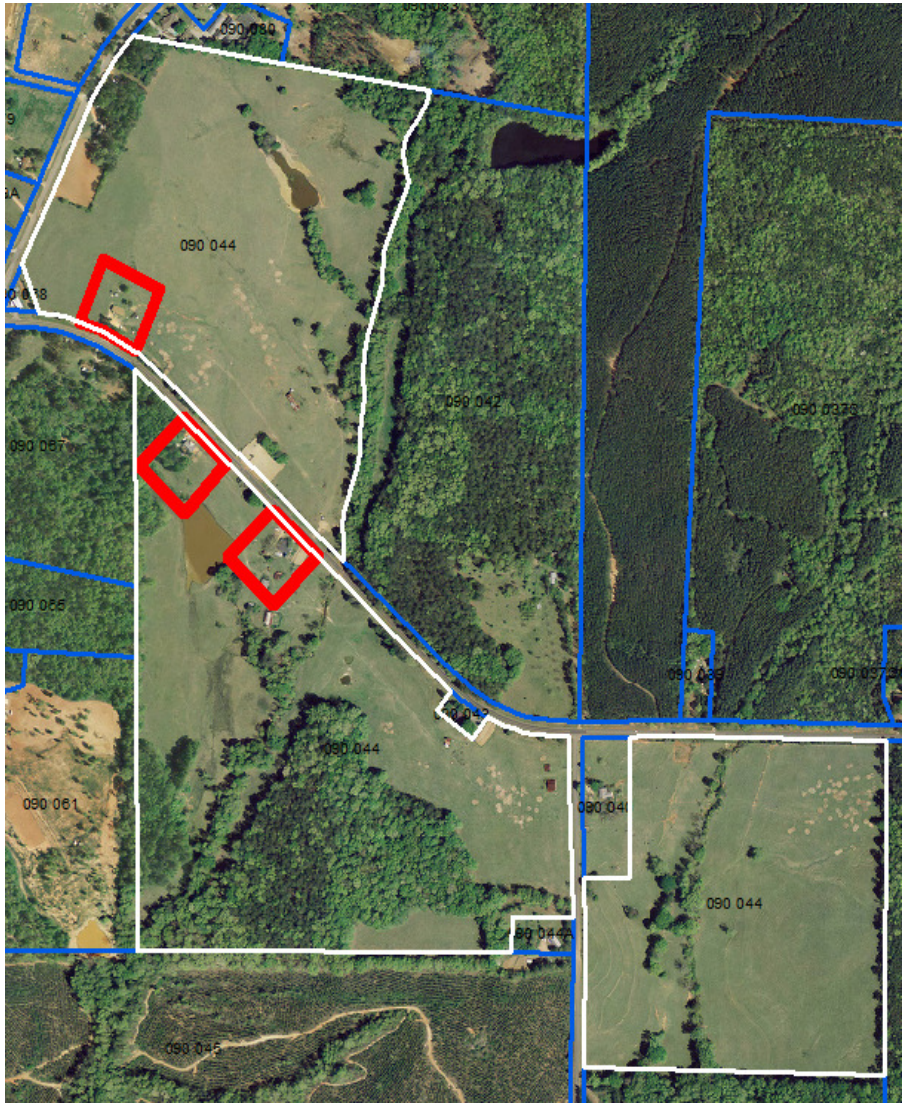
Urban Subrecords
S/D
Front Lot
Back Lot

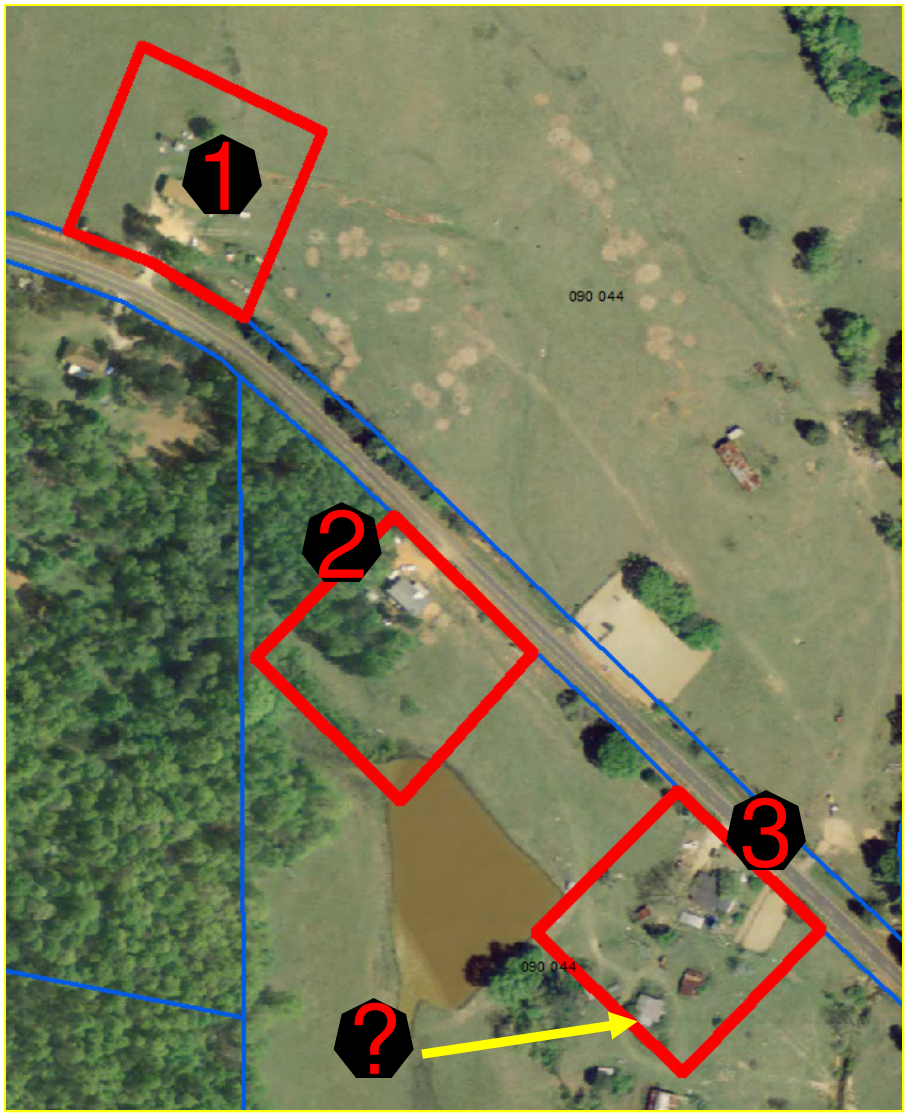
Frontage	0	Eff Frontage	0
Depth	0	Depth Table	
Feet from St	0	Sq Feet	0
Acres - Calc	0.00	Subrec Infl	0.00
Acres - Actual	0.00	Subrec Value	0
Lots / Units	0	Depth Factor	0.0000
		Unit Value	0.0000
Non-CUV		Excessive Factor	0.0000
Excessive Units	0.0000		

Edit Subs
Complete Edits
Comments

Rural Subrecords
Land Type: Open Land (1)
Productivity: 5
Acres: 6.00
$ / Acre Ovr: 0
Unit Value
Subrec Value
Non-CUV

We can now determine which structure is missing the excluded 2 acres





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Is anybody using this GIS stuff in Mass Appraisal????

Google

gis mass appraisal

All News Images Maps Shopping More Search tools

About 145,000 results (0.92 seconds)

GIS for Land Administration | CAMA Integration - Esri
www.esri.com › Industries Esri
Esri unlocks powerful spatial analysis by integrating powerful mapping and analysis capabilities with your CAMA database. ... ArcGIS for Desktop is the mapping platform for detailed analysis of CAMA data, enabling new analysis, error detection, and defendable results.

[PDF] International Guidance Paper on Mass Appraisal of Real Property
www.iaao.org/uploads/Draft_Intl_Mass_Appr_paper_812012.pdf
This paper addresses **mass appraisal** procedures by which property can be appraised at ... when they constitute part of a **geographic information system** (**GIS**).

GIS-Based Mass Appraisal Model for Equity and Uniformity of Rating ...
www.academia.edu/.../**GIS**-Based_**Mass_Appraisal**_Model_for_Equity_... Academia.edu
UTM-IBIMA International Real Estate Conference (INTEREC 2012), Kuala Lumpur, Malaysia, June 9th – 10th 2012 **GIS**-Based **Mass Appraisal** Model for Equity ...

“Analyzing data with GIS is like playing the piano. Somebody else has done the difficult job of making the tools, you just need to know what buttons to push!"