

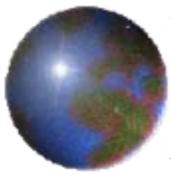
GIS Parcel Boundary Layer

Before



After





Tucson Area GIS Cooperative Web Portal

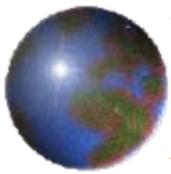
What's the problem?

We would like
to get from here.



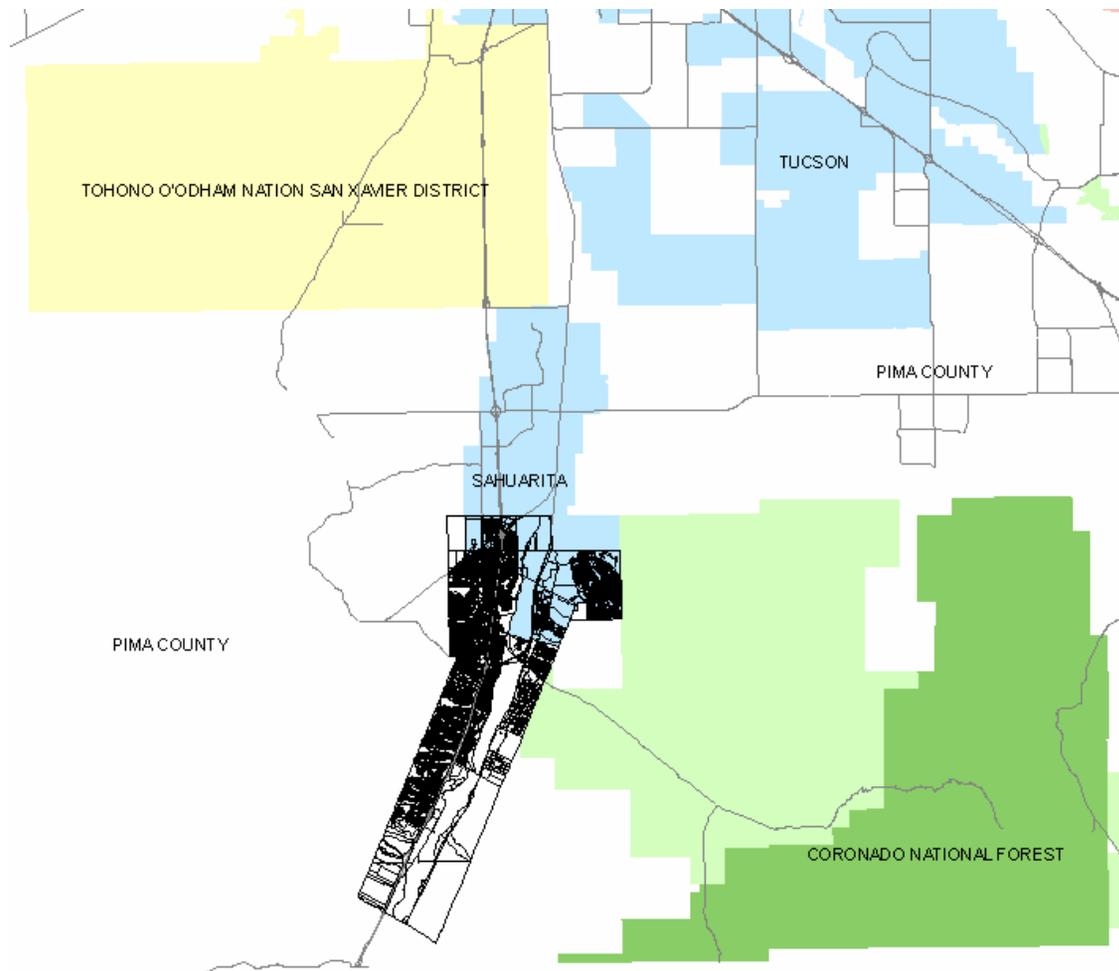
To here,
much faster.

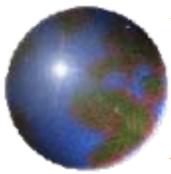




GIS Parcel Layer History

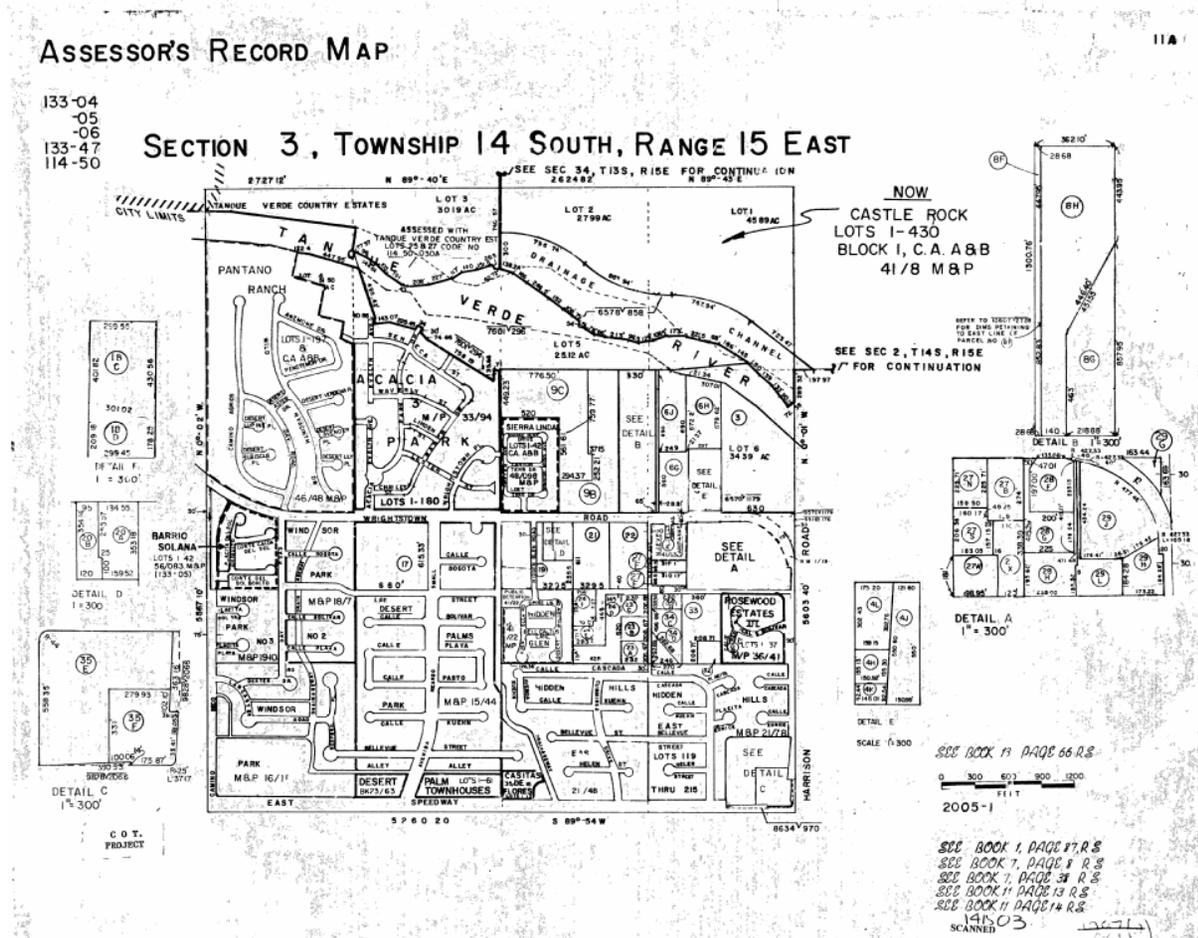
- Started in 1988 as part of the IMAGIN Project.
- Green Valley was the pilot area.

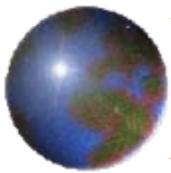




Assessor's Record Map

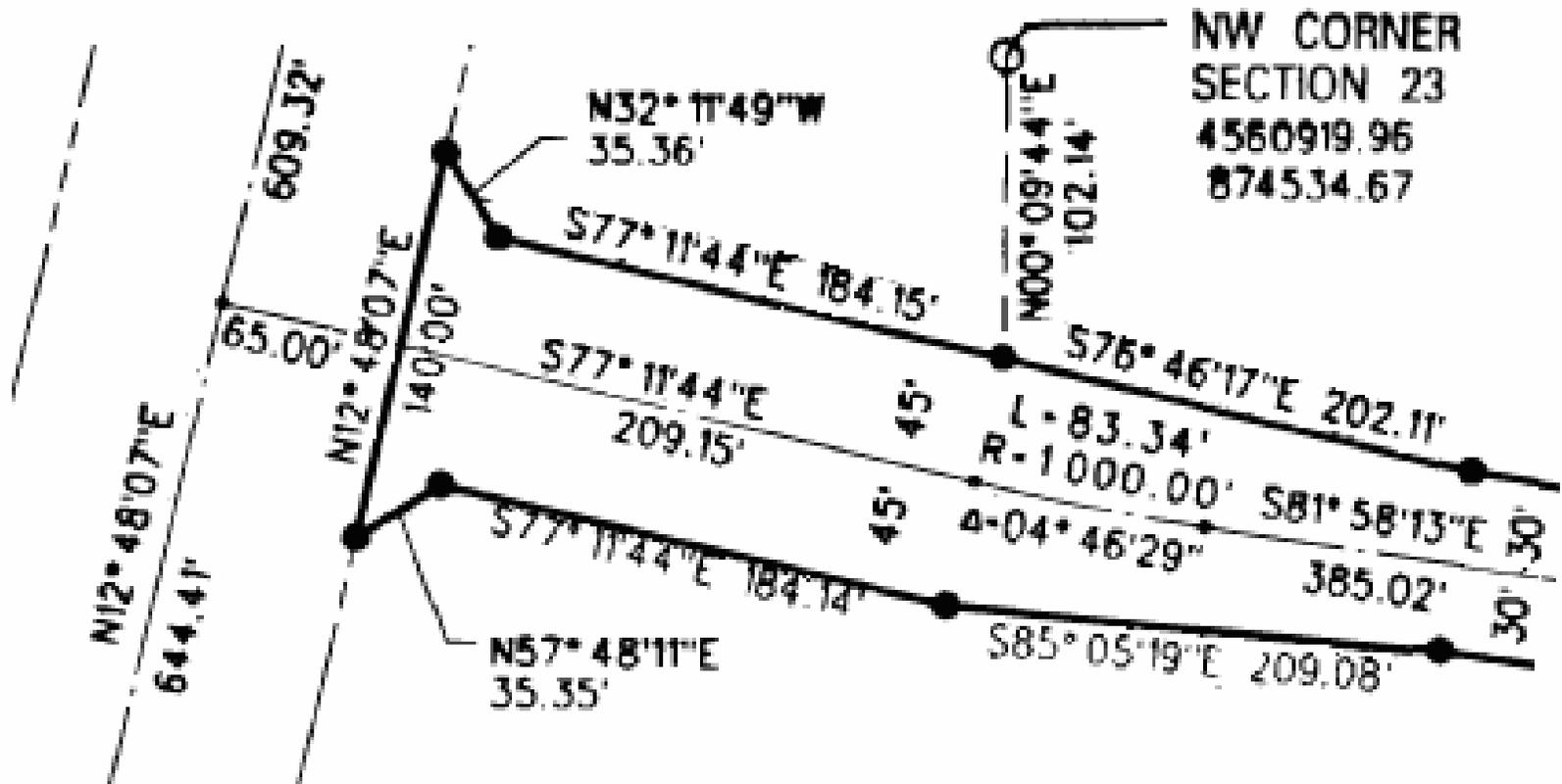
- PLSS Sections and Assessor's Record Maps were used as a guide for assembling the parcel layer.

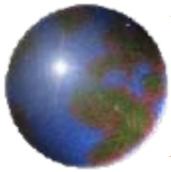




COGO

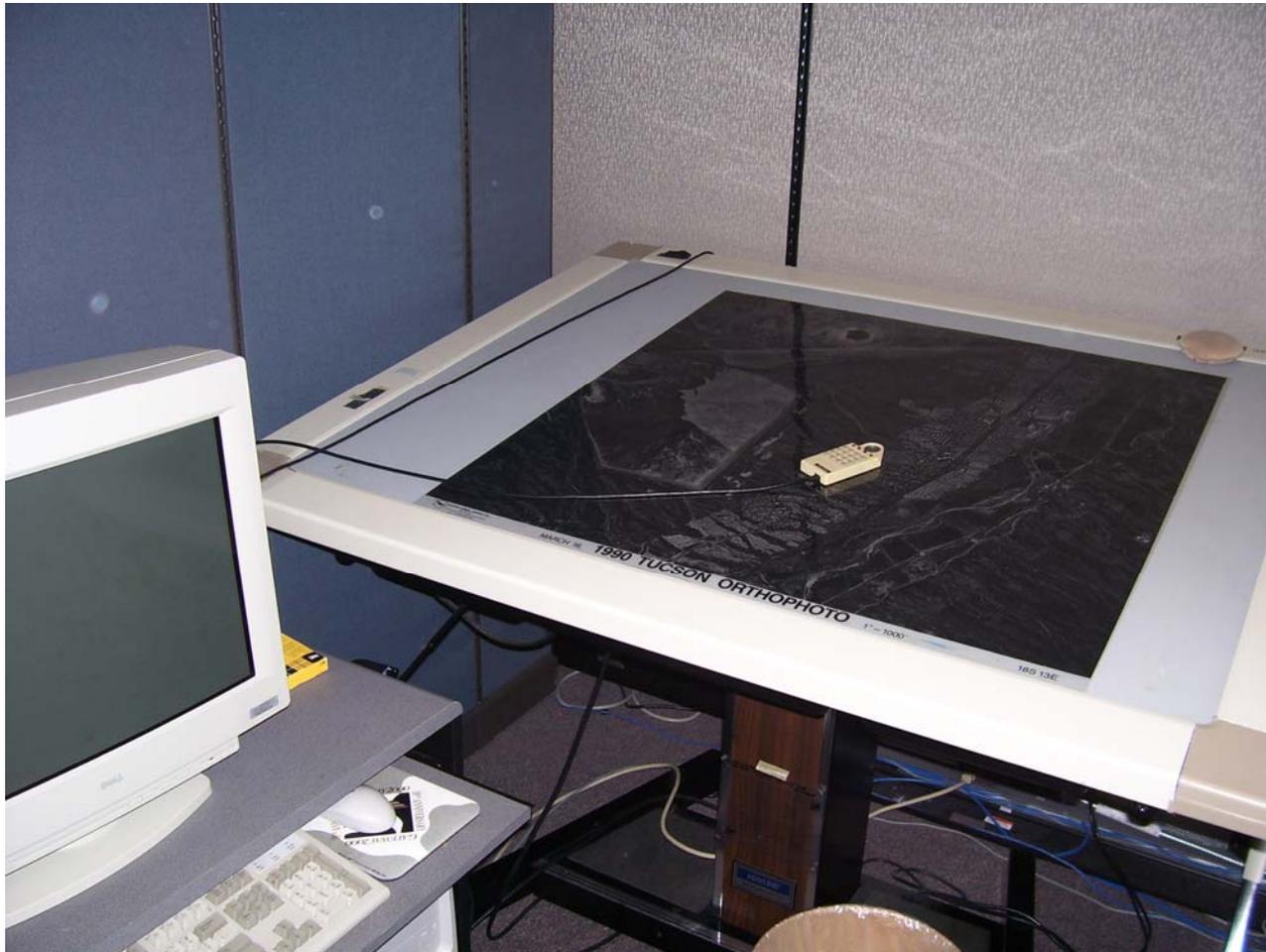
- Acreage parcels and subdivision boundaries were COGO generated for the Green Valley pilot.

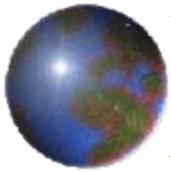




Tablet Digitizing

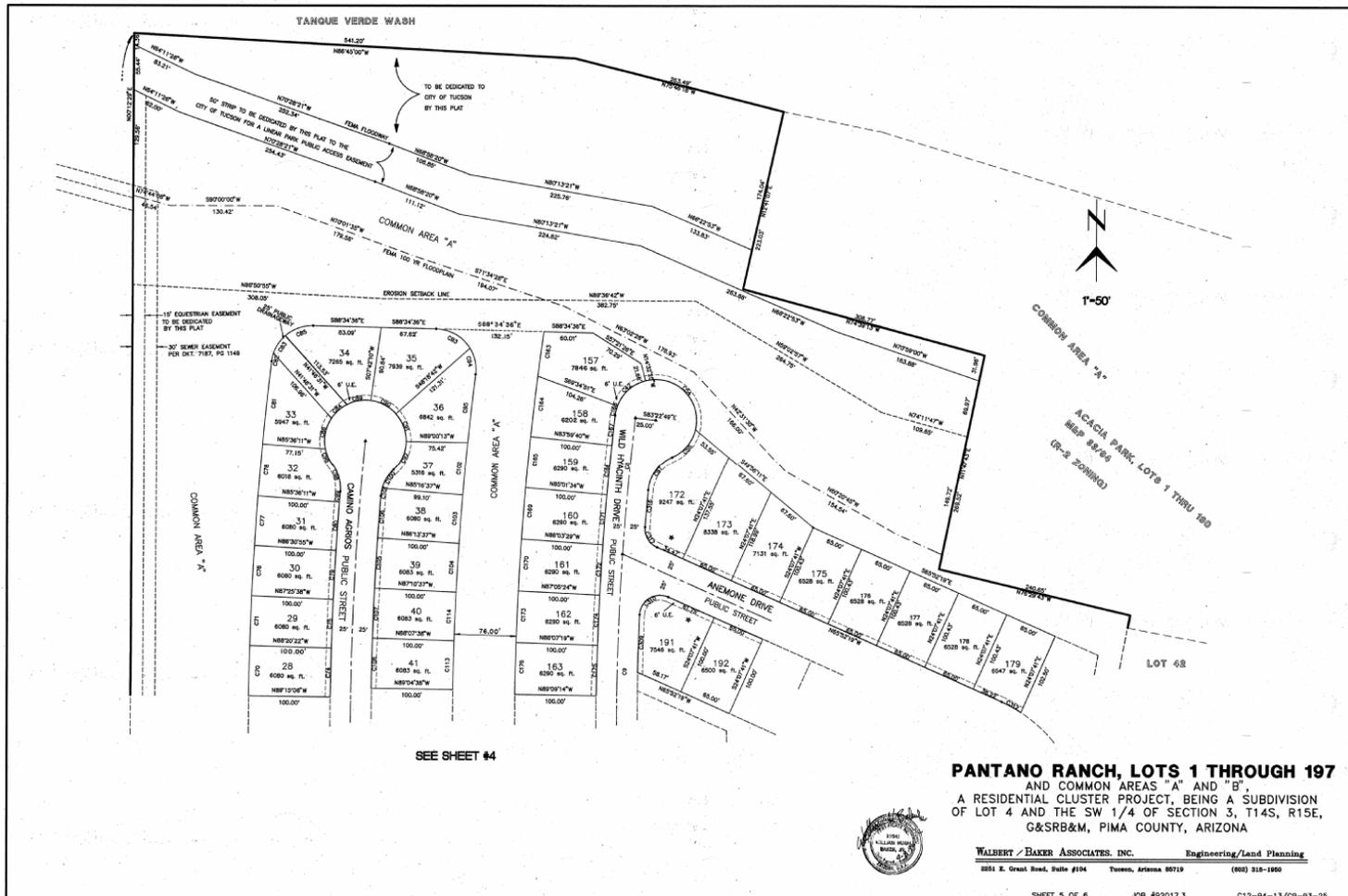
- Interior lots and rights-of-way boundaries were tablet digitized for the Green Valley pilot.

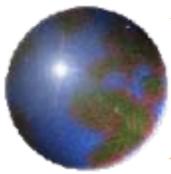




Subdivision Plat Map

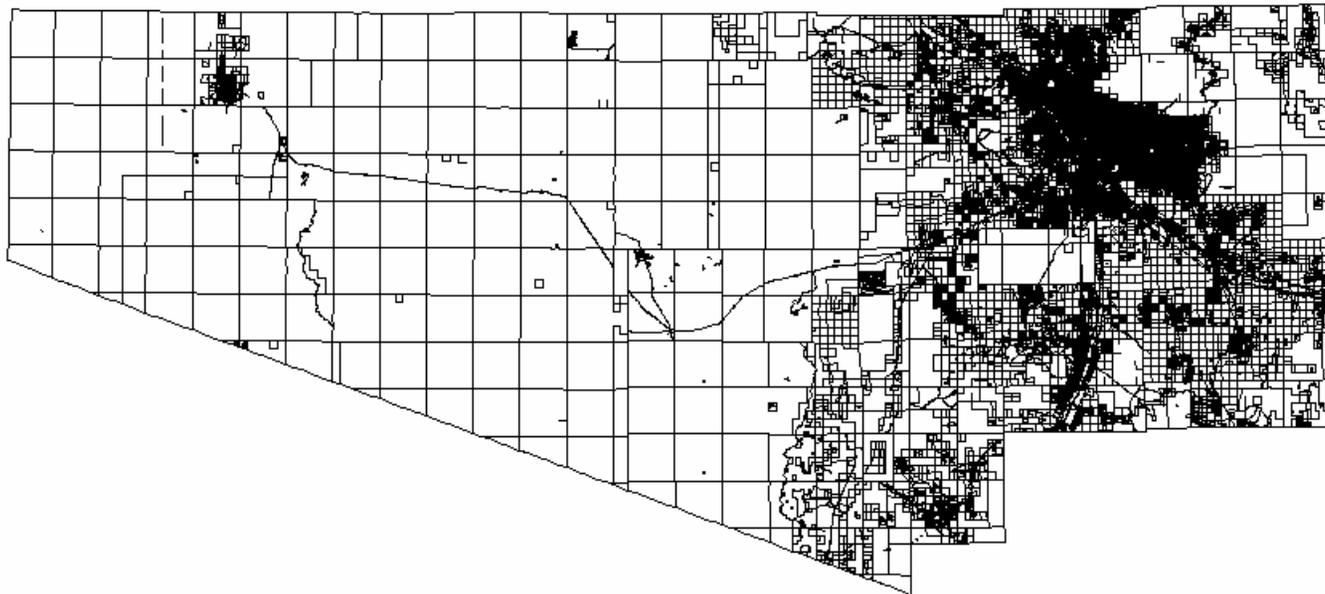
- Subdivision plat maps were, and still are, the primary source for interior lot and rights-of-way boundaries.

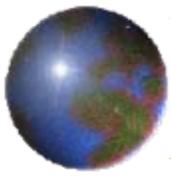




County-wide Parcel Layer

- Beyond the Green Valley area, the rest of the County was tablet digitized for the most part. The Assessor had COGO generated data for the majority of the rural areas, which was integrated with the tablet digitized data. The City of Tucson Planning department had a set of PLSS Section based large-scale Mylar maps, which were the source for much of the Tucson metropolitan area.





Parcel Rubber Sheeting

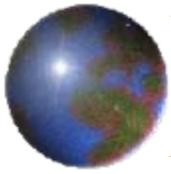
- In 1999, we began rubber sheeting parcel boundaries to the PAG digital orthophotos.



Before

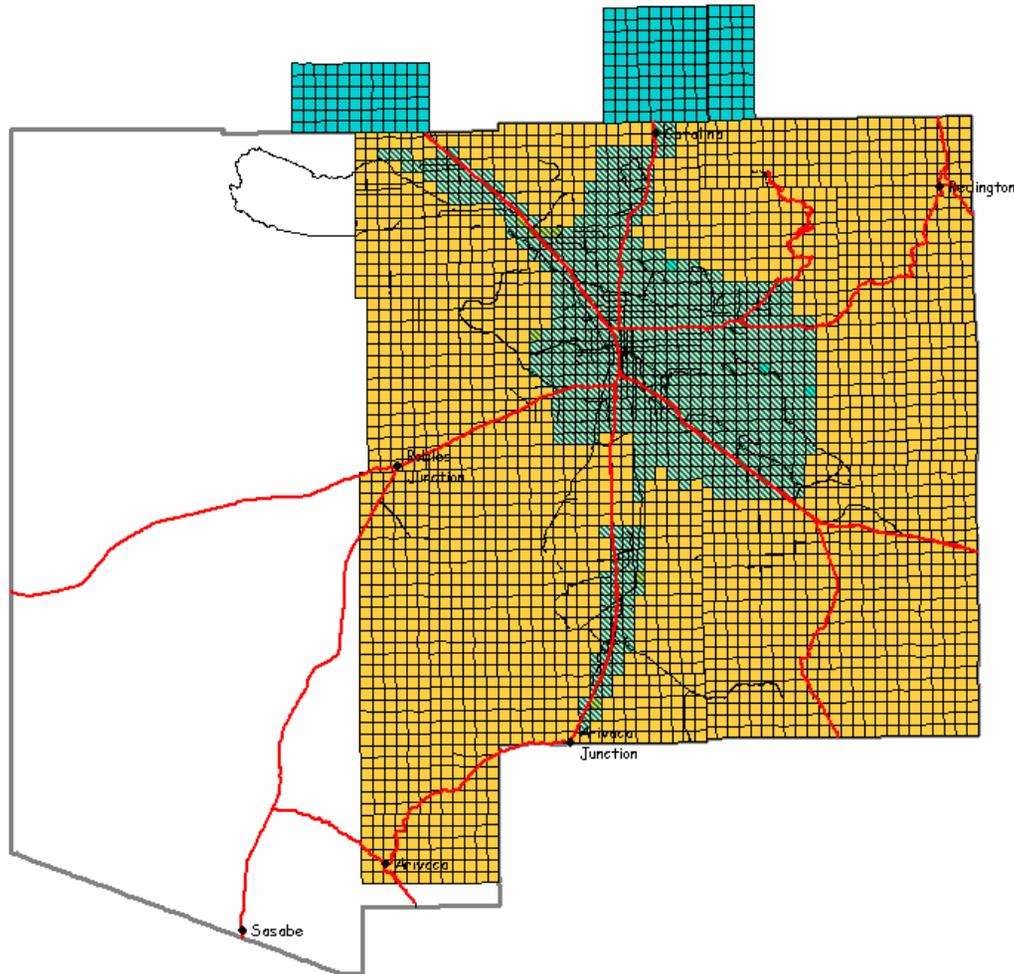


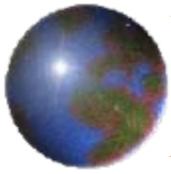
After



Parcel Rubber Sheeting

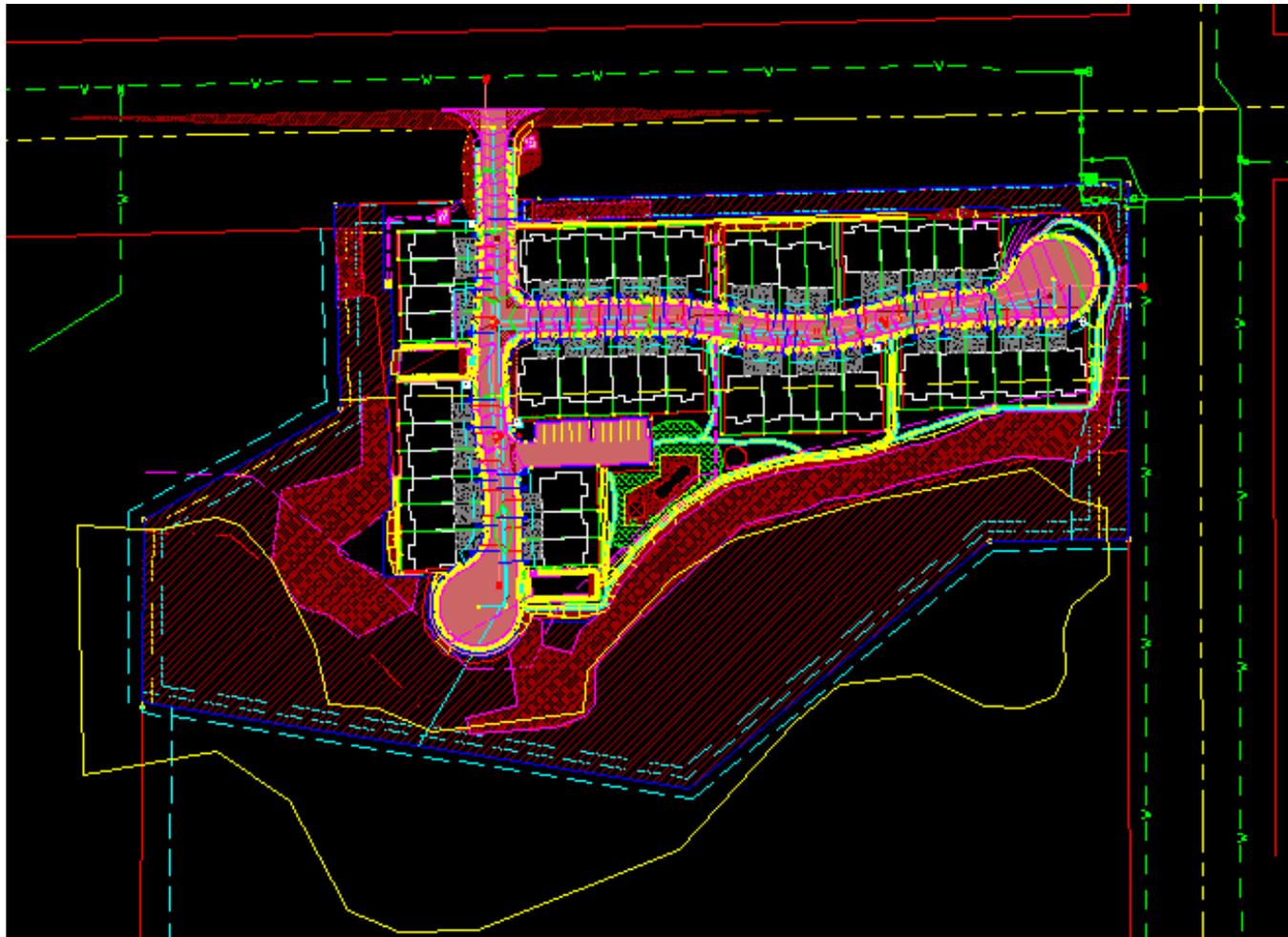
● Orthophoto rectification status:

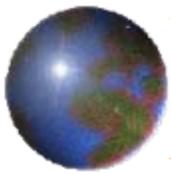




Digital Subdivision Data

- Currently we input new subdivision data from digital data that is received from commercial firms.





Subdivision Input Process

- The Recorder's office website is checked weekly for newly recorded subdivisions.

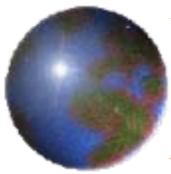


Name Search
Instrument Search
Docket/Page Search
Sequence Search
Cross Ref. Search
Book Search
Map Search
Affidavit Search
Home

Pima County Recorder - Map Search Results

Book	Page	Sub-Page	Description	Show Image
62	43	1	SIERRA BREEZE L 1-10	
62	43	2	SIERRA BREEZE L 1-10	

[Comments?](#)



Subdivision Input Process

- The subdivision name, Book/Page, PLSS location, and commercial firm name are input into a subdivision tracking database.

Sub Tracking Menu

MP **New Tax-IDs** **TRS**

MP

Subdivision Name

Prior Codes

Split Log

Linework Available

ASR DOT Other

Facilitator: **Date Complete**

Query / Reports

ASR's Linework Available

Other Digital Data

Subdivisions To Do

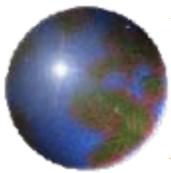
Subs To Do By TRS

Completed Subs

TRS Laundry List

Save Close

Record: 14 | 1 | 1 | > | >> | **

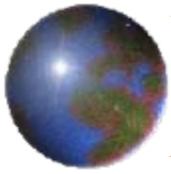


Subdivision Input Process

- The subdivision tracking database is also used to indicate when digital linework, and taxcodes become available.
- Staff contacts the commercial firms to acquire digital versions of the recorded subdivisions.

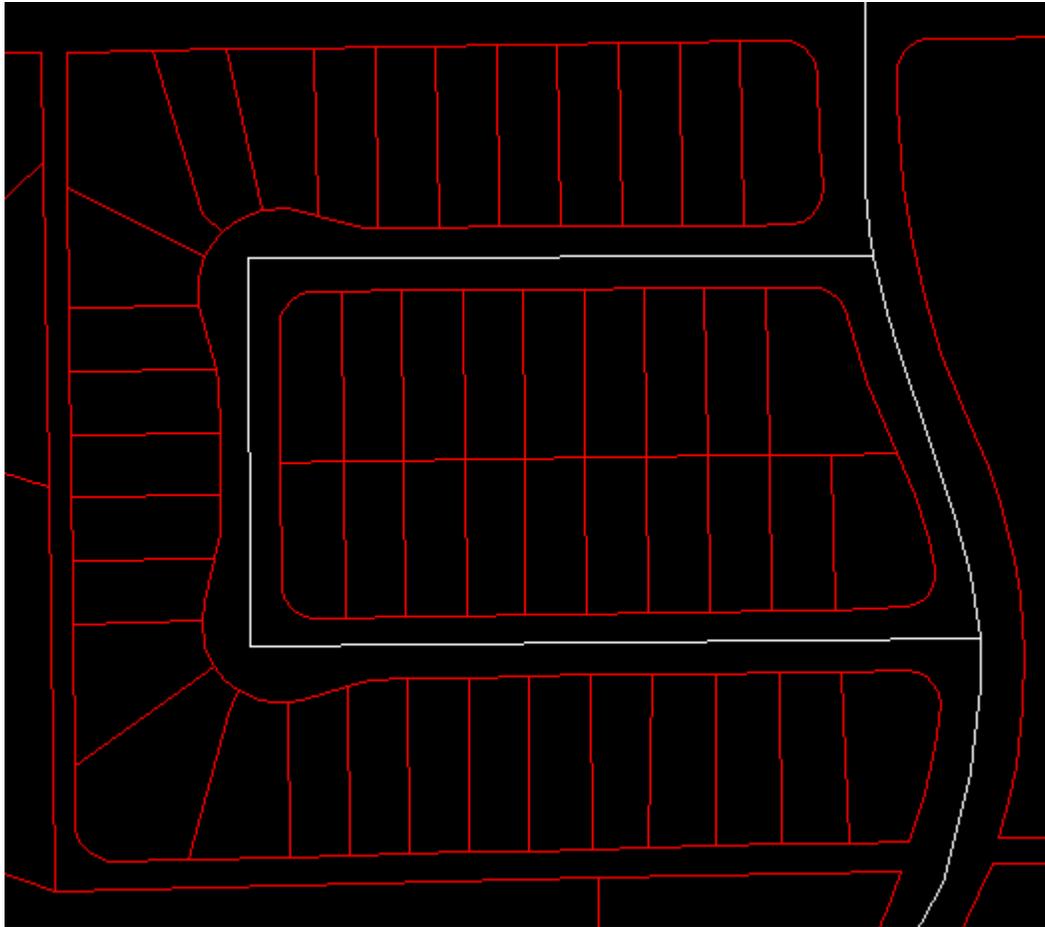
Subdivisions To Do Sorted By Map & Plat

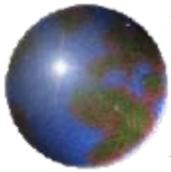
<i>MP</i>	<i>SUBNAME</i>	<i>Digital Data Available</i>	<i>Facilitator</i>	<i>TRS</i>	<i>Comments</i>
61060	INDIGOMODERN L 1-22	<input checked="" type="checkbox"/> <i>Received:</i> 10/12/2006	JB	141409	Codes on Mars3
<hr/>					
61066	SONORAN PRESERVE ON THE BAJADAL 1-29	<input checked="" type="checkbox"/> <i>Received:</i> 10/12/2006	FM	111330,31,36 & 111225	Codes on Mars3



Subdivision Input Process

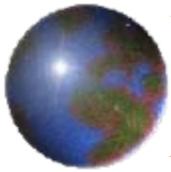
- The street centerlines are used to update the GIS street network.





The Parcel Layer Now - What

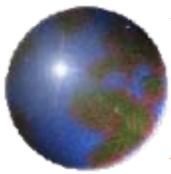
- Uses of the GIS parcel layer:
 - ❏ Base geospatial layer for referencing other geospatial data to.
 - ❏ Contains Assessor attributes, and is capable of linking to a multitude of parcel-based data sources.
 - ❏ Supported by a wealth of documents, i.e. deeds, plans, images, etc.
 - ❏ Supports a multitude of planning analyses.
 - ❏ Supports the location and management of geospatial features, such as infrastructure associated with transportation, utilities, parks, etc.



The Parcel Layer Now - Who

- Who uses the GIS parcel layer:
 - ❑ Pima County MapGuide users, i.e. a lot of folks representing a lot of organizations, from all over the world.
 - ❑ All government agencies within Pima County.
 - ❑ State & Federal agencies.
 - ❑ Indian Nations.
 - ❑ Utilities.
 - ❑ Commercial firms; local, regional, nation-wide.
 - Engineering, development, planning, real estate, mapping, geospatial data providers.
 - ❑ E911
 - ❑ Academia, from elementary through college.

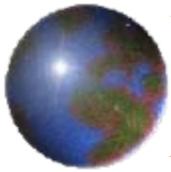
- The increased usage of the GIS parcel layer is one of the main reasons that we need more timely updates.



Subdivision Input Process

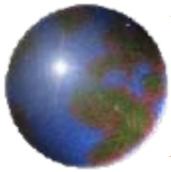
- How can we improve this process?
 - ❏ Simplify access to digital subdivision data from commercial firms.
 - ❏ Develop collaboration channels with these firms.
 - ❏ Implement an internet solution for transferring digital data.

- What are the benefits to improving the process?
 - ❏ Significantly reduces processing time for importing data into GIS parcel layers.
 - ❏ Reduction in staff time within multiple organizations, i.e. government, utilities, districts, etc.
 - ❏ Potential for development and adoption of common standards.
 - ❏ Potential for utilizing standard drawing templates that are georeferenced to our local coordinate system.
 - ❏ Potential for future expansion into electronic plan review.



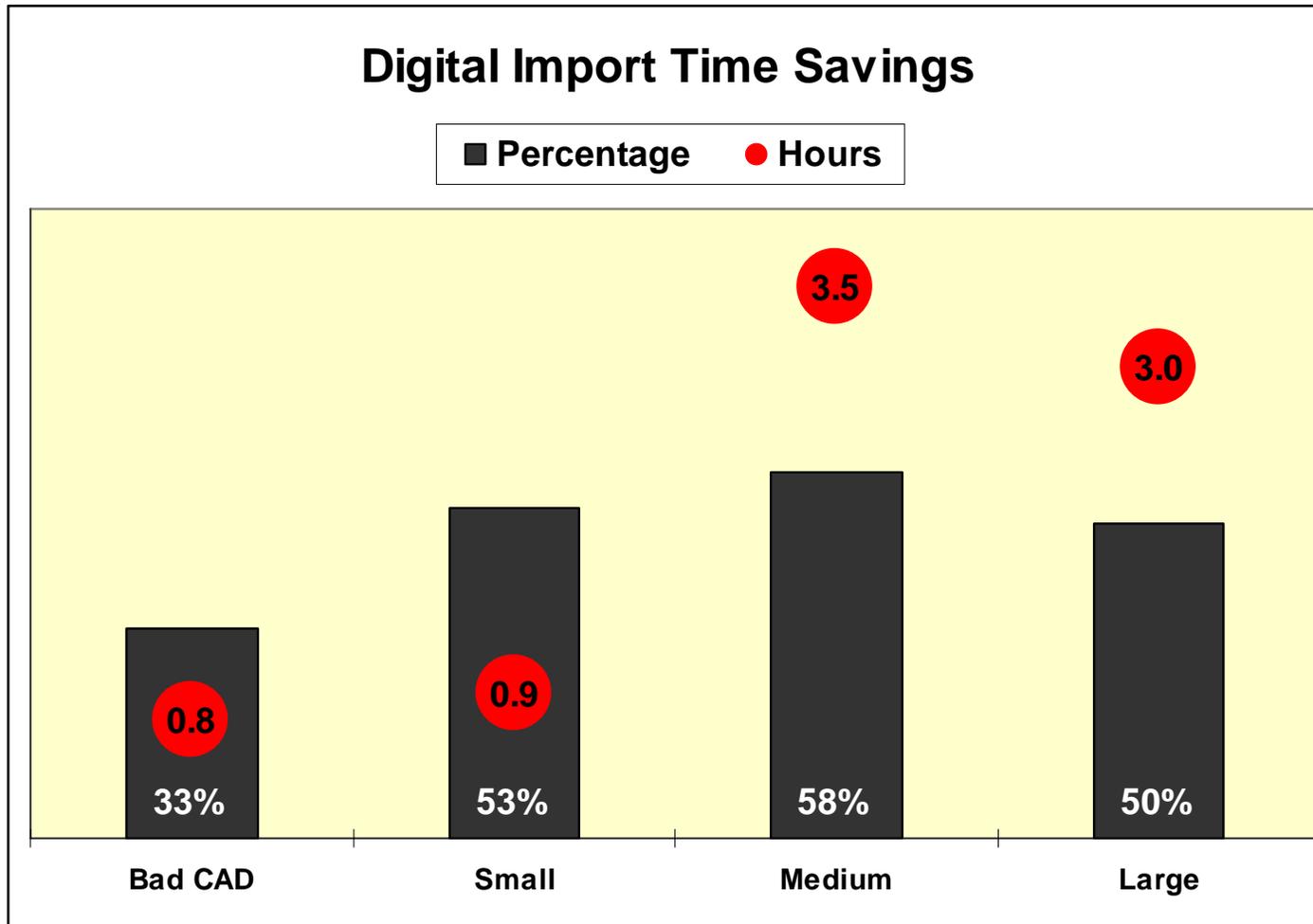
Benefits – Paper to Digital

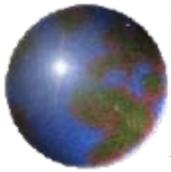
- TEP points on moving from hardcopy delivery to digital delivery:
 - Options for plat information:
 - Snail mail delivery of hardcopy plats.
 - Digital data on disk.
 - Digital download via the Web Portal.
 - Benefits of digital delivery:
 - Improves data exchange throughout the plat approval process .
 - Reduces time to update individual CAD/GIS systems.
 - Improves overall accuracy as spatial disparity diminishes.



Benefits – Time Savings

- TEP analysis of time savings when using digital data to update their parcel layer:

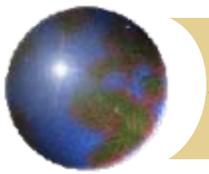




Tucson Area GIS Cooperative Web Portal

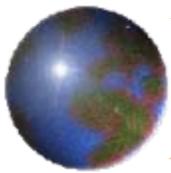
● The Web Portal:

- ❏ A web-based internet solution for sharing geospatial data.
- ❏ Uses secure user access controls.
- ❏ Engineers will use the site to place plans in one secure location where they can be retrieved by many agencies, both public and private.
- ❏ Members of the GIS coop involved in mapping will use the site to gain access to the library of plans stored there. They need to update their working maps with proposed subdivision plats or development plans even as these plans are going through the approval process.
- ❏ The portal will store CAD files that can be downloaded and brought into mapping software such as AutoCAD or ESRI's ArcMap. Currently, mapmaking agencies may not have access to the plats or plans until the County records them.



Tucson Area GIS Cooperative Web Portal

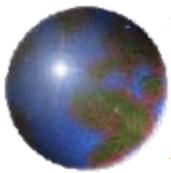
- Who would use the plans on the Web Portal:
 - Pima County DOT GIS & the Assessor's office, as the maintainers of the GIS parcel layer and street network.
 - Tucson Water. (NEED MORE HERE)
 - Utility companies, as part of their plan review and parcel data update process.
 - Development services departments. Pima County Development Services maintains the GIS county-wide subdivision boundary layer.
 - (NEED MORE HERE)



Web Portal Interface

- Accessible via the GIS Cooperative home page:

The screenshot shows a Microsoft Internet Explorer browser window displaying the City of Tucson GIS Cooperative website. The browser's address bar shows the URL <http://www.tucsonaz.gov/gis/>. The website header includes navigation links: City Home | E-Services | City Calendar | Visitors | Business | Site Map | City Contacts. The main content area features a large banner image of Tucson, Arizona, with the text "CITY OF TUCSON" overlaid. Below the banner, there are two links: [Typical Government Uses of GIS](#) and [What Is GIS?](#). A prominent announcement is centered on the page: **Next Tucson Area GIS Cooperative Meeting – Tuesday, April 17, 2007**, held at the City Information Technology Dept. - Pueblo Room, 481 W. Paseo Redondo - Tucson, Az, from 3:00 PM - 4:30 PM. Below this, a "What's New?" section lists an update from April 28, 2006: [Link to the Tucson Area GIS Cooperative Web Portal Here](#), which is circled in red. A mouse cursor is positioned over this link. The left sidebar contains a vertical menu with the following items: Home, About GIS, Cooperative, Presentations, Addresses, Data Sources, Architecture, Minutes, Subcommittees, GIS Links, and Downloads. The "Downloads" section contains the text: "This portal is a repository for subdivision plats and development plans at any stage in the approval process. Engineers post plans here and mapmakers retrieve them from here to use in updating maps of their service areas."



Web Portal Interface

● Accessible directly through IDT:

Address  http://gis.contractorsplanroom.com/

 Powered by idt

[Submit Cad](#)
[Resubmit CAD](#)
[My CAD Submittals](#)
[Contact Us](#)
[Register Now!](#)

login
username:

password:

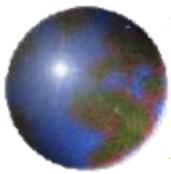
[Forgot Your login?](#)
[Free Subscription](#)
Download the free viewer!
Download DWG TruView to view autocad drawings.


Tucson Area GIS Cooperative

Welcome to the CAD Submittal Website for Mapping Agencies in Pima County

[Introduction to the CAD Portal \(pdf brochure\)](#)

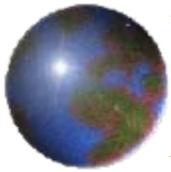
Participating Agencies:
City of Tucson
City of Tucson Water
Pima County
Town of Marana
Town of Oro Valley
Town of Sahuarita
Tucson Electric Power



Web Portal Interface

● CAD Guidelines:

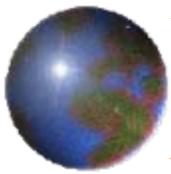
- For Subdivisions and Development Plans only.
- Electronic Plan (CAD) Guidelines were adopted on May 18, 2004 by the Tucson GIS Cooperative, a regional GIS cooperative organization in Pima County, Arizona. The CAD Guidelines are provided to help in the construction and maintenance of the Pima County GIS parcel layer. The parcel layer is made up of subdivisions and development plans, and is used by government agencies, utilities, private companies and the public. When new plans come in, this new information is used to update the existing parcels. Providing plans electronically in a timely manner makes the GIS parcel layer more current, accurate and useful as a community resource.



Web Portal Interface

● Plan submittal requirements:

- ❑ Submit files that are complete and identical to the official hard copy (paper) subdivision plat or development plan.
- ❑ Submit in DWG format.
- ❑ Submit AutoCAD Version 2005(?) or lower 2D, not 3D.
- ❑ Layers relate to a unique set of CAD features within the drawing. (For example all lot lines should be on one layer, street centerlines another layer).
- ❑ Required Layers: Lot Lines, Rights-of-Way, and Street Centerlines.
- ❑ At least three tie points are required; one must be a Section corner or a quarter corner and the others may be street intersections or lot corners. Bearings and distances must be designated from the tie points.
- ❑ Any special fonts, X-REFs, or attachments should be submitted along with the CAD drawing.



Web Portal Interface

● CAD submission – Project Information:

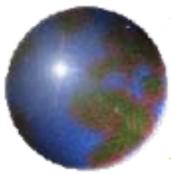
Application Form - Project Information

Project Information

	Example
*Project Name:	<input type="text"/> Rancho Vistoso N27
*Lot No.:	<input type="text"/> 1-136 or 3.25 A
*Jurisdiction Name:	<input type="text" value="Select"/>
*Water Company Name:	<input type="text" value="Select"/>
*Power Company Name:	<input type="text" value="Select"/>
*Project Type:	<input type="text" value="Select"/>
*Status:	<input type="text" value="Select"/>
*Use of Project:	<input type="text" value="Select"/>
Project/Case No.:	<input type="text"/> P1200-175 or S05-001
Previous Project/Case No.:	<input type="text"/> P1200-175 or S05-001

Continue

Continue



Web Portal Interface

➊ CAD submission – Project Information:

Application Form - Project Information

Please enter all of the Parcel Numbers associated with this project

Assessor Parcel Number(s): [Add A Parcel No.](#)

Example

111-11-1111 or 111-11-111A

Please enter all of the TRS associated with this project.
Click the button of the applicable quarter section(s).

***Township Range Section:** [Add A TRS](#)

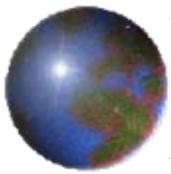
T14S R13E Sec22

Site Address:/Closest Intersection:

1000 E Prairie Dog Ln.

Continue

Continue



Web Portal Interface

● CAD submission – Associated People:

Application Form - People associated with this application

Project Owner Data

*From:

Continue

Continue

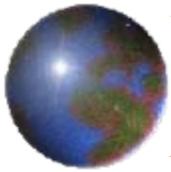
Application Form - People associated with this application

Responsible Party Data

*From:

Continue

Continue



Web Portal Interface

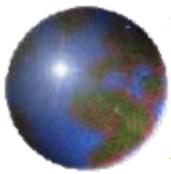
● CAD submission – CAD Layers:

Application Form - CAD Layer Names

	Example	Geometry Type
*Lot Line: <input type="text"/>	Proposed_Lot_Lines	Line
*Right of Way: <input type="text"/>	Proposed_ROW	Line
*Street Center Line: <input type="text"/>	Proposed_Center_Line	Line

Continue

Continue



Web Portal Interface

🌐 CAD submission – Information Validation:

Application Validation

Please confirm that the information listed below is correct and complete.

Project Information

Project Title: Test - Steve Whitney

Lot Number: 1-50

Jurisdiction Name: Pima County

Water Company Name: City of Tucson

Power Company Name: Tucson Electric Power

Project Type: Final Plat

Project Status: NotRecorded

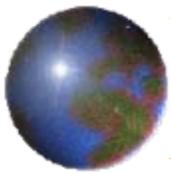
Land Use: Single Family

Case Number:

Previous Case Number:

Project Location:

Assessor Parcel Number(s):



Web Portal Interface



CAD File Upload

*File:

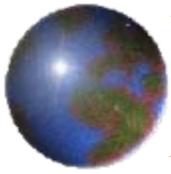
Notes:

My CAD Submittals

Thank you for submitting your document to the Pima County GIS Cooperative.

This page allows you to view, edit, and upload revised files to your project.

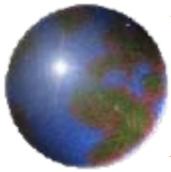
Project Title		Jurisdiction	Project Type	Status	Submitted
Test - Steve Whitney	<input type="button" value="Edit"/>	Pima County	Final Plat	NotRecorded	04/17/07



End

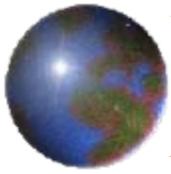
It's all about the data...

Questions?



Needed

- Items needed to complete this presentation:
 - ❏ What types of features do other groups pull off of development plans and sub plats? Utility features, such as water, sewer, etc?
 - ❏ How are plans downloaded by the users? Need to capture this process.
 - ❏ How are plans classified/stored on IDT's site? I.e., development plan, tentative plat, final plat, etc.



Template



