

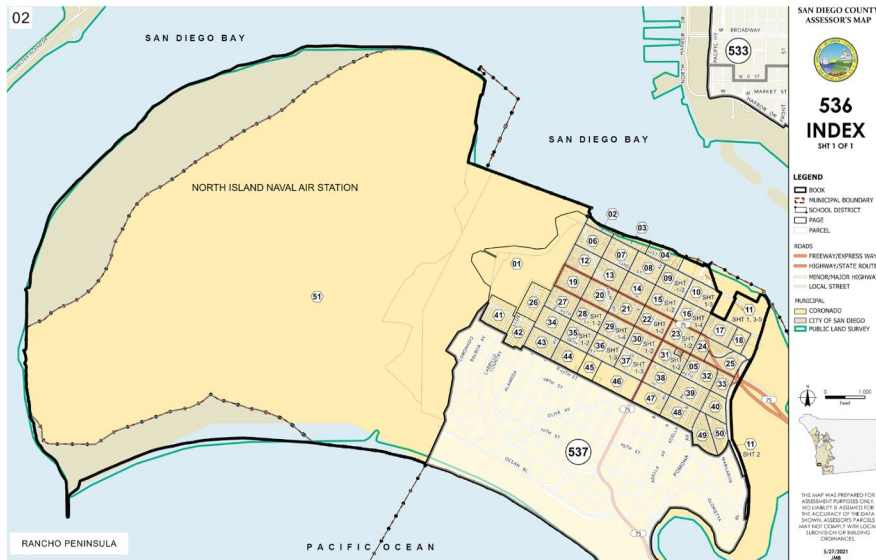
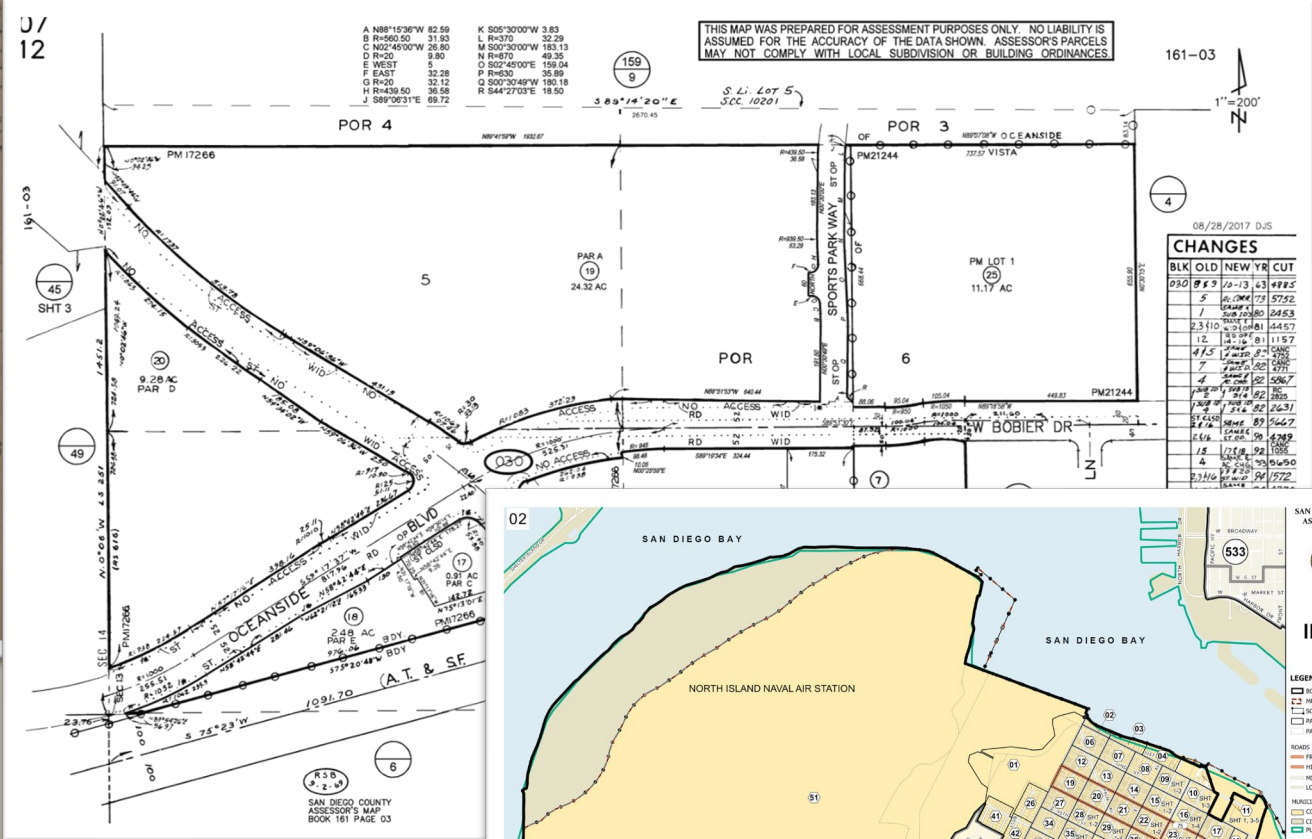
County of San Diego-
 Assessor Maintained
 Parcels (AMP)
 &
 Assessor's Index Maps
 production using GIS

ASSESSOR'S
 MAPPING DIVISION

ASSESSOR/RECORDER/COUNTY CLERK (ARCC)



Jennifer Maria-Benavides
 GIS Analyst
 Assessor's Mapping Division
 jennifer.maria-benavides@sdcounty.ca.gov



AGENDA

Project Background

- Strategic Plan
- Redundant workflows
- Unique workflows at the Assessor

AMP Production

- Assessor workflow
- Map production & data
- Before & after examples

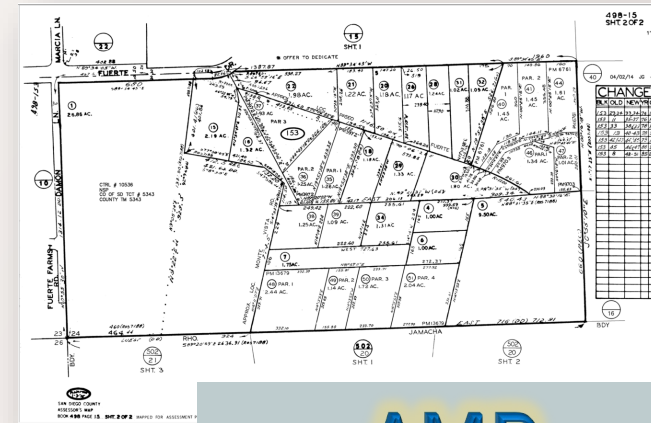
Index Maps Production

- Status / Goals
- Before & after examples

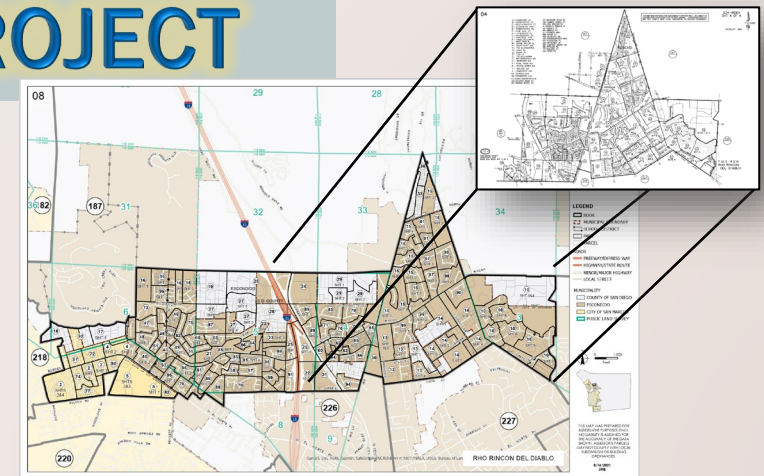
Future of GIS-Assessor Maps

Q&A

Assessor parcel map (AMP)



**AMP
PROJECT**



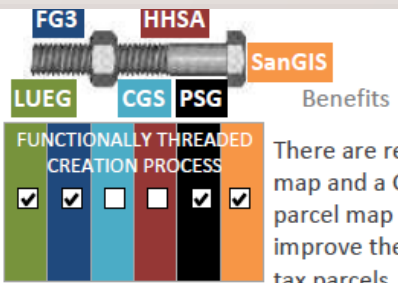
Background

The Geospatial Strategic Plan (GeoSD) was adopted in 2014-2016 to outline specific milestones within SD County regarding the use of GIS to “optimize efficiency and effectiveness in the use, acquisition, and dissemination of GIS data and resources” .

Two main objectives/benefits specific to parcel map production were outlined:

Functional Threading Chart and Benefits

Goals/Obj 2 3 Take ownership and the responsibility of day forward updates of the parcel layer (which currently resides with SanGIS) (Goal 2 and 6).
 Objective ID 11
 Description



Benefits
 There are redundant efforts to maintain both a CAD based tax parcel map and a GIS based tax parcel map. By moving towards a GIS tax parcel map in the ARCC office, this effort will save money and improve the timeliness of the information that is in the land base and tax parcels.

Goals/Obj 6 5 Convert the Assessor’s nearly 30,000 parcel maps from raster and AutoCAD maps to GIS maps. (Goal 6)
 Objective ID 32
 Description

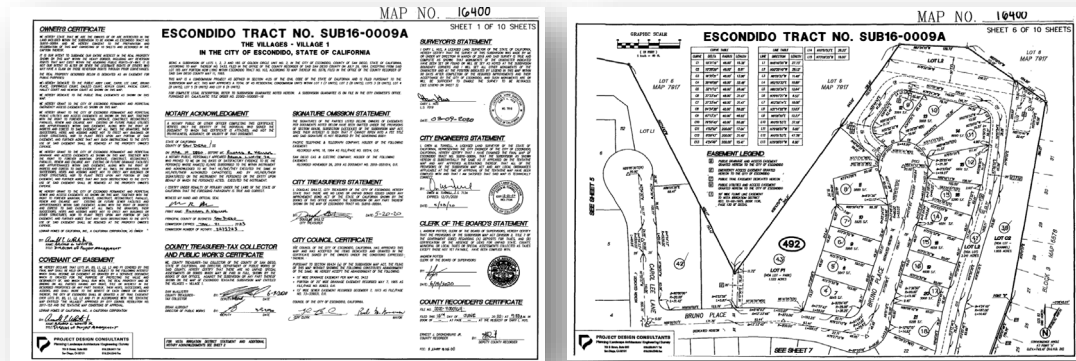


Objective will improve the ARCC cadastral tax map product by converting thousands of unique maps into a single parcel fabric that is GIS data. Overall ease of maintenance of the parcels books will be improved.

Background

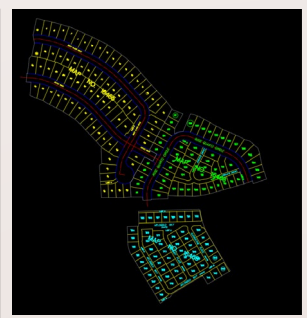
Redundant Workflows

- Source documents* that are recorded, are distributed to SanGIS & Assessor Mapping Division to be worked
- Workflow overlap between both agencies:
 - Subdivisions
 - Parcel creation
 - Segregations (split parcels)



Example:

Engineering Company prepares map (AutoCAD COGO) & PDF map is recorded

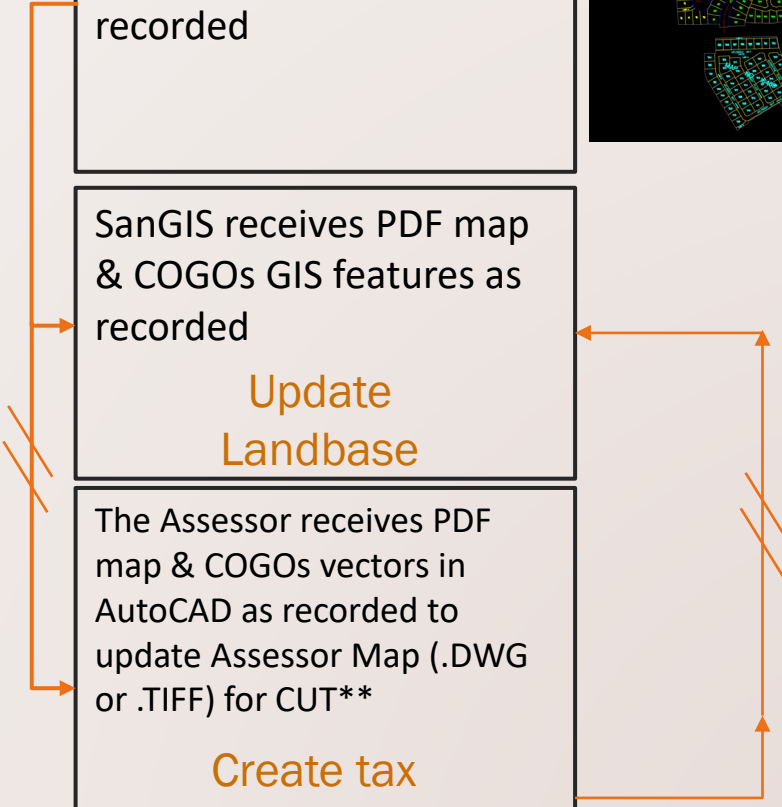


SanGIS receives PDF map & COGOs GIS features as recorded

Update
Landbase

The Assessor receives PDF map & COGOs vectors in AutoCAD as recorded to update Assessor Map (.DWG or .TIFF) for CUT**

Create tax
parcel/Update APM



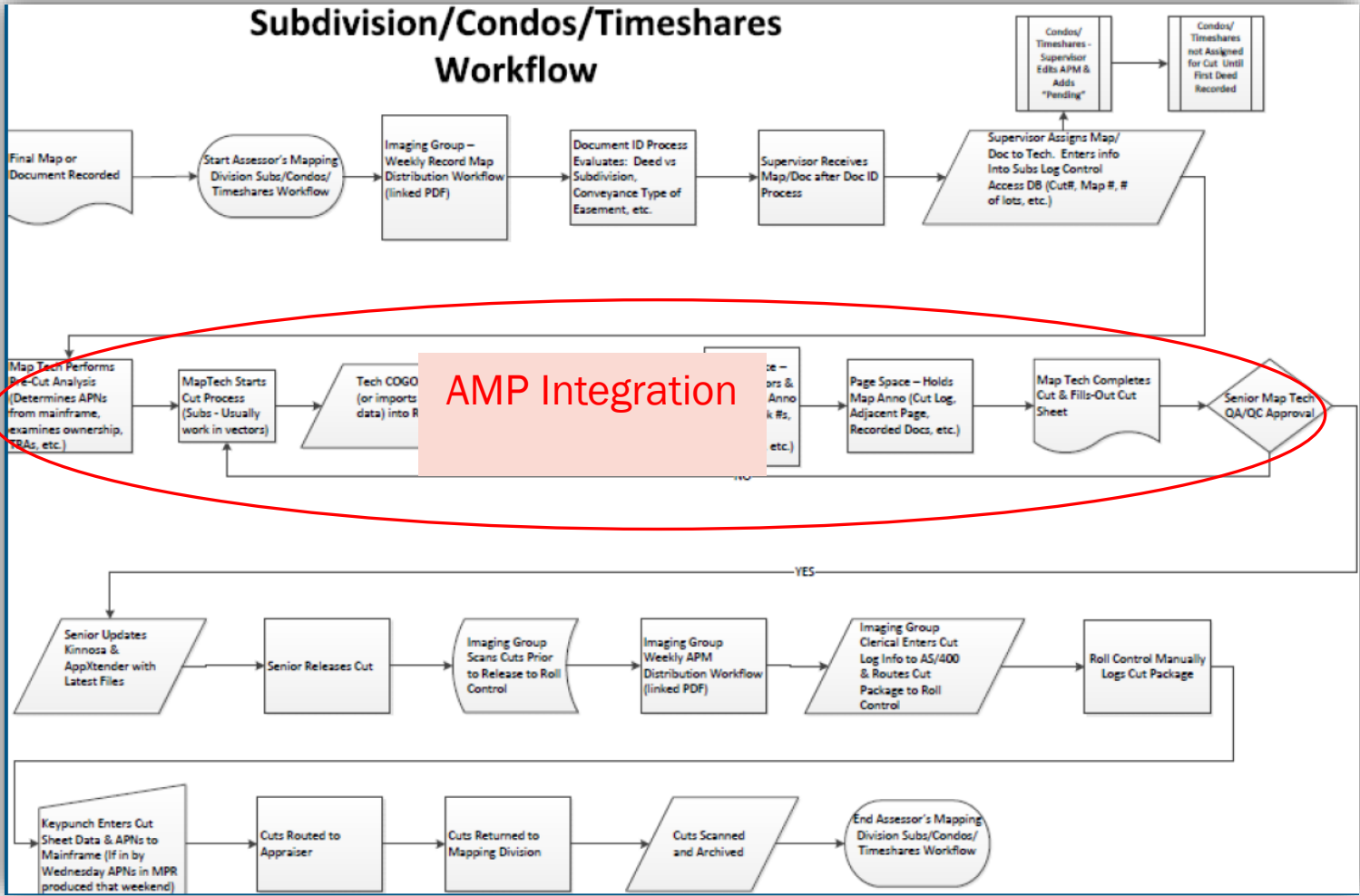
*Source Documents: Subdivisions, Parcel Maps, Records of Survey (ROS), Misc. Surveys, Deeds, CONDOs, Timeshares & other recorded documents.

** CUT = a collection of documents that record changes of geometry, ownership, tax status, TRA, authority, situs, etc.

Background

Unique Workflows at the Assessor

- We eliminate some of the duplicated processes by integrating GIS map production (i.e., AMP) with subdivisions.
- Lot volume
- AMP integration results in a GIS-Assessor Map/CUT & a FGDB



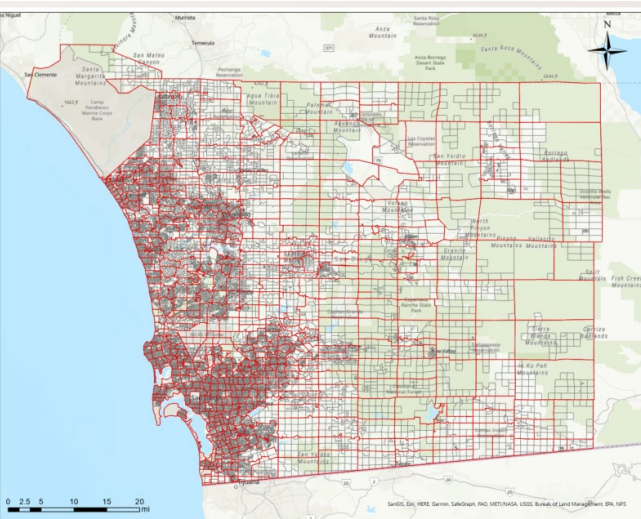
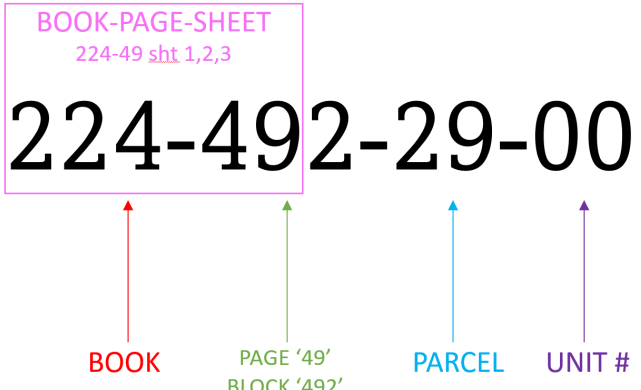
Background

Unique Workflows at the Assessor

- Parcel number creation is based on a specific set of rules for parcel indexing
 - APNs are only a portion of the CUT making process.

APN creation is critical for the overall integrity of the landbase (and other layers).

CUT YEAR – CUT – BkPgSht



What is a CUT?

- CUT forms
- Ownership prints
- Source Document
- Before map
- After map
- Check list
- Final Maps (New APM, Tie pages, Index Map)

How I see it

- Cut processes:
- 1- Cut Work
 - 2- Geography Edits (GIS/CAD)
 - 3- Data Capture (Anno)
 - 4- Map Generation
 - 5- Data management

Parcel Number	Area	Acres	Map	Section	Block	Sheet	APN
POP2443321	D	0.00	1	1	1	1	224-49-29-00
POP2443322	D	0.00	1	1	1	2	224-49-29-00
POP2443323	D	0.00	1	1	1	3	224-49-29-00
POP2443324	D	0.00	1	1	1	4	224-49-29-00
POP2443325	D	0.00	1	1	1	5	224-49-29-00
POP2443326	D	0.00	1	1	1	6	224-49-29-00
POP2443327	D	0.00	1	1	1	7	224-49-29-00
POP2443328	D	0.00	1	1	1	8	224-49-29-00
POP2443329	D	0.00	1	1	1	9	224-49-29-00
POP2443330	D	0.00	1	1	1	10	224-49-29-00
POP2443331	D	0.00	1	1	1	11	224-49-29-00
POP2443332	D	0.00	1	1	1	12	224-49-29-00
POP2443333	D	0.00	1	1	1	13	224-49-29-00
POP2443334	D	0.00	1	1	1	14	224-49-29-00
POP2443335	D	0.00	1	1	1	15	224-49-29-00
POP2443336	D	0.00	1	1	1	16	224-49-29-00
POP2443337	D	0.00	1	1	1	17	224-49-29-00
POP2443338	D	0.00	1	1	1	18	224-49-29-00
POP2443339	D	0.00	1	1	1	19	224-49-29-00
POP2443340	D	0.00	1	1	1	20	224-49-29-00
POP2443341	D	0.00	1	1	1	21	224-49-29-00
POP2443342	D	0.00	1	1	1	22	224-49-29-00
POP2443343	D	0.00	1	1	1	23	224-49-29-00
POP2443344	D	0.00	1	1	1	24	224-49-29-00
POP2443345	D	0.00	1	1	1	25	224-49-29-00
POP2443346	D	0.00	1	1	1	26	224-49-29-00
POP2443347	D	0.00	1	1	1	27	224-49-29-00
POP2443348	D	0.00	1	1	1	28	224-49-29-00
POP2443349	D	0.00	1	1	1	29	224-49-29-00
POP2443350	D	0.00	1	1	1	30	224-49-29-00



CUT = a collection of documents that record changes of geometry, ownership, tax status, TRA, authority, situs, etc.

Background

How to read an Assessor Map.

ERNEST J. DRONENBURG, JR.
ASSESSOR/RECORDER/COUNTY CLERK

Guide to Assessor's Maps
Mapping Information (619) 531-5588
<http://www.sdarcc.com>

THE FULL ASSESSOR'S PARCEL NUMBER FOR THIS PARCEL WOULD BE 300-271-07

ASSESSOR'S BLOCK NUMBER IF THESE ARE NOT SHOWN ON THE MAP - JUST ADD A ZERO TO THE END OF THE PAGE NUMBER FOR ALL PARCELS ON THAT PAGE

THE FULL ASSESSOR'S PARCEL NUMBER FOR THIS PARCEL WOULD BE 300-271-01-01

PARCEL SUB ID NUMBER DUPLEXES & CONDOMINIUMS

RECORDED PARCEL MAP INFORMATION

ASSESSOR'S BLOCK DIVIDER THIS IS USED WHEN BLOCKS ARE NOT SEPARATED BY STREETS

TO FIND THE OWNER OR OTHER INFORMATION YOU NEED TO KNOW THE FULL ASSESSOR'S PARCEL NUMBER. THIS CONSISTS OF THE BOOK-PAGE-PARCEL SUB. ID. (IF ANY)

BOOK NUMBER 300-27

PAGE NUMBER 27

PARCEL NUMBER 07

NORTH ARROW & SCALE 1"=100'

DATE OF LAST UPDATE ON THIS PAGE 11/25/20 RAG

HISTORY OF CHANGES TO PARCELS ON THIS PAGE

CHANGES	
BLK	LOT
271	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

DIVIDING LINE BETWEEN RECORDED MAPS OR GOVERNMENT SURVEYS

BLOCK NUMBER AS SHOWN ON RECORDED MAP 271

LOT BOUNDARY AS SHOWN ON RECORDED MAP

MAP 1592-ARDEN HEIGHTS UNIT NO. 6 SEC 13-T14S-R4W-POR ROS 4081,4862,9513

LOT NUMBER AS SHOWN ON RECORDED MAP 07

GOVERNMENT SURVEY & RECORDED MAP INFORMATION PERTAINING TO THIS PAGE

ERNEST J. DRONENBURG, JR.
ASSESSOR/RECORDER/COUNTY CLERK

Guide to Assessor's Index Maps
Mapping Information (619) 531-5588
<http://www.sdarcc.com>

THE ADJOINING BOOK NUMBER, SEE THE CORRESPONDING BOOK FOR ALL DETAILED PAGE INFORMATION 09 & 13

PAGE & SHEET NUMBER WHEN THE FULL ASSESSOR'S PARCEL NUMBER CAN BE SHOWN 221 - BOOK

BOOK NUMBER 222 - INDEX SHIT 1 OF 3

SHEET NUMBER 20

NORTH ARROW & SCALE 1"=300'

DATE OF LAST UPDATE ON THIS INDEX 11/25/20 RAG

TIE SHEET ON THIS INDEX SHIT 1 THRU 4

SECTION 20

PAGE BOUNDARY LINE

INDEX BOUNDARY LINE

RANGES T 12 S - R 3 W

TOWNSHIP & RANGES SIX MILES WIDE

PAGE NUMBER WITH MORE THAN ONE SUPPLEMENTAL SHEETS 221

TO FIND THE OWNER OR OTHER INFORMATION YOU NEED TO KNOW THE FULL ASSESSOR'S PARCEL NUMBER. THIS INDEX CONSISTS OF THE BOOK-PAGE-SHEET NUMBERS.

Background

We have AMP-ed it up!

ERNEST J. DRONENBURG, JR.
 ASSESSOR/RECORDER/COUNTY CLERK
Guide to Assessor's Maps
 Mapping Information (619) 531-5588
<http://www.sdarcc.com>

12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06	12/25/06
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272	1	1	1	1	1	1	1	1	1	1
273	1	1	1	1	1	1	1	1	1	1
274	1	1	1	1	1	1	1	1	1	1
275	1	1	1	1	1	1	1	1	1	1

MAP 1592-ARDEN HEIGHTS UNIT NO. 6
 SEC. 13-1145-R/W-POR
 RGS 4081,4862,9513

San Diego County
 2018/09/07
 800-350 Meet 27

ERNEST J. DRONENBURG, JR.
 Assessor/Recorder/County Clerk
Guide to Assessor's Maps
 Mapping Information (619) 531-5588
<http://www.sdarcc.com>

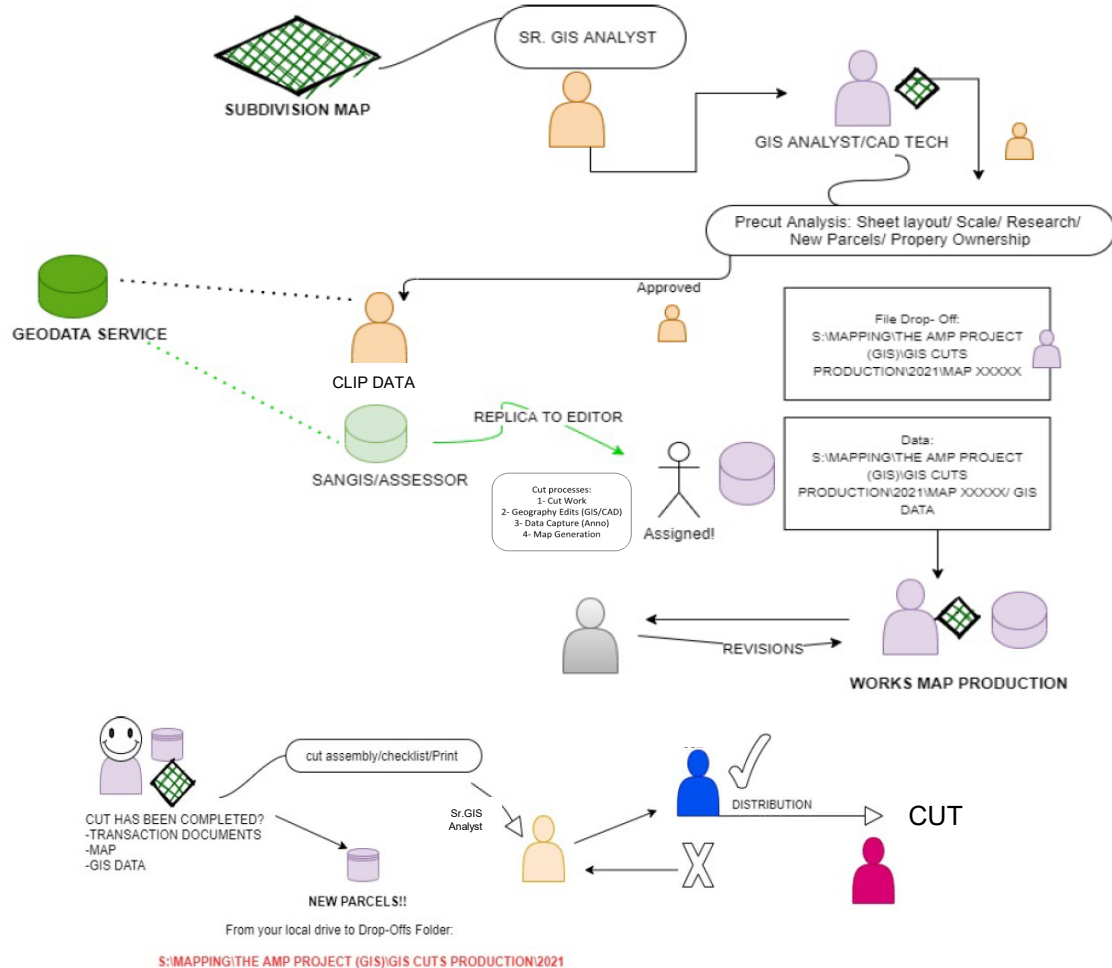
San Diego County Assessor's Map
 234-41
 SHT 1 OF 2
 8/27/2019 (PFS)
 1" = 200'

MAP 1895 - SUNNY VIEW ORCHARDS
 MAP 1519 - RESUB OF BLKS 271, 273 & LOT 6, BLK 266 OF RHO RINCON DEL DIABLO - POR BLK 273
 ROS 7240, 18994, 19468

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES. PARCELS NOT SHOWN ON THIS MAP ARE NOT NECESSARILY OWNED BY THE COUNTY OF SAN DIEGO. THIS MAP IS NOT TO BE USED FOR ANY OTHER PURPOSE.

AMP PRODUCTION

THE PROCESS



AMP Project

The Assessor Maintained Parcels (AMP) Project is intended to create custom tools & processes that will allow the Assessor to create & update Assessor Parcel Maps (APMs) and transaction documents (CUTs) using GIS.

Business Processes and End Users Impacted

Delays in completing Mapping parcel work directly impacts the Division's ability to provide timely creation of new Assessor Parcels, which impacts the Realty Division appraisal process and ultimately the property owners, who receive incorrect tax bills.

AMP PRODUCTION

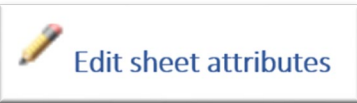
THE TOOLS



A few examples...



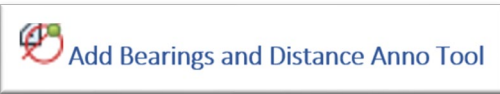
Creates the main checkout replica that the editor will use to make edits in.



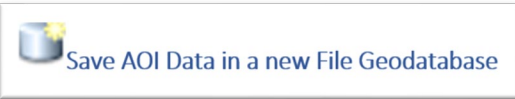
Opens a form to allow updating the attributes of the currently selected Sheet.



Tool that uses selected boundary lines to split the parcel that the user clicks on



This tool allows the user to add bearings and Distance anno feature.

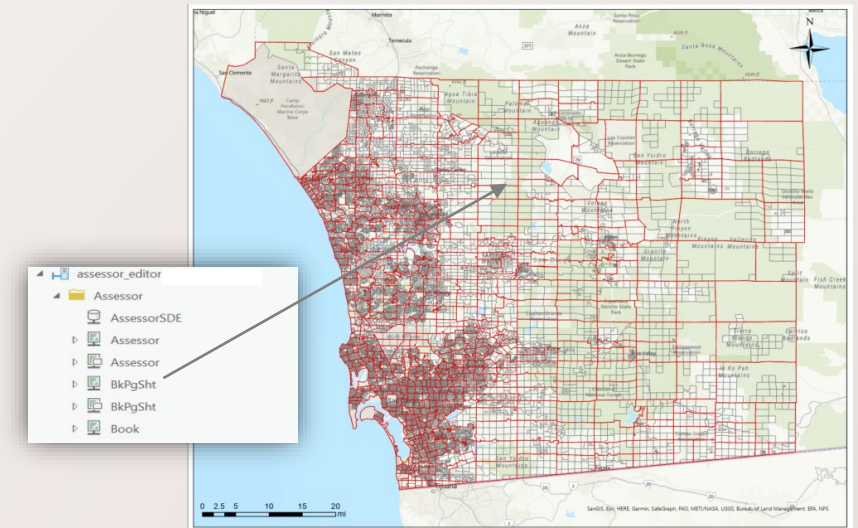


Saves newly created and edited Boundary lines, parcels and APN_ATR records in a new FGDB that can be sent to SanGIS for inclusion in their edit environment.



Button that allows annotation in a CAD file to be imported into an annotation feature class.

BkPgSht or Assessor Sheets – This layer is integral to the process of updating GIS-APMs and is maintained in-house



AMP PRODUCTION

HOW DO WE USE THEM?



Table Of Contents

- Layers
 - Assessor/BkPgSht
 - AssessorSheets
 - Municipal
 - Map Data
 - Anno100
 - Arrows
 - Misc_Lns_Carto
 - Block
 - A_Boundary
 - A_Parcel
 - A_Lot
 - Sheet

Current Sheet

Current Sheet: **49815.02**

Cut Year: 2022

Cut Number: **00016**

Group Number: **01**

Update Sheet: **49815.02**

Set Current Sheet

Cut Info

Sheet Info

2022_00016_01_49815.02.gdb

- Annotations
- Assessor
 - A_Boundary
 - A_Lot
 - A_Parcel
 - A_ParcelHasA_APN
 - Assessor_Topology
 - Block
 - Details
 - Duplex
 - Index_A
 - Misc_Ln
 - Misc_Plgn
 - Page
 - Sheet
 - Sheet_Has_SPS_Edit_History
 - Sheets_Have_RcrrdMaps
- Cartographic
- LandBase
 - Boundary
 - Lot
 - Parcel
 - Rel_ParcelHasAPN
- WorkArea
 - A_APN_ATR
 - APN_ATR
 - Bearing_Txt
 - Change_Box
 - Condo_Details
 - Notes
 - Parcels_Status
 - ParcelStatus_Has_Sheet
 - RECONCILE_LOG
 - Recorded_Maps
 - Sheet_Has_Bearing
 - Sheet_Has_ChangeBox
 - Sheet_Has_CondoDetail
 - Sheet_Has_Notes
 - SPS_CA
 - SPS_CB
 - SPS_Cut_Kills
 - SPS_CutTitleInfo
 - SPS_DA
 - SPS_EA
 - SPS_Edit_History
 - SPS_ReParcel

Adding attributes & features

Attributes

Book	498
Page	15
Sheet	2
DisplayScale	2400
DisplayRotation	0
PrintScale	200
created_user	ASSESSOR_EDITOR
created_date	12/23/2016 12:09:32 AM
last_edited_user	JMB
last_edited_date	7/27/2021
BkPgSht	49815.02
Sheet_X_of_Y	1 OF 4
Template	<Null>
In_City	<Null>
18x24_Map	<Null>
In_GIS	No
Note_X	<Null>
Note_Y	<Null>
Note_Width	<Null>
Note_Height	<Null>
Bearings_X	<Null>
Bearings_Y	<Null>
Bearings_Width	<Null>
Bearings_Height	<Null>
RcrrdMaps_X	<Null>
RcrrdMaps_Y	<Null>
RcrrdMaps_Width	<Null>
RcrrdMaps_Height	<Null>
Condo_X	<Null>

Add Bearings & Distances

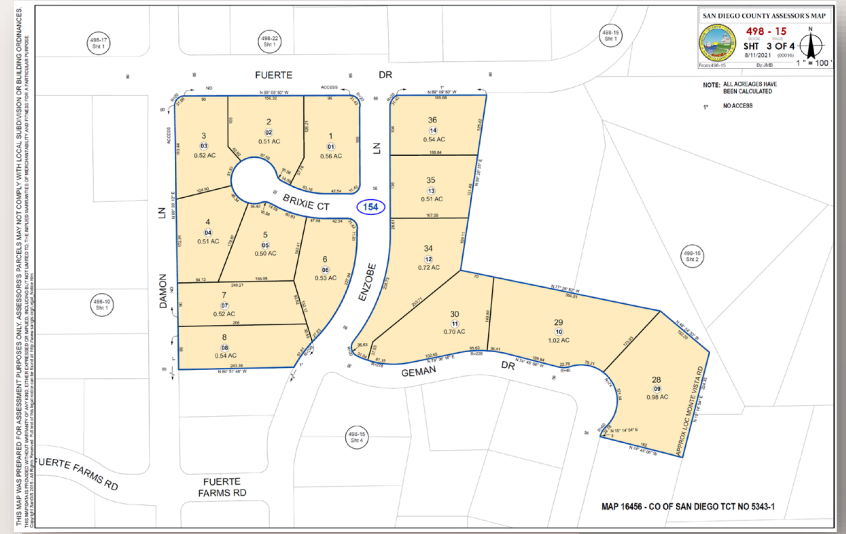
Bearings: N ° ' " E

Distance: meters

Radius: R =

Arc Length:

Create in the details Anno



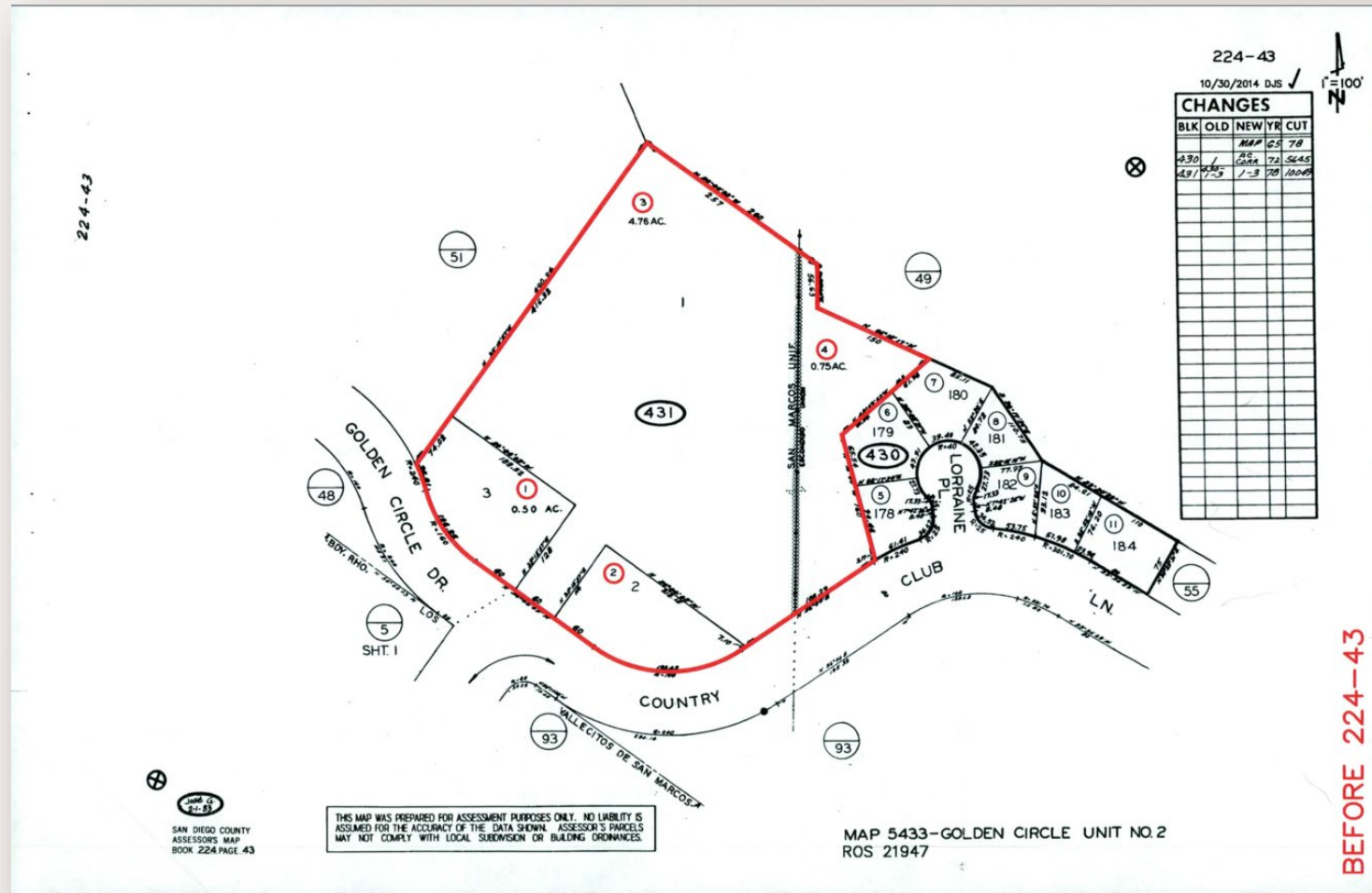
Ready for distribution.

Save AOI Data in a new File Geodatabase

An Assessor FGDB return to SanGIS is the most efficient method of sharing information and providing timely updated data to the public.

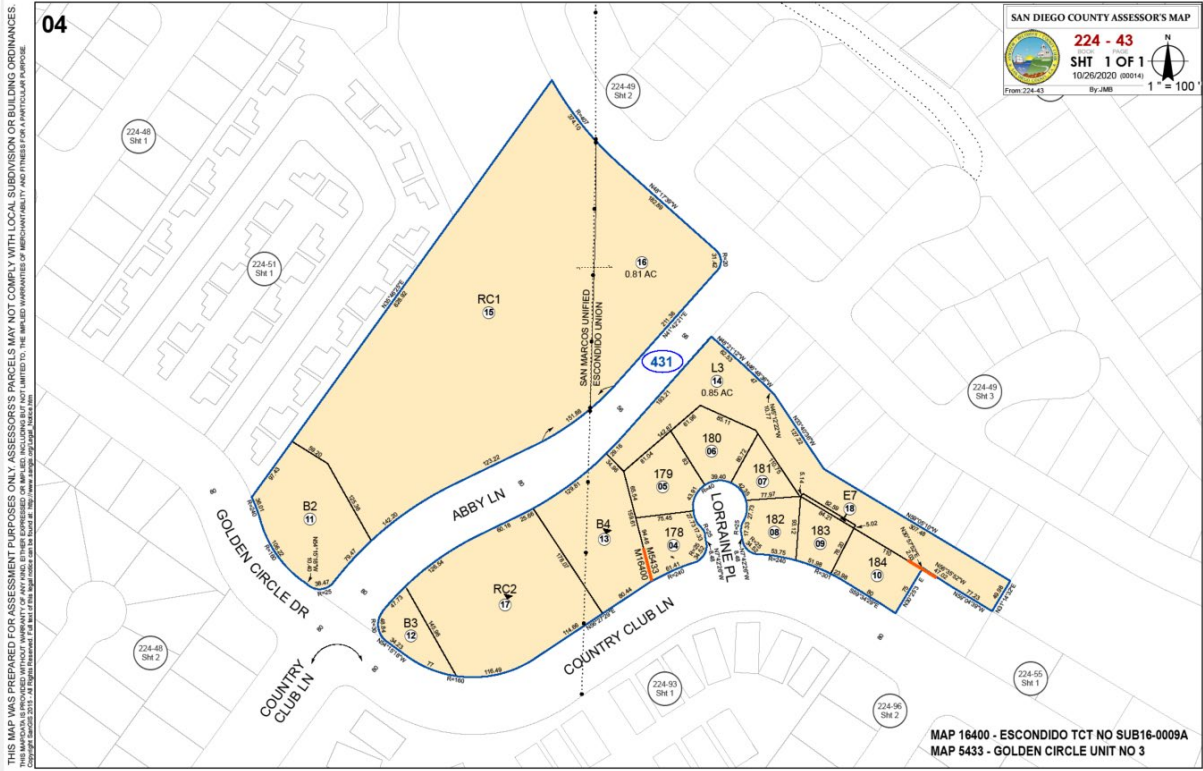
AMP PRODUCTION

Before & After



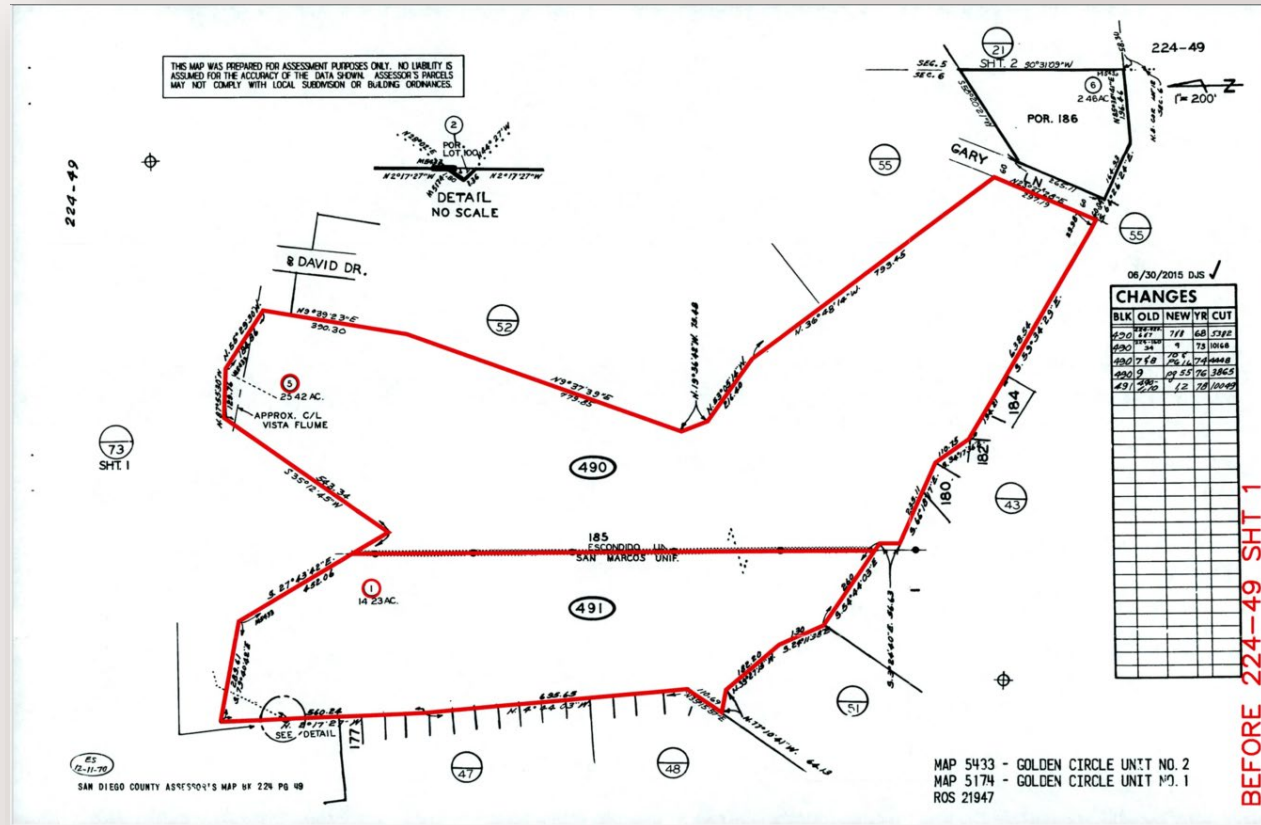
AMP PRODUCTION

Before & After



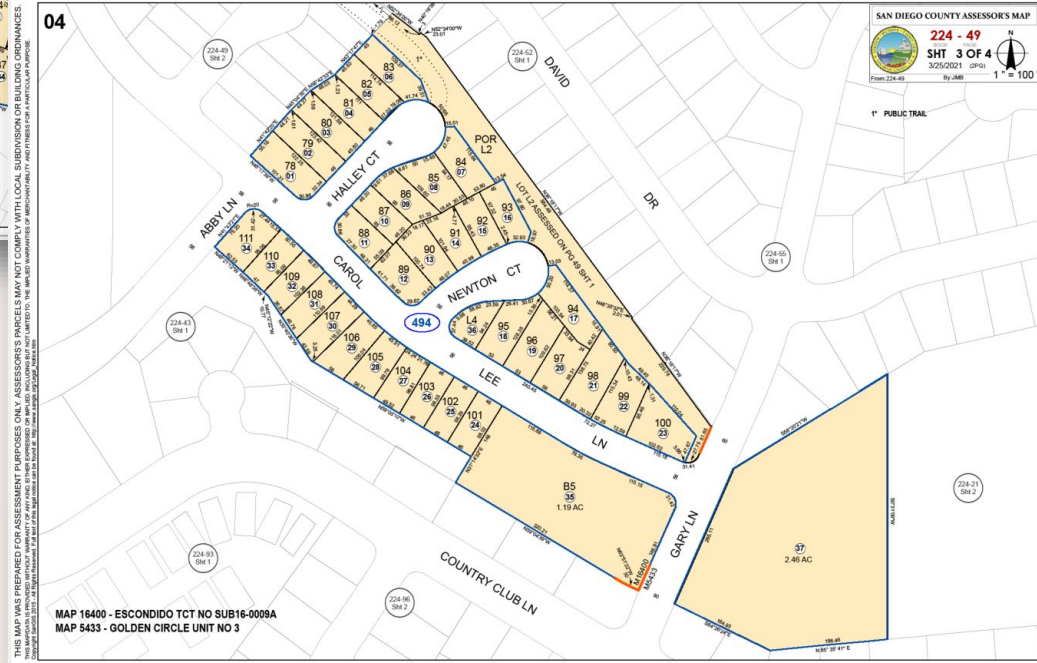
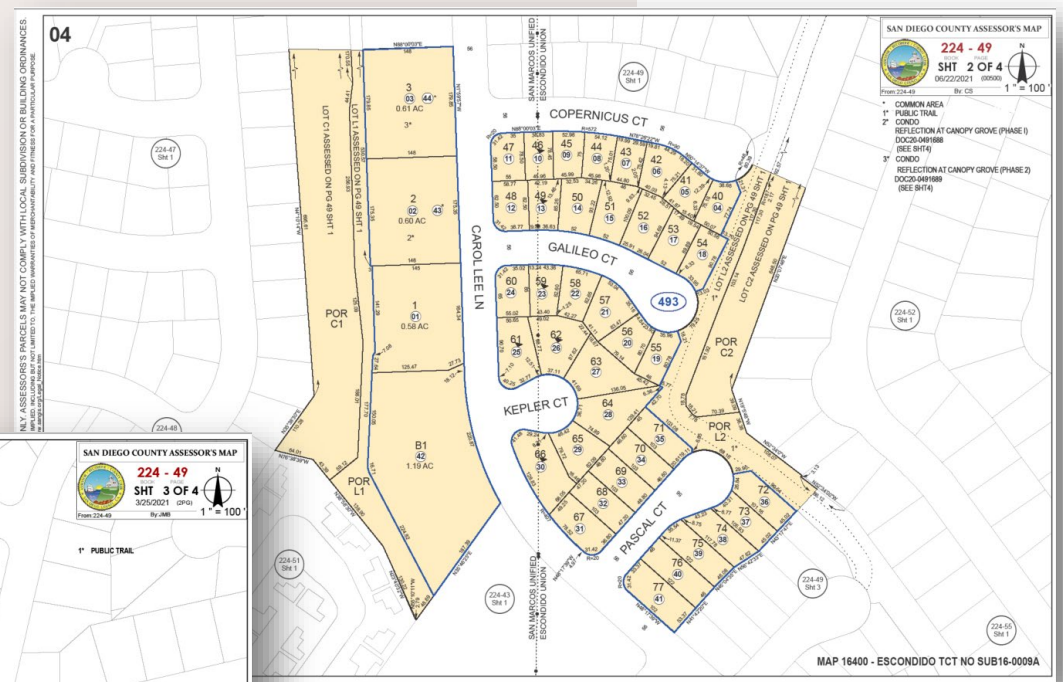
AMP PRODUCTION

Before & After



AMP PRODUCTION

Before & After



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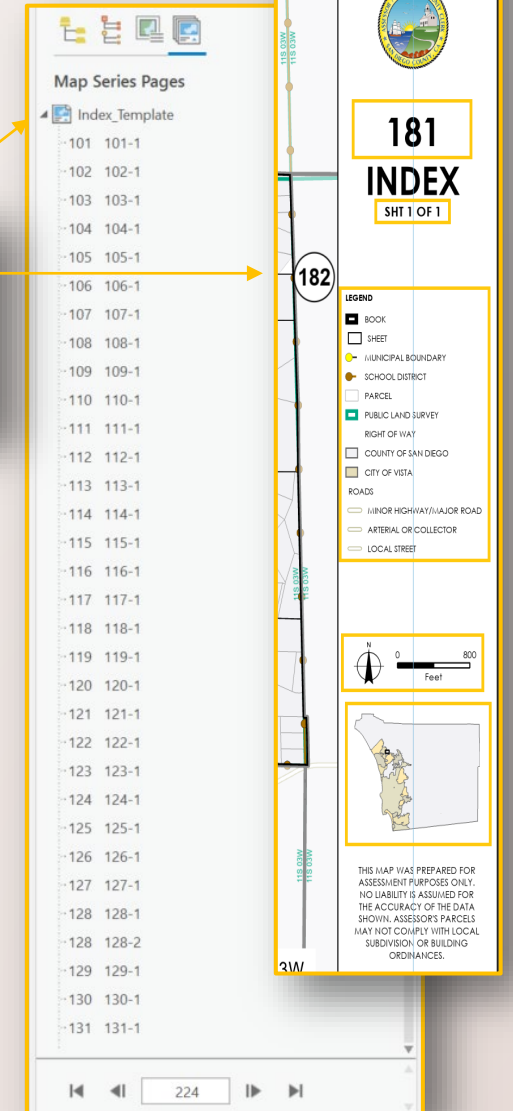
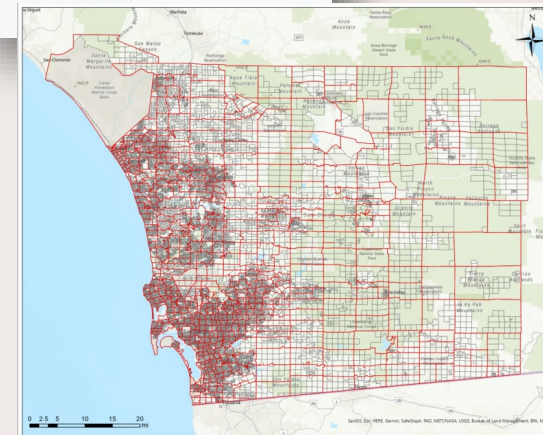
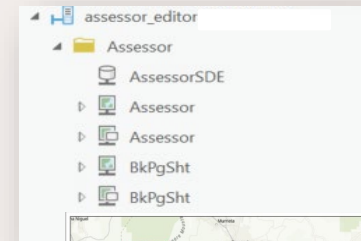
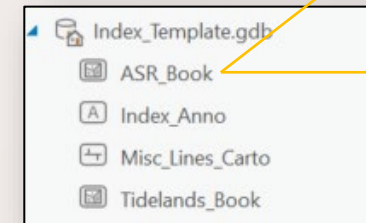
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES. LOCAL ORDINANCES MAY VARY FROM THE SAN DIEGO COUNTY ASSESSOR'S MAP. THE SAN DIEGO COUNTY ASSESSOR'S MAP IS NOT A LEGAL INSTRUMENT.

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INDEX MAP PRODUCTION

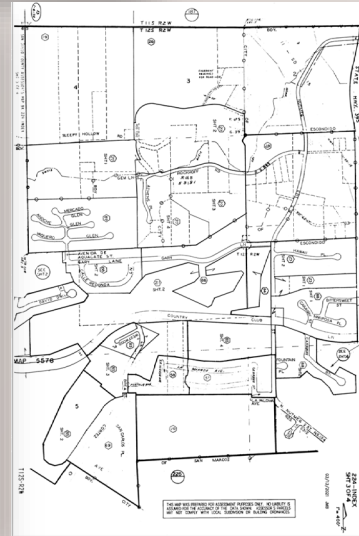
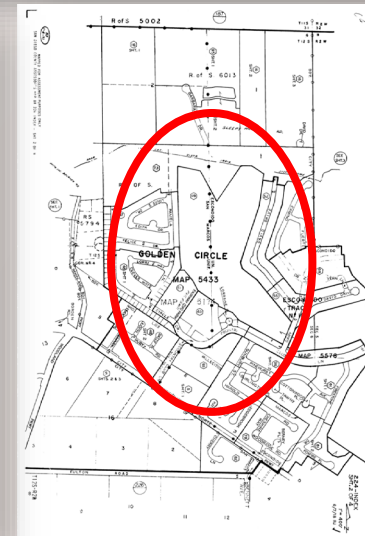
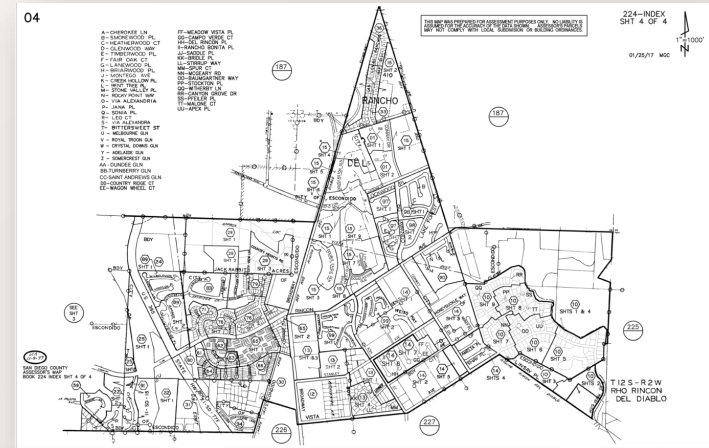
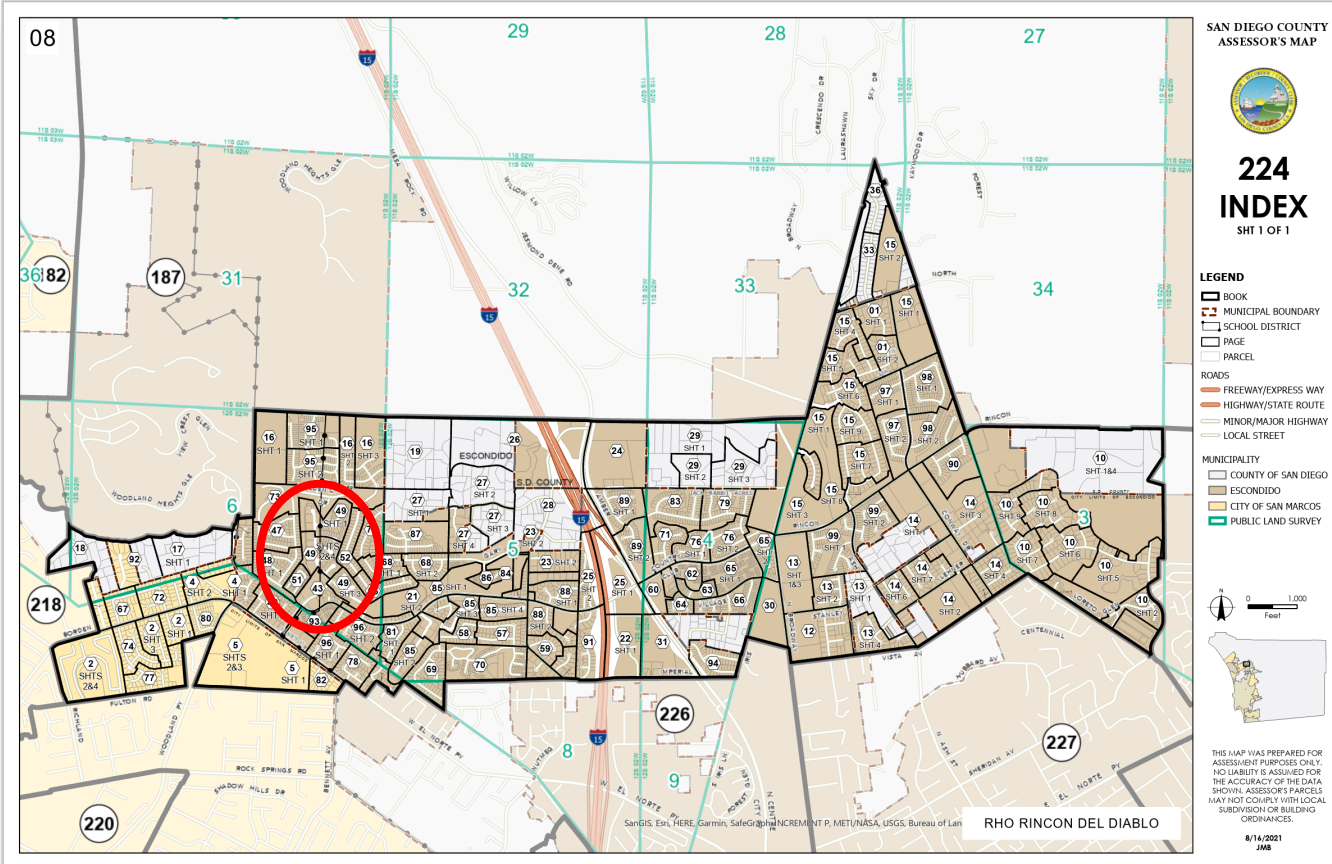
- Index Maps use Map Series Pages where the Assessor Book layer is used as the index layer for the maps and hinges
 - Book attributes
 - Dynamic text
- Goal is to create an archive of GIS-Index Maps & continue to update them in GIS
 - Index Maps and layers remain private
 - Work to make the layer public & easily accessible
- Project requires ArcGIS Pro editor training, lots of hands for drafting new maps and for maintenance
 - ~1,000 Index Maps
 - ~20 are in GIS
- Currently map publication *on hold* – needs Division Chief approval

OBJECTID	Shape	BOOK	TXTSIZE	INDEX	SHT_X_OF_Y	SCALE	created_user	created
567	Polygon	101	L	101-1	SHT 1 OF 1	<Null>	<Null>	<Null>
104	Polygon	102	L	102-1	SHT 1 OF 1	<Null>	<Null>	<Null>
274	Polygon	103	M	103-1	SHT 1 OF 1	<Null>	<Null>	<Null>
480	Polygon	104	M	104-1	SHT 1 OF 1	<Null>	<Null>	<Null>
562	Polygon	105	L	105-1	SHT 1 OF 1	<Null>	<Null>	<Null>
418	Polygon	106	L	106-1	SHT 1 OF 1	<Null>	<Null>	<Null>
561	Polygon	107	L	107-1	SHT 1 OF 1	<Null>	<Null>	<Null>
578	Polygon	108	L	108-1	SHT 1 OF 1	<Null>	<Null>	<Null>
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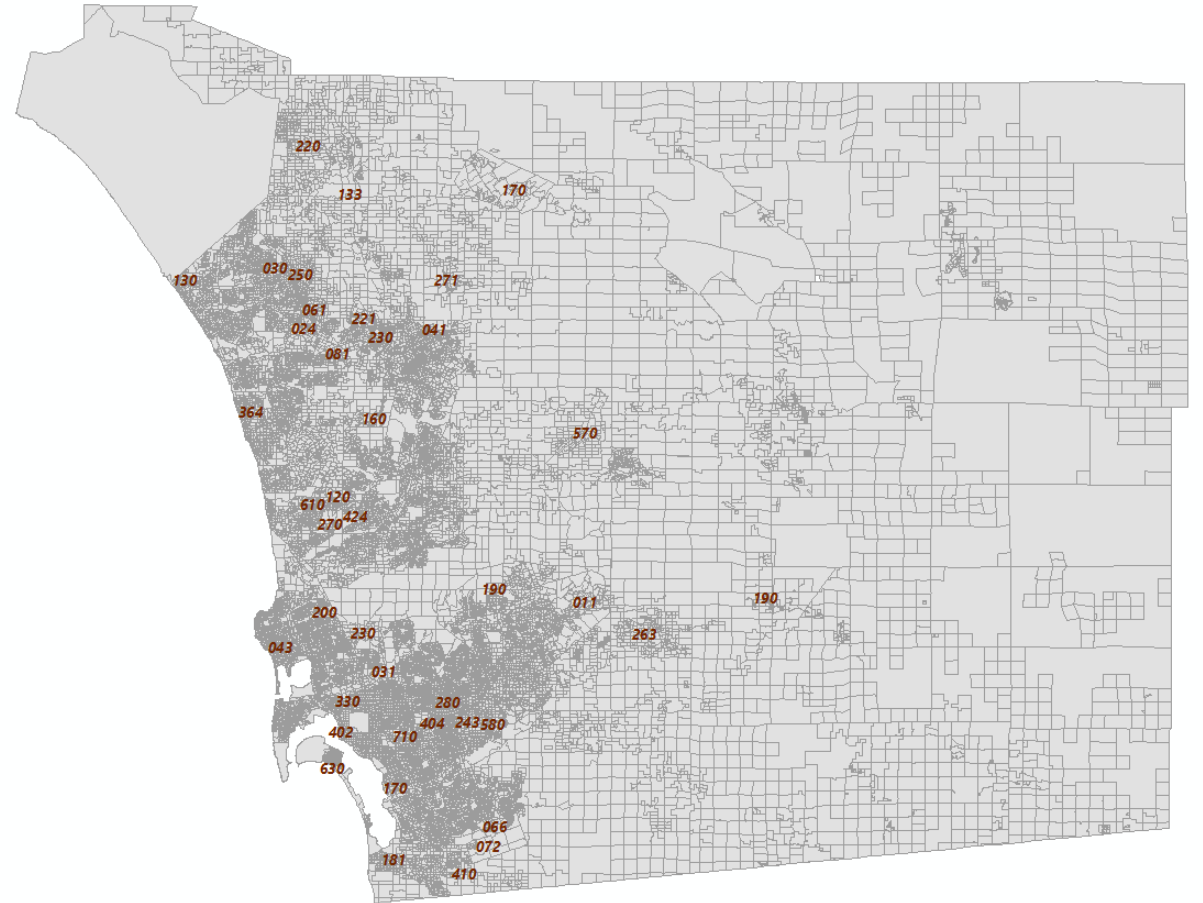
INDEX MAP PRODUCTION

Before & After



WHERE ARE WE WITH AMP?

- Full GIS AMP production (with GIS Staff) started at the end of 2019
- Currently have 30,833 APM and only ~150 are GIS Maps
- Staff fluctuation / COVID / Software glitches impact production efforts (but we get it done 😊)
- Need more GIS staff!

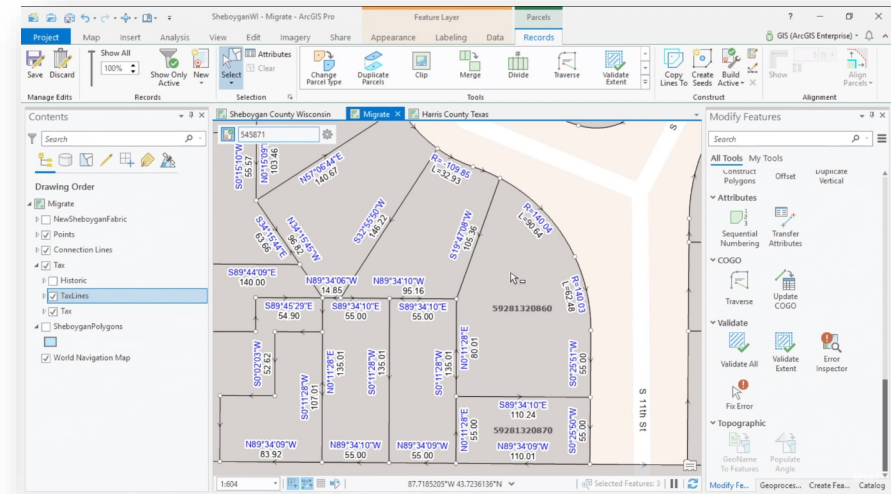
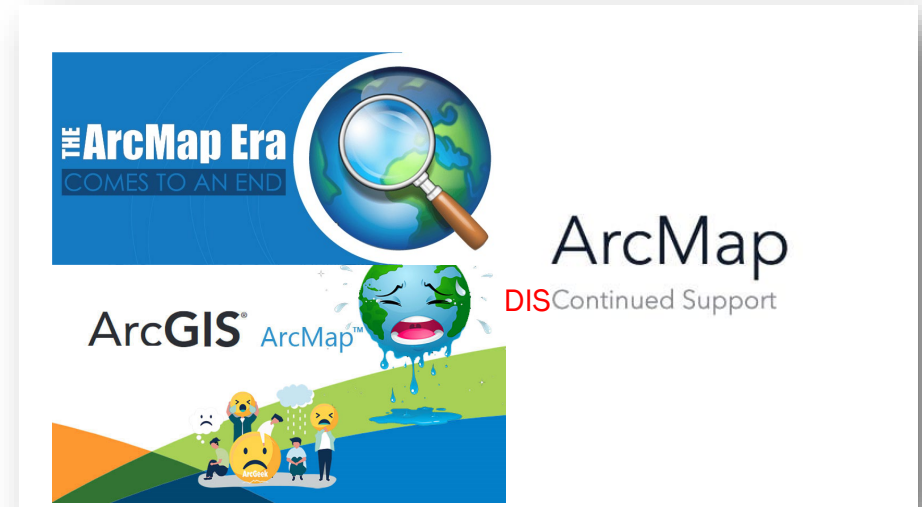
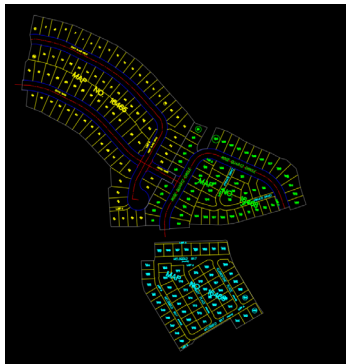


FUTURE OF AMP

ArcMap no more – moving towards Parcel Fabric!

- Will integrate PF workflows into the CUT making process (or vice versa) – versions?
- Expected integration of PF workflows by the end of the 2022 Tax Roll and ready to use for the 2023 Tax Roll?
- Continued collaboration with SanGIS (testing, implementation, integration, etc.)
- Need to require Engineering companies to submit linework AND annotation to eliminate drafting efforts as much as possible.
 - Currently, if we (the assessor) have a contact, we reach out to ask for these items.

ANNOTATIONS?



Thank you!

References

- “Strategic Plan”, 2014
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- “County of San Diego Assessor Parcel Maintenance Plans”, 2014
https://sdrgc.org/Documents/Docs/docs_20141008/APM_SDRGC_EricCulp.pdf
- “County of San Diego Assessor Maintained Parcels: [An Update]”, 2016
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