



Jordan Sinclair

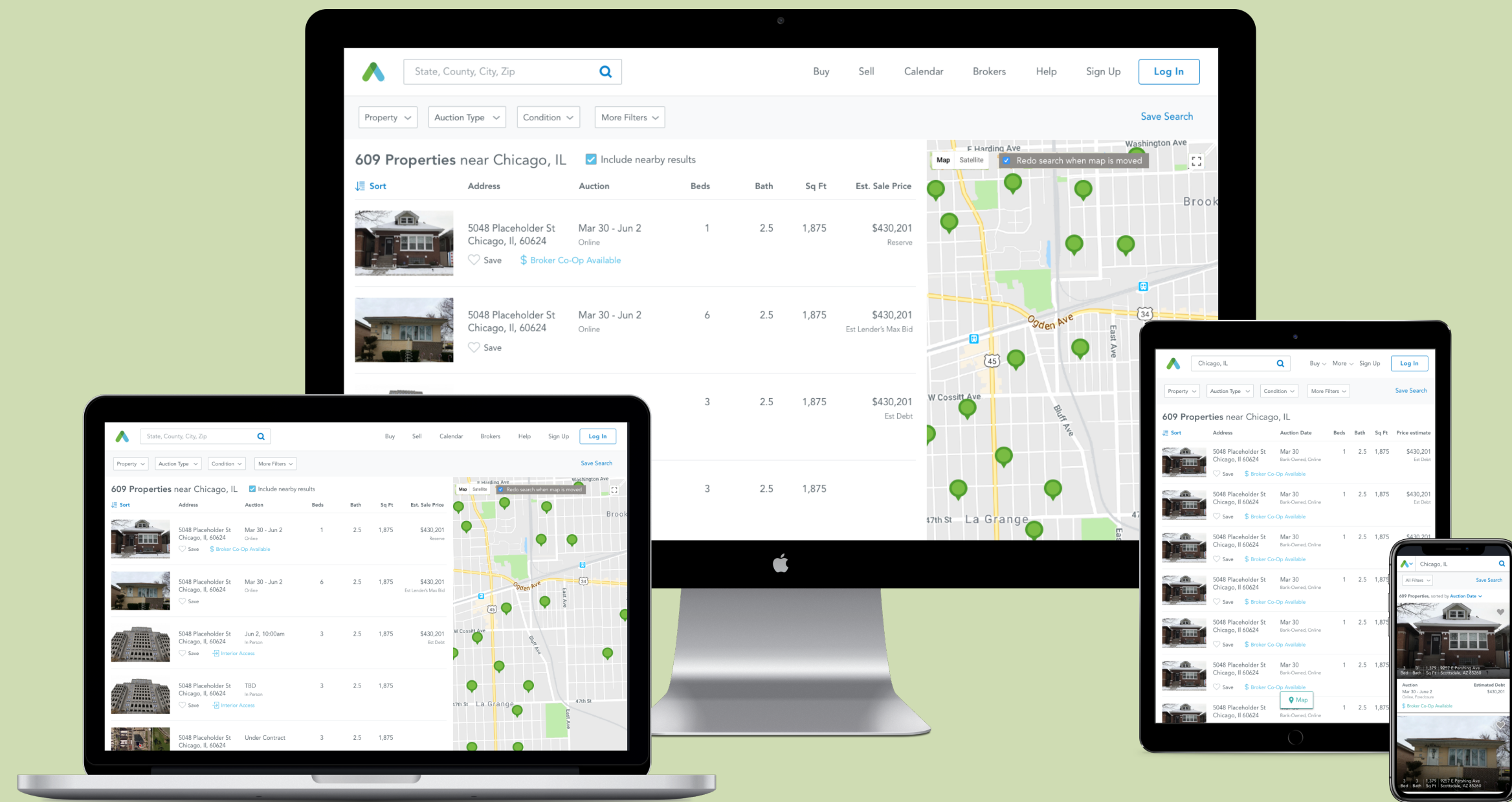
Product Designer



AUCTION.COM
BEYOND THE BID.

Search Redesign

Responsive Web
Mar - Sep 2018



The Situation

Auction.com is an online marketplace for auctioning distressed real estate, like foreclosures, to investors.

My team's primary metric was to **increase the company's sales rate by 10%**. Leadership believed there was an opportunity to accomplish this by improving our search functionality.

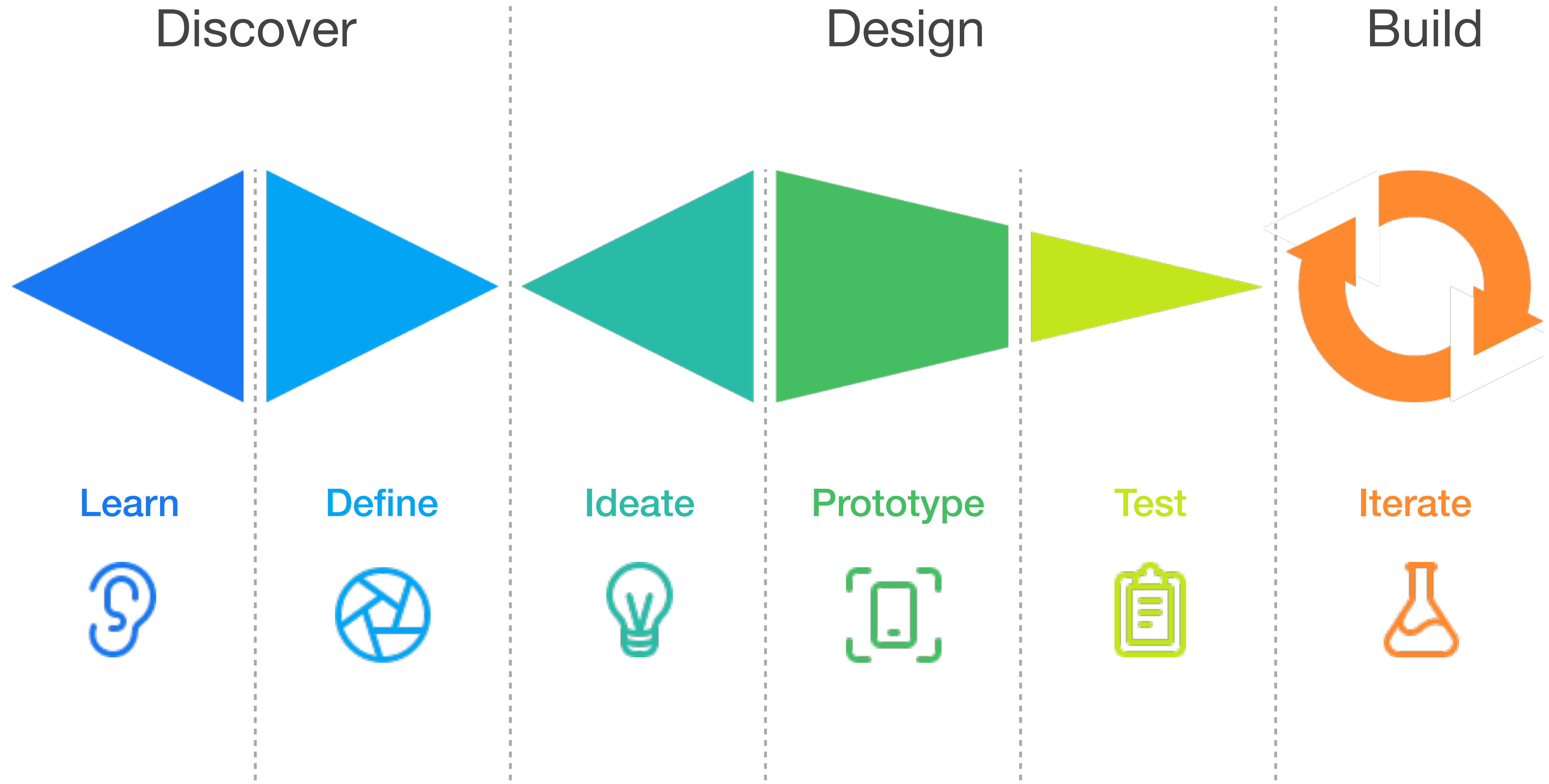


My Role

For this project, I wore all the hats. I played the role of **Product Designer, User Researcher, and Product Manager.**



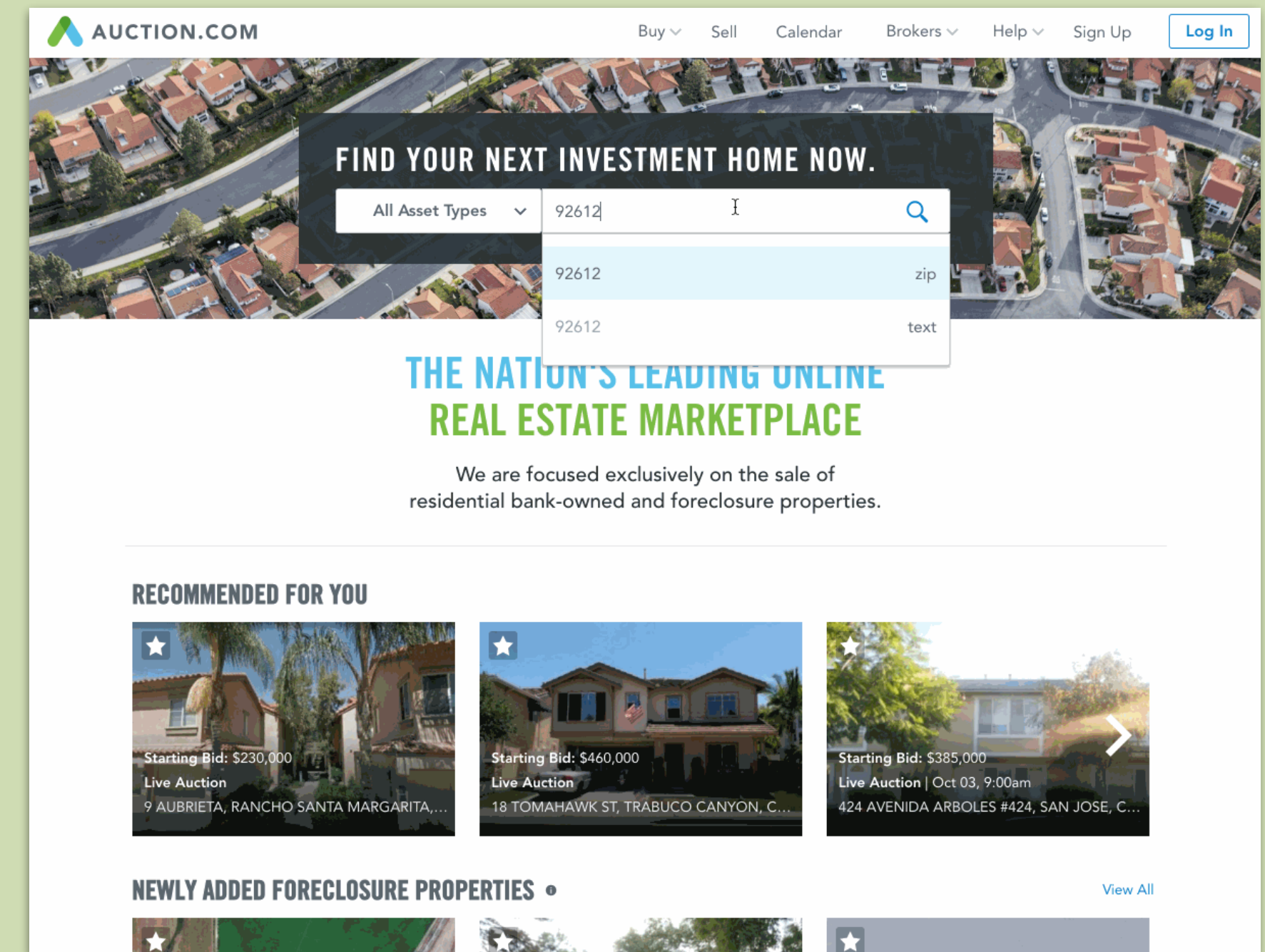
My Process



What is search?

What are our **goals**? What are our **hypotheses**? What **outcome** do we want to achieve? And what **evidence** do we have to support our beliefs?

I needed to understand both the business needs and our users needs, and help find the intersection of those needs.



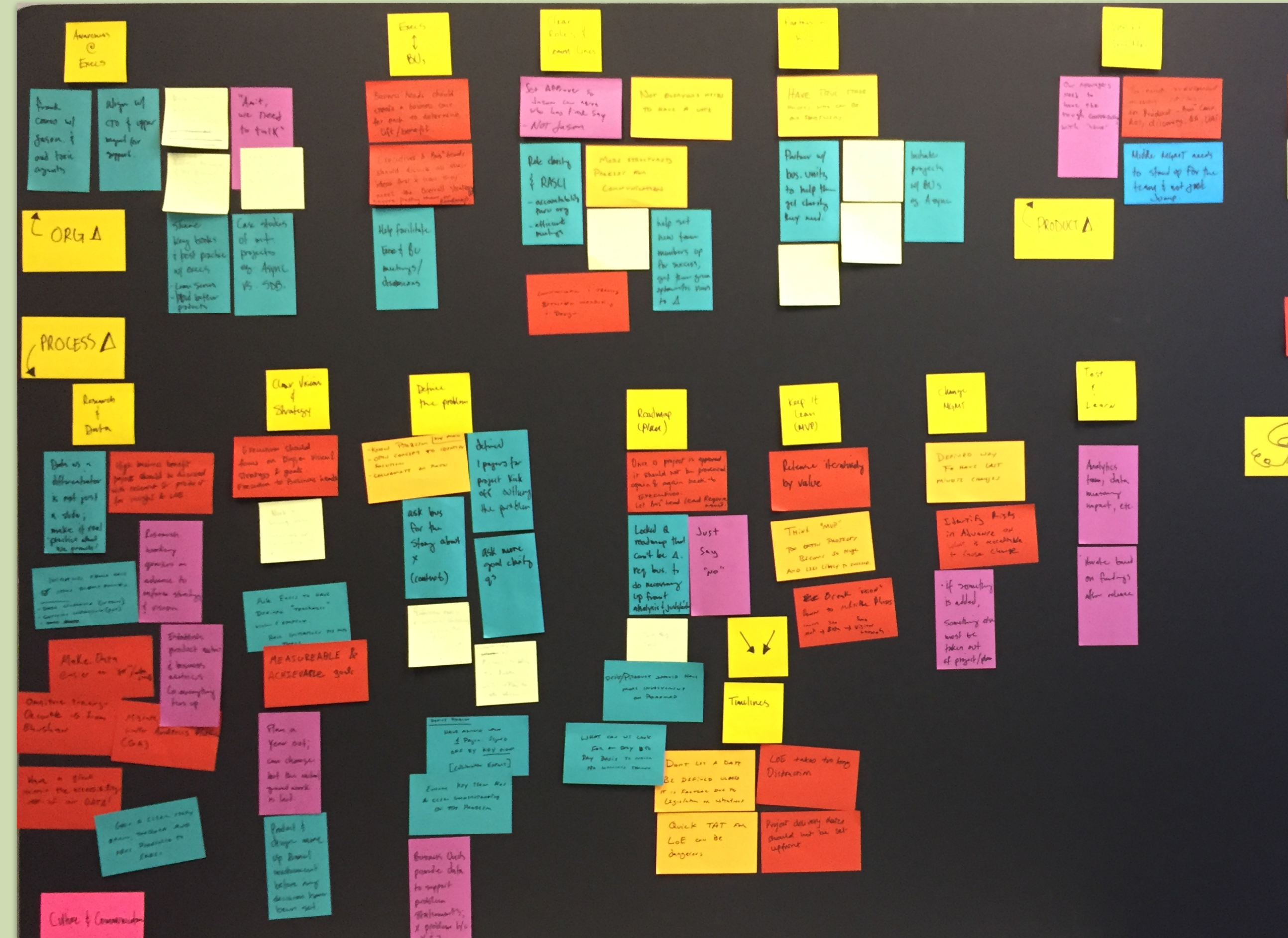
Internal Research

Primary business metric:
Increase sales rate

Opportunity to **capture a new user segment**: new investors

Internal dislike: “Our search looks like vomit” -CEO

Internal bias: existing site built around our company structure, not how our customers think about real estate.



Affinity diagramming to quickly synthesize interview insights

Understanding our users

I collected and reviewed existing customer data, including NPS surveys, a mental model study, and quantitative metrics.

Our users didn't see search as an issue. (90% satisfaction)

The site used unintuitive business and legal jargon.

Customers search for “*a good deal*” that’s “*not a lot of work*” in “*a location near them.*”

1. Search UX is OK, but users want more filters

- Opening bid
- More granular geo
- Online vs offline

2. Property info is lacking

- Users want more
- Interior photos
 - Occupancy status
 - Condition reports
 - Accuracy
 - Info found on other sites (ie, liens)

3. Registration UX is healthy

- Track score changes post PCG rollout
- Frequent complaint / big opportunity = save credit card info to encourage repeat registrations

Customer Satisfaction by journey (Q4 only)

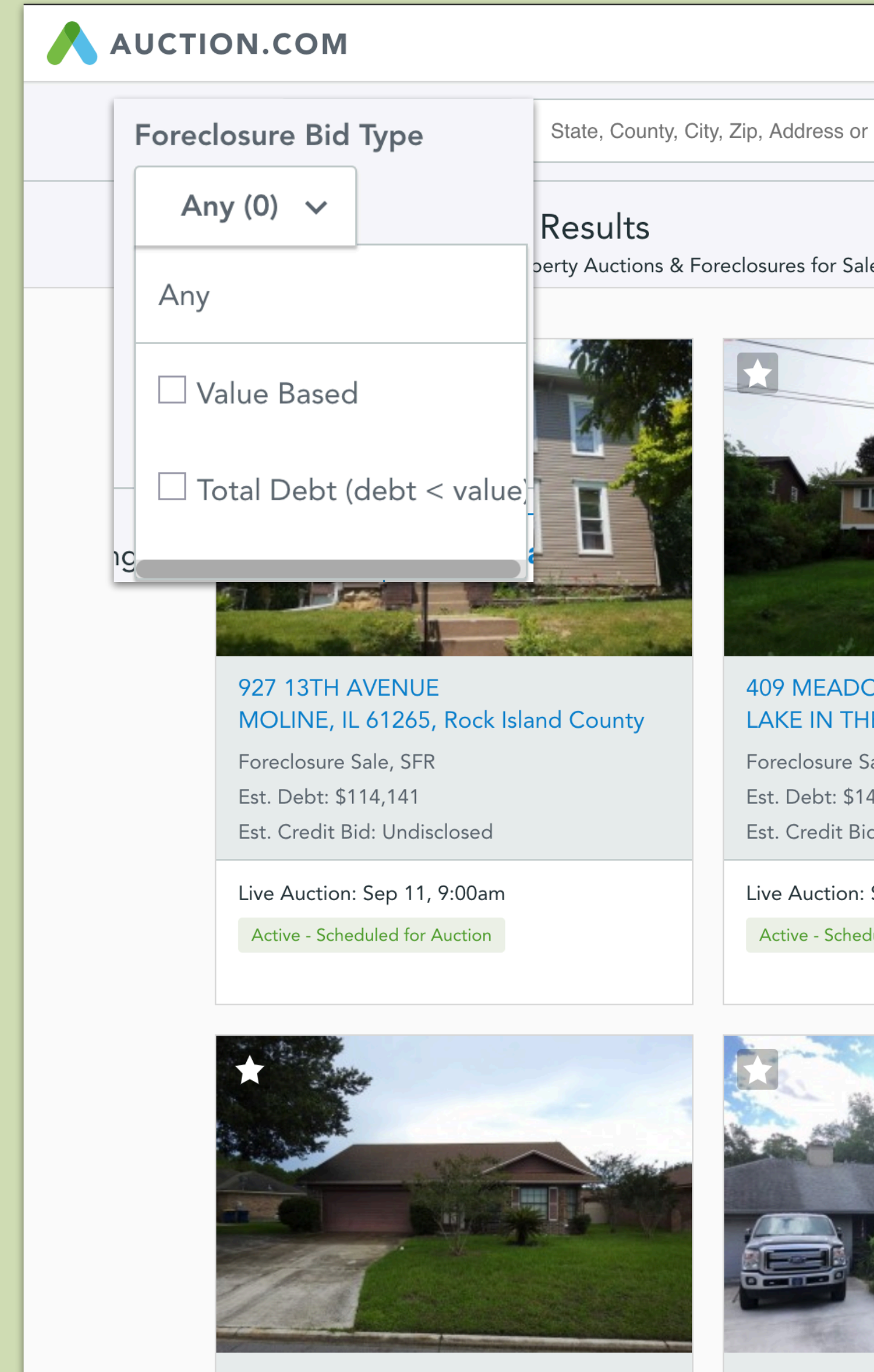


Q: How easy or difficult was it to [register to bid] on [123 Main St]?

Quant Review

97% of searches didn't use a single filter. 70% of searches didn't include a location. I believed this was because:

- With limited national inventory, most zip code searches return between 0-7 results. Users don't have a need to filter.
- Filters are hidden behind a dropdown. People don't even know what they can filter by.
- Filters use internal jargon and don't match user's mental model of searching for homes.



Design Sprint

Design Sprint

I wanted to **demonstrate design thinking and the product development process** to leadership and to members of the product team.

I **organized and facilitated a design sprint** and included stakeholders from leadership, product, and engineering.

The goal of the design sprint was to **quickly examine the problem space, create a broad range of solutions, and test if our favorite solution achieves our goals.**



Design Sprint

At the end of three days, I had prioritized sketches, concepts, and ideas that I could turn into a prototype.

I also led the team in defining achievable success metrics for the project ...



Defining a goal

Sales rate is not our primary success metric - No one in the room believed that this project would singlehandedly increase sales rate by 10%.

We defined the project goals as:

To create an exceptional search experience that matches buyers to assets by **increasing search conversion & reducing search page drop-off.**

**Side note on culture change...

Around this time, I realized our Product team **lacked achievable goals** and **lacked an understanding of our product and our customers**. Without such, we lacked a path toward succeeding at the objective given by leadership: “increase sales rate.”

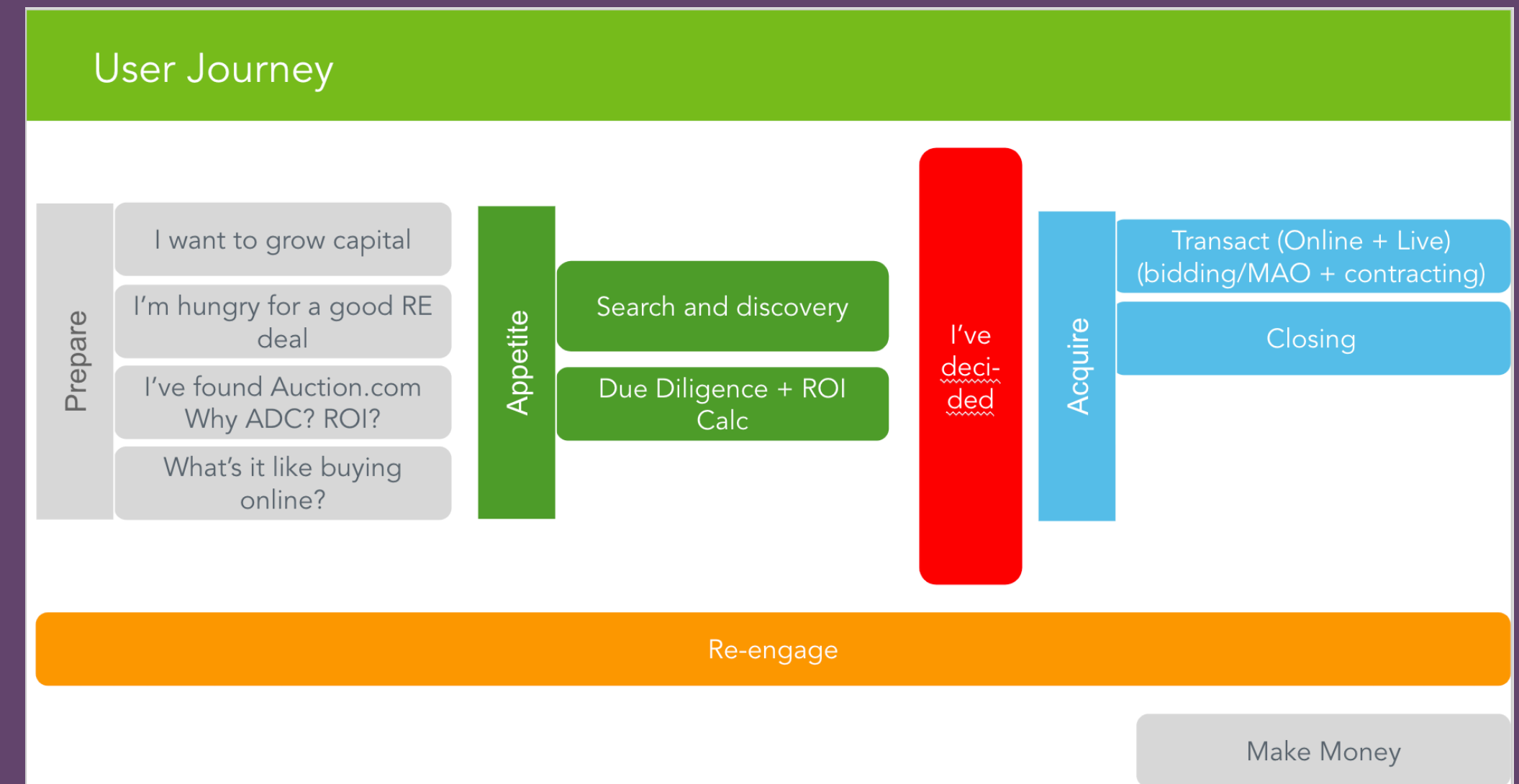
If we really want to increase sales rate by 10%, we’re going to need to start looking at the bigger picture and **come up with a holistic strategy** — improving Search isn’t going to do it on its own.

I organized and led three workshops with the product team to build a better product strategy...

Customer Journey Workshop

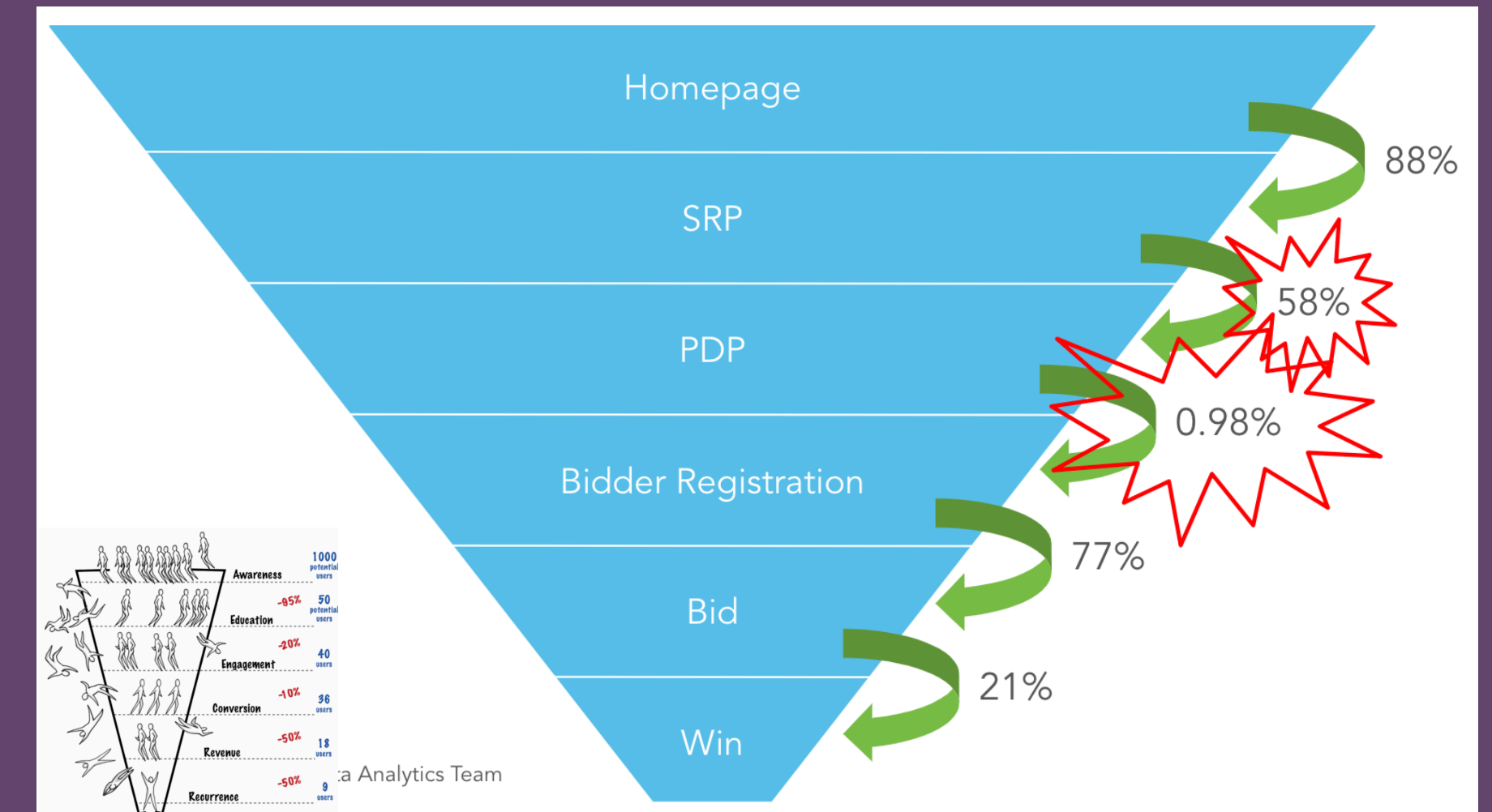
I led a workshop to understand our users better, what their pain points are, and identify opportunities to better support their goals (of maximizing their investment via distressed real estate).

The team collaboratively built this journey map during the workshop.



User Lifecycle Funnel

I also wanted to take a quantitative approach at identifying opportunity, and so I led a workshop to build a buyer funnel.



The search page has about a 50% drop-off, but less than a percent actually indicate interest by registering to bid. Customer acquisition is also very costly, and our terrible post-win experience results in less than 30% customer return rate.

Define a product strategy

If we really want to increase sales rate by 10%, we're going to need to start looking at the bigger picture and come up with a holistic strategy. **Improving Search isn't going to achieve that goal on its own.**

I led a workshop for our entire product team to define a company mission and vision, and a product strategy to get there.

16 100,000 ft - 15+ year mission & vision *not to scale
Be the trusted, **worldwide** marketplace for real estate

17 100,000 ft - 15+ year mission & vision *not to scale
Provide buyers, sellers, businesses, investors, and families, a *stress-free and confident* real estate experience while providing continual growth for our shareholders

18 Global Real Estate Marketplace
National Real Estate
B2B

19 Global Real Estate Marketplace
B2B B2C C2C
20,000 ft - 5 year strategy
Grow a distressed property marketplace
More buyers
More properties / market share / clients?
More sales

20 B2B
Sellers / Clients Buyers Operations
We promise our clients: We promise our buyers: We promise our operations:
Commitment Trust Control
Insight Scalability Scalability
Profitability Confidence Este Este
Compliance Compliance Accuracy
KPI: Increasing # of buyers
% of seller marketplace Buyer satisfaction
+ more + more

21 1. Foundational, value
Providing trust, confidence, ease
purchase, investment real estate
2. Foundational, value
Providing insight into their portfolio
working to maximize their profit
3. Cultivate the marketplace
Bringing buyers and sellers together
4. Eliminate REO
Cut our competitors off above
5. Operational Stability
Morpheus, quandis, data consistency

22 B2B
Operational stability & scalability Cultivate the marketplace
Foundational buyer experience Eliminate REO
Foundational seller experience What else?

23 B2B
M. Huang A. Lo
Foundational buyer experience Foundational seller experience
Operational stability & scalability
Cultivate the marketplace Eliminate REO
What else?

24 Foundational buyer experience
Mission: To provide a trustworthy, confident, and easy way to invest in distressed real estate.
Hypothesis: By supporting how investors think about purchasing real estate through an intuitive, exceptional online customer experience, we will grow the amount of buyers using our platform and increase return buyers.
KPIs:
of active users
of returning buyers (satisfied, revenue generating, customers)

Product Strategy

...Back to search

Sales rate cannot be our primary success metric

Now, when I had to return to the CEO and tell him this, I could point to where search fits in our broader strategy to increase sales rate.

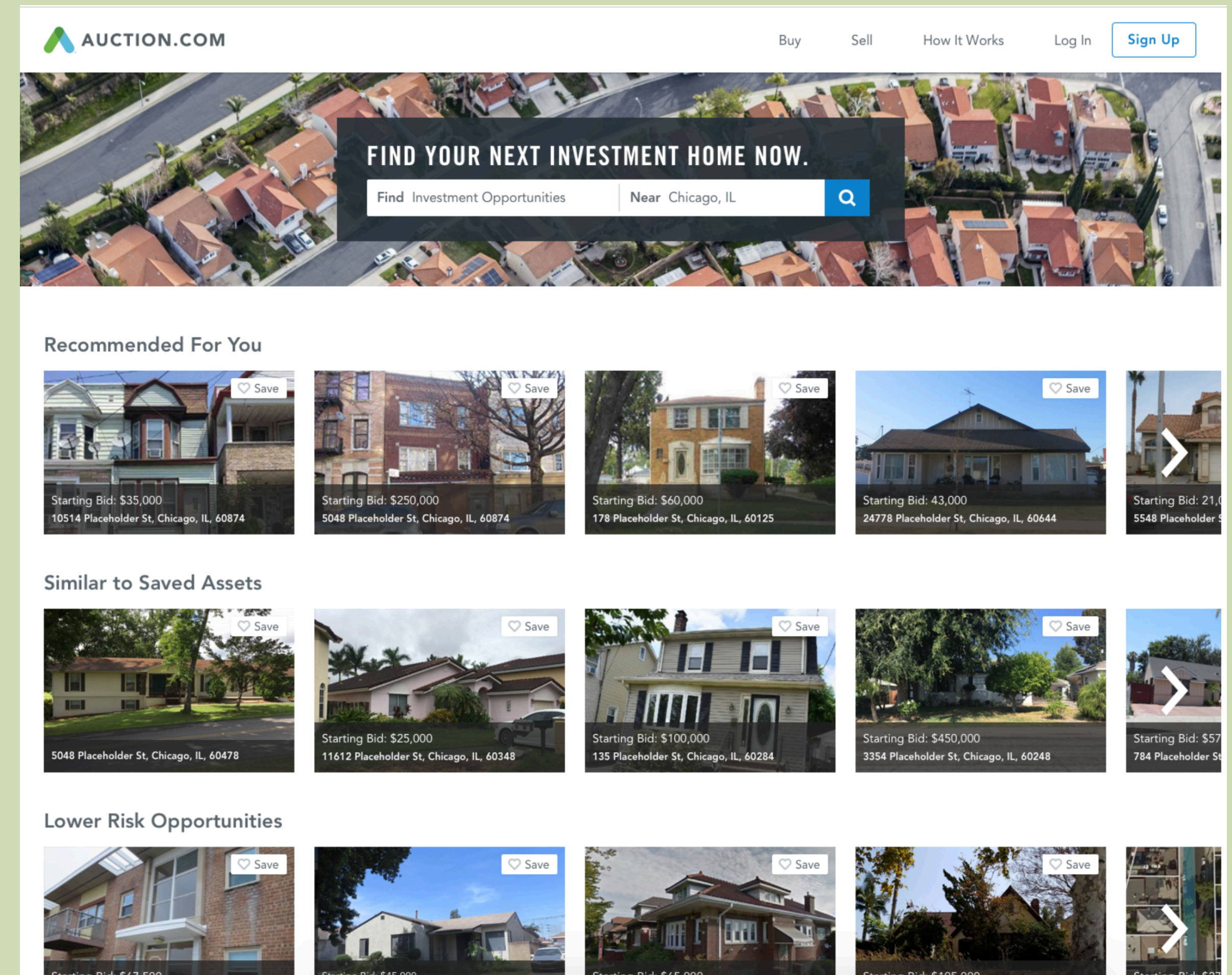
Search is just one of the opportunities to help grow our business.

First Prototype

I used the sketches from the design sprint to help guide my first prototype.

I set a few goals for the design:

- reduce jargon
- surface more relevant information
- help users filter based on their mental model.

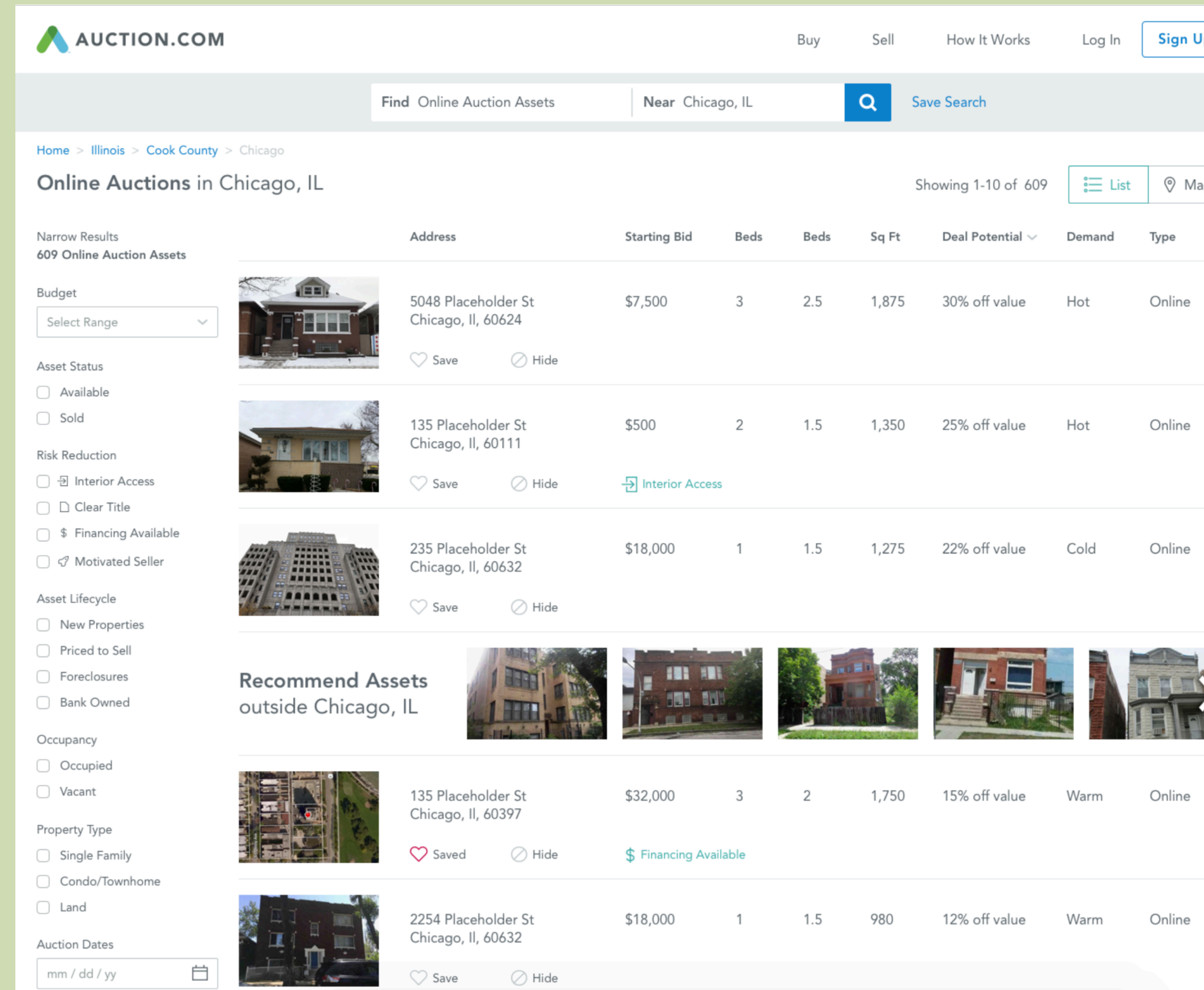


First Prototype

The prototype provided a meaningful default location (city/zip near you).

Filters were laid out in order of importance: Price, filters that implied “not a lot of work”

At the end of the week, I **created and launched an unmoderated user study** to compare impressions of this prototype against the existing search.



Location Location Location

Key insight from the first study: location is the one of the most important elements of finding an investment property.

I created another prototype to evaluate whether or not a prominent map is more important than prominent filters.

The feedback was significant: the map was essential to finding properties.

The screenshot shows a real estate search interface for properties near Chicago, IL. The search bar at the top contains "Near Chicago, IL" and a search icon. Below the search bar are filters for "Any budget", "Risk Reduction", "Property Lifecycle", "Auction Type", "Auction Dates", and "Property Type". The main content area displays a list of properties with columns for Address, Beds, Bath, Sq Ft, Potential, Demand, Auction, and End Date. Each property listing includes a thumbnail image, a "Save" button, and a "Hide" button. A "Recommend Assets outside Chicago, IL" section is also visible, showing a carousel of property images. On the right side, a map of Chicago is displayed with several red circular markers indicating property locations. The markers are labeled with numbers: 16, 112, 213, and 144. The map shows major highways like I-90, I-55, and I-290, and neighborhood names like Uptown, Lake View, Logan Square, Lincoln Park, Near North Side, Cicero, Little Village, Back of the Yards, and South Side.

Address	Beds	Bath	Sq Ft	Potential	Demand	Auction	End Date
5048 Placeholder St Chicago, IL, 60624	3	2.5	1,875	30% off	Hot	Online	Mar 30
135 Placeholder St Chicago, IL, 60111	2	1.5	1,350	25% off	Hot	Online	Mar 28
235 Placeholder St Chicago, IL, 60632	1	1.5	1,275	22% off	Cold	Online	Apr 2
135 Placeholder St Chicago, IL, 60397	3	2	1,750	15% off	Warm	Online	Apr 3
2254 Placeholder St Chicago, IL, 60632	1	1.5	980	12% off	Warm	Online	Apr 2

The Design

After two rounds of rough iteration, I prepared a design to present to leadership and then engineering.

List

Simpler, more readable, and more extensible data layout.

Key insight: Users preferred the scalability of a table layout.

The screenshot shows a real estate website interface. At the top, there is a search bar with the text "State, County, City, Zip" and a magnifying glass icon. To the right of the search bar are navigation links: "Buy", "Sell", "Calendar", "Brokers", "Help", "Sign Up", and a "Log In" button. Below the search bar are filter buttons: "Property", "Auction Type", "Condition", and "More Filters". A "Save Search" link is located in the top right corner.

The main content area is titled "609 Properties near Chicago, IL" with a checked box for "Include nearby results". Below this is a table of property listings. Each row includes a thumbnail image, the address, auction details, and key features. To the right of the table is a map showing the location of the properties with green pins.

Sort	Address	Auction	Beds	Bath	Sq Ft	Est. Sale Price
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 Online	1	2.5	1,875	\$430,201 Reserve
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 Online	6	2.5	1,875	\$430,201 Est Lender's Max Bid
	5048 Placeholder St Chicago, Il, 60624	Jun 2, 10:00am In Person	3	2.5	1,875	\$430,201 Est Debt
	5048 Placeholder St Chicago, Il, 60624	TBD In Person	3	2.5	1,875	
	5048 Placeholder St Chicago, Il, 60624	Under Contract	3	2.5	1,875	
	5048 Placeholder St Chicago, Il, 60624	Sale Pending	3	2.5	1,875	

Sorting

Most relevant properties front-and-center.

More flexible sorting options, including showing newest properties.

Key insight: With a limited inventory, many users just wanted to see what was new since their last visit.

State, County, City, Zip

Buy Sell Calendar Brokers Help Sign Up Log In

Property Auction Type Condition More Filters Save Search

609 Properties near Chicago, IL

Sort





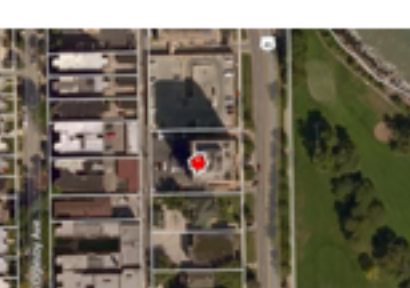

- Recommended ↓
- Newly Added
- Price Estimate
- Auction Dates
- Square Feet
- Beds
- Baths
- Address

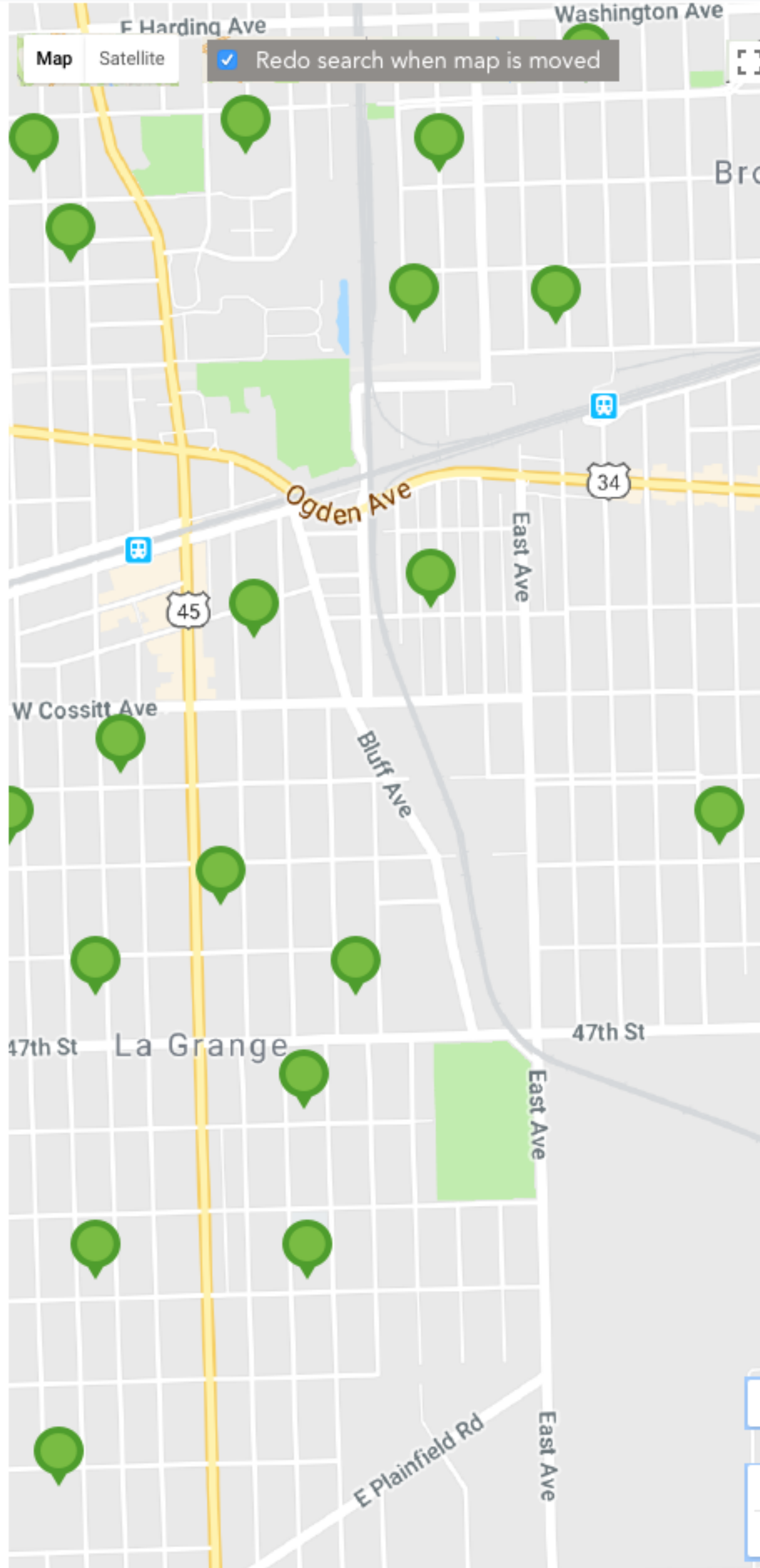
Address	Auction	Beds	Bath	Sq Ft	Est. Sale Price
Placeholder St 60624	Mar 30 - Jun 2 Online	1	2.5	1,875	\$430,201 Reserve
Placeholder St 60624	Mar 30 - Jun 2 Online	6	2.5	1,875	\$430,201 Est Lender's Max Bid
Placeholder St 60624	Jun 2, 10:00am In Person	3	2.5	1,875	\$430,201 Est Debt
Placeholder St 60624	TBD In Person	3	2.5	1,875	
5048 Placeholder St Chicago, IL, 60624	Under Contract	3	2.5	1,875	
5048 Placeholder St Chicago, IL, 60624	Sale Pending	3	2.5	1,875	

Map Satellite Redo search when map is moved

Bluff Ave

609 Properties near Chicago, IL Include nearby results

Sort	Address	Auction	Beds	Bath	Sq Ft	Est. Sale Price
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 Online	1	2.5	1,875	\$430,201 Reserve
	Save	\$ Broker Co-Op Available				
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 Online	6	2.5	1,875	\$430,201 Est Lender's Max Bid
	Save					
	5048 Placeholder St Chicago, Il, 60624	Jun 2, 10:00am In Person	3	2.5	1,875	\$430,201 Est Debt
	Save	Interior Access				
	5048 Placeholder St Chicago, Il, 60624	TBD In Person	3	2.5	1,875	
	Save	Interior Access				
	5048 Placeholder St Chicago, Il, 60624	Under Contract	3	2.5	1,875	
	Save	\$ Financing Available	Interior Access			
	5048 Placeholder St Chicago, Il, 60624	Sale Pending	3	2.5	1,875	
	Save	\$ Financing Available	Interior Access			



“Near”

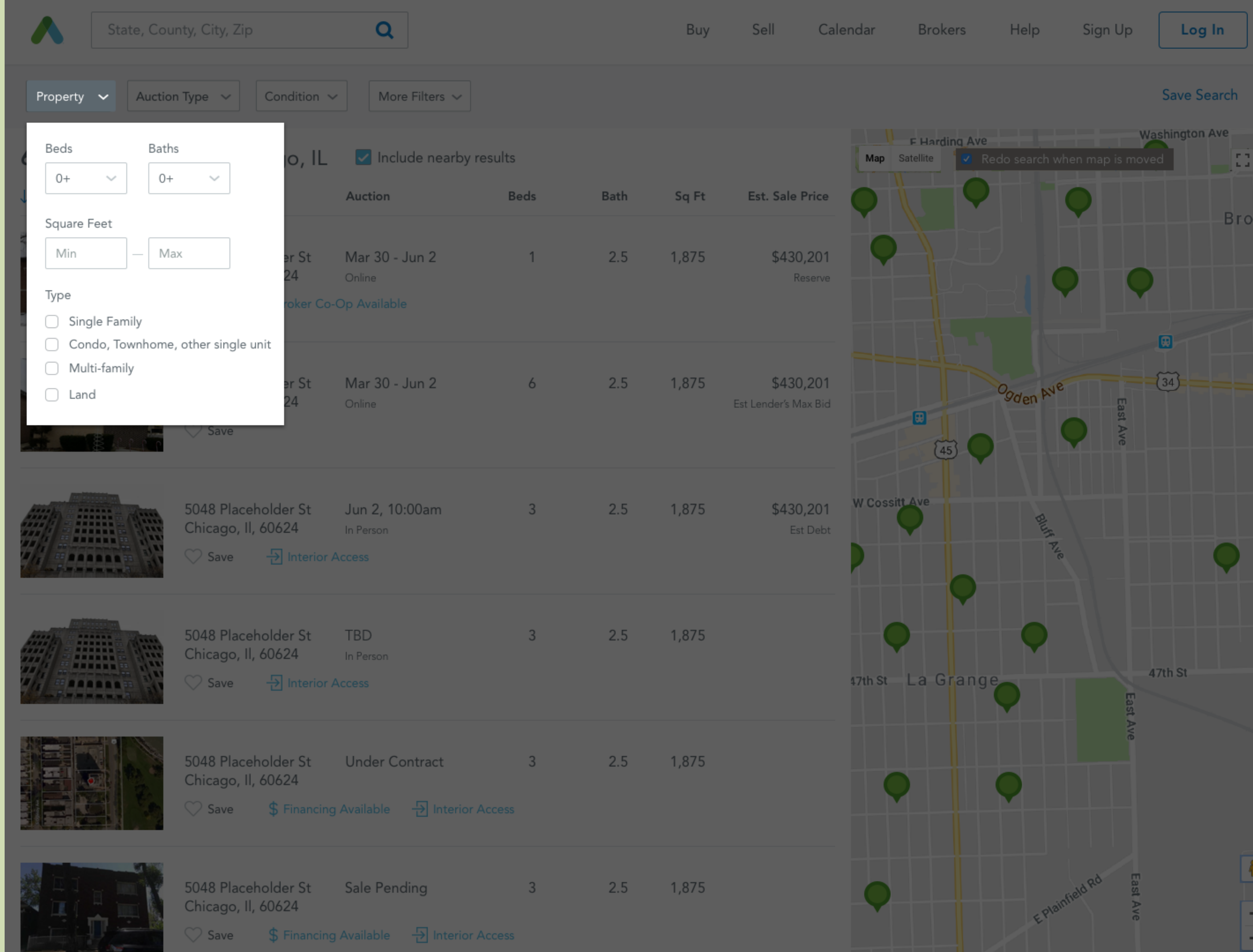
To increase conversion, and eliminate the 60% of zero-result queries for zip and city, I proposed searching “near” the location.

Key insight: Location, location location. Power investors said they needed precision! But newcomers were flexible.

Filters (1 of 3)

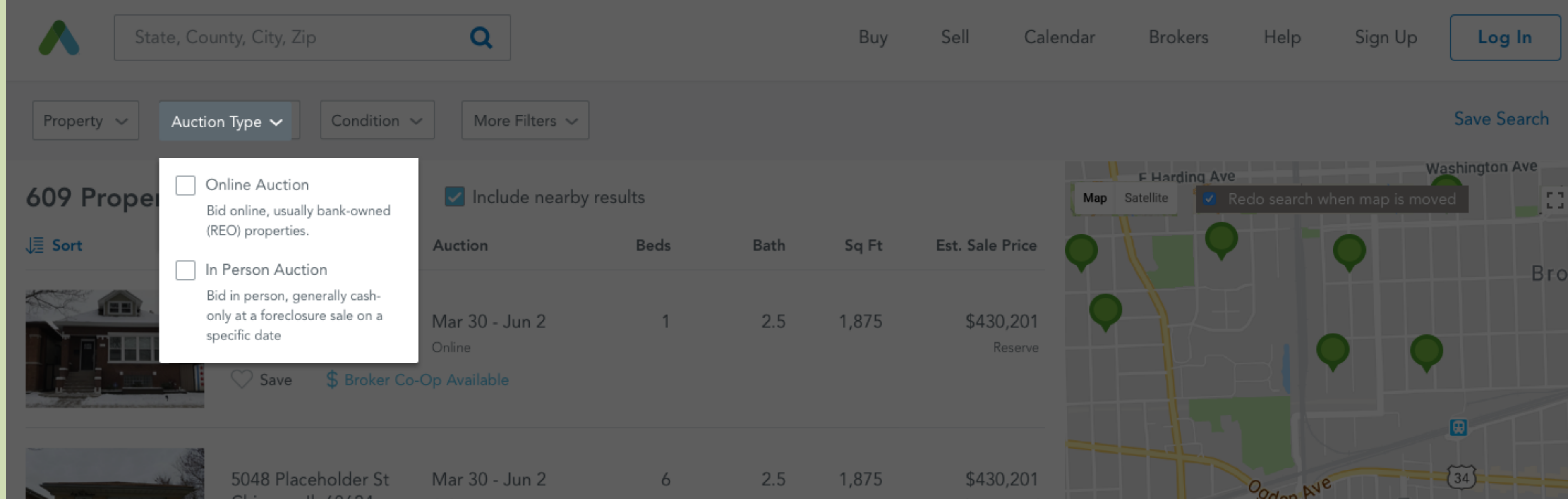
Simpler, more intuitive, and more discoverable support for how investors think about searching for investment properties.

Key insight: By eliminating jargon, I increased filter usage by 40%.

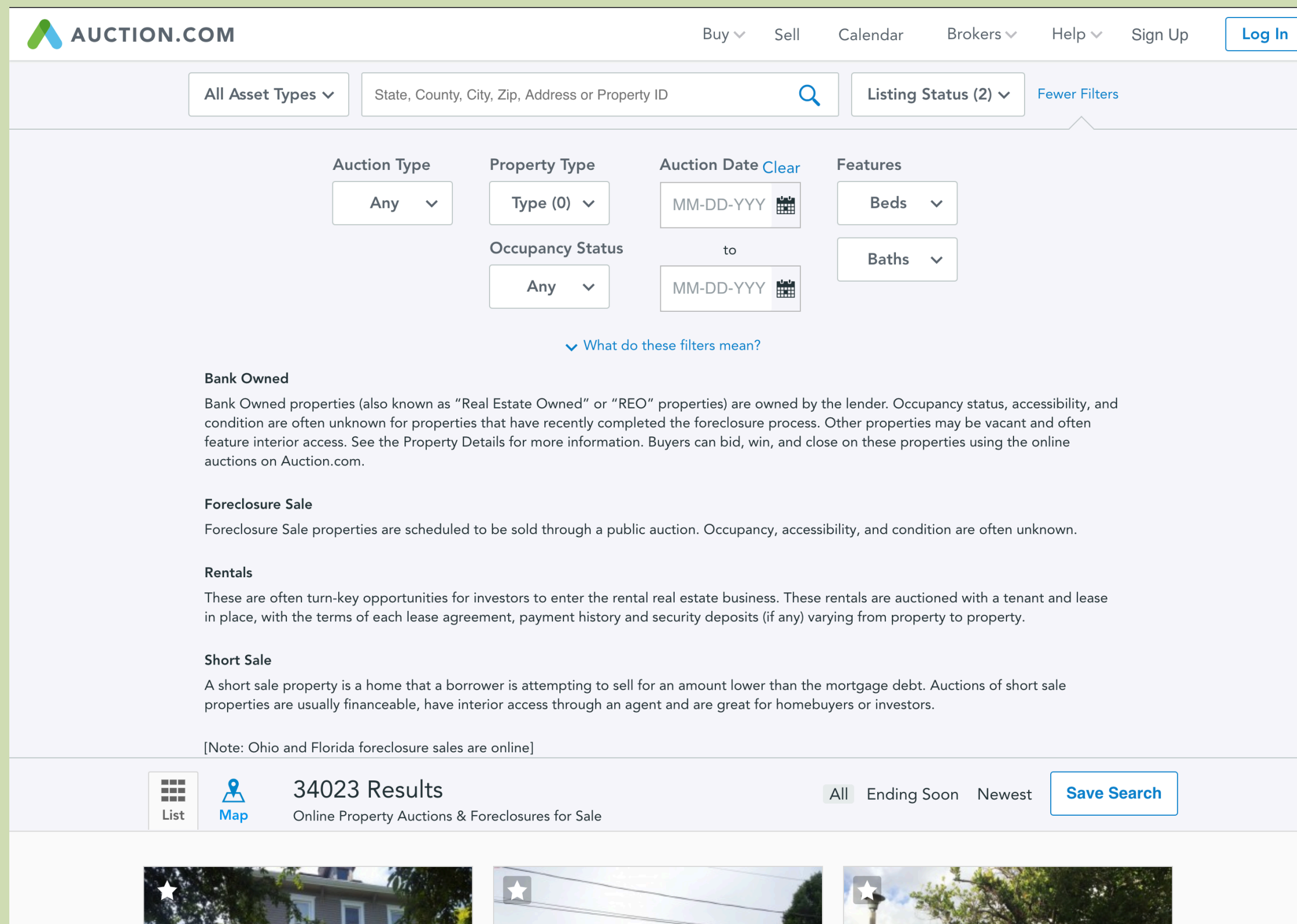


Filters (2 of 3)

Simpler language with contextual help.



Previously, as long paragraphs hidden two menus deep.



Filters (3 of 3)

New criteria to help understand how much work might be involved in purchasing this property

Key insight: New investors aren't familiar with condition details on distressed properties. They might be buying a home that isn't vacant!

State, County, City, Zip

Buy Sell Calendar Brokers Help Sign Up Log In

Property Auction Type Condition More Filters Save Search

609 Properties near Chicago

Sort

Address	Condition	Bath	Sq Ft	Est. Sale Price
5048 Placeholder St Chicago, Il, 60624	Vacant	2.5	1,875	\$430,201 Reserve
5048 Placeholder St Chicago, Il, 60624	Interior Access	2.5	1,875	\$430,201 Est Lender's Max Bid
5048 Placeholder St Chicago, Il, 60624	Interior Access	2.5	1,875	\$430,201 Est Debt
5048 Placeholder St Chicago, Il, 60624	Interior Access	2.5	1,875	
5048 Placeholder St Chicago, Il, 60624	Financing Considered, Interior Access	2.5	1,875	
5048 Placeholder St Chicago, Il, 60624	Financing Considered, Interior Access	2.5	1,875	


Map Satellite Redo search when map is moved

Map labels: F Harding Ave, Washington Ave, Ogden Ave, East Ave, Bluff Ave, W Cossitt Ave, 47th St, La Grange, E Plainfield Rd, East Ave

Vision

Extensible layout provides flexibility to grow, iterate, and improve, such as:

Improved map clustering, saving/hiding properties, integrated auction calendar, valuation tool, marketing widget.



Chicago, IL Q

[Buy](#) [Sell](#) [Calendar](#) [Brokers](#) [Help](#) [Sign Up](#) Log In

Budget Range ▾

Property ▾

Auction Type ▾

Condition ▾





More Filters ▾

[Save Search](#)





609 Properties near Chicago, IL


Sort

Value

	Address	Auction	Beds / Bath	Sq Ft	Price Estimates	Value
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 ONLINE	1 / 2.5	1,875	Est. Market Value \$430,201 Est. Reserve \$377,000	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #ccc, #00a0e3);"></div>
	Save Reserve Reduced Interior Access					
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 ONLINE	6 / 2.5	1,875	Est. Market Value \$430,201 Est. Reserve \$400,000	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #ccc, #00a0e3);"></div>
	Save Newly Listed					
	5048 Placeholder St Chicago, Il, 60624	Jun 2, 10:00am IN PERSON	3 / 2.5	1,875	Est. Market Value \$800,000 Est. Reserve TBD	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #ccc, #00a0e3);"></div>
	Save					
	5048 Placeholder St Chicago, Il, 60624	TBD IN PERSON	3 / 2.5	1,875	Est. Market Value \$800,000 Est. Reserve \$820,000	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #ccc, #00a0e3);"></div>
	Save Broker Co-Op Available					

Recommend Assets outside Chicago, IL


	5048 Placeholder St Chicago, Il, 60624	TBD IN PERSON	3 / 2.5	1,875	Est. Market Value \$800,000 Est. Reserve TBD	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #ccc, #00a0e3);"></div>
	Save Interior Access Financing Available					

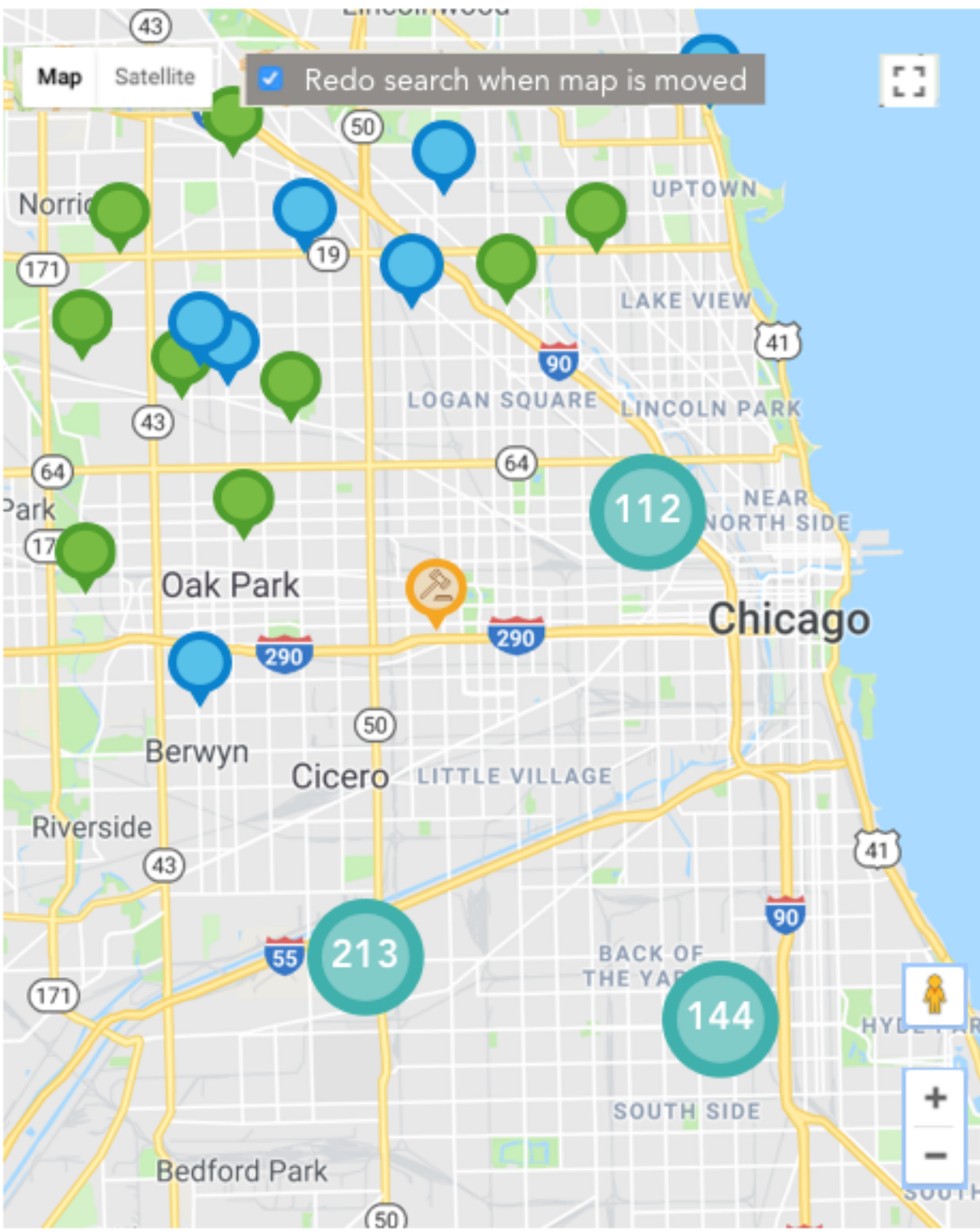
Properties near Chicago, IL

609 Properties ♥ 25 Saved ⊘ 49 Removed

Average Auction Price \$184,780
Median Home Price \$210,650
Median Price/Sq Ft \$145

Auction Winning Bids (past 12 months)





Design Breakdown

Here is some intention behind the design. Every pixel had a reason.

Leveraging the design system

I started by reviewing the existing UI toolkit I had been slowly building with engineers on previous projects.

With very limited resources and a tight deadline, my designs had to delicately balance usability with engineering cost.

I leveraged existing components and style guidelines as much as possible.

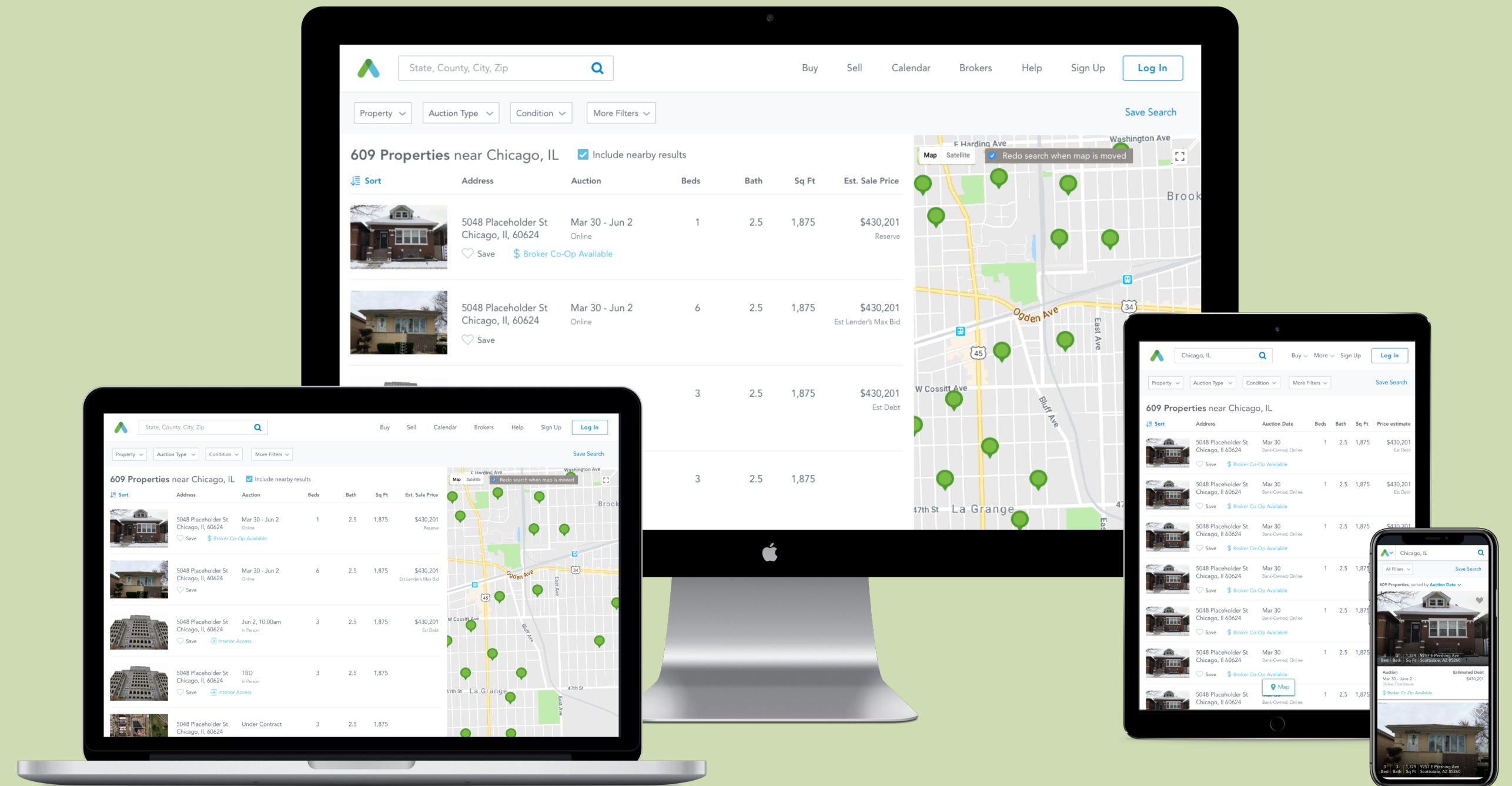
The screenshot displays a design system interface for 'RESI-TOOLKIT-CORE'. On the left is a navigation menu with categories: BASICS (Color Palette, Spacing, Type Face), ELEMENTALS (Button, Icon, Text), FORM FIELDS (CheckboxField, InputField, MaskedInputField, SearchField, SelectField, TextAreaField), LAYOUTS (Accordion, Carousel, DropDown, Menu, Pagination), and OVERLAYS (Modal, Popup, Tooltip). The main content area is titled 'Color Palette' and includes a descriptive paragraph: 'This the color palette for all resi apps (public or internal). No other colors should be used with the exception of a 5% lighten/darken for hover kind of effects. Any other colors should be avoided - or if a color can't be avoided, then added to the palette (based on design and engineering approval)'. Below this is a grid of 20 color swatches, each with a name, a variable name, and a hex code. The colors include ADC Dark Green, Black, Success, ADC Light Green, Gray Dark, Success Light, ADC Light Blue, Gray, Caution, Navy Blue, Gray Medium, Caution Light, Aqua Blue, Gray Medium Light, Error, Sun Yellow, Gray Light, Error Light, Gray Extra Light, Info, Off White, Info Light, White, and Info Extra Light. On the right side of the interface, there are tabs for 'KNOBS', 'STORY', and 'ACTION LOGGER', with 'KNOBS' selected and displaying 'NO KNOBS'.

Color Name	Variable	Hex Code
ADC Dark Green	\$utk-color-adc-dark-green	#4e9d2d
Black	\$utk-color-black	#000102
Success	\$utk-color-success	#4e9d2d
ADC Light Green	\$utk-color-adc-light-green	#77bc1f
Gray Dark	\$utk-color-gray-dark	#263238
Success Light	\$utk-color-success-light	#edf3e7
ADC Light Blue	\$utk-color-adc-light-blue	#57c1e8
Gray	\$utk-color-gray	#5c676e
Caution	\$utk-color-caution	#e17337
Navy Blue	\$utk-color-navy-blue	#345771
Gray Medium	\$utk-color-gray-medium	#97a0a6
Caution Light	\$utk-color-caution-light	#fff2ee
Aqua Blue	\$utk-color-aqua-blue	#377a93
Gray Medium Light	\$utk-color-gray-medium-light	#c0c8cc
Error	\$utk-color-error	#c30000
Sun Yellow	\$utk-color-sun-yellow	#fed000
Gray Light	\$utk-color-gray-light	#dae0e3
Error Light	\$utk-color-error-light	#fce4e5
Gray Extra Light	\$utk-color-gray-extra-light	#e9ecee
Info	\$utk-color-info	#0b82cd
Off White	\$utk-color-off-white	#f8f9fa
Info Light	\$utk-color-info-light	#e4f7fd
White	\$utk-color-white	#fff
Info Extra Light	\$utk-color-info-extra-light	#f0fbfe

Defining Breakpoints

The existing site used a centered container. To fit the new map, I needed to use more screen width.

I defined a full screen layout using new responsive breakpoints.



Defining Breakpoints





I had attended an in-person auction hosted by Auction.com to learn more from actual customers and test one of the prototypes.

After the auction, there was an information session that used a projector to demonstrate the website. The low resolution of the projector caused the website to be shown in the mobile breakpoint.

Key Insight: **Desktop breakpoint should support our own team's demonstration equipment**



Anatomy of a search result

 Sort	Address	Auction Date(s)	Beds	Bath	Sq Ft	<u>Est. Reserve</u>
	5048 Placeholder St Chicago, Il, 60624	Mar 30 - Jun 2 Online Auction	1	2.5	1,875	\$430,201 Reserve
 Save	 Broker Commission Available					

I prioritized content based on customer mental model: location, price, condition. However, price data is blank for 70%+ of our properties. This created visual inconsistency when located in the middle, so price moved to the rightmost column.

Additionally, there were different types of price data that could exist (e.g. Reserve, Credit Bid, Lenders Max Bid, Debt). I used a sub-label to differentiate, and provided an explanatory tooltip (afforded by dashed underline) in the header.

From the concept study, users preferred the tabular format which afforded easier scanning.

Sorting was a new feature. Column headers would sort, as is a standard web pattern. However, I added an additional sort button on the left as an intentionally redundant educational mechanism.

Filters

I designed two interaction patterns for the filter dropdowns. The first being simpler, leveraging components from our toolkit. The latter being more usable as it more accurately matches system status.

Default — nothing selected means everything is being displayed

Risk Reduction ▾

✕

- ↗ Interior Access
- \$ Financing Available
- 👤 Existing Tenant
- 🏠 Vacant

Item selected, label changes

Financing Available ✕

✕

- ↗ Interior Access
- \$ Financing Available
- 👤 Existing Tenant
- 🏠 Vacant

Financing Available, +1 ✕

✕

- ↗ Interior Access
- \$ Financing Available
- 👤 Existing Tenant
- 🏠 Vacant

Default — everything is being displayed

Risk Reduction ▾

Select All

- ↗ Interior Access
- 📄 Clear Title
- \$ Financing Available
- 🤝 Motivated Seller
- 👤 Existing Tenant
- 🏠 Vacant

Risk Reduction ▾ state != default, color change

Select All State changes

- ↗ Interior Access
- 📄 Clear Title
- \$ Financing Available ONLY Hover
- 🤝 Motivated Seller
- 👤 Existing Tenant
- 🏠 Vacant

Bias for action

Getting this interaction wrong wouldn't ruin the product. I decided to move forward with the simpler implementation despite the other being more usable.

Why was I ok with this? Our form groups aren't complex and won't have more than 4-6 options.

Later, I validated the impact of this decision by including a task to evaluate form usability in future user studies and always saw 100% success rate with no errors.

Default — nothing selected means everything is being displayed

Risk Reduction ▾

✕

- ↗ Interior Access
- \$ Financing Available
- 👤 Existing Tenant
- 🗑️ Vacant

Consider the scenario: "I want to see all properties with Interior Access that are Vacant."



Launch

I led the engineering and QA teams through six two-week sprints to build and launch Search.

Early Outcomes

Conversion increased from 68% to 76%

91% drop in exit rate

33% more properties being viewed

