

San Jose Smarter Cities Challenge

Agenda

- Welcome
- The challenge
- Our approach
- Key findings
- · Overview of recommendations
- Recommendations
- Conclusion
- Thank you



IBM Smarter Cities Challenge

 Pro-bono consulting grant projects to advise cities on potential benefits of technology to assist with the challenges of urban growth.

San Jose Team Mission

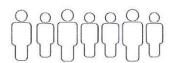
- To advise on Rent Registry implementation & integration, with consideration of the needs and challenges for all users and stakeholders.
- Recommend a framework for a centralized system to search and apply for affordable housing.

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CONTEXT

Our approach





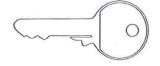


Seven team members

Two Design Thinking Workshops; over 40 participants

43 interviews





88 thousand apartments (triplex and above)

1.025 million residents



Multiple, disparate data sources. Including: text, structural, social, open source

Important findings shape the team's recommendations:



Communications breakdown and misunderstandings with housing providers and tenants about new policy changes



Rent Registry scope and details are very contentious across multiple housing provider groups



Data privacy concerns about exposing owner and tenant information



Need for centralization, integration and automation to increase adoption across the board



Increase in administrative burden for owners due to lack of standards and automation



Lessons learned from Dahlia useful for successful Affordable Housing system implementation



Registry is a solution that requires ongoing user-centric improvements roadmap for adoption



Cost of development could be reduced by collaboration with SJSU as well as other technology innovators in the

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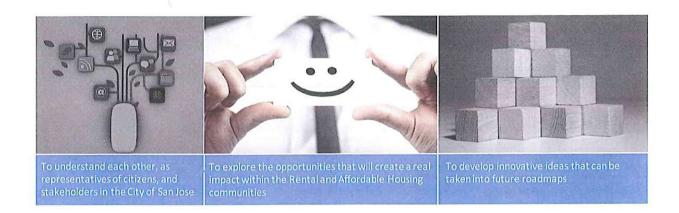
RECOMMENDATIONS

Overview of recommendations

Smarter Data Management
Better insights, advanced analytics, modeling / simulations

> **Housing Portal** One consolidated portal Foundational housing data

Critical enablers



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7

Solving complex problems requires us to work together across differences.



Human-centered outcomes require empathy for the people you serve.

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Principles

See problems and solutions from a new point of view



A focus on user outcomes

When you use Design Thinking, put your users' needs first.



Multidisciplinary teams

Collaborate across disciplines to move faster and work smarter.



Restless reinvention

Everything is a prototype. Listen, learn, and course-correct.

Workshop 1 - "How might we design a continuously evolving rent registry that benefits tenants, landlords and the city (without breaching privacy)?"





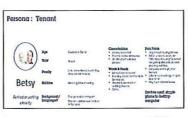
Workshop 2 - "How might we solution a single 'search and application' process for affordable housing?"

11

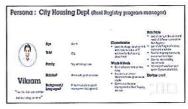
The Personas













Design Thinking focuses on our users.



12

Four Brainstorming topics (Workshop 1):

- 1. Communications, Education & Adoption
- 2. Data Entry and Sources In & Out, including reporting
- 3. Private & Public Data
- 4. Rent Registry 2019 (Consider who are the Users, potential Phases and Other uses for the registry)





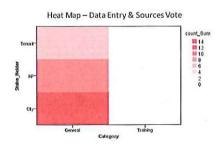


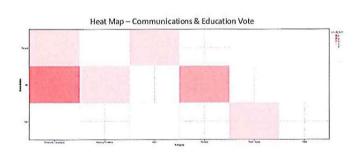


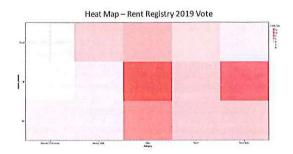
San Jose, CA, USA

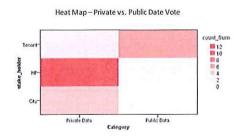
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And Finally - Voting









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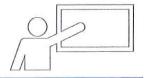
Findings from the Design Thinking workshops



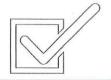
User Centred Design



Communication



Education



Simplicity



Data Questions & Transparency



Expansion into Housing Portal

15

Pre vs. Post Design Thinking Concepts



Pre-Design Thinking Concept Cloud

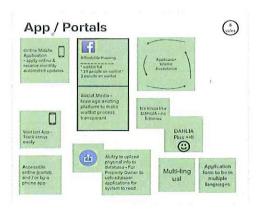


Post-Design Thinking Concept Cloud

Affordable Housing Big Ideas



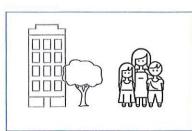






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Affordable Housing Community Engagement



Juanita needs help finding a low income housing apartment.



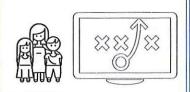
When Juanita is visiting the local library with her children, she sees a City of San Jose Housing Information kiosk



Amy is the volunteer at the kiosk and helps Juanita understand how to use the City of San Jose's housing site (in Spanish), to find and apply for low income housing



Amy also offers Juanita a time tomorrow to come back to get help with the application, and explains the concept of a waitlist



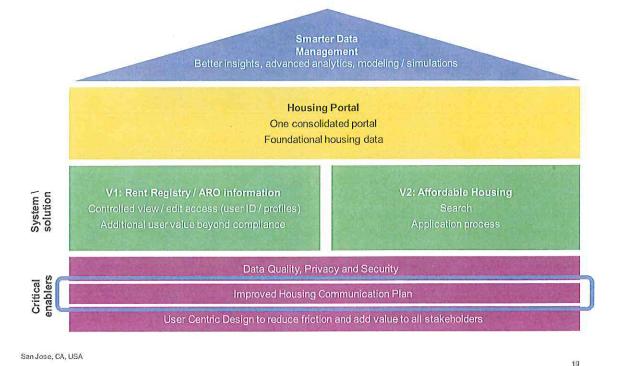
The next day Juanita returns to the Library to meet with Amy again and they find two apartments for Juanita to apply for, using just one application form



Whileshe waits to hear about the Apartment waitlist, Juanita uses Facebook to track waitlist progress. She will be alerted via Facebook messenger when she has been accepted to the next round.

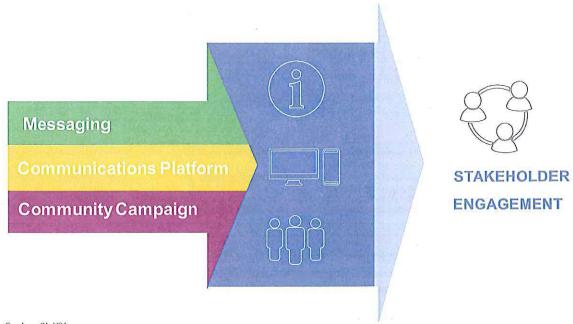
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Overview of recommendations



RECOMMENDATION: COMMUNICATIONS PLAN

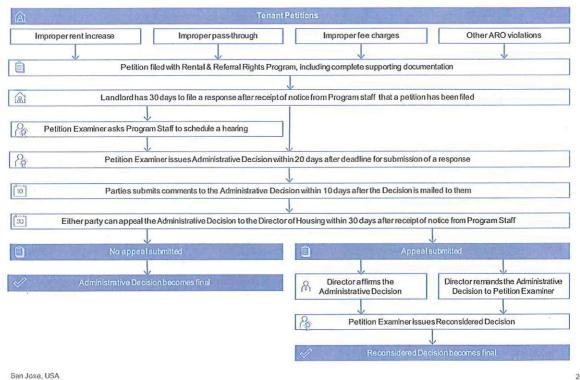
Successful approach relies upon 3 key Pillars



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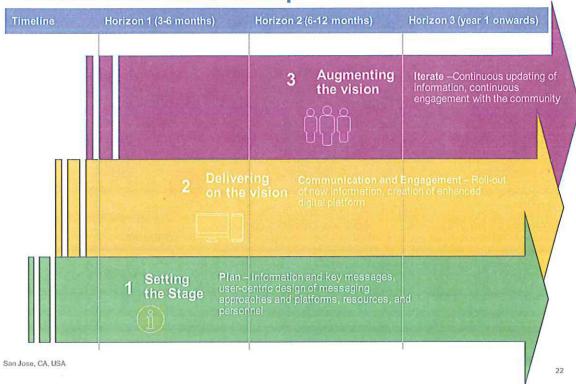
RECOMMENDATION 2 - COMMUNICATIONS PLAN

Example of a Process: Tenant Petition 1



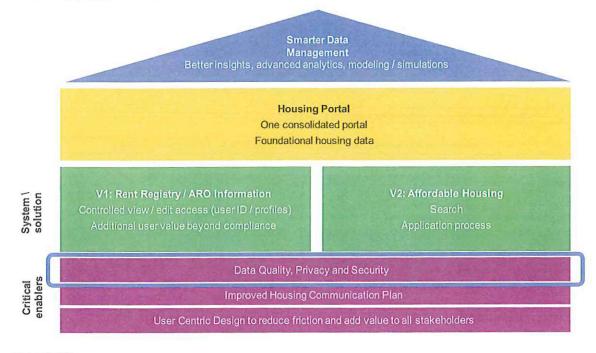
RECOMMENDATION: COMMUNICATIONS PLAN

Communications Roadmap



21

Overview of recommendations



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RECOMMENDATIONS

Introduce a wholistic Data Quality, Privacy and Security framework

Data cleansed and quality checked at all levels and entities



Master Data Management with Automation



Capture true reason of every interaction



Data needs to be protected



Address citizen's concerns

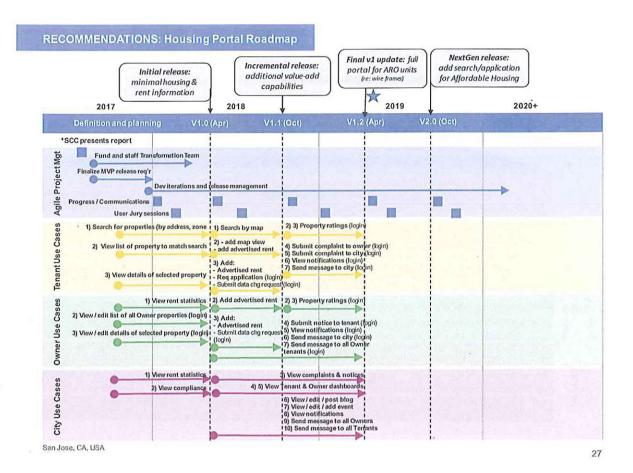


Comprehensive privacy & Security



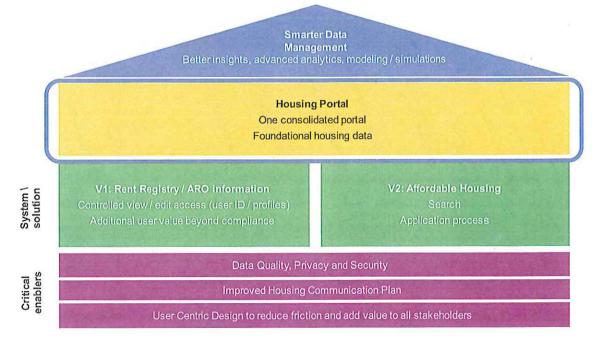
San Jose, CA, USA

San Jose, CA. USA



RECOMMENDATIONS

Overview of recommendations

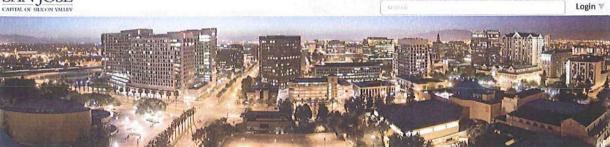


The art of possible...

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News

Revised Apartment Rent Ordinance (ARO) Memo Published

November 6th, 2017

The Apartment Rent Ordinance, found in Municipal Code Chapter 17.23, and its companion Regulations control rent increases on apartments that are covered by the ordinance. At this time, changes have been made to the Apartment Rent Ordinance and additional provisions are in place...

More details

Amendments to the Tenant Protection Ordinance (TPO)

October 26th, 2017

The amendments to the Tenant Protection Ordinance reduce the categories of additional family members covered by the exemption to the TPO's allowed eviction for material or habitual rental agreement violation by removing brother and sister. That amendment limits these protections to family members that are a spouse, domestic partner, child, foster child and parent...

Mare detail

Events Calendar

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Understanding the Peridential Occupancy

Formit Levolce & Online Periodication

November 148

Developer Outreach Maeting to Discus

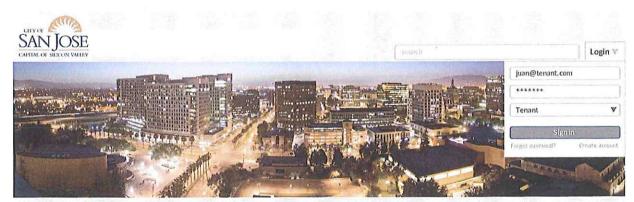
10-11-30am





Juan

Search for housing
View property ratings
Request application from owner
Request update to rent information
Communicate with Owner and City



News

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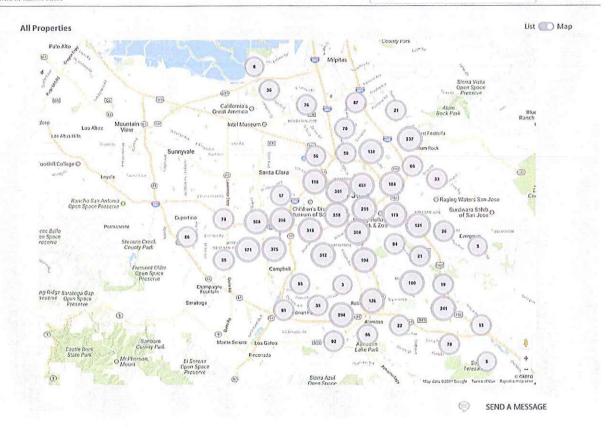
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More detail

November 14

AS 1505; Land Use. Zering Regulations

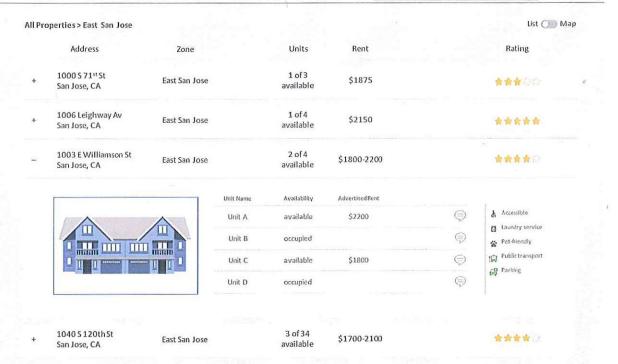
November 15th 10-11-30an



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All Pro	operties > East San Jose					List C) Мар	
	Address	Zone	Units	Rent		Rating		
+	1000 S 71 st St San Jose, CA	East San Jose	1 of 3 available	\$1875	*	nn inie		
+	1006 Leighway Av San Jose, CA	East San Jose	1 of 4 available	\$2150	Ŕ	***		
+	1003 E Williamson St San Jose, CA	East San Jose	2 of 4 available	\$1800-2200	*	東南南 公		
+	1040 S 120th St San Jose, CA	East San Jose	3 of 34 available	\$1700-2100	*	索索索 (2)		

SAN JOSE

East San Jose, available units



SEND A MESSAGE

Welcome, juan@tenant.com





Unit Name	Availability	AdvertisedRent		
Unit A	available	\$2200	(5)	& Accessible
Unit B	occupied		9	☐ Laundry service
Unit C	available	\$1800	(5)	Public transport
Unit D	occupied		9	Parking
				17

1040 S 120th St San Jose, CA

East San Jose

3 of 34 available

\$1700-2100





B \$ 2

operties > East San J	ose					List O
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1006 Leighway Av San Jose, CA	East San Jose		1 of 4 available	\$2150		****
1003 E Williamso San Jose, CA	n St East San Jose		2 of 4 available	\$1800-2200		***
		Unit Name	Availability	Advertised Rent		r
		Unit A	available	\$2200	9	& Accessible
		Unit B	occupied		(5)	☐ Laundry service ☑ Pet-friendly
		Unit C	available	\$1800	9	Public transport
		Unit D	occupied		(2)	日 Parking
1040 S 120th St	East San Jose		3 of 34	\$1700-2100	To:	City ▼
San Jose, CA	East 2411 JOSE		available	71/00/2100	my	currently in Unit B, and ent is \$1500. Please ate the system for future

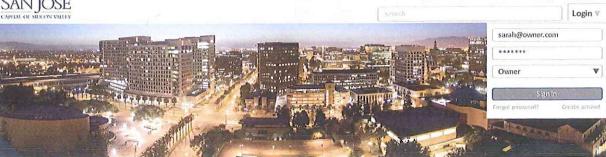
PROPERTY OWNER



Sarah

Advertise properties
View future tenant ratings
Update rent information
Send Tenant notices
Communicate with current Tenants and City





Blog

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Understanding the Residential Occupancy	November 14 ⁸
Permit Invoice & Online Engistration	6:30-7:30pm
Developer Outreach Meeting to Discuss AS 1505: Land Use Zoning Resolutions	Rovember 15" 10-11-30-m



and the second

Welcome, sarah@owner.com

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Owner Properties

	Address	Zone	Units	Rent	Rating
+	1000 Villanova Av San Jose, CA	West San Jose	1 of 15 available	\$1950	***
+	1001 Fairmont Av San Jose, CA	East San Jose	0 of 5 available		****
+	1003 E Williamson St San Jose, CA	East San Jose	2 of 4 available	\$1800-2200	***

+ Add a new property



Owner Properties

	Address	Zone		Units	Rent			Rating	
+	1000 Villanova Av San Jose, CA	West San Jose		1 of 15 available	\$1950			食食食食食	
+	1001 Fairmont Av San Jose, CA	East San Jose		0 of 5 available	20			****	
-	1003 E Williamson St San Jose, CA	East San Jose		2 of 4 available	\$1800-2200			***	
			Unit Name	Availability	AdvertisedRent	Current Rent			л. О
			Unit A	available	\$2200			Accessible D Laundry service	
			Unit B	occupied		\$1500	9	Pet-friendly	
			Unit C	available	\$1800			Public transport	
			Unit D	occupied		\$1250	(5)	Parking	
								*	

+ Add a new property

SEND A MESSAGE

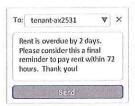




Owner Properties

	Address	Zone		Units	Rent			Rating	
+	1000 Villanova Av San Jose, CA	West San Jose		1 of 15 available	\$1950			食食食 (20)	
+	1001 Fairmont Av San Jose, CA	East San Jose		0 of 5 available	ž			自由自由由	
-	1003 E Williamson St San Jose, CA	East San Jose		2 of 4 available	\$1800-2200			青青青青台	
			Unit Name	Availabilky	Advertised Rent	Current Hent		ř	o A
			Unit A	available	\$2200			& Accessible	
			Unit B	occupled		\$1500	(☐ Laundry service ☆ Pet-friendly	
			Unit C	available	\$1800			Public transport	
			Unit D	occupied		\$1250	(3)	€ Parking	

+ Add a new property





Welcome, sarah@owner.com M D A

Address	Zone		Units	Rent			Rating
1000 Villanova Av San Jose, CA	West San Jose		1 of 15 available	\$1950			青倉音 (成)
1001 Fairmont Av San Jose, CA	East San Jose		0 of 5 available	5			食物食物物
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		Unit Name	Availability	Advertised Rent	Current Rent		
		Unit A	available	\$2200			& Accessible
		Unit B	occupied		\$1500	9	taundry service
		Landane	available	\$1800			Public transport
		Unit C	available	21000			(Parking

+ Add a new property



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Owne	r Properties					
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÷	1001 Fairmont Av San Jose, CA	East San Jose	0 of 5 available	140	****	
+	1003 E Williamson St San Jose, CA	East San Jose	2 of 4 available	\$1800-2200	****	
+ Ac	ld a new property					

SEND A MESSAGE



HOUSING STAFF



Selena

View rent statistics
View housing department performance
Post blogs
Add calendar events
Communicate with all Tenants and Owners



Blog

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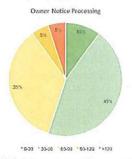
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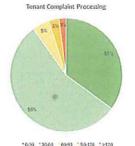


Dashboard



Rent Statistics					
Zone	Min	Average	Max		
North	\$1900	\$2100	\$2600		
South	\$1650	\$1925	\$2050		
East	\$1400	\$1895	\$2075		
West	\$1875	\$2150	\$2400		





	Ratings	
	Owners	Tenants
0-1	5%	3%
1-2	15%	7%
2-3	25%	10%
3-4	45%	55%
4-5	10%	25%

SEND A MESSAGE



search

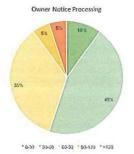
Welcome, selena@city.com

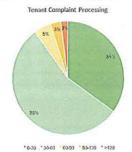


Dashboard



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West	\$1875	\$2150	\$2400	





Owners Tena 0-1 5% 39		
0-1 5% 39	ints	
	%	
1-2 15% 75	16	
2-3 25% 10	10%	
3-4 45% 55	%	
4-5 To: All Tenants	w :	

Refinements to TPO are coming up soon. Keep an eye out for a blog post with details. Thank you!

5end

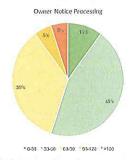
Dashboard

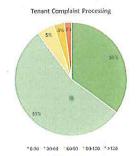
Create a custom report
Create a new blog post
Add a new calendar event
Rent Statistics

Zone Min Average Max

Zone	Min	Average	Max
North	\$1900	\$2100	\$2600
South	\$1650	\$1925	\$2050
East	\$1400	\$1895	\$2075
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	Owners	Tenants
0-1	5%	3%
1-2	15%	7%
2-3	25%	10%
3-4	45%	55%
4-5	10%	25%

SEND A MESSAGE

RECOMMENDATIONS

Overview of recommendations

Smarter Data

Management

Better insights, advanced analytics, modeling / simulations

Housing Portal
One consolidated portal
Foundational housing data

System | solution

V1: Rent Registry / ARO information

Controlled view / edit access (user ID / profiles)

Additional user value beyond compliance

V2: Affordable Housing Search Application process

Critical enablers Data Quality, Privacy and Security

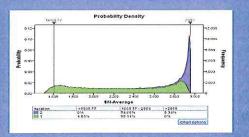
Improved Housing Communication Plan

Iser Centric Design to reduce friction and add value to all stakeholders

CONCLUSIONS

- 1. Housing Communications → important starting point; dedicated resource
- 2. Data Quality, Privacy & Security
 - → Data Governance will require strong private / public collaboration
- 3. Housing Portal
 - → this is NOT a rent registry database....it provides far more value
 - → follow a user-centric design and implementation with ongoing roadmap
- 4. Smarter Data Insights → Great oppt'y beyond just reporting, but modeling / simulation





San Jose, CA, USA

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ACKNOWLEDGEMENTS

Thank you to all of the stakeholders who took the time to meet with us!

Sam	Liccardo	Maria	Jimenez	Ramos	Pinjic	Roshen	Sethna
Shelsy	Bass	Rob	Lloyd	Danielle	Pirslin	Irene	Smith
Zach	Berke	Cheryl	Lubow	Emily	Prado	Arti	Tangri
Dave	Bopf	Tascha	Mattos	Susan	Price-Jang	Fred	Tran
Lindsay	Caldwell	Mollie	McLeod	Theresa	Ramos	Henry	Tsai
Rosa	Cano	Peter	Miron-Conk	Warren	Reed	Rachel	VanderVeen
Ron	Duba	Jacky	Morales-Ferrand	Kathy	Robinson	Sara	Wright
Michael	Fitzgerald	Melissa	Morris	Vince	Rocha	Ann	Wu
Lester	Fontecha	Evelina	Nava	Khanh	Russo	Rick	Wu
Ragan	Henniger	Charla	Neta	Michael	Santero	Alexa	Youssefian
Dean	Hotop	Vu-Bang	Nguyen	Shireen	Santosham	Fereshteh	Zakeri
Bill	Hult	Christian	Ollano	Ken	Schneebeli	Jeff	Zell

Additional thanks to the wonderful people of San Jose who we informally talked to about their housing situations. From wait-staff at restaurants, to clerks in stores, to cab drivers, we appreciated all of their candor and friendliness.

To find out more about the Smarter Cities Challenge program visit: www.smartercitieschallenge.org