

# Accessory Dwelling Unit (ADU) Calculator

## Application Development Request for Qualifications

This RFQ is for development services for an educational tool intended to help local homeowners understand the costs and benefits of building an accessory dwelling unit (granny flat, in law suite, converted garage, etc.).

**Responses Due:** 11/13/2017

**Send proposals and Questions to:**

Joshua Abrams  
Baird + Driskell Community Planning  
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510.761.6001

We encourage you to reach out with questions or let us know you are considering applying so we can update you if clarification is needed.

### **Project Overview:**

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San Mateo County is interested in creating a calculator to allow homeowners to explore the costs and benefits of building an accessory dwelling unit (ADUs, granny flat/in law suite/converted garage). The goal is to encourage homeowners to move forward with construction because the units tend to provide naturally occurring affordable housing, in a very expensive county.

The calculator currently exists in Excel. We want to rebuild the tool on a modern web platform, potentially utilizing HTML5 and JavaScript.

### **Use Case:**

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**Homeowners:** Homeowners who are thinking about building an ADU will use the calculator to explore potential construction cost, rents, payback periods, etc. The Calculator will be a tool that will help homeowners decide if they want to take the next step (contact the city, an architect, etc.). It will not provide a level of precision for getting a loan or permits.

## **Website and Design:**

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The Calculator will be hosted on new website devoted to encouraging people to build ADUs in San Mateo County (built under a separate contract). The website likely will be created in WordPress.

We anticipate the Calculator having a split screen with inputs on the left and outputs on the right. The outputs would adjust in real time as the inputs are entered.

Help text and additional resources will be integrated into the interface so users don't have to leave the calculator to explore what the terms mean or learn more about how to find the appropriate values.

Users will have to click on a release form before being allowed to use the calculator.

We would like an option for users to print their results.

See below for a very draft mock up of what the calculator could look like.

# Accessory Dwelling Unit Calculator

## Inputs

Please enter some basic assumptions about your ADU.

1. Where do you live?

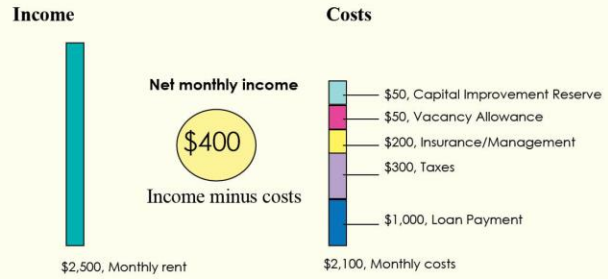
2. Bedrooms

3. Bathrooms: How many bathrooms will there be in your ADU?

Questions continue here  
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## Results

### Monthly Costs and Income



### Construction Costs



The total cost to build your ADU is \$250,000 (\$50,000 cash investment and \$200,000 loan. Of the total costs, 60 percent is likely to be hard costs, 35 percent is soft costs and 5 percent is fees. (help text.)

### Value

#### Payback Period (Years)



**Cash:** You will recover your initial cash investment of \$210,000 in 10 years (excluding outstanding loan balance and increased value of house). Help text.

**Whole Picture:** Once you account for the amount remaining on your loan and the increase in property value, your ADU will pay for itself in 3 years. Help text

#### Increased Home Value



Your ADU increased your home value by approximately \$200,000.

Information for Future Years	Year 5	Year 10	Year 20	Year 30
Property Value Increase from ADU	\$382,884	\$488,668	\$795,989	\$1,296,583
Future monthly rents	\$2,830	\$3,124	\$3,809	\$4,643
Monthly Costs	\$1,982	\$2,156	\$2,489	\$3,000
Annual tax increase	\$812	\$896	\$1,093	\$1,332
Average Annual Return on investment (just using rent)	4.8%	5.3%	6.3%	7.6%
Cumulative net income (rents minus costs)	\$47,641	\$102,959	\$242,361	\$422,573
Rent collected (cumulatively)	\$163,259	\$343,510	\$762,247	\$1,272,685

## Input Fields:

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Fields do not need complicated formatting, just entry boxes or dropdown menus.

Field Name	Field Type	Validation	Help Text	Logic/When does it appear	Notes
1. Jurisdiction	Dropdown (21 options)	N/A	N/A	Always appears	
2. Number of bedrooms	Dropdown 1-3	N/A	N/A	Always appears	
3. Number of bathrooms	Dropdown (5 options, 1, 1.5, 2, 2.5, 3)	N/A	N/A	Always appears	
4. Square feet.	User entry box	150-1400 Error message "Please enter a value between 150-1400)	"A typical studio is 600 sf..."	Always appears	
5. Finish level	Dropdown with 3 choices	N/A	"Inexpensive finish are typically entry level appliances, discount carpet..."	Always appears	Depending on the level of finish they choose, the construction cost will increase.
6. Construction cost	Two choices: Do you want to (a) estimate the construction cost or (b) let the calculator do it?	N/A	N/A	Always appears	If they have the calculator estimate the cost that has to do with size of unit, times construction cost per sf, etc. With an adjustment for finish level, etc.
7. User entered construction cost	User entry box	\$50,000 – 700,000	Error message: "Please enter value between	Only if 6 equals a	

Field Name	Field Type	Validation	Help Text	Logic/When does it appear	Notes
			\$50,000 - \$700,000"		
8. Type of construction	Drop down (a) new, (b) garage conversion, (c) existing living space, or (d) modular –	N/A	N/A	Only if 6 equals b	If we need to reduce the budget of the project, we could just have options a and b.
9. Site conditions	Dropdown with 2 options ( typical or difficult)	N/A	Help text "The most common reason construction is more expensive is ..."	Only if 7 = a, b or c	
10. New bathrooms	Dropdown (5 options, 1, 1.5, 2, 2.5, 3)	N/A	N/A	Only if 8 = c	
11. Heating	Dropdown with 2 choices: (a) use existing; (b) replace	N/A	N/A	Only if 8 = c	Questions 11 – 14 have to do with if the homeowner will be adding new utilities or using the existing utilities (e.g. new heater and thermostat or existing one). It affects construction cost. Can be removed for budget reasons
12. Plumbing	Dropdown with 2 choices	N/A	N/A	Only if 8 = c	
13. Electrical	Dropdown with 2 choices	N/A	N/A	Only if 8 = c	
14. Kitchen	Dropdown with 2 choices	N/A	N/A	Only if 8 = c	
15. Loan	Dropdown with two choices (a = yes, b=no)	N/A	N/A	Always appears	

Field Name	Field Type	Validation	Help Text	Logic/When does it appear	Notes
16. Loan term (years)	User entry	Number 1-30	"Typical loans are 20 years or less" Error: "Please enter a number between 1 and 30"	Always appears	
17. Interest rate	User entry	1-7%	Error: "Please enter a number between	Always appears	
18. Cash	User entry	Number 1 - \$700,000	Error: "Please enter a number between 1 and 700,000	Only if a = yes	If cash is greater than total construction cost, in the calculations, we reduce accordingly.
19. Rents	Dropdown with 3 choices ((a) use calculator, (b) set your own, (c) affordable	N/A	N/A	Always appears	
20. User specified rent	User entry	Number 1-\$4000	"Please enter a number between \$100 and \$4000	Only if 19 = b	
21. Management	Dropdown 2 choices	N/A	N/A	Always appears	
<b>Advanced / Optional Features (Can be removed for budget reasons)</b>					

Field Name	Field Type	Validation	Help Text	Logic/When does it appear	Notes
22. Rent escalation	User entered number	1-10%	Error message, please enter number between...	Visible if user chooses advanced	
23. Value of ADU	User entered number	\$10,000 - \$600,000	Error message, please enter number between...	Visible if user chooses advanced	
24. Tax rate	User entered number	1%-1.5%	Error message, please enter number between...	Visible if user chooses advanced	
25. Property value escalation	User entered number	0-10%	Error message, please enter number between...	Visible if user chooses advanced	
26. Insurance costs (of replacement cost)	User entered number	0-1%	Error message, please enter number between...	Visible if user chooses advanced	
27. Average tenure (months)	User entered number	1-120	Error message, please enter number between...	Visible if user chooses advanced	
28. Turnover time (weeks)	User entered number	0-8	Error message, please enter number between...	Visible if user chooses advanced	
29. Management cost (% of rent)	User entered number	1-10%	Error message, please enter number between...	Visible if user chooses advanced	

## Output

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See graphic above for sample output page. Output format does not change with values, just the numbers.

## **Calculations:**

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The calculations currently exist in Excel. It would be helpful, but not necessary if the developer is familiar with real estate development terms and equations.

The formulas that drive the calculator will be written in JavaScript or a similar programming language. To the greatest degree possible all math should be contained in a single JavaScript file that is independent from any script necessary to manage the user interface. This formulas file should be open source, publically auditable and documented. Comments in the JavaScript file should provide the Excel equivalent formulas to ease understanding by non-coders.

Excel file available upon request.

## **Timeline**

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Four to six weeks from signing the contract. Must be ready for public testing in early-January.

## **Budget**

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There is currently a budget of \$7,500. There may be additional money, but it is not clear at this point. Our preference is to reduce the number of input fields and calculations so we can retain a high quality appearance.

## **Proposal Requirements**

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Please include the following in your proposal response:

- An overview of your company
- A description of your experience developing interactive web applications/tools
- A description of how you will meet our specific project objectives
- A proposed development timeline covering major milestones
- Recent design & development examples
- A minimum of three (3) references including the names of persons who may be contacted, position of person, address and phone numbers where similar products or services similar in scope to the requirements of this RFQ have been provided.
- A selection of resumes or Bios for the staff or subcontractors you would anticipate assigning to this project

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Thank you for your interest in responding to this RFQ.