

Real Estate Financial Modeling



Real Estate Development Modeling Basics

Goals

1. Build your confidence in your modeling capabilities
2. Enable you to analyze potential investments better
3. Increase your credibility with potential partners, lenders and investors
4. Make you more knowledgeable and valuable as a student or real estate professional

What is Financial Modeling?

Forecasting of future financial outcomes based on current **assumptions**.

“Cardinal Rules” of Financial Modeling

1. Garbage in, garbage out

Do your assumptions have current and reliable bases?

2. Annotate as much as you can bear (*Alt+I+M*)

Change is the only constant – keep a running record

3. Learn and use keyboard shortcuts

4. Save multiple copies of all models

5. Always sanity check your outputs

Ask yourself out loud: Do my numbers make sense?

6. "Pay now or pay later"

Modeling Fundamentals

When? (and Why?)

How Much?

	Time 1	Time 2	Time 3	Time 4	Time 5

Modeling Fundamentals

Existing Commercial Building

	Time 1	Time 2	Time 3	Time 4	Time 5
Revenues	XXX	XXX	XXX	XXX	XXX
Expenses	YYY	YYY	YYY	YYY	YYY
Pre-Tax Profit	ZZZ	ZZZ	ZZZ	ZZZ	ZZZ



Modeling Fundamentals

Existing Commercial Building

	Time 1	Time 2	Time 3	Time 4	Time 5
Revenues	XXX	XXX	XXX	XXX	XXX
Expenses	YYY	YYY	YYY	YYY	YYY
Pre-Tax Profit	ZZZ	ZZZ	ZZZ	ZZZ	ZZZ

Development Project

	Time 1	Time 2	Time 3	Time 4	Time 5	Time 6	Time 7	Time 8	Time 9
Revenues	0	0	0	0	XXX	XXX	XXX	XXX	XXX
Expenses	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY	YYY
Pre-Tax Profit	YYY	YYY	YYY	YYY	ZZZ	ZZZ	ZZZ	ZZZ	ZZZ



Model for Success™

What Makes Ground-Up Development Different?

The time it takes to produce revenues.

Example - 200K SF commercial office project:

Task	Low	Moderate	Spending money?	Producing Revenues?
Negotiate land contract	3 months	6 months	Yes	No
Due diligence on land	3 months	6 months	Yes	No
Entitlement process *	12 months	30 months	Yes	No
Construction	18 months	20 months	Yes	No
Leasing after Construction	<u>6 months</u>	<u>18 months</u>	Yes	Yes
Time to Revenues (no overlap)	42 months	80 months		

* Getting all municipal/county/state agency approvals required to file for and receive a building permit



Model for Success™

So Why Bother Developing?

1. Shortage of high-quality real estate
2. Capital seeking long-term investment opportunities
3. Ability to spur economic and neighborhood development
4. You can create and reap a lot of value
5. It's fun and you can put your thumbprint on the landscape

Development Project Timeline – Office Tower with Below-Grade Parking

Phase	Pursuit/Site Control	Pre-Construction/ Entitlement	Construction	Post-Construction
Activities	Land valuation Residual basis Comparables Preliminary Due Diligence Letter of Intent Negotiation Contract Signing/ Initial Deposit Final Due Diligence	Additional Deposit(s) Design Approvals/Entitlements Building Permit	Preferred Land closing Construction loan closing Building of the project	Leasing/Sales Tenant Improvements Stabilization Repayment of construction loan Disposition Repayment of outstanding balance of construction loan

Development Pro-Forma Components

1. Sources and Uses

Hard Cost Bell Curve Lookup Table

2. Cash Flow and Returns

3. Stabilized Net Operating Income/Capitalized Value

4. Supporting sheets for the above

Sources and Uses – Uses are Input First

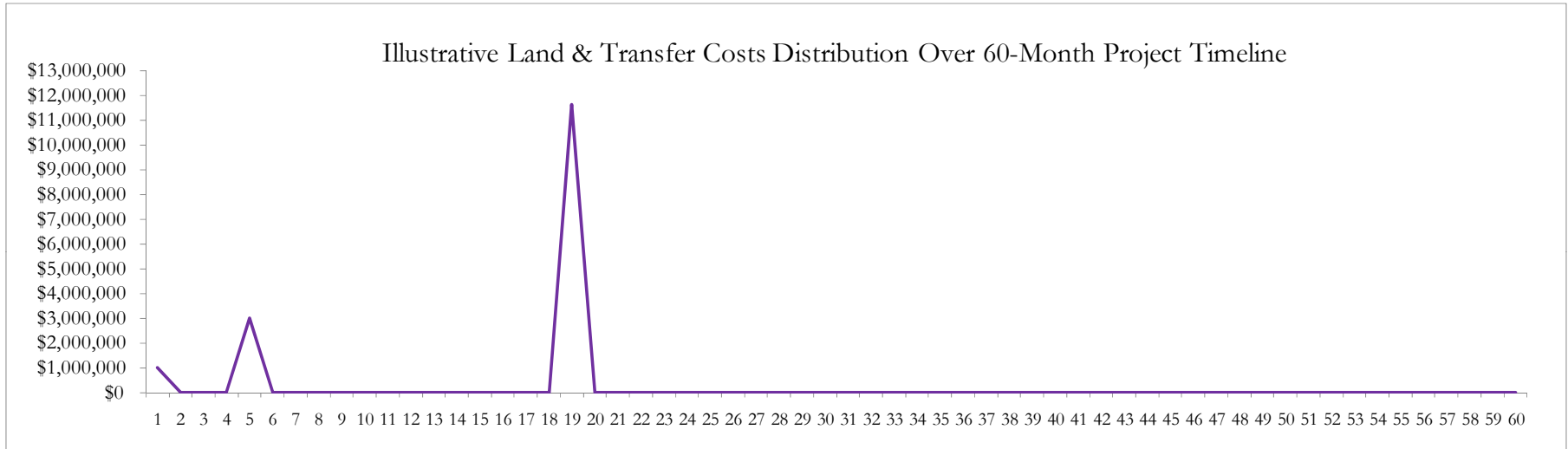
Identify, quantify and time your costs to get to your Total Development Cost

Cost Category	Typical % Total Development Cost
Land and Transfer Costs	15.00%
Hard Costs and Contingency	55.00%
Soft Costs and Contingency	20.00%
Furniture, Fixtures & Equipment (FF&E)	0.25%
<u>Financing Costs</u>	<u>9.75%</u>
Total Development Cost	100.00%

Land and Transfer Costs

Item	Timing	% of Total
Initial Deposit	Up-front	3.0%
Additional Deposit	Per contract	3.7%
Balance of Purchase Price	Closing	90.0%
Brokerage Fee	Closing	1.0%
Transfer Tax	Closing	1.0%
Recordation Tax	Closing	1.0%
Recording Fees	Closing	<u>0.3%</u>
		100.0%

Land and Transfer Costs



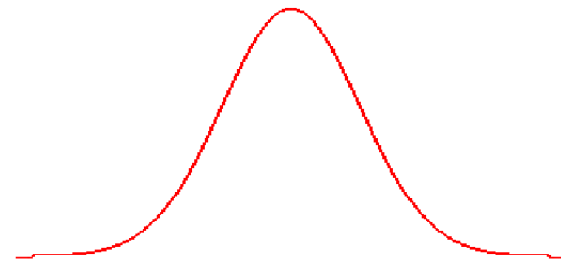
Push Closing out as far into the future as possible (unless you cannot get building permits as the land's "Contract Purchaser")

Hard Costs

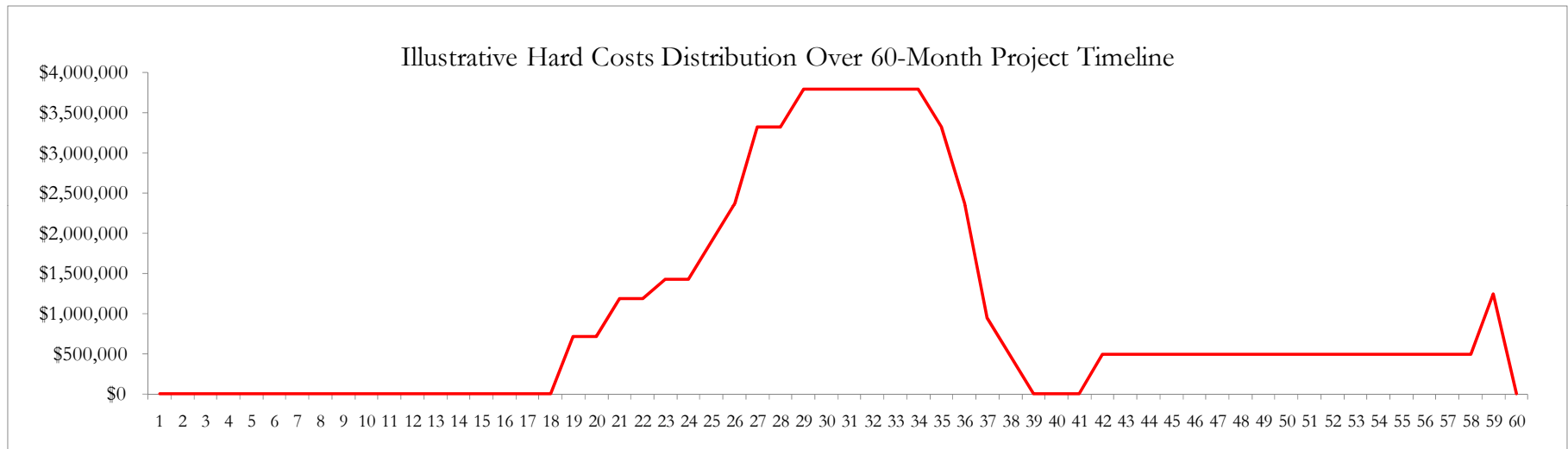
Generally modeled as a bell curve. *These don't start until you have a building permit in hand and you have put a shovel in the ground.*

Items, in rough chronological order:

1. Utilities
2. Excavation
3. Environmental Cleanup/Abatement
4. Foundation
5. Underground Parking Structure
6. Tower
7. Skin and Windows
8. Public Spaces
9. Tenant Improvements (modeled based on lease-up assumptions; will cause a plateau and a spike at the end)
10. Contingency (10% excluding Tenant Improvements)



Hard Costs

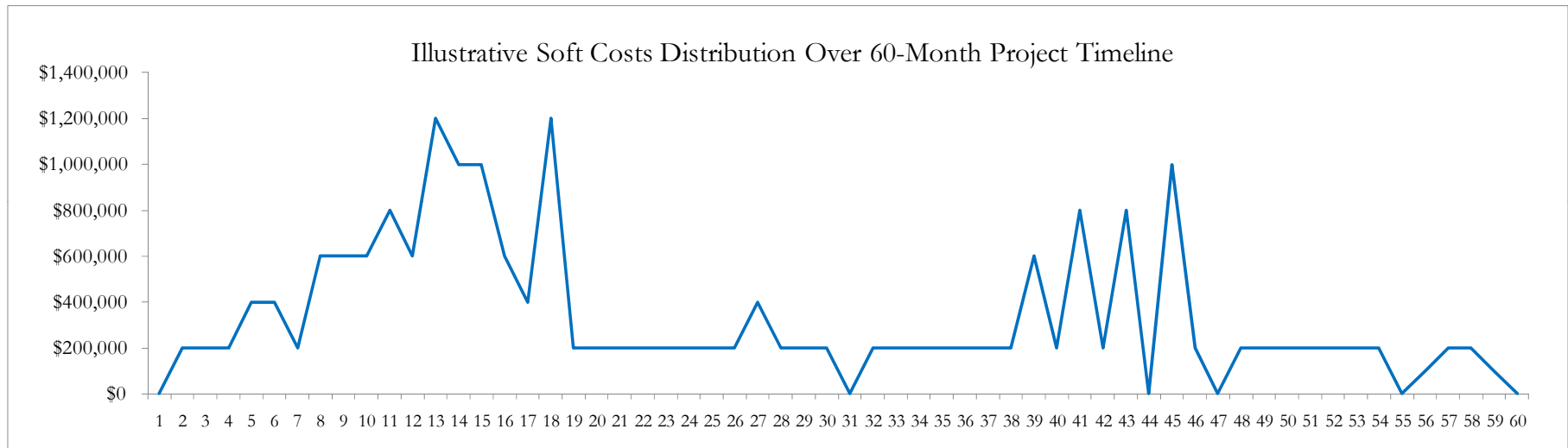


Soft Costs

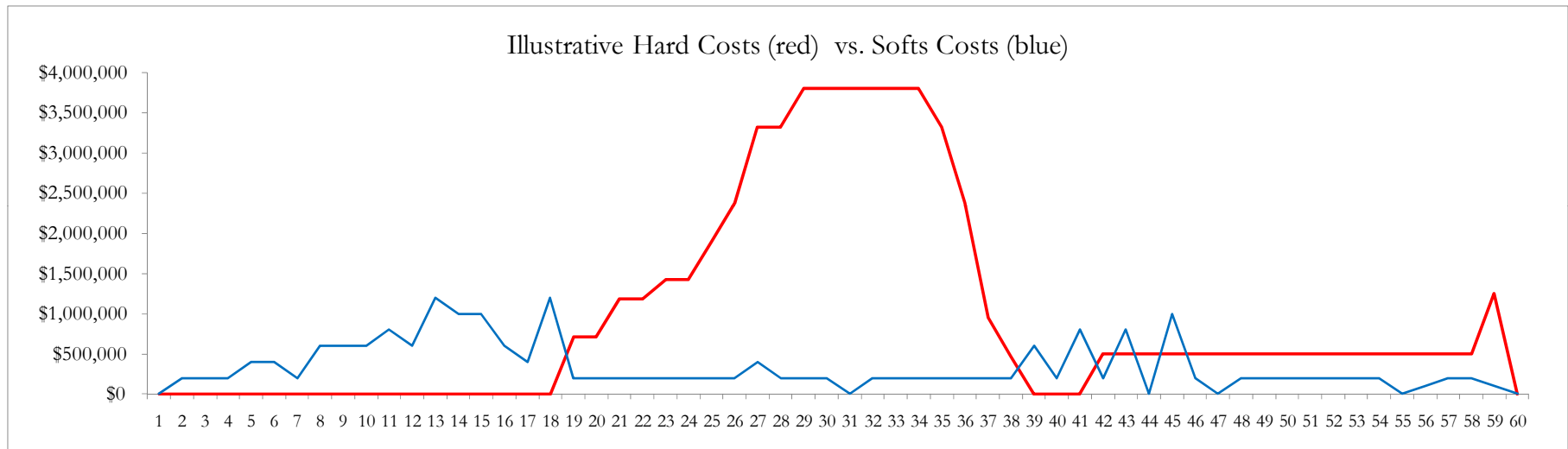
Incurred throughout the entire project.

1. Developer Fee (potentially not until construction)
2. Equity Fees
3. Accounting, Insurance, Letter of Credit, Bonding
4. Real Estate Taxes
5. Impact Taxes/Proffers
6. Utility Hookup and Usage Fees
7. Legal
8. Design
9. Consultants, Testing and Inspection
10. Permit fees
11. Marketing and Miscellaneous
12. Leasing Commissions
13. Contingency (10%)

Soft Costs



Hard Costs vs. Soft Costs

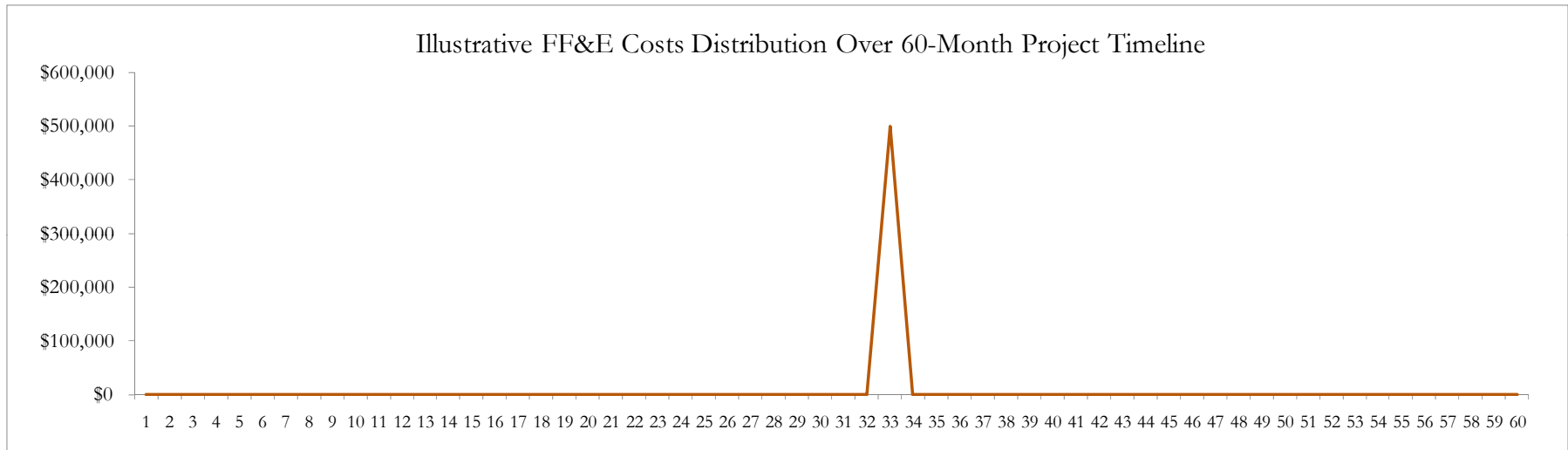


Furniture, Fixtures & Equipment (FF&E)

Near the very end of construction.

Remember, we are dealing with physical space and logistics.

Furniture, Fixtures & Equipment (FF&E)



Financing Costs

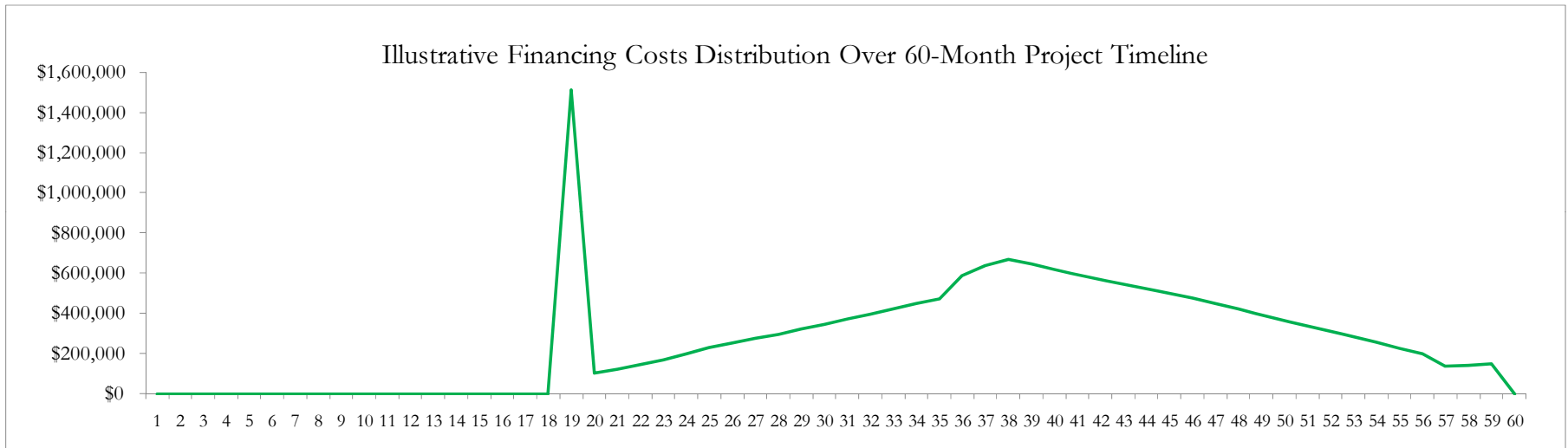
Typical loans associated with development, in order of funding:

1. Land Loan
2. Mezzanine Construction Loan
3. Senior Construction Loan
4. Permanent Take-Out Loan

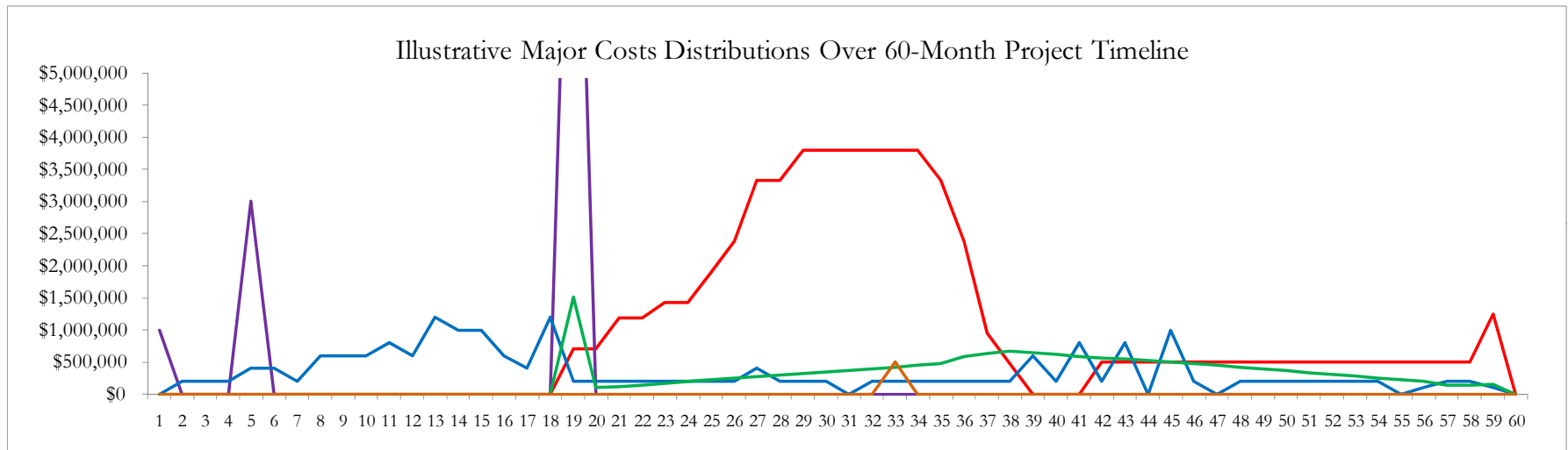
Once your equity is all invested, you draw down your loan(s). Costs include:

1. Broker Fees
2. Loan Fees and Origination Costs (Points)
3. Loan Interest
4. Mortgage Recording Taxes
5. Lender Expenses/Legal
6. Capitalized Interest Through Certificate of Occupancy
7. Operating Deficit

Financing Costs



Total Development Costs (i.e., Total Uses of Funds)



Total Development Costs (i.e., Total Uses of Funds)

