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“Pro forma-ing for the recovery”

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Introduction:

There are very few software options that offer enough detail and flexibility to accurately model a pro forma to develop a residential community. Typical development pro formas tend to rely on back of the envelope calculations, a simple income and expense statement. Times have changed, the need for a complex pro forma that offers each stakeholder the information they need to see; the developer and the bottom line, the banker and its loan to value, the investor and its priority for the return of their required equity. Sensitivity analysis offer a sense of security and knowing but are often too timely to compute as the complexity and accuracy of changing each variable is disaster waiting to happen. For my practicum, I met with several movers and shakers from this industry so that I could create and fine tune the next generation development pro forma. The Model I created allows the user to input several variables to be manipulated by a click of a button allowing for difference scenarios and stress analysis to be run.

Prior to our nation’s downturn, the mistakes arising from poor underwriting was overshadowed by increasing real estate values and availability of bank debt at high loan to value ratios. The need for stronger underwriting standards has been brought to light during the recent real estate bubble burst and the tightening of the credit markets. With the banks changing their lending criteria, it is common to use a significant amount of equity in lieu of higher leverages. To meet this requirement, many developers like Clark Turner became dependant on investors if he wanted to continue to grow his business and purchase more land for development. Lenders and Investors look for different criteria when evaluating an opportunity or project; the easier a bank or investor can understand and find the information they need, the easier the capital can be approved.

Over the past few years large national builders shed the majority of their land positions, anticipating a repurchase at the market lows when Wall Street founds it acceptable to have land on their books again. As the market prepares for this repurchase, developers need a tool to help prepare their projects for financing considering today’s unique development and purchase structures. It is no secret that home builders need land to build homes on to turn a profit but developers are challenged to bring lots to market as they face difficulties with lenders for development loans; new structures are born to help bridge this gap and make these deals

happen. Flexibly deposits from builders to developers are often a way to build security with banks and developers, this Model allows great flexibility.

The market is still a 'Buyer's Market', and sellers have been flexible with the settlement terms. Perhaps the most significant change to the new projects balance sheet is the contribution from the Sellers in the form of a take-back mortgage. Terms also include option payments, more scheduled deposits, and extended close dates. This Model offers all of the flexibility for the acquisition stage, especially the seller take-back mortgages.

The development industry is extremely local because the cost of development changes so dramatically between jurisdictions. Costs change in several aspects; property taxes, bonding requirements, construction materials, and assumptions for legal and engineering often changes significantly depending on your projects location. Not only is it important to be able to manipulate these assumptions on a cost basis, but when these costs are to be incurred are also important matters. In addition to the monetary differences in developing between jurisdictions, the time of approvals and construction also changes.

These several and very complicated factors make for a challenging underwriting assignment. The need for a detailed and fluid residential pro forma has never been such a necessity. To get the most detail on each category, I interviewed several local individuals who are involved with the development of residential lots, those individuals are:

- Clark Turner "Turner" of Clark Turner Development, Developer
- John Meade "Meade" of Ryland Homes, Builder
- Bob Rajewski "Bob" of Caves Valley Partners, Investor
- Charlie Spasato "Charlie" of Cecil Bank, Lender

I used their years of experience, and frustration from the recent downturn to model a pro forma for the recovery. The following categories offer important detailed information which is often ignored in residential pro formas; I will pro forma will be referred to as **Model**. The Model is set up to have only 1 input tab, allowing the user to quickly populate the pro forma and manipulate as needed. Each section of the pro forma has its own tab, i.e. soft costs, hard costs, acquisition, sales, etc. These separate tabs calculate with extreme detail and input the necessary data to a master cash flow tab which runs out the pro forma. There are several output sheets that will be discussed in detail later in this paper.

Revenue:

There are several types of revenue in a residential development, but what are often missed are the different classifications of each product type. A product type for a single family

attached unit, labeled as “townhomes” works if you have only a single type of townhome product. The truth is, as density becomes more accepted by our region, there are several types and sizes of townhomes, from 16 feet wide to 40 feet wide, no garage, front loaded garage, rear loaded garages, and/or 1 or 2 car garages. The same is true for a single family detached lots, there are several different variations of product type, within each product type, where each have its own purchase price, takedown schedule, price escalator, etc. The Model allows for several types of products as depicted in Figure 1.

Figure 1: Product Type

	ASSETS	
	Units	Rec
SF - Estate	75	
SF - Large	180	
SF - Medium	250	6
SF - Small	0	
TH - Villa	20	4
TH - 24	185	4
TH - 20	280	3
TH - 16	0	
Comm - AC	63	10
Comm - SF	0	
Apart - AC	55	7
Apart - Unit	0	

A central place for revenue input is found on the index page, where all data is entered into the Model. At this input stage, the user shares the product type, lot quantity of that product, sales pace per quarter, escalation of the purchase price and its beginning. The first sale is a calculation which is dependent on the construction schedule. Too often, a user would expect sales to start however the construction phase wasn't appropriately timed; this will lead to a miscalculation in maximum revolving debt, as the sales would artificially lower the debt levels. Figure 2 shows the input chart for the lot purchase assumptions.

Figure 2: Lot Sale Input

REVENUE BY PHASE											
PHASE 1		Unit Type	Quantity	Price per Unit	Sales per Qtr	First Sale	Escalation per Qtr	Months Before Escalator Starts	Sales Completed	Avg Price per Unit w/ Escalator	Description
1	TH - 20	100	\$65,000	12	December-10	1.00%	5				Unique Overlook
2	SF - Medium	50	\$115,000	17	December-10	1.00%	5				Pond Views
3	SF - Estate	75	\$120,000	13	December-10	1.00%	5				
4					December-10						
5					December-10						
PHASE 2		Unit Type	Quantity	Price per Unit	Sales per Qtr	First Sale	Escalation per Qtr	Months Before Escalator Starts	Sales Completed	Avg Price per Unit w/ Escalator	Description
1	SF - Large	180	\$130,000	17	February-12	1.00%	4				Unique Overlook
2	TH - 20	110	\$85,000	11	February-12	1.00%	4				Pond Views
3	TH - Villa	20	\$85,000	6	February-12	1.00%	4				
4	Comm - AC	25	\$165,000	5	February-12	1.00%	4				
5					February-12						

Meade shares that Ryland typically contracts to purchase residential lots on a quarterly basis. It was very important for Bob to be able to modify the pace of sales to test the sensitivity

on interest carry, return on capital, and overall profit. Therefore, as shown in the above figure, the Model user can simply modify the sales pace per quarter and the pro forma adjusts accordingly. The Model takes a quarterly sales takedown pace and converts to a monthly sales pace, using the last month of the quarter to capture the remaining sales, unsold in the first 2 months.

Considering the poor finished lot values today, but promising future demand, developers are often requesting a lot escalator which allows them to contract with a builder for all of the lots today at a lower price and capture any future value appreciation. These escalators can range from 0% to 2% per quarter, and the beginning of the escalator is also up for negotiation. Please find in Figure 2 above, the option for the user to input an escalator and start time. Failure to accurately calculate the correct quarter escalator has a huge effect on the bottom line, for example, if a developer fails to recognize the importance of an early escalator than a 1% escalator on a \$150,000 lot would be \$1,500 per lot; if 500 lots are remaining, that's \$750,000 of additional revenue! Consider it the alternative way, perhaps the developer assumed that escalator but the legal documents suggested a difference schedule, that miscalculation of \$750,000 to the bottom line wasn't in fact due, now the developer made a deal with a builder using a poor valuation. This pro forma illustrates the importance of these simple changes so the developer can be more accurate with negotiating.

Builders have recently become cash heavy and have offered unusually large deposits for prime project sites, soon after the deposits were a thing of the past. These deposits come with many different restrictions and/or terms. When does the deposit come? Can the deposit be used by the developer? Where should the deposit proceeds be used; Buying the land, engineering, paying down debt, straight to the bottom line or developer? How and when will the deposit be credited back, over what phase, and over what products? Meade shares that deposits can be molded several different ways, credited pro rata over each lot, or no deposit credits for the first 20 lots and then remaining spread evenly, no deposit credits on Single Family Lots but on Townhome lots, etc. These modifications become extremely important, especially when watching upfront cash flow. Calculating the deposit credit wrong could leave a developer with negative cash flow, also depending on how leveraged the project is.

Figure 3: Builder Deposit Input

BUILDER DEPOSITS AND INVESTOR STRUCTURE										
Deposit # 1										
Collected:	\$2,000,000									
Date of Collection:	April-10									
Use of Deposit:										
Debt:										
Equity:										
Closings:										
Return of Deposit:										
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
SF - Estate										
SF - Large										
SF - Medium										
SF - Small										
TH - Villa										
TH - 24										
TH - 20										
TH - 16										
Totals:										
Deposit # 2										
Collected:	\$750,000									
Date of Collection:	April-10									
Use of Deposit:										
Debt:										
Equity:										
Closings:										
Return of Deposit:										
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
SF - Estate										
SF - Large										
SF - Medium										
SF - Small										
TH - Villa										
TH - 24										
TH - 20										
TH - 16										
Totals:										

Lastly, another source of income that Turner just experienced is a Tax Incremental Financing Bond, or TIF Bond. A TIF Bond is issued to pay for development costs of the project and repaid using the incremental increase in property taxes generated as a result of the development. This unique financing arrangement is challenging to calculate due to the highly sensitive rules governed by the State and County Officials. This Model allows users to enter the significant inputs including the net proceeds required from the bond issuance, the existing property tax on the land, and when the bond is anticipated to go to market.

Acquisition Costs:

All individuals that I interviewed strongly shared the same suggestion, acquisition expenses are extremely different than just a year or two prior. Just a few years prior a real estate bubble resulted in each land position having several different developers bidding for the rights to develop. Recently, developers have been working with sellers that were willing to negotiate, come off pricing, and be patient for payment. Turner said, “its in the closing that you make all the money in a land deal.” Knowing how to purchase the land holds the most value,

therefore I spent a significant amount of time working on the most detailed purchase arrangements that all parties interviewed had ever seen.

First, in a market where land values continue fall, developers were offering Option payments, that allowed a developer to lock in a price with a seller for a period of time without having the obligation to proceed. Typically, because these option payments are not applied to the closing price, they are of lesser amount. For example, a developer may offer a land owner \$20,000 for a 6 month period for the option/ right to purchase the land at a predetermined price. Several of these option payments are offered in the Model. Seller deposits are fairly typical in a land development deal, however the model offers several locations where the deposits can be entered, allowing for maximum amount of detail. Figure 4 below shows a snapshot of the input page for these option and deposits to the land seller.

Figure 4: Acquisition – Options Payments and Deposits to Seller

	Date	Amount	Source			Comment
			Equity	Debt	Builder	
Option 1						
Option 2						
Option 3						
Option 4	Jul-10	\$500,000	\$500,000			
Option 5	Jan-11	\$500,000	\$500,000			
Total:		\$1,000,000	\$1,000,000	\$0	\$0	

	Date	Amount	Source			Comment
			Equity	Debt	Builder	
Deposit 1	Jul-10	\$450,000	\$450,000			
Deposit 2	Sep-10	\$200,000	\$200,000			
Deposit 3	Apr-11	\$200,000	\$200,000			
Deposit 4	Aug-11	\$200,000	\$200,000			
Deposit 5						
Total:		\$1,050,000	\$1,050,000	\$0	\$0	

This Model provides categories for several different closings on land. This is a necessity, especially when purchasing several different parcels or closing on land over a structured takedown period. The detail includes date, purchase price, legal costs, recordation and transfer taxes, title insurance costs, real estate taxes, closing fees, commission to brokers, loan origination points, and deposit credits. More detail allows the user to input the sources of funds used for each closing, any combination of Equity, Debt, Deposits from Builders, or a newly popular again, Seller Take-backs financing. Figure 5 offers a snapshot of the input matrix for a total of eight closings.

Figure 5: Acquisition- Closings

	Date	Purchase Price	Legal Paid at Close	Recordation & Transfer	Title, Taxes & Fees	Commission	Loan Points	Deposit Credit	Source - Equity	Source - Debt	Source - Builder	Source - Seller Take-Back	Comments
Closing 1	Mar-10	\$10,470,000	\$50,000		\$50,000	\$0		\$1,050,000	\$100,000			\$9,420,000	
Closing 2													
Closing 3													
Closing 4													
Closing 5													
Closing 6													
Closing 7													
Closing 8													
Total:		\$10,470,000	\$50,000	\$0	\$50,000	\$0	\$0	\$1,050,000	\$100,000	\$0	\$0	\$9,420,000	

The Seller Take-back section of this Model offers the user to enter even more information regarding the seller take-back mortgages. This detail included the amount of funds held by seller, repaid by what product type and in what phase, interest earned, how the interest is paid, the term of the loan; this detail is unmatched in residential pro formas. This matrix allows each phase and each product type to have a variation in payoffs, permitted the user to offer the utmost sensitivity analysis. Figure 6 below offers the input matrix for the take-back mortgages.

Figure 6: Acquisition- Seller Take-Back Mortgages

Seller Take-Back	Closing 1	Closing 2	Closing 3	Closing 4	Closing 5	Closing 6	Closing 7	Closing 8	
SF - Estate	\$5,000								Interest: 4.00% Interest Paid: Current - Equity Maturity (Mos.): 80
SF - Large	\$5,000								
SF - Medium	\$5,000								
SF - Small	\$5,000								
TH - Villa	\$5,000								
TH - 24	\$5,000								
TH - 20	\$5,000								
TH - 16	\$5,000								
Comm - AC	\$10,000								
Comm - SF	\$1,200								
Apart - AC	\$10,000								
Apart - Unit	\$1,200								

Projects Schedule and Related Costs:

Knowing your projects schedule is important when determining when to buy the land and how to market the lots for sale. Equally important is assuming your projects cost at each stage of the schedule, and how your financing structure changes if your projects schedule changes. Property taxes are the most commonly miscalculated cost in the development budget. Property taxes have several different considerations starting with the current property taxes at closing which may continue to be assessed at the same price but is likely to be reassessed to reflect the transfer from your purchase. Assuming the property is raw when purchased, the second consideration for property taxes is when the property is recorded. At this stage, properties taxes could more than double as assessment values increase due to the recordation. Often this extra cost is under calculated or missing in the development budget.

Another consideration when calculating property taxes is when your phases of construction will begin and how long a finished lot will be inventoried. Improved lots are assessed more than just a recorded lot, however its far more difficult for the state to track the status of your construction, therefore it's likely the assessors will not increase the value of your lots unless they are inventoried for an extended period of time. Figure 7 below offers a snapshot of the internal charts relating to the status of each phase, used to calculate the proper property tax.

Figure 7: Status of Lots for Property Taxation

						Jun-09	Jul-09	Aug-09	Sep-09
Escalator:	3.00%								
Tax Rate:	1.491								
Raw Property Tax	Start	Record	Annual Property Tax	Monthly Tax					
Phase 1	March-10	May-10	10,000	833	-	-	-	-	
Phase 2	March-10	May-10	10,000	833	-	-	-	-	
Phase 3	March-10	April-11	11,000	917	-	-	-	-	
Phase 4	March-10	April-11	11,000	917	-	-	-	-	
Phase 5	March-10	April-11	11,000	917	-	-	-	-	
Phase 6	March-10	April-11	11,000	917	-	-	-	-	
Phase 7	March-10	April-11	11,000	917	-	-	-	-	
Phase 8	March-10	April-11	11,000	917	-	-	-	-	
Phase 9	January-00	January-00	-	-	-	-	-	-	
Phase 10	January-00	January-00	-	-	-	-	-	-	
Total Raw Property Tax:						-	-	-	-
Total Recorded Lot Taxes:						-	-	-	-
Total Partially Improved Taxes:						-	-	-	-
Total Improved Taxes:						-	-	-	-
Total Property Taxes per Month:						-	-	-	-

The Model allows the user to modify its property tax rate, and the assumed appreciation or increase the assessed value through the life of the project. When considering a Harford County project, a tax rate of \$1.176 per \$100 of assessed value is used, this is significantly different than the \$1.518 per \$100 rate used in the City of Havre de Grace, also in Harford County.

Many factors change during the initial underwriting process; just a single and simple change to your project could change many aspects of the pro forma forcing the developer to adjust each variable. For example, suppose, as the underwriter, you assume a takedown pace of 9 single family lots are sold per quarter but after review the latest letter of intent from 'Big Builder, Inc', you find that their offer is to build at a 7 homes per quarter pace. This change will cause phase 1 to take longer to sell out, so you will need to change the first sales date on Phase

2 and all other subsequent phases. Because the first sales date changes, you now have to calculate when construction must start for those phases, record plats, etc. This Model allows the user to modify just one aspect of the input and watch as the Model automatically creates a seamless schedule, unless overridden with a hard code. Figure 8 offers a snapshot of the schedule block.

Figure 8: Schedule Block

Schedule:	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
Start Paying Prop. Tax:	March-10	March-10	March-10	March-10	March-10	March-10	March-10	March-10		
Raw Prop Tax Per Phase:	\$10,000	\$10,000	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000	\$11,000		
Date of Record Plat:	May-10	May-10	April-11	April-11	April-11	April-11	April-11	April-11		
Date of Construction:	August-10	June-11	June-11	June-11	June-11	June-11	June-11	June-11		
Seamless- Start Const.:										
Duration of Construction:	6 Months	10 Months	10 Months	10 Months	10 Months	10 Months	5 Months	5 Months		
First Unit Available:	4 Months	8 Months	6 Months	6 Months	6 Months	6 Months	4 Months	5 Months		

Playing with the construction schedule, sales pace, recorded plat dates, etc offer the developer to modify and find the most efficient project schedule, while also learning which factor may cause the most gain/ loss in profitability. When running sensitivity tests, the developer can judge just how significant of a sales pace concession may be from altering from a pace of 9 to 7 per quarter. A factor that really affects the projects profitably that is often overlooked is the projects inventory level. When the Builder offers a deposit, they will often demand a minimum inventory level; this is because they need lots finished so they can build on them, if the builder has a multi-million dollar deposit out they can't offer a return to their shareholders if they don't have finished lots. This will force the developer to have to build more lots than needed or originally planned. This will obviously require more money, likely also increasing the maximum borrowing limit. Overlooking this inventory level could cause a shortfall in funding.

Soft and Hard Development Costs:

Each development costs are uniquely calibrated to reflect a Maryland development schedule and cost assumptions. It is inappropriate to group all of these costs into one category and spread the cost over each construction phase as it doesn't accurately portray the flow of cash and expenses, therefore please find the detailed assumptions for each cost category below: Figure 9 offers a snapshot of one of the cost input sections.

Figure 9: Cost Input per Phase

	Units	Assessment- Record Plat	Study, Engineer & Approvals	Soils Tests, Stake Outs & As- Built	Legal & Land Use	Fencing, Sidewalks, Signs & Maint.	Dry Utilities & Lighting	Landscaping	HOA Subsidy & Marketing	Place Hold A	Place Hold B
SF - Estate	75										
SF - Large	180										
SF - Medium	250	60,000	2,500	2,450	400	1,100	1,250	1,350	1,700		
SF - Small	0										
TH - Villa	20	45,000	2,200	2,150	500	750	1,200	1,100	1,650		
TH - 24	185	40,000	2,400	2,500	600	900	1,350	1,250	1,800		
TH - 20	280	35,000	2,000	2,100	400	750	1,200	1,100	1,650		
TH - 16	0										
Comm - AC	63	100,000	5,000	2,500	1,000	250	500	1,500	1,000		
Comm - SF	0										
Apartment - AC	55	75,000	5,000	2,000	500	250	500	1,500	1,000		
Apartment - Unit	0										
Totals:			\$2,263,000	\$1,973,500	\$423,500	\$696,000	\$981,250	\$1,075,750	\$1,371,000	\$0	\$0
Inflation (yr):			3%	3%	3%	3%	3%	3%	3%	0%	0%

- I. Inflation: each category of costs allows its own inflation per year as they vary from cost to cost. A contract may lock in your engineering costs throughout the project, however, and just as easy, a 3% increase in hourly wage may continue from your attorney as you have seen in recent years. This model permits the utmost flexibility for each cost category.

- II. Record Plat Assessment: As described in the project schedule section the value of a recorded lot is far greater than that of a raw lot, or unrecorded. This section allows you to input the expected value, which is then used to calculate the proper property tax.

- III. Study, Engineering, and Approvals: These costs tend to be very lumpy through the project as they are heavy for a few months then no cost for another set of months. The most expense comes from early on when the project is being designed. This Model requires the user to input the estimated engineering by product type; i.e. \$2,500 for a Single family and \$2,000 for a Townhome. This Model allows the user to enter when the costs will begin, and over what duration. Additionally, these costs can be allocated to each individual phase. For example, the total engineering budget may be \$2.2 million dollars, 35% of this costs is incurred during the first 12 months, while the other 65% is incurred over that each phase of approvals and will automatically be spread over a 10 month period, starting 8 months prior to record plat and 2 months after record plat. Early on in the project, you typically have twice the engineering cost per month than compared to later in the project when the 10 month span has passed.

- IV. Soils Tests, Stake-Outs, and As-Builts: Are grouped together because of their size and similarities. These tasks offered by an engineering company are unique but very costly and often missed or under-budgeted.
- a. Soils Tests: Varies among counties, is the cost of having a geotechnical engineer on the job site testing the compaction of the dirt after utility is installed, like a sewer line, or testing the moisture levels of the road bed before stone and black top goes down. This cost assumes 60% of the categories total budget and are invoiced concurrently with the general hard construction costs of each phase. If there isn't construction going on then this costs isn't incurred, and vice versa.
 - b. Stake-Outs: This cost is one of the first to come when starting construction on a given phase. The Model calculates this cost, starting 1 month prior to hard construction costs, and lasting a total of 4 months. The reason being, the majority of stakeouts come when the project is about to start, which shows the 'limits of disturbance' or the boundary of work to be completed. The other major cost of staking the grading levels, staking cuts and fills, of which cost is early on in the development process. This cost accounts for 30% of the categories total budget.
 - c. As-Builts: This cost is incurred at the end of the project when the engineers must verify exactly where the improvements were installed. At 10% of the categories total budget, this cost is incurred after 3 months following the completion of the construction.
- V. Legal and Land Use: This cost is different from the legal category in the acquisition section of the contract. Very similar to how the engineering cost was broken up, this costs is allocated to a per phase basis and as a bulk upfront cost. When spread over each phase the cost begins 6 months prior to record plat and 6 months after record plat. This cost is calculated with a per-lot/ per-product type assumption.
- VI. Fencing, Sidewalks, Signs, and Maintenance: These costs, which are assumed using a per-product type assumption, start towards the end of the construction schedule. Starting 3 months from the end of construction as it is assumed the major roads what and sewer lines are already installed, this category of costs is broken down with a 6 month construction time.
- VII. Dry Utilities and Lights: This costs is the electric, Verizon, Comcast, and gas of the community. The cost follows the sequencing of the construction schedule as you are invoiced the same. Beginning with an upfront deposit to begin the planning of the utility layout, then when the roads are graded, a conduit is required for all road

crossings. Then when curb is poured, the utility contractor will install the utility lines throughout the phase of construction. Once all the roads are in, the street lights will need to be installed.

- VIII. Landscaping: The cost of which is calculated using a per product type assumption, is expensed over a flexible period of time. A total landscape contract amount is assumed for the project, and then the user can allocate the cost of landscaping per phase. As each construction phase is targeted for a summer schedule to allow the dirt to dry out due to the hot air, it is difficult to install landscaping because it will die, and/or the site just isn't ready for landscaping as construction equipment may be damaging what is installed. On the other hand, you may have a site that needs some serious buffering, and regardless of the weather, you want to spend more money upfront, creating this buffer. A matrix allows the user to customize the landscaping costs.
- IX. Homeowners Association Subsidy and Marketing: This cost often missed as it seems small but it adds up quickly. This is a budget items used to fund any shortfalls the HOA may have in its operating expenses. If the community is 60% built out, it is likely that the HOA is up and running but doesn't have enough homes to support the operating budget. The timing of these costs is determined by the user as each project is different.
- X. Place Holders: The Model reserves several spots for unique costs. As many developers have shared, each project is different and the need to customize is increasingly becoming important.
- XI. Accounting and Insurance: A fairly simple cost is incurred just once a year at a cost inputted by the user.
- XII. Extensive Water and Sewer: This cost is assumed by a gross figure, not a per product type like much of the other costs. This figure can be allocated on a per phase basis. A Pump station may be required in Phase 2, the costs of the pump station is entered into the cost section with 100% allocation to phase 2.
- XIII. Road, Bridge and Boulevard: Often a mistaken, a Developer will assume the cost of development per lot and spread over each month of construction however, as we discussed earlier, these costs are lumpy. The costs for these road improvements are entered with a gross amount and can be allocated on a per phase basis.

- XIV. Reforestation, Demo, Relocation, Clubhouse and Pool, Walking Trails, and Entrance Features are all very similar in how they are offered for input in this Model. Each costs needs a total gross amount and can be allocated on a per phase basis.

Figure 10: Costs – Allocation per Phase. – Allows the user to allocate a fixed cost to any phase.

Costs Per Phase	Total Costs	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10	Comments
Landscaping	\$0	100%									0%	
HOA Subsidy & Marketing	\$0	100%									0%	
Place Hold A	\$0	100%									0%	
Place Hold B	\$0	100%									0%	
Extensive Sewer & Water	\$4,400,000	100%									0%	
Road, Bridge & Boulevard	\$11,000,000	100%									0%	
Reforestation, O.S. Fee	\$200,000	100%									0%	
Demo & Relocation	\$1,000,000	99%	1%								0%	
Clubhouse & Pool	\$5,000,000	100%									0%	
Walking Trails & Parks	\$2,500,000	100%									0%	
Entrance (s)	\$1,750,000	100%									0%	

- XV. **Hard Construction Costs:** This cost includes the major construction of the site and is usually the largest cost of development. This cost included but is not limited to taking lots from raw to paved; clearing, grading, water, sewer, storm drain, curb, and pavement. This Model allows the user to input a budget costs for the development using a per product type expense, for example, a typical community will cost \$18,000 to \$22,000 per townhome to develop, more for a single; by multiplying the number of townhomes by the cost per townhome, you can budget the estimated cost of each phase. This Model also allows flexibility to adjust the prices as building phase 1 is typically more expensive than phase 2, even if they have the same number of units. This is because as you tend to improve the site more in the first phase that benefits the subsequent phases, especially when you consider any economies of scale and overlapping. This Model allows each cost per phase to be modified, for example, Phase 1 and 2 could have and adjustment that is more than 100% of costs, while Phase 3 and 4 can be adjusted to less than 100%. The Model permits the user to ‘override’ the budget amount with an actual contractor’s amount when and if collected. These costs can be inflated using an annual inflation rate, starting after a selected monthly period. Figure 11 offers a snapshot of the construction cost input section.

Figure 11: Construction Cost Input

Direct Construction Costs:								
Inflation Factor:			3%					
Start Inflation (Mos):			6					
	Units:	Budget Per Unit		Modify by Phase	Budget Const.	Override-Contractor Estimates	Final Const. w/ Inflation*	
SF - Estate	75			Phase 1	115%			
SF - Large	180			Phase 2	110%			
SF - Medium	250	34,000		Phase 3	90%			
SF - Small	0			Phase 4	90%			
TH - Villa	20	22,000		Phase 5	100%			
TH - 24	185	20,500		Phase 6	110%			
TH - 20	280	19,000		Phase 7	100%			
TH - 16	0			Phase 8	90%			
Comm - AC	63	25,000		Phase 9	100%			
Comm - SF	0			Phase 10	100%			
Apart - AC	55	20,000		Totals:		\$0	\$0	
Apart - Unit	0						\$0	

XVI. **Developer Fees:** When a project is purchased with a partner, the developer often receives a ‘Developer Fee’ to contribute to the developers his in-house services. This fee can be calculated several different ways, by a percentage of revenue, a fixed monthly fee amount, of a per unit fixed fee. All of these different fee amounts can be used in this Model. Figure 12 below offers a snapshot of this input.

Figure 12: Cost - Developer Fee

Costs of In-house Services:		Percentage of Revenue:	3%
		Fixed Monthly Fee (Prior to Sales):	\$20,000
		Per Unit Fixed Amount:	
	SF - Estate		\$0
	SF - Large		\$0
	SF - Medium		\$0
	SF - Small		\$0
	TH - Villa		\$0
	TH - 24		\$0
	TH - 20		\$0
	TH - 16		\$0
	Comm - AC		\$0
	Comm - SF		\$0
	Apart - AC		\$0
	Apart - Unit		\$0

XVII. **Contingency:** This Model calculates 3 different contingencies, Soft Cost, Hard Cost, and Misc. Costs. Because the Hard Construction cost is so large, a smaller percentage amount equates to a much larger number when compared to a soft development cost or misc cost. Also, it is likely that the majority of the hard

construction costs were based on real construction estimates while most of the soft costs and misc costs are based of estimates using prior projects as examples, therefore it is also likely that a larger percentage contingency budget will be used for soft costs than that of hard costs, unless hard construction numbers haven't been bid out.

XVIII. Bonds and Inspection Amount: The cost of Bonding is perhaps the most difficult to calculate within the development budget. Each cost category that is likely to require bonds is itemized and given a Bonding amount as a percentage of costs. The cost of Stakeouts, Soil Tests, and As-builts are usually bonded for the same amount as your proposed bid, so 100% Bonding is required. For state highway work, the State requires 150% of the estimated cost of the work to be bonded. Then, depending on the duration of each construction item, and the amount of time the governing jurisdiction requires you to hold the bond for the work, a percentage over the next 5 years shows the amount of the outstanding bond. The total of the outstanding bonds are multiplied by the total cost per year of the bond, typically 1% to 2% annually, however the first 2 years are typically grouped together. A percentage inspection amount is also required by the user which information can be provided by the jurisdiction in which the project lies. Over the last few years, as the credit markets have become calculated, these bonding amounts are treated just like debt, the amount of the total bonds and how they are secured have become extremely important. Figure 13 offers a snapshot of the bonding and inspection input matrix.

Figure 13: Bonds and Inspections Input

<u>Surety and Inspections:</u>							
	Total Costs	Inspection Amount	Bond as Percent of Cost	Bond Cost (Initial 2 Years)	3rd Year Renewal %	4th Year Renewal %	5th Year Renewal %
Study, Engineering & Approvals		5.00%	25.00%	2.25%	15.00%	0.00%	0.00%
Legal and Land Use		5.00%	15.00%	2.25%	15.00%	0.00%	0.00%
Stake Out, Soils Tests, and As-Builts		5.00%	100.00%	2.25%	50.00%	0.00%	0.00%
Surety & Inspections		5.00%	35.00%	2.25%	50.00%	0.00%	0.00%
Direct Construction Costs		5.00%	65.00%	2.25%	30.00%	0.00%	0.00%
Extensive Water and Sewer		5.00%	90.00%	2.25%	10.00%	0.00%	0.00%
Extensive Road, Bridge & Boulevard		5.00%	150.00%	2.25%	10.00%	0.00%	0.00%
Fencing, Sidewalks, Signs & Maint.		5.00%	50.00%	2.25%	20.00%	0.00%	0.00%
Dry Utilities & Lighting		5.00%	50.00%	2.25%	40.00%	0.00%	0.00%
Landscape		5.00%	75.00%	2.25%	50.00%	0.00%	0.00%
Reforestation & Open Space		5.00%	100.00%	2.25%	80.00%	0.00%	0.00%
Contingency		5.00%	0.00%	2.25%	0.00%	0.00%	0.00%

Financing:

The most advanced part of this Model is the financing arrangements. This Model requires the user to input when the funding will begin for construction, at what interest rate, and at what time and rate a renewal will be required. The next section offers flexibility to the user to input whether the developer receives or contributes to the bank financing. In the event, the developer prefunded several soft or hard costs of which were approved in the construction loan; the developer would receive funds back after lender started funding. The timing of this cash flow becomes important when calculating an investor’s rate of return. Each cost is itemized and offered the ability to be funded by the lender or not. This has recently become important as lenders are hesitant to lend money for costs that do not directly improve their collateral position, for example developer fees, HOA subsidy and marketing, etc. Figure 14 offers a snapshot of the allocation of each cost item for which loan proceeds would pay.

Figure 14: Allocation of Loan Proceeds

Costs Funded with Debt after Initial Fund Date:	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
Property Taxse	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Accounting and Insurance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Study, Engineering & Approvals	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Legal and Land Use	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
HOA Subsidy & Marketing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Stake-Outs, Soils Tests, As-Builts	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Surety & Inspections	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Direct Construction Cost	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Extensive Water & Sewer	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Extensive Road, Bridge & Boulevard	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fencing, Sidewalks, Signs & Maint.	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Dry Utilities & Lighting	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Landscaping	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Reforestation, O.S. Fee	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Demolition & Relocation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Clubhouse & Pool	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Walking Trails & Parks	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Entrance (s)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Place Hold A	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Place Hold B	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Environmental Clean up - Legal	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Reimbursements to CT \$1m over 20 Months	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Interest for Adjacement Properties	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Payment to PDWSA	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
First Entrance Feature	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pay off Adjacent Land (Debt)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Place Hold I	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Place Hold J	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Contingency	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Costs of In-House Services	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Interest	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The detailed payoff or release price per product type is extremely detailed, calculating the amount of payoff a lender will require as a percentage of loan-per-lots or a fixed amount. The lender will require an accelerated payoff, it’s important to calculate this amount upfront to ensure the project has proper cash flow. These payoffs are calculated using the aggregate costs paid by loan per lot and spread using a weighted average for the revenue per lot. Shown on the summary sheet is a maximum outstanding loan balance throughout the projects span, this is

used for a revolving loan amount. Figure 14 offers a snapshot of the loan payoffs per product type and per phase.

Figure 14: Loan Payoff/ Release per type and phase

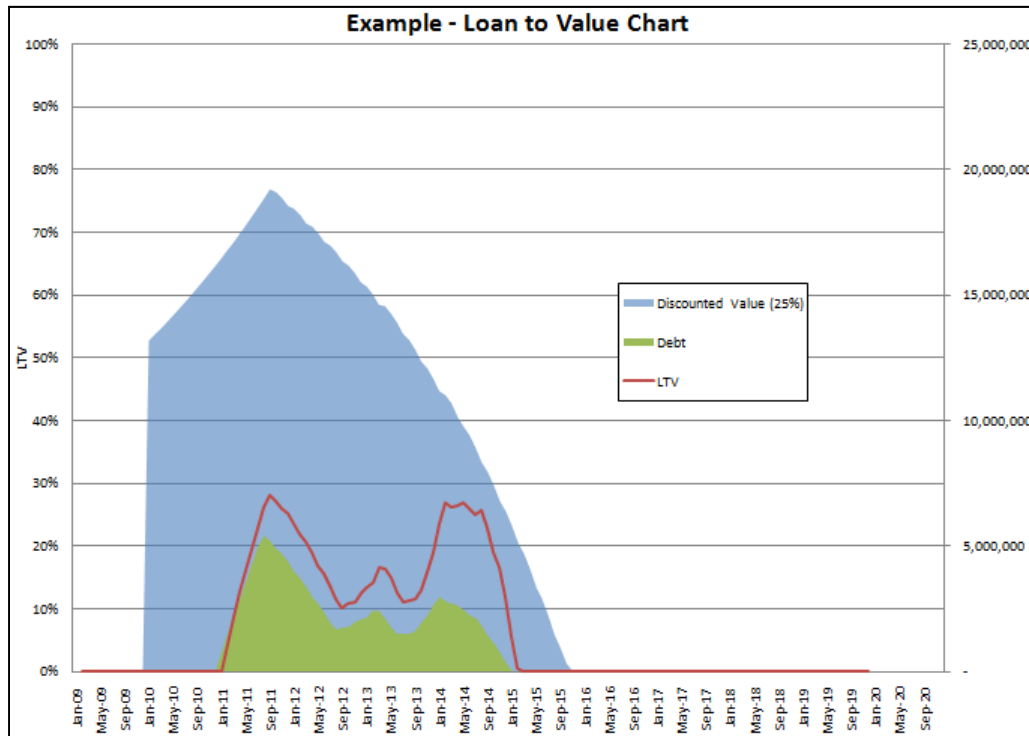
Paydown for Units			FIXED PAY DOWN									
Paydown Method	PERCENTAGE PAY DOWN		Phase 1*	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8	Phase 9	Phase 10
	Percent of Costs	Amount*										
SF - Estate	Percentage	115%										
SF - Large		115%										
SF - Medium		115%										
SF - Small	Fixed	115%										
TH - Villa		115%										
TH - 24		115%										
TH - 20		115%										
TH - 16		115%										
Comm - AC		115%										
Comm - SF		115%										
Apartment - AC		115%										
Apartment - Unit		115%										

* Amount Determined by Weighted Average using Revenue Per Unit

Aggregate Loan Borrowings:

Never more important is the loan to value ratio. This Model performs 2 different valuations, a discounted cash flow and inventory valuation. The discounted cash flow mirrors that found in a professional appraisal; using the total revenue, less property taxes, less sales, less administrative and profit, then discounted to a present value using a 20% discount rate. The second valuation using the internal lot inventory tracking calculations which tracks the number of raw lots, recorded lots, improved lots, less any sold lots. Each stage of production is valued differently, offering, on any given month, the inventory analysis along with a value. Charts are offered to illustrate the relationships between loan and value. Figure 15 offers a chart that illustrates the relationship between debt and value.

Figure 15: Loan to Value Chart



Investors:

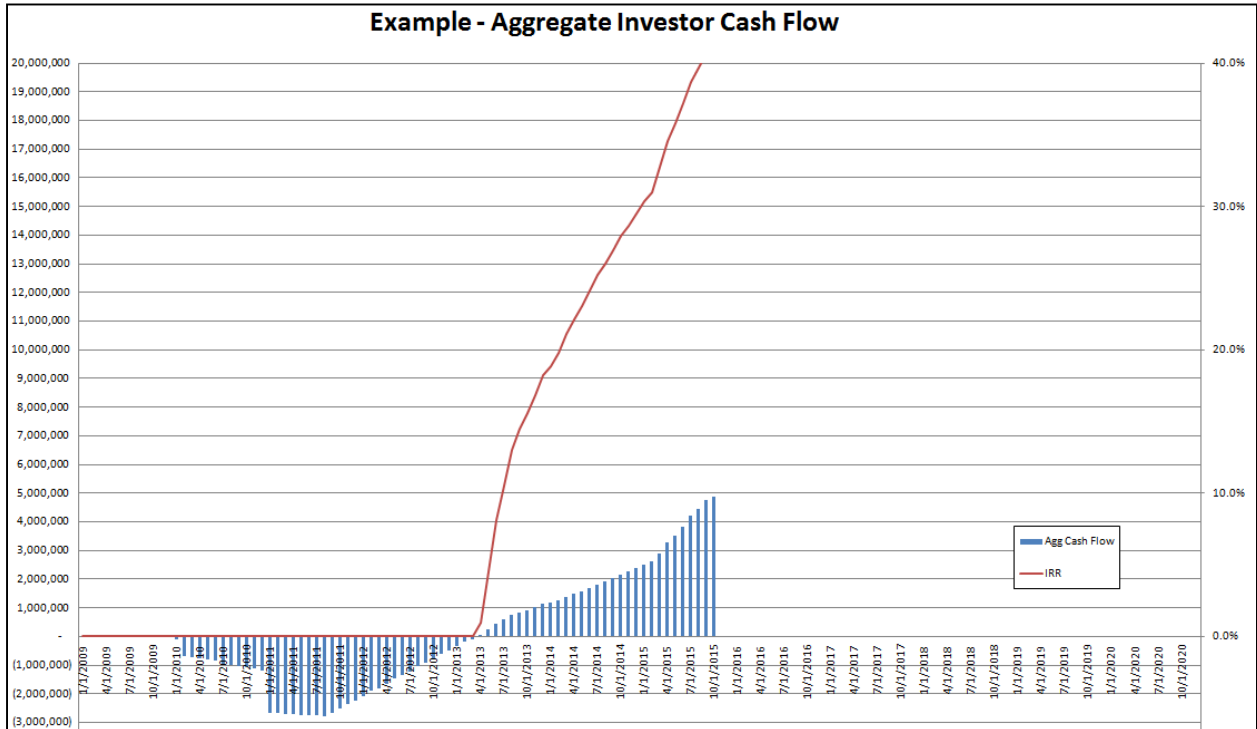
Many lenders have seen an increase in equity partners which isn't surprising considering the amount of equity needed for development deals in today's credit climate. This Model caters to such partnerships because of its flexibility and outputs. Several inputs are needed for this analysis, first, what percentage ownership will the investor have? Second, what is the purchase price of such ownership? That is, when ownership is purchased, it isn't returned to the investor, it is treated as a buy in. Third, what is the preferred rate of return? That is, the interest earned on the investment, prior to the principal investment being returned and prior the distribution of profits per ownership. Lastly, what percentage of cash flow shall be allocated to pay off the investor for its principal investment? Where 100% allocation means all the cash flow is offered to the investor before the profits are distributed. A lesser allocation, say 70%, allows 70% of cash to be offered to the investor as a preferred return while the remaining 30% is offered to the owners as distributable profits. This is likely offered when a large investment is made for a long project and the developer wishes to receive smaller amounts of cash up front to offset the cost of operations. Another structured offered to the investor would be a promoted interest structure where the investor gets a 90% ownership stake until the investor receives all of its money back plus 10%, then the ownership goes to 80/20 until another return hurdle is met, then 70/30 and so on.

A summary sheet offers very valuation information for the investor, such as:

- What ownership structure is assumed, traditional or promoted
- When the investment is returned
- The total amount of investment
- Interest Earned
- Profit Earned
- Total Return on Investment
- A calculated Internal Rate of Return

The investor can track, using the cash flow analysis, where the investment is due and what it is used for. As you will notice throughout the snapshots provided, through the acquisition section, the user can allocate the amount of funds required by the investor for closing. A tab titled “Investor Aggregate Investment Tracking” offers a chart detailing when the investment is due and when it is returned, followed by the anticipated profit and IRR calculations. Figure 16 offers a chart detailing to the investor when and how much his investment will return.

Figure 16: Aggregate Investment Chart

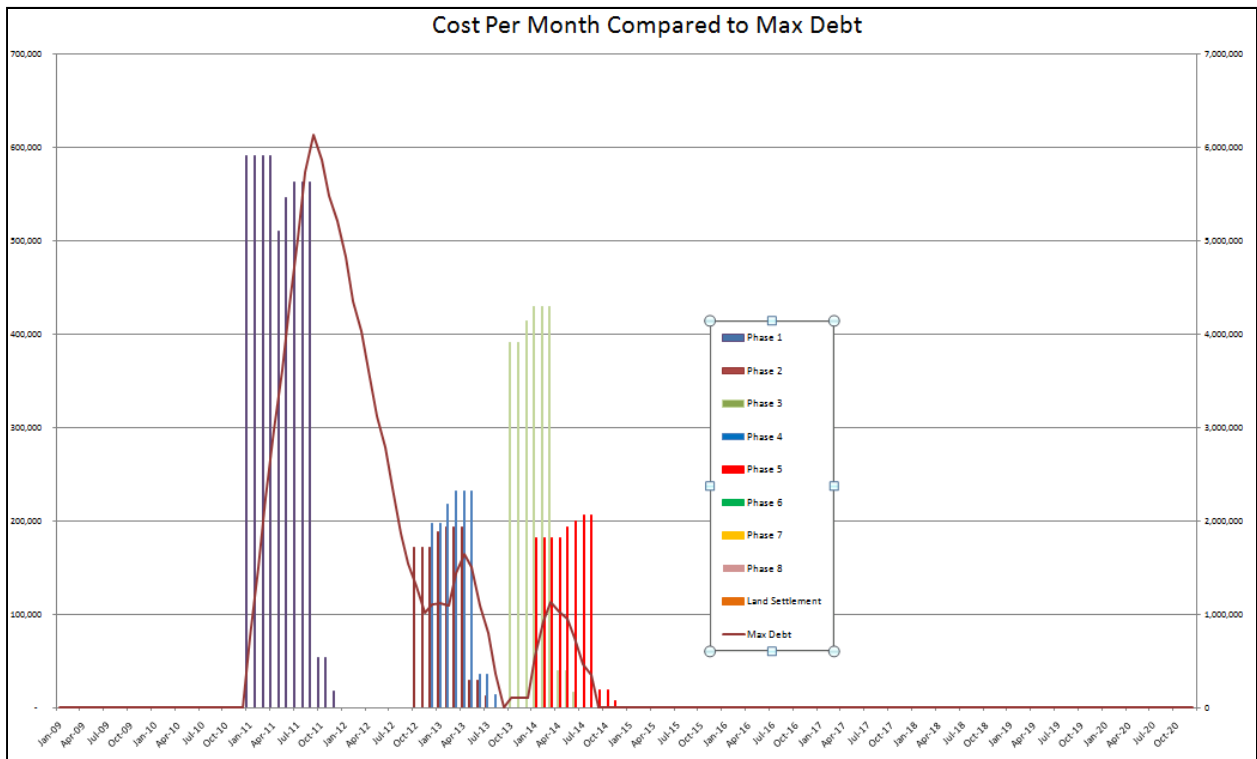


Review and Analysis:

The main focus of this pro forma Model is to allow users to easily input and manipulate data to evaluate the most profitable way to structure the development. Several outputs are offered after the user accurately inputs data:

- Summary Sheet: allows for an easy 1 page summary of the projects facts and figures, offers 90% of the information needed, revenue, costs, investor details, lender details, project timeline, builder deposit, and developer profit.
- Maximum Debt vs. Costs Chart: This chart offers the user to see costs per month (bar chart) compared to the maximum outstanding balance of the loan (line chart). Figure 17 illustrates a chart used for comparing max debt to costs per month.

Figure 17: Cost-per-month Compared to Max Debt



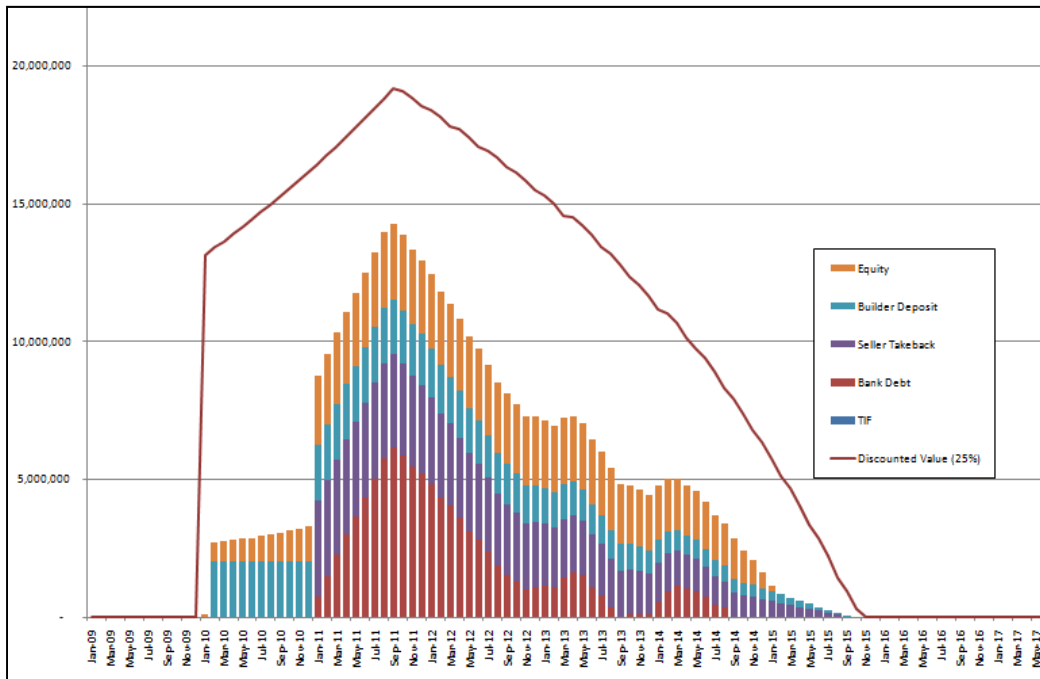
- Cash flow sheet: Offers more detail as to when revenues and costs effect the pro forma, and including the distribution of cash. Figure 18 offers a snapshot of the master cash flow.

Figure 18: Master Cash Flow

	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	
Land Acquisition																			
Acquisition Costs (Inc. Settle and Commission)	-	-	400,000	-	-	-	-	-	-	-	-	-	-	1,459,200	-	-	-	-	
Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Equity	-	80,000	525,000	-	-	-	-	50,000	-	-	-	-	-	1,204,200	-	-	-	-	
Joint Venture Per Lot (Inc Settle Cost)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual Reoccurring Costs																			
Soft Development Cost	-	24,555	24,555	24,555	24,555	24,555	24,555	24,555	24,555	24,555	24,555	24,555	24,555	6,000	9,670	12,495	12,503	12,512	12,521
Hard Construction Cost																			
Direct Const. Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	590,864	590,864	590,864	590,864	509,614
Extensive Water/Storm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	391,752	391,752	391,752	391,752	391,752
Extensive Road/Bolelevard/Bridge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106,667	106,667	106,667	106,667	106,667
Fencing/ Sidewalk/ Signs/ Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,500	12,500	12,500	12,500	12,500
Dry Utilities/ Lighting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,635	16,635	16,635	16,635	16,635
Landscaping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reforestation/ Open Space/ Fee in Lieu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demol/Relocation	-	-	-	-	-	-	-	-	-	-	-	-	-	25,000	25,000	25,000	25,000	-	
Club House	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walking/ Test Lots/ Parks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entrance(s)	-	-	-	-	-	-	-	-	-	-	-	-	-	56,250	56,250	56,250	56,250	-	
Misc Costs																			
Contingency	-	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	1,473	4,031	53,340	52,357	52,357	50,782	44,282	
Overhead Earned by Developer	-	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	
Total Acquisition Per Month																			
Total Cost Per Month	-	41,029	41,029	41,029	41,029	41,029	41,029	41,029	41,029	41,029	41,029	41,029	92,215	769,053	755,509	755,518	727,709	639,967	
Costs Paid by Debt Per Month	-	-	-	-	-	-	-	-	-	-	-	-	-	754,053	740,509	740,518	712,709	624,967	
Costs Funded by Builder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Costs Paid by Equity Per Month	-	121,029	566,029	41,029	41,029	41,029	41,029	91,029	41,029	41,029	41,029	41,029	92,215	1,219,200	15,000	15,000	15,000	15,000	
Debt Outstanding Balance (End of Month)	-	-	-	-	-	-	-	-	-	-	-	-	-	759,080	1,509,587	2,265,105	2,997,666	3,646,784	
Interest Due End For Months End	-	-	-	-	-	-	-	-	-	-	-	-	-	5,027	9,397	15,001	19,852	24,151	
Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Seller JV Payoff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Overhead Earned by Developer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lender Payoff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MONTHLY CASH FLOW																			
Cash Flow Available for Priority Return	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Priority Return on Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cash Flow Available after Priority Return	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Developer Profit 70.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Investor Profit 30.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IRR Calculation on Equity 27.26%	-	(121,029)	(566,029)	(41,029)	(41,029)	(41,029)	(41,029)	(91,029)	(41,029)	(41,029)	(41,029)	(41,029)	(92,215)	(1,219,200)	(15,000)	(15,000)	(15,000)	(15,000)	

- Capital Stack: A chart which details the amount and position of each capital investment also shows the estimated discounted value of the project. Figure 19 offers the capital stack chart.

Figure 19: Capital Stack Chart



These complex analyses aren't intended to underwrite a project and determine if the project is profitable or worth doing. In fact, many projects that a developer chooses to undertake are still pro formed on the back of the envelope, literally. A Model like this is intended to act as a tool for the developer to fine tune the projects 'business plan'. This Model is a tool that can be used to assist banks in underwriting their loan. A tool that offers investors a clear understanding of how their equity will be used and when it will be returned. A tool that allows the developer to accurately calculate the anticipated cash flow from lot sales. It's important that each developer use a tailored pro forma to their jurisdiction. As these development structures keep changing, it's important to keep our pro formas up to date to meet the recovery.