

XXX

Standardized Multifamily Financial Model

Overview

June 23, 2020

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Standardized Multifamily Financial Model

BACKGROUND SCHEDULE & CONSULTANT

- 1) Schedule
- 2) Consultant

Standardized Multifamily Financial Model

BACKGROUND SCHEDULE & CONSULTANT

1) Schedule

STANDARDIZED FINANCIAL TEMPLATE	1	2	3	4	5	6	7	8	9	10	11	12
ESTIMATED OPERATING SCHEDULE	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Model Building/Soliciting Inputs from All Offices	Completed	Completed	Completed									
Model Completion (Base Frame)	Completed	Completed	Completed									
Beta Testing/Correcting/Enhancing/Simplifying				Completed	Completed	Completed	Completed					
Create Manual Instructions Handbook & Video Training							Completed	Current Stage				
Ready for Implementation & Use								Current Stage	Next Steps	Next Steps	Next Steps	Next Steps
Completed												
Current Stage												
Next Steps												

This was XXX's 3rd attempt at standardization originally passing a prior company model on with little adoption, hiring REFM Company with no adoption and 18MBs in size (made it slow and would crash constantly) and now a much longer participant process with all offices providing input to create "buy-in" with excel jockeys who believe their model is the best model and also to ensure we were working out problems.

The model is ready to use as the instruction manuals are in-place.

It will not be easy as the model is cumbersome, but enough use will create familiarity needed.

XXX stands ready to incorporate, tinker and adjust as new methods allow for a better model.

Standardized Multifamily Financial Model

BACKGROUND SCHEDULE & CONSULTANT

2) Consultant



Josh Kahr

Investing Experience

When he's not doing consulting and training work, he is a Managing Partner at [Metropolitan America](#), an investment company that is based in Northern New Jersey. It owns and manages 16 buildings and 1,000 apartment units.

Consulting Experience

Since he launched his business in 2002, he has completed the following assignments:

Constructed numerous financial models for a wide range of real estate asset investments. The firm is established as a "go to" firm for the audit and review of existing financial models. Developed workshops including:

- Advanced Pro-forma Modeling with Excel
- Argus, the dominant real estate financial package for real estate analysis
- Outside of the manufacturer of Argus: Kahr RES is the only company providing regular courses nationwide. Clients include business schools (U. Chicago, Wharton, Harvard), investment firms (Credit Suisse, Blackstone, General Electric), industry organizations (Urban Land Institute), and conference organizers (Terrapinn Financial). Josh Kahr has delivered these seminars: throughout the United States, Tokyo, Dubai, London, Hong Kong, and Singapore
- Analyzed inequalities in the tax assessment system for New York City's commercial real estate. It concluded properties were under-assessed by ~40% relative to the City's own published guidelines.

Previous Work Experience: Senior Director - Real Estate Investment Banking [Colliers International](#)

Academic Experience: Faculty/Adjunct Professor - Columbia University, Georgetown University. Graduate courses in real estate finance - Columbia's MS in Real Estate Development and Georgetown's, Auburn University, New York University and the City University of New York.

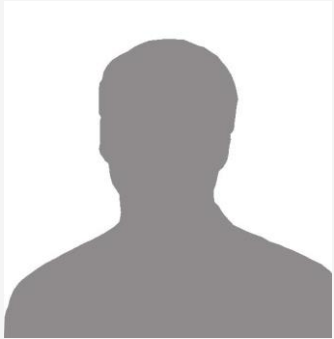
Publications: Author - Real Estate Market Valuation and Analysis (John Wiley and Sons: 2005). State of the housing market, Beyond the Bubble (Amacom Books: 2007).

Education and Affiliations: Master of Science in Real Estate from New York University, Bachelor of Arts in Economics - [Reed College](#). Board of Directors for [Monmouth Real Estate Investment \(NYSE: MNR\)](#), a publicly traded Real Estate Investment Trust.

Standardized Multifamily Financial Model

BACKGROUND SCHEDULE & CONSULTANT

2) Consultant



SP Bourgeois

Mr. Bourgeois brings more than 15 years of experience working with clients to help to plan new real estate investments. He has most often worked as the key strategist and new venture organizer for private clients, investment arms of governments and family offices, mostly in emerging markets, but also in the US and Europe. Have participated in new investment plans that total more than \$10B USD and include a projects as large as new cities and large area developments. His preference is to use a client's current assets as the foundation for creating profitable business opportunities.

He has degrees from Hampden-Sydney College, Harvard University and American University, and has worked in a number of countries abroad.

Standardized Multifamily Financial Model

EXCEL FRAMING: Problem → Inputs → Formulas/Outputs → Result

KEY MODEL INPUTS / DRIVERS

INPUTS: Standard Inputs

- Income/Rents
- Land Cost
- Hard Costs
- Soft Costs
- Property Management / Operating Budget
- Debt Financing
- Exit Cap Rate / Refinance Value
- Timing of Cash: Cash Inflows / Cash Outflows / S-Curve

Standardized Multifamily Financial Model

INPUTS: Standard Inputs

Blue Input tabs

Ranging from Main Inputs, Debt Rates, Growth Curves (Rent, Expenses), Lease-Up Velocity, Ground Lease, Incentives (PILOTs, TIFs, Brownfields)

Main inputs

D - Debt rates

D - Growth curves

D - Lease up

D - Development

D - Ground lease

D - Incentives

Standardized Multifamily Financial Model

INPUTS: Standard Inputs

Main Inputs

General details	Name	Trinity Highlands A, B, & C
	Location	123 Any Lane, Someplace, ST 33345
	Pre-development start date	1/1/2021
	Current Zoning	

Strategy & options	Select project strategy	Buy & Hold
	Ground lease	No
	Use detailed ground	No
	Allocate Non-Control	Yes
	Use detailed growth	No
	Revalue at sale?	No

BOE

Values here are top down estimates and do NOT flow to the rest of the model

Use BOE?	Yes		Gross to net	90%		
Building						
Use	Count	GSF/Unit/Stall	Total GSF	Total NSF	NSF/Unit	Lease Up Veloc.
Resi - Market units	355	889	315,556	284,000	800	25
Resi - Workforce units	0	1,100	0	0	0	2
Resi - Affordable units	0	1,100	0	0	0	2
Commercial GSF	7,000	7,000	7,000	7,000		650
Parking stalls	0	0	0	0		10
			322,556	291,000		
Operations						
Avg monthly rents	Preference		\$/PNSF	\$/Unit	\$/Mo/For use	
Market	\$	2.25	\$	-	\$ 1,800	
Workforce (80-120% AMI)	\$	-	\$	-	\$ -	
Affordable (<60% AMI)	\$	-	\$	-	\$ -	
Commercial	\$	30.00			\$ 2.50	
Parking			\$	-	\$ -	
Financing (do not edit)						
	Core terms			Fees based on % of debt		
	Ann. Int	Term	TLC/LTV	Orig. Fees	Misc. Fees	
Land/Acquisition	8.00%	N/A	60%	1.00%	0.25%	
Development	5.50%	N/A	65%	1.00%	0.35%	
Senior	5.00%	30	70%	1.00%	0.30%	

Standardized Multifamily Financial Model

INPUTS: Standard Inputs – Hard & Soft Costs, Schedule & Timing

Main Inputs

Development Schedule	From	To	Duration	Mo. Count
Pre-development	1/1/2021	12/31/2021	12	12
Land / Acquisition	1/1/2022	1/31/2022	1	13
Construction	2/1/2022	7/31/2024	30	43
Lease-up	8/1/2024	9/30/2025	14	57
Stabilized operations	10/1/2025	9/30/2030	60	117
Sale	9/1/2030	9/30/2030	0	117
NOI for FTM	10/1/2025	9/30/2031	72	

Debt (do not modify)	From	To	Duration
Land / Acquisition			0
Construction	1/31/2022	9/30/2025	44
Senior	9/1/2025	9/30/2030	61
Mezzanine			0
Mezzanine loan EB5			0

Development		\$ Total	
Pre-development		\$	900,000
Land/acquisition		\$	8,842,400
Soft costs	8.8%	\$	4,514,000
Soft cost contingency	5.0%	\$	350,161
Hard costs annual escalation to start of con	3.0%		
Hard costs		\$/Unit	For Use
\$/residential GSF	\$ -	\$ 153	\$ 49,872,854
\$/commercial GSF		\$ 200	\$ 1,446,189
\$/stall parking cost	\$ 32,500		\$ -
Hard cost contingency	5.0%	\$	2,565,952
Developer's fee	3.0%	\$	2,054,747
Operating deficit		\$	434,477
Unleveraged development cost		\$	70,980,779
		\$	797,658

Sources and Uses

Sources	Land/Acq	Construction	\$ Total	% of Total
Pre-development		\$ 900,000	\$ 900,000	1.2%
Land/acquisition	\$ 8,842,400	\$ 8,842,400	\$ 8,842,400	11.7%
Soft costs		\$ 4,514,000	\$ 4,514,000	6.0%
Soft cost contingency		\$ 350,161	\$ 350,161	0.5%
Hard costs annual escalation to start of con		\$ 51,319,042	\$ 51,319,042	68.1%
Hard cost contingency		\$ 2,565,952	\$ 2,565,952	3.4%
Financing	\$ -	\$ 4,403,521	\$ 4,403,521	5.8%
Developer's fee		\$ 2,054,747	\$ 2,054,747	2.7%
Operating deficit		\$ 434,477	\$ 434,477	0.6%
Total	\$ 8,842,400	\$ 75,384,301	\$ 75,384,301	100.0%

Uses			\$	% of Total
Equity	\$ 8,842,400	\$ 26,663,685	\$ 22,615,290	35.0%
Debt	\$ -	\$ 49,518,273	\$ 52,769,011	65.0%
Total	\$ 8,842,400	\$ 76,181,958	\$ 75,384,301	100.0%

Misc operations rates	
Avg vacancy	5.00%
Avg concessions	0.00%
Avg bad debt	1.00%
Other income (% EGI)	4.06%
OPEX monthly \$/unit (ex prop taxes and prop mngr)	\$ 350
Property management (% of EGI)	2.50%
Avg revenue growth	2.75%
Avg opex growth	2.50%

Reserves

Residential	\$ 17	/unit/Mo
Commercial	\$ 0.25	/GSF/Mo

Property taxes

Millage	2.84%
Escalation	2.00%
Assessment %	75.00%
Payments	Monthly

Sale

Exit cap rate	5.00%
Cost of sales	3.00%

Waterfall

	GP	LP	Gemdale Co-GP
Equity	15%	85%	50%
	\$ 3,392,294	\$ 19,222,997	\$ 1,696,147
Pref	8%	8%	8%
T1		12%	
T2		15%	
T3		18%	
Over	50%	50%	50%

Hard & Soft Costs,
Schedule & Timing

Standardized Multifamily Financial Model

INPUTS: Standard Inputs – **Other Income**

Main Inputs

Other income

Other income type	\$/unit/month	
RUBS income	\$	-
Other item 1	\$	75
Other item 2	\$	-

Parking

Revenue type		Stalls - #	Stalls - %	Income
Monthly	balancing	417	98%	\$0 stall monthly
Hourly		10	2%	\$ stall hourly
Total		427	100%	

Standardized Multifamily Financial Model

INPUTS: Standard Inputs – Operating Expenses

Main Inputs

OPEX

Use detailed opex inputs? Yes

Controllable	Monthly	Annually
Cost per residential unit / month (at analysis start)	\$ 317	\$ 3,800
Cost per residential unit / month (at lease up start)	\$ 333	\$ 3,990

Uncontrollable		
Property management fee	2.50% of effective income	\$ (192,484) Prop Mngmnt fee
Insurance	\$ 142,000 per year	

Controllable

Line item	Cost	Per	Annual cost	Annually	Cost/Unit	Escalation
Utilities	\$ 58	Eff. Income	\$ 20,708	\$ 0	\$ 58	3.0%
R&M	\$ 44	Unit monthly	\$ 169,290	\$ 0	\$ 477	3.0%
Staff costs	\$ 20,102	Month	\$ 241,224	\$ 0	\$ 680	3.0%
Contracts	\$ 13	Unit monthly	\$ 48,600	\$ 0	\$ 137	3.0%
Marketing	\$ 5	Unit monthly	\$ 19,440	\$ 0	\$ 55	3.0%
General & Administrative	\$ 42	Unit monthly	\$ 162,000	\$ 0	\$ 456	3.0%
Turnover	\$ 19	Unit monthly	\$ 73,710	\$ 0	\$ 208	3.0%
Other1	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Other2	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Other3	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Other4	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Other5	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Total			\$ 734,972		\$ 2,070	

Detailed or Summarized versions

Non-Controllable

Line item	Cost	Per	Annual cost	Annually	\$/Unit	Escalation
Property management fees	2.50%	Eff. Income				
Insurance	\$ 50	Unit monthly	\$ 194,400	\$ 0.27	\$ 600.00	3.0%
Ground lease payments	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 1	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 2	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 3	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 4	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 5	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 6	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 7	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
TBD 8	\$ -	Unit monthly	\$ -	\$ -	\$ -	3.0%
Total ex PM Fees & taxes			\$ 194,400		\$ 600.00	

Note: Don't edit first four Non-Controllable items

Standardized Multifamily Financial Model

INPUTS: Standard Inputs

Buy & Hold	Trinity Highlands A,B, & C
Standard	Debt rates

TAB IS ACTIVE? Yes

DEBT CURVES

LIBOR / SOFR FORWARD CURVES

1-Month LIBOR/SOFR

Period		1	2	3
Date	month end	1/31/2020	2/29/2020	3/31/2020
Rate		0.780%	0.850%	1.200%

Base interest rates	Active?	Ceiling	Floor	Spread			
Land / Acquisition	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Construction	Yes	10.00%	0.00%	3.00%	3.780%	3.850%	4.200%
Senior	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine loan EB5	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Iterative draw-down	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%

3-Month LIBOR/SOFR

Period		1	2	3
Date	month end	1/31/2020	2/29/2020	3/31/2020
Rate		2.500%	2.500%	4.000%

Base interest rates	Active?	Ceiling	Floor	Spread			
Land / Acquisition	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Construction	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Senior	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine loan EB5	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Iterative draw-down	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%

Debt Inputs

12-Month LIBOR/SOFR

Period		1	2	3
Date	month end	1/31/2020	2/29/2020	3/31/2020
Rate		2.500%	2.500%	2.500%

Base interest rates	Active?	Ceiling	Floor	Spread			
Land / Acquisition	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Construction	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Senior	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine loan EB5	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Iterative draw-down	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%

TREASURIES

10 Year Treasuries

Period		1	2	3
Date	month end	1/31/2020	2/29/2020	3/31/2020
Rate		2.500%	2.500%	2.500%

Base interest rates	Active?	Ceiling	Floor	Spread			
Land / Acquisition	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Construction	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Senior	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine loan EB5	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Iterative draw-down	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%

30 Year Treasuries

Period		1	2	3
Date	month end	1/31/2020	2/29/2020	3/31/2020
Rate		2.500%	2.500%	2.500%

Base interest rates	Active?	Ceiling	Floor	Spread			
Land / Acquisition	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Construction	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Senior	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Mezzanine loan EB5	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%
Iterative draw-down	No	0.00%	0.00%	0.00%	0.000%	0.000%	0.000%

Standardized Multifamily Financial Model

EXCEL FRAMING: Problem → Inputs → Formulas/Outputs → Result

Trinity Highlands A,B, & C

Table of Contents

#	Tab name	Function	Purpose
1	Scenario testing	Input	Allows for different scenarios to be evaluated at a high level. Results do not carry over into model
2	Project summary	Results	Presents selected inputs and results for overall project evaluation
3	Main inputs	Input	Allows for primary entry of deal inputs
4	D - Debt Rates	Input	When active, allows for detailed debt rate inputs to be entered and referenced
5	D - Growth curves	Input	When active, allows for detailed growth rate inputs to be entered and referenced
6	D - Lease up	Input	When active, allows for detailed lease up inputs to be entered and referenced
7	D - Development	Input	When active, allows for detailed development cost inputs to be entered and referenced
8	D - Incentives	Input	When active, allows for incentive results (from other workbooks) to be entered and referenced
9	Monthly - UNL	Working	Performs the primary workings for unleveraged cashflows
10	Monthly - LEV	Working	Performs leveraged workings against the results of the unleveraged cashflows
11	Monthly - Waterfall	Working	Performs waterfall allocation workings against the results of the leveraged cashflows
12	Development summary	Results	Presents selected inputs and results for the development's cost
13	Annual pro forma	Results	Presents annual summaries of the two primary strategies
14	Equity summary	Results	Presents selected inputs and results for the equity invested
15	Debt summary	Results	Presents selected inputs and results for debt usage
16	Reforecast	Other	Allows for rolling actual results to be compared with projections

Standardized Multifamily Financial Model

INPUTS: Adjustable / Local Nuances

- Property Taxes
- Assessed Markets / Closed Record (NY, MA, WA, TX)
- Market Value / Open Records (CA)

**Note/Model can handle the Future: Prop 13 may create a split-role whereby Commercial will be Assessed in the future and Single-Family will temporarily maintain its status. Likely a “scale-up” of full Property Taxes over time based on Assessed Value.*

UNIQUE INPUTS: Ground Lease: More developments in the future will be on “institutionalized ground leases”

UNIQUE INPUTS: Local / Regional Incentives

- PILOTs
- Brownfield Tax Credits
- TIF Financing

Standardized Multifamily Financial Model

Property Taxes

INPUTS: Adjustable / Local Nuances

- Property Taxes / Taxes on Property Development during Construction
- Assessed Markets / Closed Record (NY, MA, WA, TX)
- Market Value / Open Records (CA)

**Note/Model can handle the Future: Prop 13 may create a split-role whereby Commercial will be Assessed in the future and Single-Family will temporarily maintain its status. Likely a “scale-up” of full Property Taxes over time based on Assessed Value.*

Property Taxes	Milliage rate	2.84%	\$	71,778,437	Total Development Cost
	Assessment basis	75.00%	\$	(1,526,189)	Prop tax at stabilization
	Assessment growth rate/year	2.00%			
	Payment periodicity	Monthly			\$ (1,913,073)

Property tax reassessment at sale? **No**

The Property Taxes during development are similarly assessed with the exception of Incentive programs such as PILOTs, Affordable NY (formerly 421-a) whereby the jurisdiction “freezes” the existing Property Taxes and negotiates or sets a predictable increase in Property Taxes over periods ranging from 15-35 years. These differences among valuations differ more upon Stabilization and a Future Buyer than during the Development stage. Most jurisdictions review Permits pulled to create values during development and add assumptions their Assessor assumes are appropriate for Soft Costs and Land if there is no open record (exception being CA which is open record).

Standardized Multifamily Financial Model

UNIQUE INPUTS: Ground Lease: More developments in the future will be on “institutionalized ground leases”

Ground Leases

Lease details

Initial term	50 years
Starting date	1/1/2020
Starting rate	\$ 25,000 per acre annually
Applicable area	3.24 acres
Starting annual PMT	\$ 81,000
Starting monthly PMT	\$ 6,750
Lease PV discount rate	5.0%
Lease PV	\$ 2,067,116

Custom escalations

Count	Date	% change	\$/acre/year
1	1/31/2029	2.0%	\$ -
2	1/31/2034	3.0%	\$ -
3	1/31/2039	4.0%	\$ -
4	1/31/2043	5.0%	\$ -
5	1/31/2048	0.0%	\$ 55,000
6	1/31/2053	4.0%	\$ -
7	1/31/2058	2.0%	\$ -
8		0.0%	\$ -
9		0.0%	\$ -
10		0.0%	\$ -
11		0.0%	\$ -
12		0.0%	\$ -
13		0.0%	\$ -
14		0.0%	\$ -
15		0.0%	\$ -
16		0.0%	\$ -
17		0.0%	\$ -

Standardized Multifamily Financial Model

UNIQUE INPUTS: Local / Regional Incentives

- PILOTs
- Brownfield Tax Credits
- TIF Financing

Incentives

Use Incentives tab to enter input details

Brownfield tax credits?	Yes
Historical tax credits?	Yes
<i>Select ONE of the following</i>	
PILOT payments?	Yes
Inclusionary housing - MFTE?	No
Inclusionary housing - 421a?	No

Incentives discount rate
10.0%

Applicable PILOT rate
10.0%

BROWNFIELD TAX CREDITS

Is this block active? Yes

SITE WORK	
Remediation	\$ 1,000,000
Line item	\$ 1,000,000
Land / Site Work	\$ 1,125,000
Line item	\$ 1,100,000
Line item	\$ 12,000
Line item	\$ 13,000
GC's 1%	\$ 1,000
General conditions	\$ 1,000
Soft Costs	\$ 46,767
Line item	\$ 12,121
Line item	\$ 31,313
Line item	\$ 3,333
Predevelopment / Feasibility	\$ 77,975
Line item	\$ 64,643
Line item	\$ 7,777
Line item	\$ 3,333
Line item	\$ 2,222
SITE WORK TOTAL	\$ 2,250,742
Applicable credit rate	28%
Potential credit	\$ 630,208

TANGIBLE PROPERTY	
Tangible costs	
Total hard costs	\$ 116,465,688,118,051
Line item	\$ 1,211,111
Line item	\$ 56,548
Line item	\$ 99,999
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
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Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
Line item	\$ -
TANGIBLE PROPERTY 1	\$ 116,465,689,485,709
Applicable credit rate	10%
Potential credit	\$ 11,646,568,948,571

TOTAL POTENTIAL CREDIT	#####
adjusted by sizing	
Site work test	\$ 6,752,226 3.00x
Total credit size	\$ 35,000,000 \$35,000,000
TOTAL ACHIEVED CREDIT	\$ 6,752,226
Sell credits?	Yes
Sale % of par	92%
Sales total	\$ 6,212,048
Disbursement date	5/31/2021
Total received	\$ 6,212,048

We used the Ardsley example modes for the workings here. But in the model, we just apply the Brownfield credits in the period specified in J34
-- SHOULD BE MODIFIED BY BROWNFIELD TC EXPERT--

Standardized Multifamily Financial Model

INPUTS: Promote/Waterfall Structures

- Formulas
- Logic: Annual vs Monthly Grow Rates
- Taxes on Exit Cap (using Forward NOI)

Standardized Multifamily Financial Model

INPUTS: Promote/Waterfall Structures

Promote/Waterfall

- Formulas
- Logic: Annual vs Monthly Grow Rates

Monthly Cash Flows remain flat until Annual increase adjustments (non-compounding)



Growth rates	Detailed growth rates?	No														
Market		2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
Workforce (80-120% AMI)		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Affordable (<60% AMI)		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Avg Monthly Rents																
Market		\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800	\$1,850



Standardized Multifamily Financial Model

INPUTS: Taxes on Exit Cap

Property Taxes

Uncontrollable expenses			Annual	Monthly	
Property taxes	Millage	2.84%			
	Assessment %	75%			
	Starting	1/1/22			
Payments due					
Escalation					
	Pay every X months	1	12	Payments	
Assessment basis	Annual escalation	2.00%			
Pre-construction		\$24,908			
Construction value in period	Starting	2/1/22			
Operations	Starting	8/1/23			71,776,438
Post sale - Merchant Built	Starting	8/1/23	Revalue at sale?	No	100,753,479
Post sale - Buy and Hold		9/1/29			118,344,735

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Buy & Hold	Trinity Highlands A,B, & C
Standard	Project summary

Project Summary

PROJECT OVERVIEW

GENERAL					
Project Name	Trinity Highlands A,B, & C		No. Units	355	
Model Version					
Address	123 Any Lane, Someplace, ST 33345		ZSF	GSF	NSF
Land Area (SF)	141,134	Residential	698,672	698,672	558,938
Land Area (Acres)	3.24	Commercial	7,000	7,000	7,000
Zoning	0	Parking	-	149,450	149,450
Density	5.00 FAR	Total	705,672	855,122	715,388
Description:					

PROJECT COST (M USD)

Line Item	Total	Percent	Per ZSF	Per GSF	Per NSF
Pre-Development	\$900,000	1%	\$ 1.28	\$ 1.05	\$ 1.26
Land / Acquisition	\$8,842,400	12%	\$ 12.53	\$ 10.34	\$ 12.36
Soft Costs	\$8,159,392	11%	\$ 11.56	\$ 9.54	\$ 11.41
Hard Costs	\$53,884,995	71%	\$ 76.36	\$ 63.01	\$ 75.32
Less: Tax Credits	\$0	0%	\$ -	\$ -	\$ -
Financing Costs	\$4,410,818	6%	\$ 6.25	\$ 5.16	\$ 6.17
Total Project Cost	\$76,197,604.5	100%	\$ 107.98	\$ 89.11	\$ 106.51

RESIDENTIAL PROGRAM

If BOE or simple inputs

Unit Type	Count	Avg NSF	Total NSF	% of Total Units	% of GSF
Market	0	0	0	0%	0%
Workforce	0	0	0	0%	0%
Affordable	0	0	0	0%	0%
Total	0	0	0	0%	0%

If detailed inputs

Unit Type	Total	Market	Non-market	Total NSF	%
ALL	355	355	0	284,000	100.0%
1 Bd	0	0	0	-	-
2 Bd	0	0	0	-	-
3 Bd	0	0	0	-	-
TBD1	0	0	0	-	-
TBD2	0	0	0	-	-
TBD3	0	0	0	-	-
TBD4	0	0	0	-	-
TBD5	0	0	0	-	-
TBD6	0	0	0	-	-
TBD7	0	0	0	-	-
TBD8	0	0	0	-	-
TBD9	0	0	0	-	-
TBD10	0	0	0	-	-
Totals	355	355	0	284,000	100%

TIMING & FINANCING

TIMELINE			
	Start	End	Months
Development			
Pre-development	11/1/2020	10/31/2021	12
Land / Acquisition	11/1/2021	11/30/2021	1
Construction	12/1/2021	5/31/2024	30
Lease-up	6/1/2024	7/31/2025	14
Stabilized operations	8/1/2025	7/31/2030	60
Sale	7/1/2030	7/31/2030	0
Total Development	11/1/2020	7/31/2030	117
Financing			
Land / Acquisition			0
Construction	11/30/2021	7/31/2025	45
Senior	7/1/2025	7/31/2030	61
Mezzanine			0
Mezzanine loan EB5			0

FINANCING

Development	
Land / Acquisition	-
Construction	\$4,410,818
Total Development Financing	\$4,410,818
Post-Stabilization	
Senior	\$15,335,956
Mezzanine	-
Mezzanine loan EB5	-
Total Post-Stabilization Financing	\$15,335,956

Operations	Untrended	Trended
Potential income	\$8,197,500	\$9,325,561
Less vacancy	(\$420,375)	(\$478,223)
Effective income	\$7,777,125	\$8,847,338
Less concessions	\$0	\$0
Less bad debt	(\$77,771)	(\$92,296)
Achieved income	\$7,699,354	\$8,755,042
Less contrl. exp	(\$1,349,000)	(\$1,509,194)
Less unconf. Exp	(\$1,860,850)	(\$2,041,340)
NOI	\$4,489,503	\$5,204,508

RETURNS

RETURN ANALYSIS - TOTAL PROJECT		
	Merchant Build	Buy & Hold
Equity contribution	\$26,684,785	\$26,684,785
Equity recapture and profit	\$27,697,671	\$57,278,680
Unlevered IRR	15.32%	10.99%
Unlevered Return Multiple	1.4x	2.1x
Unlevered YoC at Stabilization	7.25%	7.25%
Levered IRR	22.87%	17.90%
Levered Return Multiple	2.0x	3.1x
Levered YoC Stabilization	6.83%	6.83%

PROJECT LEVERED CASH FLOWS (Buy & Hold)

	Investment	Total Return	Profit
2020	(\$150,000)	-	(\$150,000)
2021	(\$12,264,175)	-	(\$12,264,175)
2022	(\$14,254,986)	-	(\$14,254,986)
2023	-	-	-
2024	(\$15,624)	\$144,440	\$128,817
2025	-	\$16,505,938	\$16,505,938
2026	-	\$1,065,600	\$1,065,600
2027	-	\$1,232,978	\$1,232,978
2028	-	\$1,406,870	\$1,406,870
2029	-	\$1,587,457	\$1,587,457
2030	-	\$62,020,182	\$62,020,182
2031	-	-	-
2032	-	-	-
2033	-	-	-
2034	-	-	-
Total	(\$26,684,785)	\$83,963,465	\$57,278,680

VALUATION

	Residential	Commercial
Cap Rate at Exit	5.00%	6.00%
Valuation Date		
	7/1/2025	7/1/2030
FTM NOI at Exit		
Residential	\$5,009,133	\$7,688,394
Commercial	\$195,375	\$239,403
Total	\$5,204,508	\$7,927,797
Total Gross Valuation at Exit	\$103,438,913	\$121,378,351
Less cost of sales	(\$1,551,584)	(\$1,820,675)
Net sales value	\$101,887,329	\$119,557,676

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Buy & Hold

Trinity Highlands A,B, & C

Standard

Development Summary

Development Summary

PROJECT COST SUMMARY	Per GSF	Per NSF
Project GSF	855,122	
Project NSF	715,388	
Development Costs:		
Pre-Development	\$900,000	\$1.05
Land / Acquisition	\$8,842,400	\$10.34
Soft Costs	\$8,159,392	\$9.54
Hard Costs	\$53,884,995	\$75.32
Before Tax Credits & Financing	\$71,786,786	\$83.95
Tax Credits	-	-
Before Financing	\$71,786,786	\$83.95
Financing Costs	\$4,410,818	\$5.16
Total Development Costs	\$76,197,605	\$89.11

PRE-DEVELOPMENT	Total cost	Per GSF	Per NSF
Planning	\$900,000	\$1.05	\$1.26
Consultants	\$0	\$0.00	\$0.00
Research	\$0	\$0.00	\$0.00
Surveys	\$0	\$0.00	\$0.00
Legal	\$0	\$0.00	\$0.00
Total	\$900,000	\$1.05	\$1.26

LAND / ACQUISITION	Total cost	Per GSF	Per NSF
MF Land	\$7,100,000	\$8.30	\$9.92
Commercial Land	\$1,742,400	\$2.04	\$2.44
Line item	\$0	\$0.00	\$0.00
Line item1	\$0	\$0.00	\$0.00
Line item2	\$0	\$0.00	\$0.00
Total	\$8,842,400	\$10.34	\$12.36

SOFT COSTS	Total cost	Per GSF	Per NSF
A&E	\$1,944,000	\$2.27	\$2.72
Legal & closing	\$500,000	\$0.58	\$0.70
Marketing / FF&E	\$2,170,000	\$2.54	\$3.03
Operating deficit & reserves	\$442,186	\$0.52	\$0.62
Permits & gov't fees	\$150,000	\$0.18	\$0.21
Property taxes during construction	\$500,000	\$0.58	\$0.70
Developer's Fee	\$2,064,664	\$2.41	\$2.89
Contingency	\$388,542	\$0.45	\$0.54
Total	\$8,159,392	\$9.54	\$11.41

HARD COSTS	Total cost	Per GSF	Per NSF
Vertical/box costs	\$47,954,667	\$56.08	\$67.03
Garage	\$0	\$0.00	\$0.00
Excess site work	\$0	\$0.00	\$0.00
Commercial Space	\$1,390,566	\$1.63	\$1.94
Construction Fee	\$0	\$0.00	\$0.00
Contingency	\$2,565,952	\$3.00	\$3.59
GC Fee	\$1,973,809	\$2.31	\$2.76
Total hard costs after continger	\$53,884,995	\$63.01	\$75.32

TAX CREDITS	Total cost	Per GSF	Per NSF
Brownfield tax credits	-	\$0.00	\$0.00
Historical tax credits	-	\$0.00	\$0.00
Total tax credits	-	\$0.00	\$0.00

FINANCING COSTS	Total cost	Per GSF	Per NSF
Land / Acquisition			
Origination fees	\$0	\$0.00	\$0.00
Misc fee (% of total loan)	\$0	\$0.00	\$0.00
Lender legal	\$0	\$0.00	\$0.00
Lender fees	\$0	\$0.00	\$0.00
Other fees 1	\$0	\$0.00	\$0.00
Other fees 2	\$0	\$0.00	\$0.00
Other fees 3	\$0	\$0.00	\$0.00
Interest	-	\$0.00	\$0.00
Financing costs Land / Acquisit	-	\$0.00	\$0.00
Construction			
Origination fees	\$495,284	\$0.58	\$0.69
Misc fee (% of total loan)	\$123,821	\$0.14	\$0.17
Lender legal	-	\$0.00	\$0.00
Lender fees	-	\$0.00	\$0.00
Other fees 1	-	\$0.00	\$0.00
Other fees 2	-	\$0.00	\$0.00
Other fees 3	-	\$0.00	\$0.00
-	-	\$0.00	\$0.00
-	-	\$0.00	\$0.00
-	-	\$0.00	\$0.00
Interest	\$3,791,713	\$4.43	\$5.30
Financing costs Construction	\$4,410,818	\$5.16	\$6.17
Total Development Financing C	\$4,410,818	\$5.16	\$6.17

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Annual Proforma

Totals	1 1/1/21 12/31/20	2 1/1/21 12/31/21	3 1/1/22 12/31/22	4 1/1/23 12/31/23	5 1/1/24 12/31/24	6 1/1/25 12/31/25	7 1/1/26 12/31/26		
Perpetuity									
Revenues									
Potential income									
Residential rents	\$ 526,214,868	\$ -	\$ -	\$ 3,373,141	\$ 8,318,166	\$ 8,546,916	\$ 8,781,956		
RUBS Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Other item 1	\$ 21,925,620	\$ -	\$ -	\$ 140,548	\$ 346,590	\$ 356,121	\$ 365,915		
Other item 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
BOE Other Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Parking - monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Parking - hourly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Commercial	\$ 14,411,205	\$ -	\$ -	\$ 92,379	\$ 227,806	\$ 234,070	\$ 240,507		
Total potential income	\$ 562,551,693	\$ -	\$ -	\$ 3,606,067	\$ 8,892,562	\$ 9,137,108	\$ 9,388,378		
Less vacancy	\$ (32,679,987)	\$ -	\$ -	\$ (2,632,132)	\$ (1,840,651)	\$ (468,559)	\$ (481,444)		
Residential	\$ (31,238,867)	\$ -	\$ -	\$ (2,622,894)	\$ (1,817,870)	\$ (445,152)	\$ (457,394)		
Parking - hourly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Parking - monthly	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Commercial	\$ (1,441,121)	\$ -	\$ -	\$ (9,238)	\$ (22,781)	\$ (23,407)	\$ (24,051)		
Total effective income	\$ 529,871,706	\$ -	\$ -	\$ 973,935	\$ 7,051,912	\$ 8,668,549	\$ 8,906,934		
Less bad debt	\$ (5,529,296)	\$ -	\$ -	\$ (11,217)	\$ (74,164)	\$ (90,431)	\$ (92,917)		
Residential bad debt	\$ (5,169,016)	\$ -	\$ -	\$ (8,906)	\$ (68,469)	\$ (84,579)	\$ (86,905)		
Commercial bad debt	\$ (360,280)	\$ -	\$ -	\$ (2,309)	\$ (5,695)	\$ (5,852)	\$ (6,013)		
Less concessions	\$ (473,317)	\$ -	\$ -	\$ (74,233)	\$ (399,084)	\$ -	\$ -		
Total Achieved Income	\$ 523,869,093	\$ -	\$ -	\$ 888,485	\$ 6,578,054	\$ 8,578,118	\$ 8,814,016		
OPEX									
Controllable expenses									
Total controllable expenses	\$ (76,707,513)	\$ -	\$ -	\$ (590,188)	\$ (1,450,175)	\$ (1,483,900)	\$ (1,517,625)		
Uncontrollable expenses									
Simple Insurance	\$ (8,074,475)	\$ -	\$ -	\$ (62,125)	\$ (152,650)	\$ (156,200)	\$ (159,750)		
Property management fees	\$ (12,781,482)	\$ -	\$ -	\$ (20,191)	\$ (159,483)	\$ (209,333)	\$ (215,089)		
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Ground lease payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Unabated property taxes	\$ (79,797,114)	\$ -	\$ -	\$ (648,612)	\$ (1,589,736)	\$ (1,620,259)	\$ (1,650,782)		
TBD 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
TBD 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total uncontrollable expenses	\$ (100,653,071)	\$ -	\$ -	\$ (730,929)	\$ (1,901,869)	\$ (1,985,792)	\$ (2,025,621)		
Total OPEX	\$ (177,360,583)	\$ -	\$ -	\$ (1,321,116)	\$ (3,352,044)	\$ (3,469,692)	\$ (3,543,246)		
Total NOI with property taxes but no abatements (fully loaded costs)	\$ 341,949,285	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Merchant Build NOI up to the point of sale	\$ 1,597,438	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Buy and Hold NOI up to the point of sale	\$ 29,356,325	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Abatements									
PILOT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
MFTE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
421a	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total abatements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
NOI over time									
Total NOI WITH Property Tax Abatements	\$ 341,949,285	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total Merchant Build NOI	\$ 1,597,438	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total Buy and Hold NOI	\$ 29,356,325	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Net Sales value									
Merchant Build	\$ 101,887,329	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Buy & Hold	\$ 119,557,676	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Capex									
Development									
Pre-Development									
Total	\$ (900,000)	\$ (150,000)	\$ (750,000)	\$ -	\$ -	\$ -	\$ -		
Land / Acquisition									
Total	\$ (8,842,400)	\$ -	\$ (8,842,400)	\$ -	\$ -	\$ -	\$ -		
Soft Costs									
Total soft costs before contingency	\$ (7,770,849)	\$ -	\$ (244,289)	\$ (2,931,465)	\$ (2,931,465)	\$ (1,663,629)	\$ -		
Contingency	\$ (388,542)	\$ -	\$ (12,214)	\$ (146,573)	\$ (146,573)	\$ (83,181)	\$ -		
Total soft costs after contingency	\$ (8,159,392)	\$ -	\$ (256,503)	\$ (3,078,039)	\$ (3,078,039)	\$ (1,746,811)	\$ -		
Hard Costs									
Total hard costs before contingency	\$ (49,345,233)	\$ -	\$ (1,644,841)	\$ (19,738,093)	\$ (19,738,093)	\$ (8,224,206)	\$ -		
Contingency	\$ (2,565,952)	\$ -	\$ (85,532)	\$ (1,026,381)	\$ (1,026,381)	\$ (427,659)	\$ -		
GC Fee (only if fires when detailed inputs are selected)	\$ (1,973,809)	\$ -	\$ (65,794)	\$ (789,524)	\$ (789,524)	\$ (328,968)	\$ -		
Total hard costs after contingency	\$ (53,884,995)	\$ -	\$ (1,796,166)	\$ (21,553,998)	\$ (21,553,998)	\$ (8,980,832)	\$ -		
Total Unleveraged Development Cost Before Tax Credits	\$ (71,786,786)	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,727,643)	\$ -		
Brownfield tax credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Historical tax credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total Unleveraged Development Cost After Tax Credits	\$ (71,786,786)	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,727,643)	\$ -		
Total Tenant Improvements									
Merchant Build	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Buy & Hold	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Total reserves									
Merchant Build	\$ (3,978,819)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (33,647)		
Buy & Hold	\$ (425,133)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (82,147)		
Lease Commissions									
Merchant Build	\$ (961,047)	\$ -	\$ -	\$ -	\$ -	\$ (15,624)	\$ (16,053)		
Merchant Build	\$ (31,677)	\$ -	\$ -	\$ -	\$ -	\$ (15,624)	\$ (16,053)		
Buy & Hold	\$ (118,813)	\$ -	\$ -	\$ -	\$ -	\$ (15,624)	\$ (16,053)		
Total capex									
Merchant Build	\$ (71,818,463)	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,743,267)	\$ (16,053)		
Buy & Hold	\$ (72,330,732)	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,743,267)	\$ (49,700)		
TOTAL UNLEVERAGED CASHFLOWS									
IRR									
Merchant Build	15.36%	\$ 32,108,489	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,598,827)	\$ 103,766,459	\$ -
Buy & Hold	11.00%	\$ 77,025,455	\$ (150,000)	\$ (11,645,070)	\$ (24,632,037)	\$ (24,632,037)	\$ (10,598,827)	\$ 3,991,838	\$ 5,174,563

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Equity Summary

Equity Contribution (peak equity)	\$	%
LP	\$22,682,067	85.0%
GP	\$4,002,718	15.0%
Total	\$26,684,785	100.0%
Developer Co-GP	\$2,000,187	50.0%
Gemdale Co-GP	\$2,000,187	50.0%

Development Fee Distribution	\$	%
Total development fee	\$2,064,664	100.0%
Gemdale USA	\$412,933	20.0%
Developer Co-GP	\$1,651,731	80.0%

EQUITY CASH FLOWS			
	Investment	Total Return	Profit
2020	(\$150,000)	–	(\$150,000)
2021	(\$12,264,175)	–	(\$12,264,175)
2022	(\$14,254,986)	–	(\$14,254,986)
2023	–	–	–
2024	(\$15,624)	\$144,440	\$128,817
2025	–	\$16,505,938	\$16,505,938
2026	–	\$1,065,600	\$1,065,600
2027	–	\$1,232,978	\$1,232,978
2028	–	\$1,406,870	\$1,406,870
2029	–	\$1,587,457	\$1,587,457
2030	–	\$62,020,182	\$62,020,182
2031	–	–	–
2032	–	–	–
2033	–	–	–
2034	–	–	–
Total	(\$26,684,785)	\$83,963,465	\$57,278,680

GP/LP Promote Structure			
IRR	Share of Distribution		
	LP	GP	Promote
12.0%	75.0%	25.0%	10.0%
15.0%	70.0%	30.0%	15.0%
18.0%	65.0%	35.0%	20.0%
9,999.0%	60.00%	40.00%	

LP CASH FLOWS			
	Investment	Total Return	Profit
2020	(\$127,500)	–	(\$127,500)
2021	(\$10,424,549)	–	(\$10,424,549)
2022	(\$12,116,738)	–	(\$12,116,738)
2023	–	–	–
2024	(\$13,280)	\$122,774	\$109,494
2025	–	\$14,030,047	\$14,030,047
2026	–	\$905,760	\$905,760
2027	–	\$1,048,031	\$1,048,031
2028	–	\$1,195,840	\$1,195,840
2029	–	\$1,349,339	\$1,349,339
2030	–	\$46,605,919	\$46,605,919
2031	–	–	–
2032	–	–	–
2033	–	–	–
2034	–	–	–
Total	(\$22,682,067)	\$65,257,710	\$42,575,642
		77.7%	74.3%

GP CASH FLOWS			
	Investment	Total Return	Profit
2020	(\$22,500)	–	(\$22,500)
2021	(\$1,839,626)	–	(\$1,839,626)
2022	(\$2,138,248)	–	(\$2,138,248)
2023	–	–	–
2024	(\$2,344)	\$21,666	\$19,323
2025	–	\$2,475,891	\$2,475,891
2026	–	\$159,840	\$159,840
2027	–	\$184,947	\$184,947
2028	–	\$211,031	\$211,031
2029	–	\$238,119	\$238,119
2030	–	\$15,414,263	\$15,414,263
2031	–	–	–
2032	–	–	–
2033	–	–	–
2034	–	–	–
Total	(\$4,002,718)	\$18,705,756	\$14,703,038
		22.3%	25.7%

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Buy & Hold

Trinity Highlands A,B, & C

Standard

Debt Summary

Debt Summary

DEVELOPMENT FINANCING

Land / Acquisition

Loan Type	Interest-carry	
Rate Type	Floating	
Interest Rate	8.00%	
LTC / LTV	60.0%	
DSCR	-	
Loan start		
Loan end		
Loan period (months)	0	
Loan Proceeds	-	
Fees		
Origination fees	\$	-
Misc fee (% of total loan)	\$	-
Lender legal	\$	-
Lender fees	\$	-
Other fees 1	\$	-
Other fees 2	\$	-
Other fees 3	\$	-
Interest paid	\$	-

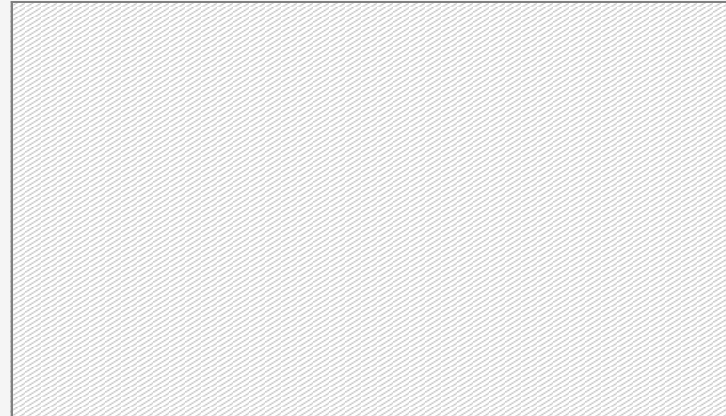
Construction

Loan Type	Interest-carry	
Rate Type	Floating	
Interest Rate	5.50%	
LTC / LTV	65.0%	
DSCR	-	
Loan start	11/30/2021	
Loan end	7/31/2025	
Loan period (months)	45	
Loan Proceeds	\$49,528,443	
Fees		
Origination fees	\$	495,284
Misc fee (% of total loan)	\$	123,821
Lender legal	\$	-
Lender fees	\$	-
Other fees 1	\$	-
Other fees 2	\$	-
Other fees 3	\$	-
0	\$	-
0	\$	-
0	\$	-
0	\$	-
0	\$	-
Interest paid	\$	(3,791,713)

PERMANENT FINANCING

Senior

Loan Type	Amortizing	
Amortization period (months)	360	
Rate Type	Floating	
Interest Rate	5.00%	
LTC / LTV	65.0%	
DSCR	1.25x	
Loan start	7/1/2025	
Loan end	6/30/2035	
Loan period (months)	120	
Refi NOI	\$5,133,713	
Refi cap rate	5.00%	
Implied vaue	\$102,674,258	
Loan principal	\$63,754,423	
PMT / mo (fixed)	-	
Fees		
Origination fee	\$	-
Misc fees	\$	-
Interest paid	\$	15,335,956



Mezzanine

Loan Type	Interest-only	
Amortization period (months)	120	
Rate Type	Fixed	
Interest Rate	12.00%	
LTC / LTV	85.0%	
DSCR	1.10x	
Loan start	1/1/2024	
Loan end		
Loan period (months)	24	
Refi NOI	-	
Refi cap rate	6.00%	
Implied vaue	-	
Loan principal	-	
PMT estimate / mo (floating)	-	
Fees		
Origination fee	\$	-
Misc fees	\$	-

Mezzanine loan EB5

Loan Type	Interest-only	
Amortization period (months)	60	
Rate Type	Fixed	
Interest Rate	5.00%	
LTC / LTV	95.0%	
DSCR	1.05x	
Loan start	2/1/2024	
Loan end		
Loan period (months)	36	
Refi NOI	-	
Refi cap rate	5.75%	
Implied vaue	-	
Loan principal	-	
PMT / mo (fixed)	-	
Fees		
Origination fee	\$	-
Misc fees	\$	-

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Trinity Highlands A,B, & C

Reforecast

Reforecast

Title	Investment Committee			Notes	Q2 - 2020	IC vs Q2	Q1 vs Q2
	Q1 - 2020	IC vs Q1	Q4 vs Q1				
Apartment Gross Rents	180,000						
Key Assumption							
Apt Rent (\$/NRSF) - IC Timing	\$3.03						
Apt Rent (\$/NRSF) - current 19Q3	\$3.03						
Apt Rent Growth	2.60%						
Land Loan Interest	L+3.71%						
Land Loan Term	72 months						
Construction Loan Interest	L+3.75%						
Construction Loan Term	60 months						
Exit Cap Rate	5.9%						
Sources (\$M)							
Senior Debt	\$49.3						
Equity	\$37.5						
Total Sources	\$86.9	\$0.0	\$0.0		\$0.0	\$0.0	\$0.0
Uses (\$M)							
Land Cost	\$17.2						
Hard Cost	\$38.4						
Soft Cost	\$11.2						
TI/LC	\$13.6						
Financing Cost	\$6.6						
Total Cost	\$86.9	\$0.0	\$0.0		\$0.0	\$0.0	\$0.0
Exit (\$M)							
Sales NOI	\$6.2						
Gross sales revenue	\$105.6						
Return							
Gemdale Levered IRR	15.0%						
Gemdale Equity Multiple	1.7x						
Gemdale Profit (\$M)	\$24.0						
Project Profit/Total Cost	27.6%						
Project Stabilized ROC	7.3%						

Standardized Multifamily Financial Model

OUTPUTS: Model example Summary Pages

Sensitivity

Sensitivity table analysis

Geomean	11.85%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

Construction	18
Stabilized operations	60

Enter an option

Return Sensitivity to and Construction Period			
Stabilized Hold	Construction Period		
11.58%	16	17	18
48	12.15%	12.08%	12.03%
54	11.89%	11.85%	11.79%
60	11.68%	11.63%	11.58%

Geomean	0.00%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

Resi vacancy	5.0%
Comm vacancy	10.0%

Return Sensitivity to Residential Vacancy and Commercial Vacancy			
Commercial Vacancy	Residential Vacancy		
	5.00%	6.00%	7.00%
6.00%			
7.00%			
8.00%			

Geomean	0.00%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

LTC	0.0%
Loan interest spread	300 bps

LTC to Construction Loan Int Spread			
Loan Int Spread	LTC		
	65.00%	70.00%	75.00%
200 bps			
300 bps			
400 bps			

Geomean	0.00%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

Comm Exit Cap	6.0%
Resi Exit Cap	5.0%

Return Sensitivity to Exit Cap Rates			
Comm Exit Cap	Resi Exit Cap		
	4.00%	4.50%	5.00%
5.00%			
5.25%			
5.50%			

Geomean	0.00%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

Resi exit cap	5.0%
Hold Period	60

Return Sensitivity to Hold Period and Resi exit cap			
Resi exit cap	Hold Period		
	16	17	18
4.75%			
5.00%			
5.25%			

Geomean	0.00%
Kelly Criterion	12.9%
Success probability	65%
Profit if successful	100%
Loss probability	35%
Loss in unsuccessful	75%
Kelly fraction	25%

Table options

1	11.58%	Unleveraged XIRR for selected strategy
2	0.00%	Inactivates data table

Iteration status

Commercial exit cap	6.0%
Hold Period	60

Return Sensitivity to Hold Period and Commercial exit cap			
Commercial exit cap	Hold Period		
	16	17	18
5.00%			
5.25%			
5.50%			

Standardized Multifamily Financial Model

FAQ's

Q: How is rent growth calculated 3% increasing Annually (static three) or Monthly (3% / 12, yet compounding), Why this methodology?

A: The rent growth input is flexible by market segment (market, workforce and affordable) and can be held at a constant rate that increments values every 12 months or can be user specified to grow at different rates over different times.

Q: What is the Tax Methodology when Building, when stabilized, when selling to the Next Buyer

A: For construction, the tax rate is multiplied by the development costs incurred; when stabilized, by the total development costs and when selling to the next buyer, by either the prior assessment value (assessments escalate by a user defined amount) or by the sale's price when the toggle for this function is on.

Q: Cap Rate methodology T12 tax adjusted or not / F12 tax adjusted or not

A: Cap rates are user set for residential and office components to be **trailing or forward 12s**. No tax adjustments.

Q: Development Fee [Based on Total Project Costs, % of Hard Costs, etc]

A: The development fee can be set to include or exclude land value, then is calculated as a user defined % of all soft and hard costs, including contingencies

Standardized Multifamily Financial Model

FAQ's

Q: Are Transfer Taxes & Title Fees estimates or Closing Costs including Brokerage Commissions in the model?

A: Depending on the level of specificity required for **Disposition, the user can either name discrete line items for discrete line item costs in the D-Dev tab or in Main Inputs or (in BoE) estimate soft costs as a dollar amount.** So the user has a few ways to add those fees in, depending on how they approach it. Another way to do it (even in BoE) would be to sum the acq price + all other acq costs and enter that total in the Land Acq input.

Q: The Property Tax Function is based on an Assessed Value which can double as the Market Value for CA Property Taxes?

Qa: During Development Property Taxes are estimated on Project Costs?

Qb: How are they valued at Stabilization, similarly just increased?

A: Yes, prop taxes are based on project costs and then escalated for all scenarios except when the user selects the "revalue prop taxes at sale" toggle, then prop taxes are based on the sales price.

Q: Are there Debt Origination Fees included on the Loans?

A: There are origination fee inputs in the model.

Standardized Multifamily Financial Model

NEXT STEPS

- Finalize Instruction & Training Manuals (Current ~2 months)
 - *Hard Copy [Finished] + Video [In-Progress]*
- Scalable to every office
- Begin requiring each XXXX Office to utilize for Multifamily (~2-4 months)
 - *Adaptation by skilled Excel Modelers can be challenging; they know their model better and trust it*
- Further Monitor & Observe areas of improvement then implement (+2 months)