

Government Survey System, Rectangular System, or Grid System





Naming Lines on the Grid



Horizontal lines 24 miles apart

Horizontal lines 6 miles apart

BASELINE Horizontal line through Tallahassee



Numbering Lines on the Grid





Naming Squares on the Grid





Labeling Townships





Numbering Sections in a Township





Dividing Sections & Calculating Acres

SECTION





Percentage and Variable Leases

(PERCENTAGE LEASE FORMULA)

		CALC	ULA	TE THE	BAS	E AN	NU	AL RE	ENT	-	
STEP 1	Base Monthly R	Rent		Months in the Year				Т	Total Annual Base Rent		
			Х	1	2		Π				
	CALCULATE	CALCULATE THE PERCENTAGE CHARGED ON GROSS SALES									
STEP 2	Total Annual Sales	_	Allowa Thre	ble Sales eshold	X Per		Percentage Charged		=	Additional Rent Owed	
	A	ADD THE RESULTS FROM STEPS 1 AND 2									
STEP 3	Total Annual Base	e Rent		Additional	Rent (Owed			Tota	al Annual Rent	
			+				1				

(VARIABLE LEASE FORMULA)

DIVIDE	DIVIDE NEW INDEX BY ORIGINAL & MULTIPLY BY ORIG. RENT							
New Index		Original Index		Original Rent		Adjusted Rental Rate		
	÷		X		=			



Suggested Sale Price for Net Listing

(NET LISTING SALE PRICE FORMULA)

	DETERMIN	ES	SEI	LLER'S DESIRED) NE	ET PROCEEDS
STEP 1	Required Net to Seller			Estimated Closing Costs		Total Needed by Seller
		+			=	
	SUBTRACT	⁻ PE	ER	CENTAGE OF SA	٩LE	COMMISSION
STEP 2	Total Seller's Net Percentage	;		Listing Commission %		Percentage for Seller's Net
	100%		-		=	
	CAI	CL	JL	ATE DESIRED SA	٩LE	PRICE
STEP 3	Total Needed by Seller		Pe	rcentage for Seller's Net		Desired Sale Price
		÷				



Monthly Principal, Interest, Taxes, and Insurance (PITI)

(PITI FORMULA)

	CALCULA	ΛΤΕ	MON	ΤН	LY RES	ERV	'ES F	OR	PRO	PEF	RTY TAXES
STEP 1	Annual Property	Taxes	6		Months i	ר the	/ear		Month	ly Re	serve Property Taxes
			÷	-	1	2		=			
	CALCULATE MONTHLY RESERVES FOR HOME INSURANCE										
STEP 2	Annual Insurance	urance Premium		Months		ו the	ne Year		Mont		Reserve Insurance
			÷	-	1	2	=				
	ADD MON	ITHL	_Y MC	DR'	TGAGE	LOA	N PA	ΥM	ENT	TO	RESERVES
STEP 3	Monthly Principal and Interest	+	Mont Proj	thly pert	Reserve y Taxes	+	Month In:	nly Re suran	eserve ce	_	Monthly PITI
						•					



Loan-To-Value Ratio (LTV)

LTV REPRESENTS THE PERCENTAGE OF THE PURCHASE PRICE THAT THE LENDER IS WILLING TO FINANCE.

(LTV FORMULA)

DIVIDE LOAN BY VALUE									
Loan Amount		Property Value / Purchase Price		Loan-To-Value Ratio (LTV)					
	÷		=						

(ALTERNATIVE LTV FORMULA)

NOTE: THIS ALTERNATIVE IS USED WHEN WORKING BACKWARDS TO CALCULATE THE RESULT.

PROPERTY VALUE / PURCHASE PRICE X LOAN-TO-VALUE RATIO (LTV) = LOAN AMOUNT





Mortgage Discounting & Point Calculations

LENDER'S YIELD BY POINTS: EVERY POINT WILL INCREASE LENDER'S YIELD (INTEREST) BY 1/8%.

CONVERSION RULE OF THUMB: 1 POINT = 1/8% (OR .125% IN DECIMALS)

	CONVERT THE	PO	INTS TO LENDER	S'N	/IELD (INTEREST)
STEP 1	Points		Conversion Rate		Increased Lender's Yield
		X	.125%	=	
	ADD THE INCREAS	SED	YIELD TO THE EX	KIST	TING INTEREST RATE
STEP 2	True Interest Rate		Increased Lender's Yield		Adjusted Interest Rate
		+		=	

COST IN DOLLARS BY POINTS: EACH POINT IS EQUAL TO 1% OF THE LOAN (NOT THE SALE PRICE).

CONVERSION RULE OF THUMB: 1 POINT = 1% OF THE LOAN

MULTIPLY CONVERTED POINTS BY THE LOAN AMOUNT								
Loan Amount		Converted Points		Cost in Dollars of Points				
	Х		=					



Debt-To-Income Ratios (HER & TOR)

HOUSING EXPENSE RATIO (HER): USED TO CALCULATE BORROWER'S ABILITY TO PAY THE HOUSING DEBT.

DIVIDE MONTHLY HOUSING EXPENSES BY MONTHLY GROSS INCOME

Monthly Housing Expenses (PITI + PMI)		Monthly Gross Income		Housing Expense Ratio (HER)
	÷		=	

TOTAL OBLIGATIONS RATIO (TOR): USED TO CALCULATE BORROWER'S ABILITY TO PAY ALL MONTHLY DEBTS.

DIVIDE TOTAL MONTHL	Y OB	LIGATIONS BY MONT	ΓHLY	GROSS INCOME
Total Monthly Obligations (PITI + PMI + Long Term Obligations)	-	Monthly Gross Income	_	Total Obligations Ratio (TOR)
	•			

QUALIFYING RATIOS: A BORROWER MUST BE BELLOW THE FOLLOWING RATIO THRESHOLDS TO PRE-QUALIFY

	Housing Expense Ratio (HER)	Total Obligations Ratio (TOR)
Conventional Loans	28%	36%
FHA Loans	31%	43%
VA Loans	Х	41%



Math Basics and ABC Formula

(SIMPLE CONVERSIONS)



(A) TOTAL X (B) RATE = (C) RESULT/PART

Key Phrase: "Slide and Divide"



Sales Commission (Straight and Step)

TOTAL SALE(S) X RATE OF COMMISSION = SALE(S) COMMISSION

(STRAIGHT COMMISSION)





Profit or Loss



RATE OF RETURN = _____ (EXPRESSED AS A PERCENTAGE)

(PROFIT CALCULATION)

SUBTRACT 100% FROM THE RATE OF RETURN							
Rate of Return		Breaking Even		Profit			
	-	100%	=				

(LOSS CALCULATION)

SUBTRACT THE RATE OF RETURN FROM 100%									
Breaking Even		Rate of Return		Loss					
100%	-		Π						

Prorating Unpaid Property Taxes

(UNPAID PROPERTY TAX PRORATION)

		CALCULATE THE DAILY RATE											
STEP 1	Annual Property Taxes		Days in the Year		Daily Rate of Property Taxes								
		÷	365	=									
Closing Date	ate: Day Belongs To:												
	MULTIPLY DAIL	(R/	ATE BY DAYS OWNE	ED I	BY SELLER IN YEAR								
STEP 2	Daily Rate of Property Taxes	v	Days Seller Owned Property i Year (Jan. 1 to Closing Date)	n	Proration Amount (Credit Buyer, Debit Seller)								
		^											

NOTE: CLOSING DISCLOSURE (CD) ONLY DISPLAYS MONEY EXCHANGED BETWEEN BUYER AND SELLER ON THE DAY OF CLOSING EXPRESSED AS A CREDIT OR DEBIT.

CREDIT = AWARDED AMOUNTS

DEBIT = DEDUCTED AMOUNTS

- Property taxes (items paid in arrears) "seller days" are used to calculate the proration.
- Unpaid property taxes appear as a *credit* to the buyer and as a *debit* to the seller.•
- Prorations always have the same dollar amount entered for the *debit* and the *credit*.



Prorating Prepaid Monthly Rent

(PREPAID MONTHLY RENT PRORATION)



- When a prorated item is paid in advance, as is the case with rent, the "buyer days" are used to calculate the proration.
- Prepaid rent is entered as a *credit* to the buyer and a *debit* to the seller.



Prorating Interest on Assumed Mortgage

(ASSUMED MORTGAGE INTEREST PRORATION)

		CALCULATE THE DAILY RATE										
STEP 1	Loan Balance		Interest Rate		Annual Intere	est		Daily Interest Rate				
		×		=			÷ 365					
Closing Date:					Day Belongs To:							
		Y RATE BY	Z DAYS OWNED BY SELLER IN MONTH									
STEP 2	Daily Interest Rate	x	Days Seller (Closi (1 st of Month	Owns Property in ing Month h - Closing Date)		=	Rent Proration Amount (Credit Buyer, Debit Seller)					

- Interest on mortgage loans is paid in arrears.
- When prorating an item paid in arrears, use "seller days" to calculate the proration.
- Enter interest on an assumed mortgage as a *debit* to the seller and as a *credit* to the buyer.



Calculating Property Taxes

ASSESSED PROPERTY VALUE X TAX RATE (MILLS) = PROPERTY TAXES

UNDERSTANDING MILLAGE RATES (MILLS): TAX RATES ARE EXPRESSED IN MILLS. A MILL IS ONE-THOUSANDTH OF A DOLLAR (EXPRESSED AS .001 IN DECIMALS). TO REMEMBER, MILL IS LATIN FOR THE NUMBER 1000.

(CONVERTING MILLS) MILLS ÷ 1000 = TAX RATE

	Assessed Value		Tax Rate (Max: 10 Mills Per)		Taxes Owed
City		Χ		=	
County		Χ		=	+
School		Χ		H	+
			Sum of All Ta	xes	=



State Taxes for Finance and Purchase

TAX TYPE X TAX RATE = TAXES OWED

(STATE TAX FORMULAS)

NEW LOANS (TAXED 2x)	X	2 MILLS (.002)	=	INTANGIBLE TAX
ALL LOANS	v	2 E MILLS (0025)		DOCUMENTARY STAMP
(NEW AND EXISTING)	X	3.5 MILLS (.0035)	-	TAXES ON THE NOTE

PURCHASE PRICE	X	7 MILLS (.007)	=	DOCUMENTARY STAMP TAXES ON THE DEED
----------------	---	----------------	---	--

WHEN CALCULATING "STAMP" TAXES: BEFORE MULTIPLYING, ALL AMOUNTS LESS THAN \$100, MUST BE ROUNDED UP TO \$100.

NEW LOANS	x	2 MILLS (.002)	=	INTANGIBLE TAX
ALL LOANS (NEW AND EXISTING)	x	3.5 MILLS (.0035)	=	DOCUMENTARY STAMP TAXES ON THE NOTE
PURCHASE PRICE	x	7 MILLS (.007)	=	DOCUMENTARY STAMP TAXES ON THE DEED



Occupancy Rate & Vacancy Rate

(OCCUPANCY RATE)

DIVIDE OCCUPIED UNITS BY TOTAL UNITS									
Occupied Units		Total Units		Occupancy Rate					
) ÷		=						

(VACANCY RATE)

DIVIDE VACANT UNITS BY TOTAL UNITS									
	Total Units		Vacancy Rate						
] ÷		=							
	IDE \ ÷	IDE VACANT UNITS BY TO Total Units ÷ •	IDE VACANT UNITS BY TOTAI Total Units ÷ =						



Sales Comparison Approach (Sales Method)

SUBJECT	COMPARABLE 1	COMPARABLE 2	COMPARABLE 3
3 BEDROOMS (\$48,000 PER)	3 BEDROOMS	3 BEDROOMS	4 BEDROOMS
2 BATHROOMS (\$26,000 PER)	2 BATHROOMS	2.5 BATHROOMS	3 BATHROOMS
POOL (\$25,000)	YES	NO POOL	YES
1,800 SQFT (\$175 PER SQFT)	1,600 SQFT	2,100 SQFT	2,650 SQFT
COMP 1 COMP 2 COMP 3 SUM = DIVIDE BY 3 =	SALE PRICE \$303,000	SALE PRICE \$395,000	SALE PRICE \$539,000
ESTIMATED VALUE	AGJUSTED SALE PRICE	AGJUSTED SALE PRICE	AGJUSTED SALE PRICE



Sales Method: Market Conditions Adjustment

	CALCULA	TE I	MARKET CHANGE	e Pe	ER MONTH
STEP 1	Market Change (Over Past 6 Months)	÷	6 Months		Market Change Per Month
	+/-				+/-
	MULTIPLY +/- MARK	KET	CHANGE BY WHE	EN (COMPARABLE SOLD
STEP 2	Market Change Each Month	x	When Comparable Sold (Months Ago)	=	Market Change Percentage
	+/-	Χ			+/-
	MULTIPLY MARKE	L CF	HANGE % BY COM	1PA	RABLE SALE PRICE
STEP 3	Market Change Percentage	V	Comparable Sale Price	_	Market Change Adjustment
	+/-	X		-	+/-
	ADD OR SUBTRAC	тт	HE MARKET ADJU	JST	MENT FROM COMP
STEP 4	Market Change Adjustment	. /	Comparable Sale Price	_	Adjusted Sale Price
		┭/-		-	



Reconciliation of Value

RECONCILIATION OF VALUE: PROVIDES A MORE ACCURATE ESTIMATE BY IDENTIFYING WHICH COMPARABLES HAVE THE GREATEST WEIGHT ON THE VALUE FOR THE SUBJECT PROPERTY. WEIGHTS ARE DETERMINED BY THE ESTIMATER BASED ON HOW SIMILAR THE COMPARABLE IS TO THE SUBJECT PROPERTY.

NOTE: THE SUM OF ALL THREE WEIGHTS ASSIGNED MUST EQUAL 100%.

MULTIPLY ADJUSTED SALE PRICE BY WEIGHT AND ADD									
Comparable Adjusted Sale Price		Weight Assigned		Reconciled Amounts					
	Х		Π						
	Х		H	+					
	Х		=	+					
	=								



Cost Depreciation Approach (Cost Method)

	CALCUL		Г (А	AS IF BRAND NEW)								
STEP 1	Structure Size (sqft)			Construction Cost (per sqft)			_		Repr	roduction Cost		
		CALC	ULA	TE ACCF	RUE	D DEI	PRE	ECIAT	101	J		
STEP 2	Effective Age (how old it looks) + (ho		tal Eco ow long	onomic Life g it will last)	х	Repro	duction Cost		Accrued Depreciation			
	SUBTRACT ACCRUED DEPRECIATION											
STEP 3	Reproduction	Reproduction Cost			Accrued Depreciation			Depreciated Structure Value				
] -				=					
				ADD LA	ND	VALU	IE					
STEP 4	Depreciated Struct	ure Value		Land Value					Pro	operty Value		
			+									



Income Capitalization Approach (Income Method)

Potential Gross Income (PGI)		
Vacancy / Collection Loss	-	
Other Income	+	
Effective Gross Income (EGI)	=	
Expenses	-	
Net Operating Income (NOI)	=	

NOI ÷ SALE PRICE = OVERALL CAPITALIZATION RATE (OAR)





Gross Income Multiplier (GIM) and Gross Rent Multiplier (GRM)

GROSS INCOME MULTIPLIER (GIM): USED TO CALCULATE ESTIMATED PROPERTY VALUE OF A SUBJECT PROPERTY BASED ON ANNUAL INCOME OF COMPARABLE PROPERTY IN THE SURROUNDING AREA.

	CALCULATE MARKET GIM FROM COMPARABLE PROPERTY								
STEP 1	STEP 1 Sales Price		Gross Annual Income		Gross Income Multiplier (GIM)				
		•							
	CALCULATE PF	ROP	OSED VALUE OF	SU	BJECT PROPERTY				
STEP 2	Gross Annual Income	x	Gross Income Multiplier (GIM)	=	Estimated Value of Property				

GROSS RENT MULTIPLIER (GRM): USED TO CALCULATE ESTIMATED PROPERTY VALUE OF A SUBJECT PROPERTY BASED ON MONTHLY RENTAL INCOME OF COMPARABLE PROPERTY IN THE SURROUNDING AREA.

	CALCULATE MAF	RKE	T GRM FROM CO	MPA	ARABLE PROPERTY			
STEP 1	Sales Price	<u>.</u>	Gross Monthly Income	_	Gross Rent Multiplier (GRM)			
		•		-				
	CALCULATE PROPOSED VALUE OF SUBJECT PROPERTY							
STEP 2	Gross Monthly Income	х	Gross Rent Multiplier (GRM)	=	Estimated Value of Property			



Florida Homestead Tax Exemptions

QUALIFIER	CITY EXEMPTION	COUNTY EXEMPTION	SCHOOL EXEMPTION		
Assessed Value Under \$25,000	Up to Assessed Value	Up to Assessed Value	Up to Assessed Value		
Assessed Value \$25,000 - \$50,000	Base \$25,000	Base \$25,000	Base \$25,000		
Assessed Value Between \$50,000 - \$75,000	Base \$25,000 + Prorated Amount Up to \$25,000	Base \$25,000 + Prorated Amount Up to \$25,000	Base \$25,000		
Assessed Value Over \$75,000	Base \$25,000 + Additional \$25,000 (\$50,000)	Base \$25,000 + Additional \$25,000 (\$50,000)	Base \$25,000		
Un-Remarried Surviving Spouse	\$500	\$500	\$500		
Legally Blind	\$500	\$500	\$500		
Totally & Permanently Disabled Non-Veteran	\$500	\$500	\$500		
Totally & Permanently Disabled Quadriplegic	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)		
Totally Disabled First Responder & Spouses	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)		
Veteran with 10% Service- Connected Disability	\$5000	\$5000	\$5000		
Service-Connected Totally Disabled Veteran & Spouse	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)		
Surviving Spouse of Veteran Deceased from Active Duty	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)	Exempt (No Property Taxes Owed)		

Taxable Value, Tax Savings, & Special Assessments

TAXABLE VALUE: USED TO CALCULATE THE AMOUNT A HOMESTEAD PROPERTY OWNER WILL PAY TAXES ON.

SUBTRACT THE EXEMPTIONS FROM THE ASSESSED VALUE								
	Homestead Exemptions		Taxable Value					
-		=						
	IE EX	E EXEMPTIONS FROM T Homestead Exemptions	EXEMPTIONS FROM THE A Homestead Exemptions =					

TAX SAVINGS: USED TO CALCULATE HOW MUCH MONEY A PROPERTY OWNER WITH SAVE IN PROPERTY TAXES BASED ON QUALIFYING HOMESTEAD EXEMPTIONS.

MULTIPLY EXEMPTIONS BY MILLS								
Homestead Tax Exemptions		Tax Rate (Mills)		Property Tax Savings				
	X		=					

SPECIAL ASSESSMENTS: ADDITIONAL CHARGE TO PROPERTY TAXES FOR ANY WORK THE LOCAL GOVERNEMNT COMPLETED IN THE YEAR THAT DIRECTLY OR INDIRECTLY IMPROVE THE PROPERTY.

	CALCULATE TOTAL COST OF STREET PAVING								′ING	
STEP 1	Front Feet		v	Cost Per Front Foot			_			Total Cost
			^							
	CALCULATE OWNER'S PORTION OF TOTAL COST									COST
STEP 2	Total Cost		% Paid	Paid By Owner		Sides		Street		Special Assessment
		X			•		2		-	



Taxable Capital Gains & Deductible Property Depreciation

CAPITAL GAINS: EARNED PROFIT FROM THE SALE OF PROPERTY REPORTED TO IRS AS TAXABLE INCOME.

	CALCULATE ADJUSTED BASIS OF PROPERTY									
STEP 1	Original Purchase	Price	_ +	Capital Improvements		_		Adjusted Basis		
	SUBTRAC	т тн	E AD	JUSTED	BAS	SIS FI	RON	Л ТНЕ	E S/	ALE PRICE
STEP 2	Sale Price		Closin	ing Expenses		Adjuste		sted Basis		Capital Gains
									Η	

STRAIGHT-LINE DEPRECIATION METHOD: IRS ALLOWS AN ANNUAL DEDUCTION OF A PROPERTY'S DEPRECIATION AS A WAY TO REDUCE TAX LIABILITY AND STIMULATE THE ECONOMY.

	SUBTRACT LAND VALUE FROM PROPERTY COST									
STEP 1	Property's Acquisition Cost		Land Value		Depreciable Basis					
	USEFUL LIFE									
STEP 2	Depreciable Basis	<u> </u>	Property's Useful Asset Life (27.5 or 39 Years)		Property's Annual Depreciation					



Buildable Lots Per Acre

	CALCULATE AVAILABLE SQFT PER ACRE									
STEP 1	Square-Feet Per Acre		% Available for Lots		Square-Feet Available Per Acre					
	43,560	Х		=						
	MUL	TIPI	Y BY NUMBER O	FA	CRES					
STEP 2	Square-Feet Available Per Acre	v	Number of Acres in Tract	_	Total Available Square-Feet					
		^								
	MULTIPLY BY	MIN	NIMUM ALLOWABI	_E \$	SQFT PER LOT					
STEP 3	Total Available Square-Feet	v	Minimum Sqft. Per Lot	_	Number of Buildable Lots in Tract					
		X		_						