A Madison Approach to TIF Feasibility Analysis

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by

Joe Gromacki, TIF Coordinator
City of Madison

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City of Madison TIF Credentials

- 40 TIDs created since 1977
- 15 active TIDs
- Average TID lifespan – 12 years
- $117 million of TIF invested in 70 projects
- $1.6 billion of growth in all active TIDs
- 1:17 public/private leverage ratio

Introduction

- TIF is based upon real estate value growth through development.
- Some communities have a knowledge of TIF but ask:
  - Where do development projects come from?
  - What influences a developer's decision to invest?
  - Why do developer's request TIF assistance?
  - How do I know if a project needs TIF?
- Promoting understanding of the real estate feasibility analysis can lead to answering these questions and underwriting better TIF deals.
- So…let's start.

Define the Market

“Don’t buy real estate. Buy a set of assumptions.”

-James Graaskamp, UW-Madison School of Urban Land Economics

Rents

- Higher rents attract more value and investment

Vacancy Rates

- Vacancy demonstrates market demand for a particular real estate product
- Low vacancies drive rents higher, high vacancy drives rents lower

Cost

- Land cost, construction material, labor cost and parking

Capital Markets

- Interest rates, financing costs, returns on riskier investments

Location

- Population centers, amenities, natural resources, education, employment, transportation, income and other demographics, etc.

Sound Planning & Regulation

- Planning and zoning, building code
- Sound planning attracts the quality investment

Attract Equity

Do developers invest their own equity?

- Rarely—that's not necessarily a bad thing.
- Generally, developers leverage other people's money as equity in the project
- The developer demonstrates to investors that the investment is:
  - Relatively secure
  - Competitive with other high-return, higher-risk investments
- A primary tool to attract investors is the **cash flow projection**

Key Elements of the Cash Flow Projection:

- **Net Operating Income (NOI)**—One of two most important numbers on the cash flow. Used to calculate value and debt attraction.

- **Cash Flow**—The amount of return before income tax that investors are promised over time.

What does a cash flow projection look like?

Example of a Cash Flow Projection

Cash Flow	**Year 1**	**Year 2**	**Year 3**	**Year 4**
Gross Rent	$ 1,000,000	$ 1,030,000	$ 1,060,900	$ 1,092,727
Vacancy @ 5%	$ (50,000)	$ (51,500)	$ (53,045)	$ (54,636)
Effective Gross Income (EGI)	$ 950,000	$ 978,500	$ 1,007,855	$ 1,038,091
Expenses (25% of Gross)	$ (250,000)	$ (257,500)	$ (265,225)	$ (273,182)
Net Operating Income (NOI)	$ 700,000	$ 721,000	$ 742,630	$ 764,909
Debt Service	$ (350,000)	$ (350,000)	$ (350,000)	$ (350,000)
Cash Flow	**$ 350,000**	**$ 371,000**	**$ 392,630**	**$ 414,909**
Net Present Value @ 10% ROI	**$ 1,203,170**			

What is a fair return on equity investment?

Fair Return on Investment

- Madison's best practice allows developers a return consistent with market expectations for their product.
- Returns vary between the product type—i.e. apartments, condominium, office, industrial land, etc.
- In Madison, current cash-on-cash returns range between 6% and 12% for various types of projects and investors.
- Madison adjusts TIF assistance if the return is out of line with market expectations.

Generally, a fair return on investment:

- Exceeds the cost of financing but is less than a higher-risk investment like stocks or venture capital.
- Is influenced by the type of developer—a long-term portfolio manager vs. a short term, fee-based developer will have different assumptions.

How does the developer estimate investment to get a desired profit?

Methods of Estimating Investment

- **Net Present Value (NPV)**—One method to calculate equity investment is the "net present value," which is the discounted value of a series of cash flows over time. The method shows how much an investor would risk in today's dollars for the promise of cash flows over a period of time.

- In our example, an investor seeking a 10% cash-on-cash return over 4 years, could invest about **$1.2M of equity** in the project based upon the discounted value of these cash flows.

- **Internal Rate of Return (IRR)—**This is a more complex variant of NPV in which the amount invested and discounted value of the cash flows are equal. The "internal rate" is the rate required of each cash flow to achieve an overall desired rate of return. An IRR higher than the cost of capital and the desired rate is generally believed to be a good investment.

- **Leverage**—Lastly, if the project is able to attract a maximum amount of bank investment, called "leverage," the amount of required equity is reduced and the return will be higher.

Attract Leverage

Bank Underwriting Methods:

- There are two underwriting methods to bank lending: **cash flow** and **liquidation.**
- In the **cash flow** method, banks determine if NOI is sufficient to repay the loan.
- NOI is the first source of operating profit before income tax and investors
- The best measure of cash flow method is the "debt coverage ratio" or DCR.

Debt Coverage Ratio—These days banks use a "DCR" between 110% and 130% of NOI over debt service.

In our example, $700,000 of NOI divided by a 1.20 coverage ratio equals $583,000 of potential debt service.

Assuming a 30-year mortgage, at 5% interest, this figure would support a mortgage of about **$9,410,000.**

Liquidation Method:

- Banks estimate if the completed project will have sufficient **fair market value,** in the event of foreclosure, i.e. “liquidation,” to recover the bank loan.
- Fair market value is determined by independent appraisal of observed, comparable sales and estimated income value of the project.
- One of the most important factors in estimating fair market value is the capitalization or “cap rate.”

The Cap Rate:

- Represents the cost of capital to the project.
- Assumes that an investor will pay for the NOI generated by a property, given the cost of capital to purchase it.
- Gauges the quality of a comparable sale—whether a buyer paid too much or too little.
- Estimates the potential income value, when comparable sales are unavailable, by dividing an estimated NOI by a cap rate
- Is either “observed” through an appraisal of comparable sales or “derived” by calculation.

Observed Cap Rate:

Assume that three comparable apartment properties sell in your market. By dividing the sale price of the property by the NOI, we

Property A:	Price: $5,500,000	
	NOI: $335,500	Cap Rate = 5,500,000 / 357,500 = 6.1%
Property B:	Price:$6,200,000	
	NOI: $378,200	Cap Rate = 6,200,000 / 378,200 = 6.2%
Property C:	Price: $5,100,000	
	NOI: $300,600	Cap Rate = 5,100,000 / 300,600 = 5.9%

Derived Cap Rate:

Assume that 80% of the financing is a bank loan at 5% interest and 20% of the project is equity expecting a 10% return, then the cap rate is derived as follows:

.80 x .05 = .040

.20 x .10 = .020

Cap Rate = .060 or 6%

Income Value Estimate:

$$\frac{\text{NOI}}{\text{Cap Rate}} \quad \frac{\$700{,}000}{.06} \quad = \textbf{\$11,667,000}$$

Loan to Value Ratio—As a further hedge against risk, banks discount the estimated value by 20-25%.

In this case, we assume a 20% discount, meaning that the “Loan to Value” ratio or “LTV” is 80%.

Estimated Value @ Cap:	$11,667,000
Discount	x LTV @ 80%
Loan Size	$9,334,000

Now the bank knows that their range of risk is between $9.3 and $9.4M.

Let’s assume the bank chooses the lower figure of $9,300,000.

Analyze Cost

Once investment is analyzed, the developer analyzes the cost to develop the project:

Land	$2,000,000
Hard Construction	8,000,000
Soft Cost	
Construction Interest, Finance	400,000
Architect/Engineer	100,000
Legal/Accounting	50,000
Developer Fee	250,000
Contingency	800,000
Total Soft Cost	1,600,000
Total Cost	**$11,600,000**

Determine Feasibility

Sources and Uses of Capital (and Gap):

Comparing both the investment sources and the estimated project cost, i.e. “uses”, the developer believes that there is a financing gap.

Bank Loan	$9,300,000
Equity Attracted	$1,200,000
Total Sources of Capital (Sources)	$10,500,000
Less: Cost (Uses)	(11,600,000)
Gap	**($1,100,000)**

When there is a gap, the developer often seeks TIF.

How do we know it’s a real gap?

Gap Analysis

Philosophy and Approach:

- Manipulated assumptions create an artificial gap.
- Gap analysis is the best method to prove the “but for” exists.
- Gap analysis is an analytical method to ground-truth the developer’s assumptions.
- Gap analysis focuses on what the project needs—not what the developer wants.
- Common areas of gap analysis:
  - **Value**—Are rents, expenses and the cap rate market?
  - **Cost**—Are costs in line with market? Are there unnecessary costs?
  - **Investment Attraction—**Is the bank loan rate, term, standard? Could leverage be increased? What are the equity return assumptions? Are they market? Is equity investment too low?
- Gap is either proven, adjusted or refuted.

What tools are needed to conduct gap analysis?

Required Gap Analysis Tools:

- **TIF Application (Elements)**

  Project Detail
  - Land and building area
  - Number of units, parking stalls
  - Number of stories, type of construction
  - Construction schedule, phasing
  - Lease terms and rates
  - Developer's Estimated Assessed Value

  Cash Flow Projection (15 years)

  Detailed Cost Schedule

  Sources and Uses Statement

- **TIF Underwriting Standards, Policies**

- **Market Data, Appraisals, Previous Deals**

- **Assessor's Estimated Assessed Value**

- **TIF Projection or "TIF Run"**

TIF Feasibility

Once the “but for” is proven, the next step of gap analysis is to determine the feasibility of providing TIF assistance.

TIF Feasibility

- New or Existing TID? Amendment?
- Condition of the TID
- Forecasted Tax Increment of Project and TID
- Financial Impact of TID borrowing
- Financial “Cushion” Project and TID
- Impact on municipal borrowing, capital budget

Financing Method

- General Obligation
- Internal Borrowing
- Pay As You Go or “Developer Financed”

Security

- Mortgage, Note, Personal Guaranty
- Development Agreement
- Term Sheet, Authorizing Resolution

The TIF Projection or "TIF Run"

TIF Increment Projection
New TID For $11M Project Example - TIF Presentation

	TAX RATE PROJECTION			INCREMENT CALCULATION				AVAILABLE FOR ASSISTANCE	
YEAR	CITYWIDE TAX BASE AS OF JAN 1 PRIOR YEAR	NET TAX LEVY	TAX RATE	DISTRICT VALUE AS OF JAN 1	PROJECT VALUE ADDED	INCREMENTAL VALUE AS OF JAN 1	INCREMENT REVENUE	INCREMENT AFTER COVERAGE	PRESENT VALUE
2014	20,862,264,700	518,438,223	0.02485	0	0				
2015	22,114,000,582	539,175,752	0.02438	0	1,100,000	0	0	0	0
2016	23,440,840,617	560,742,782	0.02392	1,100,000	4,950,000	1,100,000	0	0	0
2017	24,847,291,054	583,172,493	0.02347	6,072,000	4,950,000	6,072,000	26,314	13,157	10,740
2018	26,338,128,517	606,499,393	0.02303	11,143,440	0	11,143,440	142,511	71,256	54,361
2019	27,918,416,228	630,759,369	0.02259	11,366,309	0	11,366,309	256,605	128,302	91,478
2020	29,593,521,202	655,989,743	0.02217	11,593,635	0	11,593,635	256,798	128,399	85,558
2021	31,369,132,474	682,229,333	0.02175	11,825,508	0	11,825,508	256,992	128,496	80,021
2022	33,251,280,422	709,518,507	0.02134	12,062,018	0	12,062,018	257,186	128,593	74,842
2023	35,246,357,248	737,899,247	0.02094	12,303,258	0	12,303,258	257,380	128,690	69,999
2024	37,361,138,683	767,415,217	0.02054	12,549,323	0	12,549,323	257,575	128,787	65,469
2025	39,602,807,004	798,111,825	0.02015	12,800,310	0	12,800,310	257,769	128,884	61,232
2026	41,978,975,424	830,036,298	0.01977	13,056,316	0	13,056,316	257,963	128,982	57,269
2027	44,497,713,949	863,237,750	0.01940	13,317,442	0	13,317,442	258,158	129,079	53,563
2028	47,167,576,786	897,767,260	0.01903	13,583,791	0	13,583,791	258,353	129,177	50,097
2029	49,997,631,393	933,677,951	0.01867	13,855,467	0	13,855,467	258,548	129,274	46,855
2030	52,997,489,277	971,025,069	0.01832	14,132,576	0	14,132,576	258,743	129,372	43,823
2031	56,177,338,634	1,009,866,071	0.01798	14,415,228	0	14,415,228	258,938	129,469	40,987
2032	59,547,978,952	1,050,260,714	0.01764	14,703,532	0	14,703,532	259,134	129,567	38,334
2033	63,120,857,689	1,092,271,143	0.01730	14,997,603	0	14,997,603	259,329	129,665	35,853
2034	66,908,109,150	1,135,961,989	0.01698	15,297,555	0	15,297,555	259,525	129,763	33,533
2035	70,922,595,699	1,181,400,468	0.01666	15,603,506	0	15,603,506	259,721	129,861	31,363
2036	75,177,951,441	1,228,656,487	0.01634	15,915,576	0	15,915,576	259,917	129,959	29,333
2037	79,688,628,527	1,277,802,746	0.01603	16,233,888	0	16,233,888	260,113	130,057	27,435
2038	84,469,946,239	1,328,914,856	0.01573	16,558,566	0	16,558,566	260,309	130,155	25,660
2039	89,538,143,013	1,382,071,451	0.01544	16,889,737	0	16,889,737	260,506	130,253	23,999
2040	94,910,431,594	1,437,354,309	0.01514	17,227,532	0	17,227,532	260,703	130,351	22,446
2041	100,605,057,490	1,494,848,481	0.01486	17,572,082	0	17,572,082	260,899	130,450	20,993
					11,000,000	199,880,154	3,778,969	1,889,484	924,627
						NPV=	1,849,255	924,627	

ASSUMPTIONS:	
Annual Increase in Citywide Tax Base	6.00%
Annual Increase in Tax Levy	4.00%
Annual Increase in Assessment after construction	2.00%
Percent of Estimated Increment Available	50.00%
Assumed Interest Rate (Discount Rate)	7.00%
NPV Assumes Discounting to	2014
Est. Project Value	11,000,000

TIF Request **$ 1,100,000** **59%** **of TIF**

Other TIF Topics

Underperforming TIDS:

- A TID that is unable to meet its financial obligations within its foreseeable lifespan.

- Tracking TID performance:
  - Review annual audits, make projections
  - Compare assessment history to current values
  - Learn what is causing downturn. Is it temporary?

- Symptoms
  - Value declines below base value—negative increment or “decrement”
  - Tax increments are insufficient to recover cost

- Cures
  - Donor –Recipient TID Plan
  - Distressed or Severely Distressed Legislation
  - Re-calculating the Base Value

Preventative Measures:

- Establish and follow TIF underwriting policies and principles.
- Create TIDs with TIF “generators” whenever possible.
- Avoid “single purpose” or single-parcel TIDs.
- Avoid municipally-owned industrial or commercial park TIDs.
- Set aside “cushion” of tax increment in all TIF deals.
- Design realistic TID Project Plans:
  - Avoid “build it and they will come” scenarios
  - Correspond infrastructure spending to value growth when it occurs.
  - Discount growth, interest and tax rate assumptions in TIF projections.

The 12% Value Cap:

TIF Law established a cap to prevent communities from over-extending TIF within their entire corporate limit, thus over-depriving overlying tax jurisdictions of their levy on growth. Generally, large cities like Madison ($23B of EAV, 1.85% of cap) don't exceed the cap. TIF Law provides that:

- A community shall not have more than 12% of its equalized assessed value captured in tax incremental districts or "TIDs."
- The penalty for exceeding this cap is the inability to create new TIDs.
- Existing TIDs may make expenditures and operate as intended.

Remedies for Cap Problems:

- TID Closure—Closure of a TID by fully recovering expenditures or pre-paying removes its value from the 12% cap.
- TID Subtraction—TIF Law allows communities to subtract territory from a TID boundary. It may provide room under the 12% cap.
- Operate existing TIDs judiciously until they close.

Questions

Thank You.

Joe Gromacki, TIF Coordinator
Economic Development Division
Department of Planning, Community and Economic Development
City of Madison
(608) 267-8724
jgromacki@cityofmadison.com