# 11.437 Financing Economic Development Fall 2016 Real Estate Financial Analysis Worksheet City Plaza Case 

This worksheet uses the information and operating pro forma from the City Plaza Case Study, in Economic Development Finance, pp. 153-155. In short, NHDC is looking to acquire, improve and lease-up a troubled 60,000 square foot neighborhood shopping center. The project has a total development budget of $\$ 1.49$ million as detailed in Exhibit 7.4. and projected income, expenses and cash flow as presented in Exhibit 7.5. NHDC has secured commitments of $\$ 150,000$ in grants for the project and needs to raise the additional financing. Two local banks have expressed interest in providing a senior mortgage loan at $8 \%$ annual interest rate with a 20 year amortization period. Their underwriting requirements are DSRC (debt service coverage ratio) of 1.25 and $80 \%$ LTV (loan to value).

## Supportable debt analysis

Using the projected income before debt from Exhibit 7.5, calculate the supportable mortgage amount under the banks' terms. Since mortgage loan payments will be made monthly, calculate the supportable loan based on monthly payments:

1. Minimum Income before debt amount
2. Divide by DSCR
3. Income available for debt service
4. Supportable loan amount
(present value of monthly income)

## Loan to Value Analysis

Once the supportable loan from cash flow is determined, this amount must be tested against the loan to value underwriting requirement. A lender usually will get a third party appraisal to determine the property value, but an estimate of the property value can be made using a "cap rate". Cap rate-short for capitalization rate-is used by investors to estimate real estate property values and as a threshold for investment decisions. A cap rate is a required rate of return that investors require for an investment property. Thus, an investor will use the cap rate to determine the value that is justified by a given property's cash flow. To calculate this value, the property cash flow is divided by the required cap rate. For example, if a property has cash flow of $\$ 100,000$ and the required cap rate is $10 \%$, then the value based on this cap rate is $\$ 1$ million, i.e., $\$ 100,000 / .10$. For City Plaza, use a cap rate analysis to test the maximum loan size based on the banks' required loan to value ratio. To be conservative, use the lowest annual net cash flow amount from City Plaza's proforma and a cap rate of $11 \%$. Based on this value, calculate a loan to
value ratio for the loan amount that you determined above based on cash available for debt service, and if necessary reduce the loan amount to fall within the allowable LTV.

Estimated property value
Mortgage loan amount based on cash available for debt service (from previous page)
Loan to value ratio
Maximum mortgage loan amount to meet minimum 1.25 DSCR and .80 LTV limit
Calculate the project funding gap based on the difference between the total development costs and the funds available from the maximum mortgage loan amount and committed grant funds

Total Development costs
Maximum mortgage loan amount
Grant funds committed
Project funding gap

## Filling the Funding Gap

One option to fill the funding gap is to obtain a subordinate loan secured by a second mortgage on the shopping center. The cash flow to repay this subordinate loan is from the excess cash flow after repaying the first mortgage, i.e., the cash flow that provides the coverage ratio for this mortgage. Most senior lenders will allow this type of subordinate loan as long as the junior loan is fully subordinate to its loan, i.e., regular loan payments can only be made as long as the senior loan is being paid and the loan is not in default. If the senior lender does foreclose, the subordinate's lender is only repaid from the remaining sale proceeds after the senior lender's claims are fully repaid, including principal, interest and collection costs. Subordinate loans of this type are usually provided by a government or CDFI lender, especially in weak market areas. The subordinate lender will allow for a lower debt service coverage ratio and higher loan to value ratio based on the combined loans.

In this case, assume there is a state government lender that makes subordinate real estate loans with a $95 \%$ LTV and 1.10 DSCR at an annual interest rate of $9 \%$ and the same 20 year amortization period as the senior lenders. This 1.10 ratio applies to the combined loan payments for the senior and subordinate loans. Note that it is incorrect to take the residual cash flow after the senior loan and apply to 1.10 to this excess cash flow amount. The correct calculation is to divide the overall project cash flow by 1.10 to get cash flow available to pay both loans and then subtract the annual senior mortgage debt service from this amount to get the cash flow remaining to pay the subordinate loan. The present value of this amount is the loan principal amount that meets the 1.10 DSCR requirement. The combined principal amounts on the senior and subordinate debt also need to fall within the .95 LTV standard. The lower subordinate loan amount from the DSRC and LTV tests will be the amount that can be borrowed.

1. Minimum Income before debt amount
2. Divide by 1.10 debt service coverage ratio
3. Subtract annual debt service for senior loan
4. Cash flow available for subordinate loan debt service
5. Supportable subordinate loan amount
(present value of monthly cash flow for subordinate loan)
6. Maximum combined loan principal @. 95 LTV
7. Subtract senior loan amount for maximum subordinate loan
8. Permitted subordinate loan (lesser of line 5 and line 7)
9. Combined financing from grants, senior and subordinate debt

## Funding Plan

Do the combined senior mortgage, subordinate loan and grant funds provide sufficient financing to cover City Plaza's \$1.49 million development budget?

If not, what is the remaining funding gap?

How can NHDC address this remaining funding gap?

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