BUSI 446 Project 4

Economic Feasibility Analysis

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The Uplands Turner Tower development project is a 3.7 acre, 5 storey Condominium building at the height of Nanaimo’s Longwood Station. Prior to the market analysis, the developer and its team determined that high density residential condominium units are the highest and best use, future use, and best site for 4900 Uplands Drive. The original project has been reduced from 6 stories and 48 units due to zoning height and floor space ratio requirements. Project holding capacity is 33 units, 7 bachelor suites, 16 1 bedroom suites, and 10 2 bedroom suites, with prices of $150,000, $225,000, and $250,000 respectively. The suites have been changed from 10 bachelor suites, 24 1 bedroom suites, and 14 2 bedroom suites in order to maximize the required floor space ratio while still abiding by the required max lot coverage of 50%. Building population holding capacity has changed from 52 to 110 persons, to 43 to 76 persons. Our new suite allocation gives us a gross floor area of 24438 square feet. To account for the effect of the planning requirements mentioned above, our new project revenue will be $7,150,000. Project phasing and the absorption period will take place over the next 27-month period. Uplands Turner Tower market capture rate is 34%, translating to 11406 square feet annually. The efficiency of the building is 19550 square feet; approximately 80% of gross area. Gross buildable area has been reduced from 35177 square feet to conform to the mentioned planning requirements above. Closing Costs will equal 2.8% of gross project value, $291,200. Market value of hard costs for residential condominium buildings in the Greater Nanaimo area are $85/ square foot. Including property tax, consulting, and legal fees, soft costs will equal 25% of hard costs. Capital for construction will be advanced every quarter in four equal payments, with accruing interest at 13.5% annually; 3.375 quarterly. At the end of the one-year construction phase all interest and principal will be due.The expected months on market is 27, just below 24 which classifies as average market strength.

**Objectives**

Market studies used by Bryant Investments for the Uplands Turner Tower project gives meaning and testability to the reports analysis. Bryant Investments core values are centered in; creating an opportunity that will augment the growth of the city of Nanaimo and Bryant Investments alike, enhancing the regional economy surrounding the building site, strengthen the

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company’s brand and its position in the marketplace, achieve a predetermined hurdle return rate and desirable cash outlays, and to capitalize on, or mitigate, the impact of new strategies on current and future company projects, and to internalize and improve these processes. An alternative course of action for return goals could be to postpone the project further until better financing conditions arise. This might be determined by the offering of an incentive or a more desirable interest rate. An effective but possibly costly course of action to capitalize on opportunities would be to abolish outdated strategies to make way for new more efficient ones. This decision would hinge on the overall cost of the integration of new strategies into the company’s structure.

**Outline of Report Content**

This economic feasibility report focuses on, and is organized according to the following pertinent analysis steps. Strategy studies, including objectives and policies. A rationale for the projects development scheme, and phasing decisions. An outline of the methods and approach used to contact analysis. Analysis of material evidence, risks, and key issues regarding location and project site. A synopsis of data input sources, assumption context, and claim evidence pertaining to economy, political, environmental, and market data. A summary of the analysis sections of the report along with the declaration assumptions and limiting conditions used. A tabular format of the findings of this feasibility report. A concluding assessment of project assumptions, risks, and report results. Study conclusion, stating information on the company’s ability to take on the project, the market, and the political climate. The last analysis step is the projects course of action recommendations and future implementations.

**Development Program**

The development scheme created for Uplands Turner Tower consists of phasing across 27 months, or 9 quarters, as displayed in the cash outlay. The determining factors behind this scheme are the holding capacity of the lot, 33 units; the absorption rate of 11406 square feet,

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annually; and the decision rule of the most economical phasing of services. Construction will take place over the first four quarters of the development scheme, where four periodic payments will be distributed over each quarter in the amount of $649,134.37. Principal and interest will be due at the end of the one-year construction stage and will accrue at 13.5% annually; 3.375% quarterly. The rationale behind the pre-sales is to accumulate a revenue sum early, in an attempt to keep interest costs from reaching an undesirable level in the interim. Construction stage completion will be at the end of 2016, consistent with many other competing projects in the market.

The marketing program for Uplands Turner Tower starts with pre-sales beginning in the third quarter, during the construction phase. These continue at a constant pace of 1.7 units a month consistent with the absorption rate, over the second and third year of the development scheme, until the last unit is sold in the first quarter of the third year.

**Methodology Summary**

Our project and site was tested for compliance with our company’s goals and objectives and project criteria. Uplands Turner Tower was evaluated for a high density residential dwelling project through an empirical study, using inductive reasoning to determine project context. Then, the pro forma budget and discounted cash flow model are constructed by using empirical study inputs with deductive reasoning.

**Location, neighborhood, site description**

Longwood station and its surrounding area is abundant with retail, dining, and necessity store outlets, creating a hub in northern Nanaimo where all daily needs are met.Amenities around our subject lot are plentiful, with three elementary schools, two high schools, two lakes, two community parks, a community centre, a campground, and a shopping centre. The project lot benefits from dual roadside access, a superior view to similar surrounding buildings, favourable topography, attractive vegetation in the surroundings area, sewer electrical, water, and gas are all

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available municipal services, as well as multiple complementary neighborhoods. High traffic volumes, possible tree damage in certain weather conditions, and substantial lot congestion on the other hand, plague the Uplands Turner Tower project.

**Regional Economy, Real Estate Market, Environmental Issues, Political Climate Synopsis**

Steadily increasing regional population, increasing median income, and decreasing vacancy rates for each suite type illustrate the strength of the local and national economy. Average household income is $74,150, in 2013, where the service sector contributes 90% of local income and salaries contribute to 60% of all income.

The current economic overview illustrates that of the speculative fever stage of the business cycle. This has been supported by the previous long term growth in construction starts and decreasing employment rates. Steadily increasing condominium starts and condominium inventory, increasing MLS sales, increasing listing volume, increased sale to list ratio, decreasing average days on the market, and moderate project competition are examples of strengths of the recent local markets.According to the Nanaimo Resource Centre and the community plan for future use, the subject site is zoned C, city commercial. The lot for Uplands Turner Tower is not a part of an existing neighborhood plan, but should consider the Parkwood neighborhood association which extends to the opposite site of the street.Our subject property will experience similar demand forecasts at the end of the construction stage, the end of 2016, as most of the competing projects will also near completion.

To create a healthier approval process and municipal integration process Uplands Turner Tower project uses interactive planning strategies. Due to sheer project size, access to government services will need to be thoroughly discussed with political parties. Activist groups operating in the target market could pose a threat to the risk and timely execution of the project, but so far no such hindrances have surfaced.

Prior to market analysis, all environmental approvals have been met and will not have a negative effect on the project at this stage. 4900 Uplands Drive also has full access to all municipal services and utilities.

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**Analysis Assumptions**

Project revenue of $7,150,000, return on investment measures; IRR and NPV, tax rate of 13.5%, duration of each development phase, absorption period, hard costs valued at $85 per square foot, and risk assumptions associated with the market, economy and planning, are all assumptions used in this analysis to depict the most plausible outcome in our feasibility study. Any of these parameters have the possibility of being changed in future studies.

Relying on census reports that could be dated, and revenue projects that could be skewed due to a sudden economic shift, are important and relevant limiting conditions that should be tested for which each future report. The data used in this analysis is assumed reliable, and may have not been individually verified. Conclusions of this study apply only to the date indicated and does not represent future project events. Actual outcomes and issues may vary throughout the period in which this study is relevant. This study will not be improperly disseminated, by will of the client.

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**Economic Feasibility Study Findings**

|  |  |  |  |
| --- | --- | --- | --- |
| **Profit** |  |  | **$ 1,127,266.97** |
| **Profit Margin** | P/C  P/R |  | **32 %**  **16 %** |
| **NPV**  **IRR** |  |  | **$ 489,945.79**  **22.66%** |
| **Sensitivity** | -20% lot prices  +3% percentage point | Profit  P/C  P/R  Profit  P/C  P/R | **-$ 325,670.66**  ***-9.00 %***  ***-6.00 %***  ***$ 987,060.35***  ***27%***  ***14%*** |
| **Breakeven** |  |  | ***$ 2,702,041.30*** |
| **Effect of the outcome** | Positive |  | **(Profit Margins exceed hurdle rates)** |
| **Alternatives** | Negotiate with Willingdon Distributions Ltd. |  | **To gain more favourable market conditions** |
|  | Consult new innovative ownership rights and/or financing terms |  | **In order to improve economic conditions and/or more stable project environment** |

**Assessment of Assumptions, Results, and Risks**

The profit and profit margin created by the feasibility study rendered attractive results. Profit to cost ratio exceeded our expected hurdle rate of 20%, as did our profit to revenue ratio hurdle return rate of 15%. The NPV and IRR results show returns that exceed project criteria as

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well. The NPV value of $489,945.79 illustrates that our NPV is above the expected 20% hurdle rate and therefore profitable. If NPV were equal to zero, this would signify the breakeven point

of the project. Our IRR result is similar in that we will experience return on our invested capital of 22.66%. The sensitivity analysis findings show the impact of an undesirable change in interest rates or the price of each lot. In our case, the increase in interest rate poses the smaller risk of the two, with profit only decreasing by $150,000 and P/C and P/R only reduced by 5% and 2% respectively. Whereas, the shock of a 20% decrease in lot prices severely degrades our return measures. Our profit plummets by $1,450,000, and P/C and P/R reduce to -9% and -6% respectively. Using Goal-Seek to alter variable cells to find the highest residual land value that our company could pay for the land, gave us the breakeven point where NPV would equal zero, and therefore making our project feasible but without profit.

As new capital and competitors enter the market, factors of uncertainty risk such as market forecasting risk and financial will have a larger impact on the project, which is a result of our project inability to predict the competitor’s production strategy. Risk factors that hindered the project in earlier studies, such as unemployment and migration, have lessened since the project is less dependent on a more volatile capture rate. Now, the only significant risk that must be carefully monitored is risk attributed to speculative fever in the business cycle.

A risk control measure for sensitivity analysis risk would be to pre sell as many units as possible before such a economic shock occurs, or understand the competing buildings in the market and price units so to mitigate any negative changes in absorption, which could cause the project to lower unit prices. To find a solution to future negative economic shifts, Bryant Investments may look for new innovative financing options and/or ownership rights in order to secure better conditions and ultimately create a much more risk free environment for the project to flourish in.

As mentioned earlier the project has gone through a number of sieves to arrive at a final decision of economic feasibility. According to our findings and the improved market conditions, the project exceeds our criterion and is now decided feasible.

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**Conclusion**

Based on our earlier assumptions the volatility of our project and its economic conditions have decreased. This is due to the decrease of our projects market capture rate and therefore its dependence on favourable market conditions. Bryant Investments concludes that the Uplands Turner Tower project is now economically feasible and synonymous with company objectives. *Due to the projects key demand factors of superior location, strong marketability of high density residential living space, and project timing, the risks evaluated in prior studies do not outweigh the projects potential. In light of this our company is now equip with a foundation to effectively implement the project.* As the feasibility study was a working off of, and an addition to the market analysis, its findings determined that Bryant Investments has targeted the right size and area of the market to complete the subject project efficiently. The company’s ability to take on the project is strengthened by its superior planning strategies and approval negotiations.

**Recommendation on a Course of Action**

As suggested in the market study completed prior to this feasibility study, the capture rate has now been reduced and has created less volatile conditions for our project to thrive. The previous recommendation to postpone the project until better market conditions arise has been met, and the project is now ready to be implemented. At this stage it is important for Bryant Investments to consider alternatives that could benefit the project, such as further negotiation with the vendor, acquire more favourable financing, or create more beneficial ownership structure. The right course of action now would be to start the construction phase and promptly start on a flow chart for project scheduling and continue on to construct strong marketing plans to capitalize on the projects main revenue source.

Appendix

Worksheet #1 Economic Feasibility Study in excel.

Date Input Table

Building Pro Forma Budget

NPV IRR Discounted Cash Flow Model

Sensitivity Analysis

**Figure 1.1 – Used in Pro Forma Budget**

**Figure 1.2 – Used in the Data Input Table**



**Figure 1.3 and 1.4 – Used In all sections of Worksheet #1**



Bibliography

***Nanaimo Planning Department Resources***

*http://www.nanaimo.ca/EN/index.html*

*Lauren Wright, Mplan Planning Assistant, Planning & Design, lauren.wright@nanaimo.ca*

*Dave Stewart, M. Plan, RPP - Planner, Planning and Design Section, City of Nanaimo*

***Canadian Mortgage and Housing Corporation***

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***MLS Listings***

*http://www.realtor.ca/map.aspx#CultureId=1&ApplicationId=1&RecordsPerPage=9&MaximumResults=9&PropertyTypeId=300&PriceMin=150000&PriceMax=275000&TransactionTypeId=2&StoreyRange=0-0&BuildingTypeId=17&BedRange=0-0&BathRange=0-0&NumberofDays=365&OwnershipTypeGroupId=2&LongitudeMin=-124.08676838809825&LongitudeMax=-123.95089840823985&LatitudeMin=49.194255966981984&LatitudeMax=49.237762700749926&SortOrder=A&SortBy=1&viewState=m&CurrentPage=1*

***VIREB***

*http://www.vireb.com/index.php?page=20*