Developer by Design

by

Brett Cline

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of:

Master of Architecture

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Randall Mars
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Historically, the role of the architect has evolved. It has evolved past the point of needing to construct for shelter, act as a master builder, and nowadays, design for profit. Today, a very common business practice for architects is to design for a developer, and only make a small percentage of the project’s overall profit. There are many benefits to this arrangement: It protects the architect from fear of potential litigation; provides more consistent work, and there is small financial risk. In fact, many educational curriculums are centered around this arrangement. But what if there is a different path? Why do so many architects wait to be hired on a project instead of initiating them? An architect has all the skills required to self-initiate these projects, and not settle for a small percentage of the return. Once the architect is willing to bet on themselves, they will take control of the design process as well as capture the true economic value that they bring to a project.

This thesis will analyze the different processes of both the architect and developer when starting a new project. Through this analysis, a different role for an architect can be defined by merging the separate processes into one. In order to further explore the blended process, a case study has been developed that will highlight the positive results that come from a project proposed by an architect developer. The case study will cover the steps in phase one of the blended process, followed by a more in depth look into the proposed design for this project.

The case study discussed in this thesis is a mixed-use development project in downtown Charleston, South Carolina. Although most developers prioritize financial profitability, this project will prioritize creating a better built environment in a rapidly gentrifying neighborhood. Profitability will not be secondary to the architecture, but rather an active parameter in each decision made. The case study will cover each of the steps in phase one of the blended process, followed by a more in depth look into the proposed design for this project. The case study will illustrate the benefits for an architect to self-initiate work.
Historically, the role of the architect has evolved. It has evolved past the point of needing to construct for shelter, act as a master builder, and nowadays, design for profit. Today, a very common business practice for architects is to design for a developer, and only make a small percentage of the project’s overall profit. There are many benefits to this arrangement: It protects the architect from fear of potential litigation; provides more consistent work, and there is small financial risk. In fact, many educational curriculums are centered around this arrangement. But what if there is a different path? Why do so many architects wait to be hired on a project instead of initiating them? An architect has all the skills required to self-initiate these projects, and not settle for a small percentage of the return. Once the architect is willing to bet on themselves, they will take control of the design process as well as capture the true economic value that they bring to a project.

This thesis will analyze the different processes of both the architect and developer when starting a new project. Through this analysis, a different role for an architect can be defined by merging the separate processes into one. In order to further explore the blended process, a case study has been developed that will highlight the positive results that come from a project proposed by an architect developer.

The case study discussed in this thesis is a mixed-use development project in downtown Charleston, South Carolina. Although most developers prioritize financial profitability, this project will prioritize creating a better built environment in a rapidly gentrifying neighborhood. Profitability will not be secondary to the architecture, but rather an active parameter in each decision made. The case study will cover each of the steps in phase one of the blended process, followed by a more in depth look into the proposed design for this project. The case study will illustrate the benefits for an architect to self-initiate work.
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There are many advantages other than economic benefits for architects to develop their own work. However, in order to successfully complete projects on time and on budget, architects will need to blend their typical design process with the process of a developer. Although some of the new tasks required are not typical duties handled by an architect, their unique perspective can often provide a more clear and direct vision for where a project needs to go.  

This thesis intends to present a realistic case study for a possible development project that blends the perspectives of both architects and developers. The case study will cover the steps in phase one (listed below) followed by a more in depth look into the proposed design for this project.
Figure 01: Typical Charleston piazza entrance from main thoroughfare
Charleston, South Carolina, is a unique city, located on the southeastern coast known for its history, preserved architecture, prominent cuisine, and friendly people. Charleston is the largest and fastest growing city in the state. Two factors that contribute to this rapid growth are an expanding economy in the region and sufficient infrastructure to handle the growth.

Economic growth in the Charleston area can be attributed to the migration of many large engineering and manufacturing companies such as: Boeing, BMW, Volvo, Michelin, etc. With 26 colleges and universities such as College of Charleston, Clemson, Citadel, Medical University of Charleston, and Charleston Southern into the community, many computer technology expansion companies have migrated their headquarters to the region. The surge in employment opportunities throughout the past decade has triggered the population to grow nearly 4.5 times the national average and 2 times the state average from 2010 to 2015. Charleston has an unemployment rate of 2.1% as of February, 2020, which is nearly 40% lower than the national average. Charleston is one of the few southern cities where job growth is out-pacing the available labor force.  

Charleston is home to the most advanced and up-to-date infrastructure in the state of South Carolina. Home to the deepest harbor in the southeast, the Port of Charleston services millions of containers in international trade annually. Charleston also boasts the busiest airport in the state, serving nearly 5 million passengers in 2019. Located just south of Interstate 95, Charleston offers one-day truck service from Miami to New England. Charleston’s infrastructure continues to expand in order to meet the demands of its rapidly growing population.
MACRO MARKET FINANCIAL ANALYSIS

- **Population Density**
  - People per square mile: 0.69k, 4.79k, 10.75k, 18.70k

- **Median Household Income**
  - Average annual household income: $3.04/SF

- **Median Property Value**
  - Median residential property value: $320k, $427k, $644k, $1,670k

- **Median Market Rent**
  - Median market rents per square foot: $1.55/SF, $1.86/SF, $2.33/SF, $3.04/SF
MEDIAN RESIDENTIAL PROPERTY VALUE

$1,670k
$664k
$427k
$326k

(MEDIAN RESIDENTIAL PROPERTY VALUE)
The downtown submarket of Charleston demands a significant premium of nearly 55% in market asking rent over the metro-wide average due to the location and populous desire to live in the heart of the city. Although the ability to demand a dramatically higher rent price is appealing to many investors and developers, there are concerning reasons that make this submarket a potential volatile investment opportunity. Although the many high-earning renters prefer to live in downtown Charleston where the majority of the amenities that the city has to offer are located (south of Morrison Street), the plethora of high-end new construction “luxury” multi-family projects located throughout the downtown area is rapidly outpacing the “high-earner” population in the area. The current surge in Class A rental unit supply suggests that the submarket of downtown Charleston will be oversaturated with “luxury apartments” in the near future.

The take-away from these market observations is that the rapidly increasing cost of living in the downtown submarket, will push renters to move further up the peninsula, creating new desirable submarkets with a lower barrier of entry for developers. This is an opportunity to provide quality housing without the high cost associated with the downtown Charleston real estate market.

<table>
<thead>
<tr>
<th>MARKET ASKING RENT PER UNIT</th>
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<tbody>
<tr>
<td>NORTH CHARLESTON</td>
</tr>
<tr>
<td>WEST ASHLEY</td>
</tr>
<tr>
<td>CHARLESTON MARKET</td>
</tr>
<tr>
<td>JOHNS ISLAND / WEST CHARLESTON</td>
</tr>
<tr>
<td>MOUNT PLEASANT</td>
</tr>
<tr>
<td>DANIEL ISLAND</td>
</tr>
<tr>
<td>DOWNTOWN CHARLESTON</td>
</tr>
</tbody>
</table>

Figure 02: Aerial of Charleston locating rental competitors
Before approving the financing of a project, financial institutions look at other buildings of similar size and functionality within the surrounding market to most accurately access the feasibility of the financial projections that a developer typically provides on a potential project. Below are three rental competitors that will likely be referenced when applying for a construction loan from any financial institution.

1 - MEETING STREET LOFTS

- **Address:** 601 Meeting St, Charleston, SC
- **Year Built:** 2018
- **Number of Units:** 274
- **Occupancy:** 3.51%
- **Acreage:** None Included

**Features & Amenities:**
- Saltwater Pool
- Fitness Center
- Courtyard with Hammocks
- Picnic / Grilling Area
- Clubroom & Business Center
- Game Room
- Community Bicycles
- Dry Cleaning Service

**Unit Mix**

<table>
<thead>
<tr>
<th>Type</th>
<th>Units</th>
<th>SF</th>
<th>Rent</th>
<th>Rent / SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>207</td>
<td>568</td>
<td>$1,600</td>
<td>$2.82</td>
</tr>
<tr>
<td>1 BR / 1 BA</td>
<td>26</td>
<td>759</td>
<td>$1,916</td>
<td>$2.52</td>
</tr>
<tr>
<td>2 BR / 2 BA</td>
<td>41</td>
<td>956</td>
<td>$2,407</td>
<td>$2.52</td>
</tr>
<tr>
<td><strong>Total / Avg</strong></td>
<td><strong>274</strong></td>
<td><strong>644</strong></td>
<td><strong>$1,751</strong></td>
<td><strong>$2.72</strong></td>
</tr>
</tbody>
</table>

2 - THE ABBEY

- **Address:** 231 Coming St, Charleston, SC
- **Year Built:** 1960
- **Number of Units:** 19
- **Occupancy:** 78.9%
- **Acreage:** 0.05

**Features & Amenities:**
- Laundry Facilities
- On-Site Management
- Gated Community
- Fully Equipped Kitchens

**Unit Mix**

<table>
<thead>
<tr>
<th>Type</th>
<th>Units</th>
<th>SF</th>
<th>Rent</th>
<th>Rent / SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>4</td>
<td>615</td>
<td>$1,418</td>
<td>$2.31</td>
</tr>
<tr>
<td>1 BR / 1 BA</td>
<td>5</td>
<td>644</td>
<td>$1,282</td>
<td>$1.99</td>
</tr>
<tr>
<td>2 BR / 1 BA</td>
<td>5</td>
<td>937</td>
<td>$1,454</td>
<td>$1.55</td>
</tr>
<tr>
<td>3 BR / 1 BA</td>
<td>5</td>
<td>1,051</td>
<td>$1,754</td>
<td>$1.67</td>
</tr>
<tr>
<td><strong>Total / Avg</strong></td>
<td><strong>19</strong></td>
<td><strong>15,820</strong></td>
<td><strong>$1,472</strong></td>
<td><strong>$1.74</strong></td>
</tr>
</tbody>
</table>

3 - 363-369 KING STREET

- **Address:** 363-369 King Street, Charleston, SC
- **Year Built:** 1890
- **Number of Units:** 42
- **Occupancy:** 100.0%
- **Acreage:** 0.25

**Features & Amenities:**
- Bike Racks
- Picnic / Grilling Area
- Controlled Access
- Courtyard
- Laundry Facilities
- Patio / Balcony

**Unit Mix**

<table>
<thead>
<tr>
<th>Type</th>
<th>Units</th>
<th>SF</th>
<th>Rent</th>
<th>Rent / SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>3</td>
<td>651</td>
<td>$1,422</td>
<td>$2.18</td>
</tr>
<tr>
<td>1 BR / 1 BA</td>
<td>11</td>
<td>716</td>
<td>$1,587</td>
<td>$2.22</td>
</tr>
<tr>
<td>2 BR / 1 BA</td>
<td>20</td>
<td>1,044</td>
<td>$2,113</td>
<td>$2.02</td>
</tr>
<tr>
<td>3 BR / 1 BA</td>
<td>8</td>
<td>1,300</td>
<td>$2,540</td>
<td>$1.95</td>
</tr>
<tr>
<td><strong>Total / Avg</strong></td>
<td><strong>42</strong></td>
<td><strong>979</strong></td>
<td><strong>$2,007</strong></td>
<td><strong>$2.05</strong></td>
</tr>
</tbody>
</table>
Upon conducting research on the Charleston real-estate market, many layers of information were analyzed in order to identify a series of potential project sites. This particular site was chosen for a multitude of reasons. The first being that it is located within an opportunity zone. The intended income strategy for this property will be holding with the intent to keep the property for a minimum of 10 years. The duration of this holding strategy (10 years) is in direct correlation to the incentives associated with developing within an opportunity zone. Another major benefit of developing on this site is the fact that the property is not located within the jurisdiction of any of the three historic districts of Charleston. These districts tend to complicate new construction projects. The final major factor associated with the chosen project site is the neighborhood that it is located in. Although located in downtown Charleston, the East Central (North of Morrison or NoMo) neighborhood has a shortage of quality housing. East Central does not lack amenities however, having some of the best restaurants and breweries that Charleston has to offer.
1 - LOCATED WITHIN AN OPPORTUNITY ZONE

When Congress passed the 2017 Tax Cuts and Jobs Act, they established opportunity zone tax incentives as a way to stimulate private long-term investments in low-income communities, both urban and rural. The location of these opportunity zones is designated by the governor of each state. The main advantages to developing within an opportunity zone are the investment benefits listed below:

i - Investors are able to defer payments of capital gains taxes if gains are invested into an opportunity fund within 180 days of the gain being realized.

ii - A 10% reduction in capital gains taxes if holding within an opportunity fund for 5 years. A 15% reduction in capital gains taxes if holding within an opportunity fund for 7 years.

iii - If investments in an opportunity zone are held for 10 years, gains accrued during that 10 year period will not be taxed.

2 - NOT LOCATED WITHIN A HISTORIC DISTRICT

There are three historic districts within the city limits of Charleston, all of which have specific design guidelines and building requirements. Designing and building in these areas comes with many challenges, such as submitting to a design review board, more stringent height and aesthetic guidelines, as well as being more susceptible to public discretion. These obstacles almost always translate to a slower design and construction process along with more money spent. By locating a property outside of all three of the historic district purviews, the restrictions associated with them are avoided.

i - Historic Corridor District

ii - Old City District

iii - Old and Historic District

3 - NoMo [ EAST CENTRAL ]

The East Central neighborhood has historically been home to low-income housing and industrial buildings. After the 2008 recession, many companies saw the low land prices as an opportunity to expand into an untapped submarket and revitalize a community without sacrificing the downtown Charleston address and prestige. Due to the rapid changes in the East Central neighborhood, many of the negative effects of gentrification can be seen. As both an architect and developer, there is a moral obligation to design responsible buildings to rejuvenate and enhance these neighborhoods without promoting displacement or cultural insensitivity.
1. Santi’s
2. The Tattooed Moose
3. Goat Sheep Cow North
4. Butcher & Bee
5. Edmund’s Oast Brewing Co.
6. Big Work Fitness
7. Home Team BBQ
8. Lewis Barbecue
9. Revelry Brewing Co.
10. The Royal American
11. Local 616
12. Mozzo Charleston

Figure 10: Aerial of East Central
While analyzing the East Central neighborhood submarket, two data points stood out. When ranking each neighborhood based on the median market rent, East Central ranked sixth highest amongst the fifteen major neighborhoods, fetching an average of $2.13 per square foot. This is remarkably high in comparison to the extremely low residential property values in this neighborhood. The median residential property value in this neighborhood ranks fourteenth out of fifteen, at approximately $326,000. These two factors combine to suggest that there is a great opportunity to develop profitable housing in this area due to the low barrier of entry in this neighborhood.

The NoMo area has blossomed into a food and beverage hotspot in Charleston, attracting many young professionals and young families that reside in the Charleston area. It is just out of walking distance from the main tourist attractions while still being located on the peninsula. With five breweries within a half-mile, this neighborhood is sure to be one of the most desirable areas for millennials to live in the coming years.14

<table>
<thead>
<tr>
<th>MEDIAN MARKET RENTS</th>
<th>MEDIAN RESIDENTIAL PROPERTY VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - FRENCH QUARTER</td>
<td>1,670k</td>
</tr>
<tr>
<td>2 - ANSONBOROUGH</td>
<td>1,140k</td>
</tr>
<tr>
<td>3 - CHARLESTOWNE</td>
<td>1,035k</td>
</tr>
<tr>
<td>4 - RADCLIFFBOROUGH</td>
<td>796k</td>
</tr>
<tr>
<td>5 - MUSC</td>
<td>666k</td>
</tr>
<tr>
<td>6 - EAST CENTRAL</td>
<td>664k</td>
</tr>
<tr>
<td>7 - CANNON/ELLIOT</td>
<td>563k</td>
</tr>
<tr>
<td>8 - WAGENER TERR.</td>
<td>563k</td>
</tr>
<tr>
<td>9 - MAZYCK/WRAGG.</td>
<td>510k</td>
</tr>
<tr>
<td>10 - HARLESTON VILL.</td>
<td>490k</td>
</tr>
<tr>
<td>11 - WESTSIDE</td>
<td>430k</td>
</tr>
<tr>
<td>12 - NORTH CENTRAL</td>
<td>427k</td>
</tr>
<tr>
<td>13 - SILVER HILL/MAG.</td>
<td>381k</td>
</tr>
<tr>
<td>14 - HAMPTON PARK</td>
<td>326k</td>
</tr>
<tr>
<td>15 - EASTSIDE</td>
<td>n/a</td>
</tr>
</tbody>
</table>

14 The NoMo area has blossomed into a food and beverage hotspot in Charleston, attracting many young professionals and young families that reside in the Charleston area. It is just out of walking distance from the main tourist attractions while still being located on the peninsula. With five breweries within a half-mile, this neighborhood is sure to be one of the most desirable areas for millennials to live in the coming years.
INITIAL INTENT WAS 3 STORY MULTI-FAMILY BUILDING

LEWIS BARBECUE ADJACENT TO SITE
LOW-INCOME HOUSING ADJACENT TO SITE
ONE COOL BLOW TALLEST STRUCTURE IN EAST CENTRAL
ALLOWABLE BUILDING MASS PROPOSED SITE

1 - SCALE

PUBLIC COURTYARD
SEMI-PRIVATE COURTYARD
PRIVATE PIAZZAS

2 - PUBLIC / SEMI-PRIVATE / AND PRIVATE COURTYARDS

3 - ORIENTATION AND ORGANIZATION OF PROGRAM

INITIAL INTENT WAS 3 STORY MULTI-FAMILY BUILDING
RESIDENTIAL FACING RESIDENTIAL COMMERCIAL FACING COMMERCIAL
FIRST FLOOR COMMERCIAL INDIVIDUAL RESIDENTIAL UNITS
As both the architect and developer, informed decisions were made regarding the scale, design, and programatic organization of the proposed project. These decisions may differ from the outcome of a traditional relationship between an architect and a developer. The main focus of the proposed design is creating a series of buildings that fit into the existing context of the East Central neighborhood while prioritizing the experience both in and around the architecture. Most developers prioritize the economic potential of a project, which often times forces the design to take a backseat. With an architect making the decisions, creating great architecture is the priority. However, this does not insinuate that economic profitability is not of significant importance to an architect. Every design decision must be made with an economic conscience.

The East Central neighborhood offers some of the best food and beverage options that Charleston has to offer, however the neighborhood has a scarcity of suitable rental options for Charlestonians who support these businesses. The proposal of a multi-family residential low-rise building with first floor commercial units is intended to serve as a catalyst that will incite residential growth in this neighborhood. This will be accomplished by responsibly massing the building to correspond to the neighboring structures, creating a sense of community in the area by offering both public and private courtyard spaces, and lastly making calculated efforts to organize the program and circulation to mesh with the existing urban fabric.
EXISTING CONDITIONS

DIMENSIONS / ACRES

FLOOD ZONE

COMMERCIAL PROGRAM

UTILITY PROGRAM

ENVIRONMENTAL INFLUENCES

HEIGHT RESTRICTIONS

SETBACKS / PROPERTY LINES

NASSAU STREET

ISABELLA STREET

PREVAILING WINDS - FROM SW

NO SETBACKS

NASSAU STREET

ISABELLA STREET

12 STORIES

FLOOD ZONE:
BASE FLOOD ELEVATION:
AE 11

NASSAU STREET

ISABELLA STREET

NASSAU STREET

ISABELLA STREET

NASSAU STREET

ISABELLA STREET

NASSAU STREET

ISABELLA STREET

NASSAU STREET

ISABELLA STREET

21

PUBLIC COURTYARD

SEMI-PRIVATE COURTYARDS

PRIVATE PIAZZAS
Before beginning negotiations on a property, an architect should conduct a feasibility study to see what site restrictions there are on the site as well as schematic design studies exploring the scale of the potential project. A clear understanding of a site’s potential can begin to be concluded using public information regarding zoning, liens, adjacent properties, etc. The diagrams to the left are just a few of the quick studies conducted on the chosen lot.

Not all information desired will be made available to the architect during this phase of the project. The goal during this phase it to get a rough understanding of what site factors will directly impact the project from a design and economic perspective. Many questions regarding the site will be answered during the due diligence step in phase 2.
**UNIT BREAKDOWN:**

<table>
<thead>
<tr>
<th>REDISDENTIAL UNITS</th>
<th>AMOUNT</th>
<th>SF</th>
<th>TOTAL SF</th>
<th>AT $ 2.13/SF</th>
<th>RENTAL TOTAL</th>
</tr>
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<tbody>
<tr>
<td>1-BED STANDARD</td>
<td>10</td>
<td>558</td>
<td>5,580</td>
<td>$1,189</td>
<td>$11,890</td>
</tr>
<tr>
<td>1-BED SUITE</td>
<td>2</td>
<td>899</td>
<td>1,778</td>
<td>$1,915</td>
<td>$3,830</td>
</tr>
<tr>
<td>2-BED SINGLE HOUSE</td>
<td>3</td>
<td>1,516</td>
<td>4,548</td>
<td>$3,229</td>
<td>$9,687</td>
</tr>
<tr>
<td>3-BED DUPLEX</td>
<td>3</td>
<td>2,048</td>
<td>6,144</td>
<td>$4,362</td>
<td>$13,086</td>
</tr>
<tr>
<td>2-BED DUPLEX</td>
<td>3</td>
<td>1,103</td>
<td>3,309</td>
<td>$2,349</td>
<td>$7,047</td>
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<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT A – KUDU</td>
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<td>1,370</td>
<td>1,370</td>
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<tr>
<td>UNIT B – VERDE</td>
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<td>1,175</td>
<td>1,175</td>
<td>$2,938</td>
<td>$2,938</td>
</tr>
</tbody>
</table>

**EXPENSES**

- PROPERTY ACQUISITION (12.88% OF PC) $990,275
- CONSTRUCTION COST (AT $225 / SF) $5,378,400
- CONSTRUCTION CONTINGENCY $268,920

**PLANNING, DESIGN, & APPROVAL FEES**

- [6.0%] DEVELOPER FEE $322,704 35% $112,946
- [6.0%] ARCHITECTURE FEE $322,704 100% $322,704
- [0.2%] LANDSCAPE $10,757 100% $10,757
- [0.2%] ELECTRICAL $10,757 100% $10,757
- [0.3%] MECHANICAL $16,135 100% $16,135
- [0.4%] STRUCTURAL $21,514 100% $21,514
- [1.0%] CONSTRUCTION ADMIN. $53,784 0% $53,784
- [0.5%] ERROR & OMISSIONS INS. $26,892 8% $2,151
- [2.7%] ENTITLEMENT $145,217 100% $145,217
- [0.2%] PRINTS & MODELS $10,757 80% $8,606
- 17.5% $941,220 69% $649,442

**LEGAL & ACCOUNTING - [1.0%]** $53,784

**MARKETING & REALTOR FEES - [1.0%]** $53,784

**PROJECT COST** $7,686,383

**SWEAT EQUITY DURING FINANCING - [8.5%]**
- PROPERTY VALUE - [12.88%]
- TOTAL - [21.38%]

**CASH INVESTMENT NEEDED** - [8.62%] $661,029

**FINANCING**

- CONSTRUCTION LOAN PERIOD 12 MONTHS
- SALES PERIOD 3 MONTHS
- LTC 70%
- CONSTRUCTION LOAN INTEREST RATE 6%
- PROJECT COST $7,686,383
- FINANCED AMOUNT $5,380,46

**REVENUE**

- MONTHLY GROSS RENT $51,903

**MONTHLY EXPENSES**

- MANAGEMENT - [6.0%] $3,115
- MAINTENANCE - [1.0%] $519
- VACANCY - [5.0%] $2,595
- DEBT SERVICE - [60.2%] $31,236
- MONTHLY NOI $14,438
- ANNUAL NOI $173,256
- ANNUAL ROI 14.87%
A pro forma is a tool that developers use to predict the performance of a project. Just as a design goes through phases of development, a pro forma is generated in the same way. To start a project, many assumptions must be made to move forward. The pro forma is revisited after each phase of the project, painting a more clear picture of the project's economic profitability each time. The goal of a preliminary pro forma is to understand whether or not a project is worth pursuing. After conducting this "back-of-the-envelope" analysis, the architect should be able to determine the viability of a project. 4

Figure 11: Napkin Calculation
isabella street conceptual elevation

nassau street conceptual elevation
### UNIT BREAKDOWN:

<table>
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<tr>
<th>UNIT</th>
<th>AMOUNT</th>
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<th>TOTAL SF</th>
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<tbody>
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<td>558</td>
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<td>2,048</td>
<td>6,144</td>
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<tr>
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<td>1,103</td>
<td>3,309</td>
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<tr>
<td>COMMERCIAL UNITS</td>
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</tr>
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<td>1,370</td>
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<tr>
<td>UNIT B – VERDE</td>
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<td>1,175</td>
<td>1,175</td>
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</table>
UNIT BREAKDOWN:

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</tr>
</tbody>
</table>

UTILITIES

- TRASH
- SOLAR PANELS
- AIR HANDLING UNITS

DUPLEX HOUSING

- 6 UNITS

ONE BEDROOM UNITS

- 14 UNITS

PUBLIC COURTYARD

MODERN CHARLESTON SINGLE

- 3 UNITS

RESIDENTIAL EXIT

RESIDENTIAL ENTRY

COMMERCIAL SPACES

- 2 UNITS

RESIDENTIAL COURTYARD

- 29 PARKING SPACES
ICF CONSTRUCTION DETAILS

1. Tie foam blocks to foundation footer
2. Place and tie rebar to plastic bracing in foam blocks
3. Pour concrete into wall cavity

Pour concrete into wall cavity every other wall segment stack

1/2" gypsum board interior finish

3/8" rebar per structural

Concrete parge coat finish

Wire lath overtop of waterproofing membrane

Liquid waterproofing down to footing

Tie bottom blocks to foundation with steel anchor tabs

Wall bracing every 5'-0"
PUBLIC COURTYARD AS CATALYST
Figure 12: Mural at Lewis Barbecue

Figure 13: Mural at Home Team Barbecue

Figure 14: Mural at 136 St. Phillip Street
Public art displays offer a unique opportunity for community engagement. This particular mural displays two prominent artists, Edgar Allan Poe and Darius Rucker. Although they left their marks on Charleston during very different time periods, they are both praised individuals associated with the community.
PUBLIC COURTYARD

Promoting community engagement through the creation of public courtyards for the neighborhood, not just residents of The Grove, deviates from strategy of a typical developer. Gestures such as these that attempt to improve the public amenities in the area are intended to stimulate residential growth in the neighborhood.
Creating a private entry off of Nassau street provides residents of The Grove with a sense of security that is necessary in a rapidly changing neighborhood. The ipe cladded garage door blends into the inset wall, minimizing the attention garage doors often demand. By downplaying the entry from the street, the semi-private residential courtyard behind the entrance can feel like a hidden oasis secluded within the urban fabric of the neighborhood.
ONE BEDROOM - STANDARD
As architects, we are ingrained with a sense of responsibility to create a better built environment. The ability to fulfill this intrinsic obligation is often hindered by the architect's lack of control of the development and design processes. Why is it that architects do not capture the control and self-initiate their own work?

Is it fear of the unknown? Fear of taking the financial risk? Fear of being judged by cohorts? By betting on their own abilities, architects can seize control of their own projects, allowing them to make all of the design decisions and capture the true economic value that they bring to the table.
FIGURE 01: Schisler, Kelsey. https://unsplash.com/photos/OC23g_chtzA.

FIGURE 02: GOOGLE EARTH


FIGURE 06: GOOGLE STREET VIEW

FIGURE 07: GOOGLE STREET VIEW

FIGURE 08: GOOGLE STREET VIEW

FIGURE 09: GOOGLE MAPS

FIGURE 10: GOOGLE EARTH


ENDNOTES


