Virginia Beach Strategic Growth Areas: Development Potential

City of Virginia Beach Strategic Growth Area Office | March 14, 2011
AGENDA

- Foundation – Economic Outlook
  - U.S. Demographic Megatrends
  - RCLCO MetroLogic
  - Drivers of Office Demand
  - Drivers of Housing Demand
  - SGAs in Context
  - Achieving Feasibility
  - Phasing and Development Programs
  - Considerations
THE NATION’S ECONOMY
SLOW…VERY SLOW, BUT STEADY RECOVERY

Source: Moody’s Adversity Index
VIRGINIA BEACH
NOT YET AS STRONG AS REMAINDER OF STATE

Virginia Beach-Norfolk-Newport

STILL AT RISK

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>+1.15%</td>
</tr>
<tr>
<td>Single Family Starts</td>
<td>+5.16%</td>
</tr>
<tr>
<td>Housing Prices</td>
<td>n/a</td>
</tr>
<tr>
<td>Industrial Production</td>
<td>+1.68%</td>
</tr>
</tbody>
</table>

Moody’s Economy.Com; Jan 2011
THE LOST DECADE
JOB GROWTH DRIVES THE REAL ESTATE ECONOMY

 Collapse of housing market helped push the country into deep recession

 1+ years later, housing is still struggling

 Unemployment remains high

 Record number of foreclosures have forced home prices down

 Consumers still wary about “the bottom”

 Tight lending standards making mortgages difficult to obtain for first time buyers

 Regulatory environment remains uncertain
2013 – THE NEXT “NORMAL” YEAR
SLOW TO MODERATE GROWTH THROUGH RECOVERY

- Moderate job growth in 2011
- Housing starts begin to rise in 2012
- Lending standards and regulatory uncertainties loosen in 2012
- “Normal market conditions” in 2013
- Boomers and Gen Y enter market in 2015+

Diagram:
- 2001
- NORMAL
- 2006
- PEAK
- 2009
- TROUGH
- 2010
- 2011
- 2012
- RECOVERY
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
  - RCLCO MetroLogic
  - Drivers of Office Demand
  - Drivers of Housing Demand
  - SGAs in Context
  - Achieving Feasibility
  - Phasing and Development Programs
  - Considerations
FROM METROPOLITAN TO MEGAPOLITAN
100 MM NEW PP IN U.S. BY 2040 – 60 MM IN 20 MKTS

- 100 million by 2040; 60 million in 20 markets

- Regions will grow around multi-dimensional “centers”
  - Places where employment, education, civic, and recreation combine to serve the region’s population and economic activity

---

1 Metropolitan Institute, Virginia Tech
2 Joint Center for Housing Studies, Harvard University
THREE PRIMARY COMPONENTS OF GROWTH BOOM³

- Baby Boomers
- EI Boom
- Echo Boomers
<table>
<thead>
<tr>
<th>Year</th>
<th>Student Housing</th>
<th>Single &amp; Roommate Rental</th>
<th>Rent as Couple / 1st Home</th>
<th>Young Family Own</th>
<th>Mature Family Own</th>
<th>Empty Nester Downsize Own</th>
<th>Retiree Senior Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen X</td>
<td>Gen X</td>
<td>Baby B</td>
<td>Baby B</td>
<td>Eisen Baby B</td>
</tr>
<tr>
<td>2010</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen X Gen Y</td>
<td>Baby B Gen X</td>
<td>Baby B</td>
<td>Eisen Baby B</td>
</tr>
<tr>
<td>2015</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen X</td>
<td>Baby B Gen X</td>
<td>Eisen Baby B</td>
</tr>
<tr>
<td>2020</td>
<td>Gen Z</td>
<td>Gen Y</td>
<td>Gen Y</td>
<td>Gen Y Gen Y</td>
<td>Gen X Baby B</td>
<td>Baby B</td>
<td>Baby B</td>
</tr>
</tbody>
</table>
BOOMERS IN RETIREMENT
MID-ATLANTIC STATES ARE THE “NEW FLORIDA”

Baby Boomers Estimated Rate of Retirement
2008 to 2030

The beginning of retirement may be delayed three to five years for many baby boomers as a result of the economic downturn.

Peak of retirees may be delayed from 2019 to 2022, depending on how long boomers end delaying retirement decisions.

SOURCE: National Center for Health Services,
NOTE: Based on an average retirement age of 62 according to the U.S. Census, Age 65 based on Metlife Middle Boomers Survey
GEN Y MAKING ITS MARK TODAY
75% MOVING BEFORE 2015 – TO URBAN ENVIRONS

Renting into their 30s
Choosing urban locations, then jobs
Will pay for transit, mixed-use
Drive retail, restaurant performance

Largest group began graduating in 2009 –
Greatest demand for rental housing in this period

If this group rents for at least three years,
there will be more first-time homebuyers
in the market in 2013-2018 than ever before

NOTE: Number of 22-year olds is based upon birth rate and does not factor in death rates and migration.
SOURCE: U.S. Centers for Disease Control and Prevention
> 85% GROWTH IN HOUSEHOLDS WITHOUT CHILDREN

DIFFERENT HOUSEHOLD LANDSCAPE BY 2025

Absolute Change in Households, United States
1980–2005

- Married, no children, 5,476,979
- Married with children, 1,376,788
- Single male with children, 2,165,939
- Single female with children, 4,680,913
- Other Family, 1,758,377
- Nonfamily, 3,416,246
- One-person households, 11,825,702

SOURCE: US Census
CHANGING CONSUMER PREFERENCES
INCREASING PREFERENCE FOR DENSE PRODUCTS

Existing and Preferred Housing Type by Household Type

SOURCE: RCLCO Consumer Research

2005 American Housing Survey  RCLCO Consumer Research
## INFRASTRUCTURE AND COMPETITIVENESS
### FIXED-RAIL TRANSIT RELATED TO STRONGER GMP

<table>
<thead>
<tr>
<th>Metro Areas with Transit</th>
<th>Average GMP Per Capita</th>
<th>Average GMP Growth ‘00 - ‘10</th>
<th>Average Population Growth 00 - 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$46,056</td>
<td>21.3%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Metro Areas without Transit</td>
<td>$42,106</td>
<td>20.1%</td>
<td>12.4%</td>
</tr>
<tr>
<td>% Difference</td>
<td>9%</td>
<td>6%</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metro Areas with Transit</th>
<th>Average GMP Per Capita</th>
<th>Average GMP Growth 00 - 10</th>
<th>Average Population Growth 00 - 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle</td>
<td>$57,765</td>
<td>22.0%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Portland</td>
<td>$47,902</td>
<td>42.4%</td>
<td>17.9%</td>
</tr>
<tr>
<td>% Difference</td>
<td>25%</td>
<td>60%</td>
<td>25%</td>
</tr>
</tbody>
</table>
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs
- Considerations
How could my region/jurisdiction grow?

Will consumer preferences change?

Can I direct, shape, or catalyze growth?

What if we make a major investment?

What would the public ROI be?

Will the private sector play a role?
## HYPOTHETICAL DEVELOPMENT PROGRAM

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Near Term (1 – 5 years)</th>
<th>Medium Term (5 – 15 years)</th>
<th>Long Term (15 – 30 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation Lots 0.15 du/acre</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Small-Lot SFD 5 du/acre</td>
<td>Green</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Townhomes 12-14 du/acre</td>
<td>Red</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Multifamily For-Sale 30 – 50 du/acre</td>
<td>Red</td>
<td>Red</td>
<td>Yellow</td>
</tr>
<tr>
<td>Multifamily For-Rent 30-50 du/acre</td>
<td>Red</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td>Office 1.0-1.5 FAR</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Retail 0.3 - 0.8 FAR</td>
<td>Green</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Hotel 15 Keys/Acre</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
</tbody>
</table>

### Diagram

- **DR. SIM**
- **Trendspotting**
- **RCLCO MetroLogic**
- **Real Estate Economics**
- **Market Analytics**
VALUING PUBLIC RETURN ON INVESTMENT

WHAT IS THE PUBLIC RETURN ON INVESTMENT?
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic

Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs
- Considerations
SUMMARY OF KEY FINDINGS

- **Moody's** is projecting a strong recovery in the metropolitan area job market through 2015
  - Demand should quickly return area office market to healthy vacancy levels, spur rent growth and lead to new development
  - Stabilized job growth of 6,000 per year after 2015 is substantially lower than the average growth from 1990 – 2007
  - Over the next twenty years, the metro area is projected to add approximately 8.3M SF

- **Professional and Business Services sector** will be the main driver of future office employment growth

- **The key question is:** how much of the metro area demand can the City of Virginia Beach capture?
  - The city captured 32% of metro area office employment in 2001. By 2010 the rate had fallen to 28%.
  - Returning to its previous share would mean demand for 2.4M SF by 2030, allowing a continued decline in its share would mean demand for 1.9M SF or less
STRONG JOB RECOVERY PROJECTED FOR 2012 – 2015
STABLE GROWTH OF ~6,000 JOBS PER YEAR AFTER 2015

Total Employment and Office Employment Growth in the Virginia Beach MSA
1990 – 2030 (Post 2010 Projection by Moody’s Analytics)

<table>
<thead>
<tr>
<th>Total Employment</th>
<th>Average Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 - 2000</td>
<td>11,291</td>
</tr>
<tr>
<td>2000 - 2010</td>
<td>1,824</td>
</tr>
<tr>
<td>2010 - 2020</td>
<td>9,129</td>
</tr>
<tr>
<td>2020 - 2030</td>
<td>5,985</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Office Employment</th>
<th>Average Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 - 2000</td>
<td>5,161</td>
</tr>
<tr>
<td>2000 - 2010</td>
<td>-300</td>
</tr>
<tr>
<td>2010 - 2020</td>
<td>2,318</td>
</tr>
<tr>
<td>2020 - 2030</td>
<td>1,471</td>
</tr>
</tbody>
</table>
SERVICE SECTORS DRIVE GROWTH
PROF. AND BUSINESS SERVICES KEY FOR OFFICE DEV'T.

Employment Growth by Sector in the Virginia Beach MSA
2000 – 2030 (Post 2010 Projection by Moody’s Analytics)
VIRGINIA BEACH HAS SLOWLY LOST SHARE OF REGIONAL OFFICE EMPLOYMENT SINCE 2001

Annual Office Employment Growth in the Virginia Beach of MSA and the City of Virginia Beach 2002 - 2010

- MSA Office Employment Growth
- City of Virginia Beach Office Employment Growth
- City of Virginia Beach Share of Total MSA Office Employment
DEPENDING ON FUTURE SHARE OF GROWTH, 1.9M TO 2.4M SF OF NEW OFFICE DEMAND PROJECTED

### Estimated Office Demand in the City of Virginia Beach, 2011 - 2030

<table>
<thead>
<tr>
<th></th>
<th>Scenario 1: Growth</th>
<th>Scenario 2: Stable State</th>
<th>Scenario 3: Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA Office Employment Growth 2011 - 2030</td>
<td>38,000</td>
<td>38,000</td>
<td>38,000</td>
</tr>
<tr>
<td>City of Virginia Beach's Average Capture</td>
<td>31.5%</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Virginia Beach Office Employment</td>
<td>12,000</td>
<td>10,600</td>
<td>9,900</td>
</tr>
<tr>
<td>Total Estimated Office Demand</td>
<td>2,690,000 SF</td>
<td>2,400,000 SF</td>
<td>2,223,000 SF</td>
</tr>
<tr>
<td>Current Excess Office Space in Virginia Beach</td>
<td>300,000 SF</td>
<td>300,000 SF</td>
<td>300,000 SF</td>
</tr>
<tr>
<td>Total Demand for New Office Space</td>
<td>2,390,000 SF</td>
<td>2,100,000 SF</td>
<td>1,923,000 SF</td>
</tr>
</tbody>
</table>

**Competitive Regional Position is Key**
- Small changes may have a large impact
- Returning the City to its previous share of regional office employment vs. allowing current trends to continue suggests a difference of nearly 500,000 SF over the next 20 years

**Redevelopment of the SGAs and addition of transit will enhance the City’s attractiveness for office Development**
## ADDITIONAL POTENTIAL FOR 1.17M SF OF MEDICAL OFFICE DEVELOPMENT BY 2030

### Medical Office Demand Forecast for the City of Virginia Beach, 2011 - 2030

<table>
<thead>
<tr>
<th>Year</th>
<th>MSA Education and Health Services Job Growth¹</th>
<th>Virginia Beach Education and Health Services Job Growth²</th>
<th>Virginia Beach Capture of Growth</th>
<th>Virginia Beach Medical Office Employment Growth³</th>
<th>Virginia Beach Medical Office Share of Health and Services Jobs</th>
<th>Square Feet Demand per Employee⁵</th>
<th>Medical Office Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1,850</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>1,390</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>2,770</td>
<td>389</td>
<td>14.0%</td>
<td>-191</td>
<td>-49.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>1,170</td>
<td>838</td>
<td>71.6%</td>
<td>345</td>
<td>41.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>3,840</td>
<td>832</td>
<td>21.7%</td>
<td>295</td>
<td>35.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>2,720</td>
<td>562</td>
<td>20.7%</td>
<td>243</td>
<td>43.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>2,530</td>
<td>1,583</td>
<td>62.6%</td>
<td>1322</td>
<td>83.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>2,680</td>
<td>873</td>
<td>32.6%</td>
<td>609</td>
<td>69.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>1,220</td>
<td>1,076</td>
<td>88.2%</td>
<td>618</td>
<td>57.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1,740</td>
<td>629</td>
<td>36.1%</td>
<td>369</td>
<td>58.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>1,590</td>
<td>158</td>
<td>9.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2,136</td>
<td>771</td>
<td>36.1%</td>
<td>451</td>
<td>53.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>460</td>
<td>166</td>
<td>36.1%</td>
<td>88</td>
<td>53.2%</td>
<td>215</td>
<td>19,001</td>
</tr>
<tr>
<td>2012</td>
<td>2,190</td>
<td>790</td>
<td>36.1%</td>
<td>421</td>
<td>53.2%</td>
<td>215</td>
<td>90,464</td>
</tr>
<tr>
<td>2013</td>
<td>2,620</td>
<td>946</td>
<td>36.1%</td>
<td>503</td>
<td>53.2%</td>
<td>215</td>
<td>108,226</td>
</tr>
<tr>
<td>2014</td>
<td>3,000</td>
<td>1,083</td>
<td>36.1%</td>
<td>576</td>
<td>53.2%</td>
<td>215</td>
<td>123,923</td>
</tr>
<tr>
<td>2015</td>
<td>2,130</td>
<td>769</td>
<td>36.1%</td>
<td>409</td>
<td>53.2%</td>
<td>215</td>
<td>87,985</td>
</tr>
<tr>
<td>2016</td>
<td>1,390</td>
<td>502</td>
<td>36.1%</td>
<td>267</td>
<td>53.2%</td>
<td>215</td>
<td>57,418</td>
</tr>
<tr>
<td>2017</td>
<td>1,180</td>
<td>426</td>
<td>36.1%</td>
<td>227</td>
<td>53.2%</td>
<td>215</td>
<td>48,743</td>
</tr>
<tr>
<td>2018</td>
<td>1,160</td>
<td>419</td>
<td>36.1%</td>
<td>223</td>
<td>53.2%</td>
<td>215</td>
<td>47,917</td>
</tr>
<tr>
<td>2019</td>
<td>1,200</td>
<td>433</td>
<td>36.1%</td>
<td>231</td>
<td>53.2%</td>
<td>215</td>
<td>49,569</td>
</tr>
<tr>
<td>2020</td>
<td>1,190</td>
<td>430</td>
<td>36.1%</td>
<td>229</td>
<td>53.2%</td>
<td>215</td>
<td>49,156</td>
</tr>
<tr>
<td>2021</td>
<td>1,160</td>
<td>419</td>
<td>36.1%</td>
<td>223</td>
<td>53.2%</td>
<td>215</td>
<td>47,917</td>
</tr>
<tr>
<td>2022</td>
<td>1,170</td>
<td>422</td>
<td>36.1%</td>
<td>225</td>
<td>53.2%</td>
<td>215</td>
<td>48,330</td>
</tr>
<tr>
<td>2023</td>
<td>1,170</td>
<td>422</td>
<td>36.1%</td>
<td>225</td>
<td>53.2%</td>
<td>215</td>
<td>48,330</td>
</tr>
<tr>
<td>2024</td>
<td>1,200</td>
<td>433</td>
<td>36.1%</td>
<td>231</td>
<td>53.2%</td>
<td>215</td>
<td>49,569</td>
</tr>
<tr>
<td>2025</td>
<td>1,190</td>
<td>430</td>
<td>36.1%</td>
<td>229</td>
<td>53.2%</td>
<td>215</td>
<td>49,156</td>
</tr>
<tr>
<td>2026</td>
<td>1,150</td>
<td>415</td>
<td>36.1%</td>
<td>221</td>
<td>53.2%</td>
<td>215</td>
<td>47,504</td>
</tr>
<tr>
<td>2027</td>
<td>1,200</td>
<td>433</td>
<td>36.1%</td>
<td>231</td>
<td>53.2%</td>
<td>215</td>
<td>49,569</td>
</tr>
<tr>
<td>2028</td>
<td>1,190</td>
<td>430</td>
<td>36.1%</td>
<td>229</td>
<td>53.2%</td>
<td>215</td>
<td>49,156</td>
</tr>
<tr>
<td>2029</td>
<td>1,160</td>
<td>419</td>
<td>36.1%</td>
<td>223</td>
<td>53.2%</td>
<td>215</td>
<td>47,917</td>
</tr>
<tr>
<td>2030</td>
<td>1,160</td>
<td>419</td>
<td>36.1%</td>
<td>223</td>
<td>53.2%</td>
<td>215</td>
<td>47,917</td>
</tr>
<tr>
<td>Average</td>
<td>1,414</td>
<td>510</td>
<td>36.1%</td>
<td>272</td>
<td>53.2%</td>
<td></td>
<td>58,388</td>
</tr>
<tr>
<td>Total</td>
<td>28,270</td>
<td>10,204</td>
<td>5,431</td>
<td>1,167,765</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ MSA Education and Health Services Job Growth
² Virginia Beach Education and Health Services Job Growth
³ Virginia Beach Medical Office Employment Growth
⁴ Virginia Beach Medical Office Share of Health and Services Jobs
⁵ Square Feet Demand per Employee
⁶ Medical Office Demand
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs
- Considerations
SUMMARY OF KEY FINDINGS

- In the next five years, household growth is projected to return to pre-recession levels but the pace of growth will slow thereafter.
- Moody’s projects that the region will add approximately 100,000 households by 2030.
- Estimates for household growth for the City of Virginia Beach range from 17,000 (State) to 30,000 (RCLCO).
  - RCLCO forecast assumes redevelopment of SGAs into attractive, mixed-use neighborhoods and the construction of transit, making Virginia Beach a more attractive place to live relative to other locations in region.
  - Average annual new housing demand of 1,500 units per year projected by RCLCO is slightly below the average of about 2,000 units per year from 1991 - 2005.
- Though single-family detached homes will remain the dominant preference for new product, multifamily housing has become an increasingly large component of new housing construction in Virginia Beach.
  - An increasing proportion of 1 and 2 person households in Virginia Beach should drive demand for even more multifamily product development.
- Home prices from $200,000 - $290,000 in 2011 dollars have the greatest market support but prices up to $380,000 will also find substantial demand.
NEW HOUSING DEMAND MAY LAG IN NEAR TERM
POTENTIAL OVERSUPPLY OF 20,000+ UNITS REMAINS

Annual Permits and Household Growth, 1980 – 2010
Virginia Beach Metropolitan Area

Permits per New Household
1980 – 1989: 1.29
1990 – 1999: 1.26
2000 – 2010: 1.91

Overall Vacancy Rate 2000: 6.7%
Overall Vacancy Rate 2009: 9.3%

SOURCE: Moody’s Analytics
MULTIFAMILY INCREASINGLY IMPORTANT TO NEW HOUSING CONSTRUCTION IN THE CITY

**City of Virginia Beach**

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Annual Permits</th>
<th>SF</th>
<th>%</th>
<th>MF</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986 - 1990</td>
<td>4,555</td>
<td>3,649</td>
<td>80%</td>
<td>906</td>
<td>20%</td>
</tr>
<tr>
<td>1991 - 1995</td>
<td>2,055</td>
<td>1,562</td>
<td>76%</td>
<td>493</td>
<td>24%</td>
</tr>
<tr>
<td>1996 - 2000</td>
<td>1,984</td>
<td>1,428</td>
<td>72%</td>
<td>556</td>
<td>28%</td>
</tr>
<tr>
<td>2001 - 2005</td>
<td>2,127</td>
<td>1,569</td>
<td>74%</td>
<td>558</td>
<td>26%</td>
</tr>
<tr>
<td>2006 - 2010</td>
<td>1,044</td>
<td>640</td>
<td>61%</td>
<td>404</td>
<td>39%</td>
</tr>
</tbody>
</table>

SOURCE: Moody’s Analytics
REGION TO ADD 107,000 NEW HOUSEHOLDS BY 2030
PACE OF GROWTH PROJECTED TO SLOWLY DECLINE

Historical and Projected Household Growth
Virginia Beach MSA, 1980 - 2030

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Households</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>404,209</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>451,883</td>
<td>2.25%</td>
</tr>
<tr>
<td>1990</td>
<td>515,905</td>
<td>2.69%</td>
</tr>
<tr>
<td>1995</td>
<td>555,921</td>
<td>1.51%</td>
</tr>
<tr>
<td>2000</td>
<td>581,810</td>
<td>0.91%</td>
</tr>
<tr>
<td>2005</td>
<td>608,741</td>
<td>0.91%</td>
</tr>
<tr>
<td>2010</td>
<td>634,324</td>
<td>0.83%</td>
</tr>
<tr>
<td>2020</td>
<td>689,358</td>
<td>0.84%</td>
</tr>
<tr>
<td>2030</td>
<td>741,169</td>
<td>0.73%</td>
</tr>
</tbody>
</table>

Avg. Annual Growth

<table>
<thead>
<tr>
<th>Period</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980 - 1990</td>
<td>11,170</td>
</tr>
<tr>
<td>1990 - 2000</td>
<td>6,590</td>
</tr>
<tr>
<td>2000 - 2010</td>
<td>5,251</td>
</tr>
<tr>
<td>2010 - 2020</td>
<td>5,503</td>
</tr>
<tr>
<td>2020 - 2030</td>
<td>5,181</td>
</tr>
</tbody>
</table>
1 AND 2 PERSON HOUSEHOLDS FUEL GROWTH IMPLIES POTENTIAL FOR MORE MULTIFAMILY HOUSING

City of Virginia Beach, Virginia

Household Growth by Household Size

- 2000 - 2009
  - 3+ Persons: -6,528
  - 2 Persons: 5,367
  - 1 Person: 9,197

- 1990 - 2000
  - 3+ Persons: 3,077
  - 2 Persons: 7,320
  - 1 Person: 8,322

Distribution of Households by Household Size

- 1990
  - 3+ Persons: 17%
  - 2 Persons: 31%
  - 1 Person: 52%

- 2000
  - 3+ Persons: 20%
  - 2 Persons: 32%
  - 1 Person: 47%

- 2009
  - 3+ Persons: 25%
  - 2 Persons: 34%
  - 1 Person: 41%
POPULATION OVER 65 TO ACCOUNT FOR AN INCREASING SHARE OF CITY’S TOTAL

Distribution of Households by Age of Householder
City of Virginia Beach, 2010 and 2030

SOURCE: Moody’s Analytics; RCLCO; ESRI
GEN Y MAKING ITS MARK TODAY
75% MOVING BEFORE 2015 – TO URBAN ENVIRONS

Renting into their 30s
Choosing urban locations, then jobs

Will pay for transit, mixed-use
Drive retail, restaurant performance

Largest group began graduating in 2009 –
Greatest demand for rental housing in this period

If this group rents for at least three years,
there will be more first-time homebuyers in the market in 2013-2018 than ever before

NOTE: Number of 22-year olds is based upon birth rate and does not factor in death rates and migration.
SOURCE: U.S. Centers for Disease Control and Prevention
MIDDLE INCOMES DOMINATE IN VIRGINIA BEACH
GREATEST FOR-SALE POTENTIAL FROM $200,000 - $500,000

Household Income Distribution
City of Virginia Beach, 2010

SOURCE: Moody’s Analytics
### MSA and City of Virginia Beach Household Growth Forecast By Age Group, 2010 - 2030

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>Total For Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age 15 - 24</td>
<td>Age 25 - 34</td>
<td>Age 35 - 44</td>
<td>Age 45 - 54</td>
<td>Age 55 - 64</td>
</tr>
<tr>
<td>MSA Households</td>
<td>36,518</td>
<td>106,279</td>
<td>142,059</td>
<td>111,596</td>
<td>104,733</td>
</tr>
<tr>
<td>City of Virginia Beach Households</td>
<td>9,454</td>
<td>33,561</td>
<td>41,162</td>
<td>30,741</td>
<td>17,841</td>
</tr>
<tr>
<td>City of Virginia Beach Capture</td>
<td>25.9%</td>
<td>31.6%</td>
<td>29.0%</td>
<td>27.5%</td>
<td>24.3%</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>2020</td>
<td>2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSA Households</td>
<td>35,350</td>
<td>118,110</td>
<td>120,002</td>
<td>121,268</td>
<td>123,384</td>
</tr>
<tr>
<td>City of Virginia Beach Households</td>
<td>9,985</td>
<td>33,904</td>
<td>32,949</td>
<td>28,511</td>
<td>33,553</td>
</tr>
<tr>
<td>City of Virginia Beach Capture</td>
<td>28.2%</td>
<td>28.7%</td>
<td>27.5%</td>
<td>23.5%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

**Redevelopment of SGAs and transit enable the City to slightly increase its share of the region’s households in the 25 – 54 age groups, resulting in increased total household growth relative to the State forecast.**
DEMAND FOR 21,360 NEW FOR-SALE UNITS BY 2030
ABOUT 1/3 OF DEMAND FOR TOWNHOMES AND MULTIFAMILY

Projected New For-Sale Housing Demand by Unit Type
City of Virginia Beach

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Total New Demand 2011 - 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached</td>
<td>13,910</td>
</tr>
<tr>
<td>Townhouse</td>
<td>5,150</td>
</tr>
<tr>
<td>Multifamily</td>
<td>2,300</td>
</tr>
<tr>
<td>Total</td>
<td>21,360</td>
</tr>
</tbody>
</table>

**Projected New For-Sale Housing Demand by Unit Type**

<table>
<thead>
<tr>
<th>Year Range</th>
<th>SFD</th>
<th>TH</th>
<th>MF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 - 2015</td>
<td>3,470</td>
<td>1,150</td>
<td></td>
<td>4,620</td>
</tr>
<tr>
<td>2016 - 2020</td>
<td>3,440</td>
<td>1,190</td>
<td></td>
<td>4,630</td>
</tr>
<tr>
<td>2021 - 2025</td>
<td>3,510</td>
<td></td>
<td>1,330</td>
<td>4,840</td>
</tr>
<tr>
<td>2026 - 2030</td>
<td>3,490</td>
<td></td>
<td>1,480</td>
<td>5,070</td>
</tr>
</tbody>
</table>

SOURCE: RCLCO; See Appendix for details
DEMAND FOR 8,250 NEW APARTMENTS IN THE CITY OF VIRGINIA BEACH BY 2030

Projected New Multifamily For-Rent Housing Demand
City of Virginia Beach, 2011 - 2030

<table>
<thead>
<tr>
<th>Period</th>
<th>Demand (Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2015</td>
<td>1,870</td>
</tr>
<tr>
<td>2016-2020</td>
<td>1,960</td>
</tr>
<tr>
<td>2021-2025</td>
<td>2,140</td>
</tr>
<tr>
<td>2026-2030</td>
<td>2,280</td>
</tr>
</tbody>
</table>

SOURCE: RCLCO; See Appendix for details
$200,000 - $290,000 IS SWEET SPOT
BUT, SUBSTANTIAL POTENTIAL IN HIGHER RANGES

Theoretical Price Distribution of Projected New For-Sale Housing Demand

- $150,000 - $190,000
- $200,000 - $290,000
- $290,000 - $380,000
- $380,000 - $580,000
- Over $580,000

SOURCE: RCLCO; See Appendix for details
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs
- Considerations
SGAs BUILT-OUT: ONLY 11% AVAILABLE LAND REMAINING
EXISTING BUILT PARCELS NOT EASILY REPURPOSED

<table>
<thead>
<tr>
<th>SGA</th>
<th>ROSEMONT</th>
<th>LYNNHAVEN</th>
<th>HILLTOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildable Acres</td>
<td>257 acres</td>
<td>307 acres</td>
<td>286 acres</td>
</tr>
<tr>
<td>Available Land</td>
<td>12.5 acres</td>
<td>65 acres</td>
<td>14 acres</td>
</tr>
<tr>
<td>AICUZ Impact</td>
<td>NONE</td>
<td>HIGH: Majority of available land in APZ 1 or Clear Zone</td>
<td>LOW: South/West edges in APZ Zone 1</td>
</tr>
<tr>
<td>Existing Conditions</td>
<td>Strip shopping malls; Large-format retail; Auto dealerships; Class B multi-tenant office; Aging MF housing</td>
<td>Light industrial/PDR; Auto dealerships; Aging office; Unanchored strip retail; Religious institutions</td>
<td>Lifestyle, in-line, and large-format retail; light industrial; medical office; Educational and religious institutions</td>
</tr>
</tbody>
</table>
ROSEMONT SGA: ONLY 5% AVAILABLE LAND REMAINING
EXISTING PARCELS NOT EASILY REPURPOSED
RESIDENTIAL COMPARABLE MARKET SNAPSHOT

SUMMARY OF TOP-OF-MARKET PROJECTS

GARDEN APARTMENTS

$1,072 - $1,676 / month
686 – 1,341 SF
$1.25 - $1.55 / SF

The Cascades Bonaventure Realty

MID/HIGH-RISE APARTMENTS

$1,166 - $2,198 / month
693 – 1,533 SF
$1.43 - $1.69 / SF

The Cosmopolitan Drucker & Falk

MULTIPLEX CONDO

$152,900 – 189,900
1,300 SF
$118 - $146 / SF

Southmoor at Ridgely Manor Dragas

FOR-SALE TOWNHOMES

$299,000 - $327,000
1,970 – 2,300 SF
$141 – 151 / SF

Cornerstone Chesapeake Homes

NOTE: Price and size information is representative of top rents/prices for selected communities offering each specified product type.
RETAIL COMPARABLE MARKET SNAPSHOT
SUMMARY OF TOP-OF-MARKET PROJECTS

ANCHORED NEIGHBORHOOD
$21 - $25 / SF

UNANCHORED NEIGHBORHOOD
$18 - $21 / SF

DESTINATION/LIFESTYLE
$28 / SF

LARGE-FORMAT RETAIL
$10 - $11 / SF

NOTE: Rents are representative of top asking rates for available space within each specified product type.
NOTE: Rents are representative of top asking rates for available space within each specified product type.
KEY ISSUE - FEASIBILITY THRESHOLDS
NOT ALL DESIRED PRODUCT TYPES ARE FEASIBLE TODAY

Estimated Residual Land Values per Acre
City of Virginia Beach
KEY ISSUE - FEASIBILITY THRESHOLDS
NOT ALL DESIRED PRODUCT TYPES ARE FEASIBLE TODAY

Estimated Residual Land Values per Acre Assuming No Parking Construction Costs
City of Virginia Beach

- Standard SFD
- Mid-Rise
- Mid-Rise Above Retail
- 20' Townhome
- Garden
- Mid-Rise
- Mid-Rise Above Retail
- Unanchored
- Anchored
- Destination/Lifestyle Retail
- Spec Office
- Medical Office
- Midscale with F&B

For-Sale Residential
For-Rent Residential
Retail
Office
Hotel
One strategy would be to secure a “master developer” for an entire SGA and assume that a cashflow or IRR solution would make redevelopment more likely.

Current modeling suggests that master developer IRR would be just north of 10% and would require hundreds of millions of dollars in upfront equity in.

The diagram at right shows the disaggregated equity requirements and IRR expectations from individual land uses, further illustrating that even “winners”, like apartments, may have development challenges.
IMPACT OF BETTER DESIGN/PLANNING
PENT-UP DEMAND FOR WALKABLE PLACES

Emerging evidence from Tidewater region that there are more consumers of walkable environs than there are places to satisfy this demand.

Operational success of places such as Virginia Beach Town Center confirm that these places can and do outperform expectations.

Current optics on development feasibility may be overly conservative because we do not have strong local or even regional competitive market data to substantiate potential financial performance of mixed-use, walkable, or transit-oriented projects.
Historical patterns and future forecasts suggest that without intervention, Virginia Beach will continue to lose households between 25 and 35 years of age.

This key demographic is especially attracted to “lifestyle environs”, including walkable, mixed use neighborhoods and entertainment destinations.

Keeping this cohort in Virginia Beach – and leveraging their spending power – may depend in part on creating the types of places they prefer.

Over the past 10 years, the City has created only one of these places, and this condition of overall supply constraint may be accelerating this demographic loss.

Over time, the City may choose to embrace a long-term economic development strategy of supplying more of these places to capture this demographic and their pent-up demand, and in the process reap the economic benefits of their presence.
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
  - Phasing and Development Programs
  - Considerations
ACHIEVING DEVELOPMENT FEASIBILITY

NEED TO DRIVE REVENUE PREMIUM OF 20% (OR MORE)
ACHIEVING DEVELOPMENT FEASIBILITY
NEED TO DRIVE REVENUE PREMIUM OF 20% OR MORE

As seen in the results, office space in a mixed-use development can command a statistically significant, positive premium in select markets. From these results, one concludes that mixed-use is still an emerging market niche with strong potential as our culture continues to evolve from sprawl-oriented to smarter development. With depleting amounts of developable land in viable locations, mixing uses to increase investor returns and user satisfaction will become more predominant.

- Colliers study for National Association of Office and Industrial Properties (NAIOP), 2009
ACHIEVING DEVELOPMENT FEASIBILITY
NEED TO DRIVE REVENUE PREMIUM OF 20% OR MORE

Summary of National Case Study Data – Transit Premiums on Land Values

- Apartment
- Condo
- Office

Premiums:
- Light Rail Apts
- BRT Apts
- Light Rail Condo
- BRT Condos
- RCLCO DC - MF/Condo Transit Premium
- Light Rail Office
- Commuter Rail Office
- BRT Office
- RCLCO DC - Office Transit Premium

Premiums range from 0% to 100%.
Market-driven development-feasible scenario will depend on at least three factors:

1. Overall market conditions returning 8% to 15% pricing power to pro forma
2. Introduction of transit into the SGA environments during pre-development stage
3. Zoning, permitting, entitlement process that makes mixed use “default”

Even with these forces, there may need to be some level of subsidy necessary to make district-level development feasible. The exact amounts and methods of subsidy will vary depending on land use, structure, and intended purpose, and RCLCO will refine our estimate of any subsidy necessary as the planning process proceeds.

Meanwhile, without these market movers (transit being key), the amount of subsidy required to accomplish the objectives of the SGAs grows several times over.
ACHIEVING DEVELOPMENT FEASIBILITY
NEED TO DRIVE REVENUE PREMIUM OF 20% OR MORE

Remaining Steps of RCLCO Analysis

1. Strategy session with City staff to explore financing/funding options
2. Exploration of implementation strategic options for the above
3. Re-casting financials with go-forward assumptions based on the above
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs
- Considerations
Pembroke is the likely first destination for new “urban” development in Virginia Beach

- New developments can connect to the town center
- Shovel-ready sites available

As Pembroke develops, prices for land and products will rise, leading to opportunities to divert increasing demand to other SGAs

For residential development, Rosemont becomes market-sensible secondary destination

Office development segmented by price, user, class, and format and may develop simultaneously in multiple SGAs.
## Development Program - Rosemont

### Transit-Oriented Residential Village

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Townhouses</td>
<td>12 – 14</td>
<td>210</td>
<td>440</td>
<td>530</td>
<td>555</td>
<td>1,735</td>
<td>124 – 145 Ac</td>
</tr>
<tr>
<td>Mid-Rise</td>
<td>35</td>
<td>100</td>
<td>200</td>
<td>240</td>
<td>250</td>
<td>790</td>
<td>23 Acres</td>
</tr>
<tr>
<td>Condominiums</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-Rise</td>
<td>35</td>
<td>300</td>
<td>620</td>
<td>745</td>
<td>780</td>
<td>2,445</td>
<td>70 Acres</td>
</tr>
<tr>
<td>Apartments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>.2</td>
<td>20,000</td>
<td>41,000</td>
<td>50,000</td>
<td>52,000</td>
<td>163,000</td>
<td>19 Acres</td>
</tr>
<tr>
<td>Office</td>
<td>.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medical Office</td>
<td>.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Map of Development Area

The map illustrates the planned development areas for the Rosemont Transit-Oriented Residential Village, highlighting the concentration of residential, commercial, and office spaces in close proximity to the transit hubs.
### COMPARISON TO COMPREHENSIVE PLAN

<table>
<thead>
<tr>
<th>SGA</th>
<th>Comp Plan</th>
<th>RCLCO</th>
<th>Difference</th>
</tr>
</thead>
</table>
| Rosemont | *Transit-oriented development with balanced mix of residential and commercial uses* | Transit-oriented village, strong market for medium-density residential | • High-rise development not market-feasible in current forecasts  
• Local-serving office the strongest market possibility |
| Lynnhaven | *Higher intensity of compact and mixed uses consistent with AICUZ* | •Production, Distribution, and Repair Hub  
•“Service district” for entire City (public *and* private) | Market niche might not be destination-worthy, but location and physical configuration serve key economic role |
| Hilltop | *… high quality retail, office, institutional, and open spaces in a pedestrian-friendly environment* | Destination retail environment with strong upside potential and capacity to serve beach-going tourists as well as locals  
Market rationale for continued expansion of health services cluster, primarily local-serving in nature. | Office developers have many choices that are well-established already and which provide better access to regional economic generators.  
Opportunity for pedestrian-oriented retail/restaurant cores, but vehicular access will remain important, esp for tourists/medical users. |
AGENDA

- Foundation – Economic Outlook
- U.S. Demographic Megatrends
- RCLCO MetroLogic
- Drivers of Office Demand
- Drivers of Housing Demand
- SGAs in Context
- Achieving Feasibility
- Phasing and Development Programs

Considerations
CONSIDERATIONS

Importance of fixed rail transit as a means to create compelling demand-side scenario for SGA locations – specifically for residential – cannot be overstated.

Even with market premiums, given underlying economic and demographic factors, there will need to be some level of public investment in order to make the redevelopment of the SGAs palatable to the private development community.

Transformation will be a long-term phenomenon, but can and should accelerate over that period with proper branding and phase management.

Long-term competitiveness of Virginia Beach perhaps contingent on successful execution of the above, especially given current demographic and job decline and projections.

Cost of SGA investment must be weighed against the cost of a “do nothing” scenario in which younger households and their employment/spending activity continue to leave the City and the region.
CRITICAL ASSUMPTIONS

The conclusions and recommendations presented in this report are based on our analysis of the information available to us from our own sources and from the client as of the date of this report. We assume that the information is correct, complete, and reliable.

Our conclusions and recommendations are based on certain assumptions about the future performance of the global, national, and/or local economy and real estate market, and on other factors similarly outside either our control or that of the client. We analyzed trends and the information available to us in drawing conclusions and making the appropriate recommendations. However, given the fluid and dynamic nature of the economy and real estate markets, it is critical to monitor the economy and markets continuously and to revisit the aforementioned conclusions and recommendations periodically to ensure that they stand the test of time.

We assume that, in the future, the economy and real estate markets will grow at a stable and moderate rate. However, history tells us that stable and moderate growth patterns are not sustainable over extended periods of time. Indeed, we find that the economy is cyclical and that the real estate markets are typically highly sensitive to business cycles. Our analysis does not necessarily take into account the potential impact of major economic "shocks" on the national and/or local economy and does not necessarily account for the potential benefits from a major "boom." Similarly, the analysis does not necessarily reflect the residual impact on the real estate market and the competitive environment of such a shock or boom. The future is always difficult to predict, particularly given changing consumer and market psychology. Therefore, we recommend the close monitoring of the economy and the marketplace. The project and investment economics should be "stress tested" to ensure that potential fluctuations in the economy and real estate market conditions will not cause failure.

In addition, we assume that economic, employment, and household growth will occur more or less in accordance with current expectations, along with other forecasts of trends and demographic and economic patterns. Along these lines, we are not taking into account any major shifts in the level of consumer confidence; in the cost of development and construction; in tax laws (i.e., property and income tax rates, deductibility of mortgage interest, and so forth); or in the availability and/or cost of capital and mortgage financing for real estate developers, owners, and buyers. Should any of the above change, this analysis should probably be updated, with the conclusions and recommendations summarized herein reviewed accordingly (and possibly revised).

We also assume that competitive projects will be developed as planned (active and future) and that a reasonable stream of supply offerings will satisfy real estate demand. Finally, we assume that major public works projects occur and are completed as planned.
GENERAL LIMITING CONDITIONS

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by RCLCO from its independent research effort, general knowledge of the industry, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent, and representatives or in any other data source used in preparing or presenting this study. This report is based on information that to our knowledge was current as of the date of this report, and RCLCO has not undertaken any update of its research effort since such date.

Our report may contain prospective financial information, estimates, or opinions that represent our view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted. Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by RCLCO that any of the projected values or results contained in this study will be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Robert Charles Lesser & Co." or "RCLCO" in any manner without first obtaining the prior written consent of RCLCO. No abstracting, excerpting, or summarization of this study may be made without first obtaining the prior written consent of RCLCO. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of RCLCO. This study may not be used for any purpose other than that for which it is prepared or for which prior written consent has first been obtained from RCLCO.