<table>
<thead>
<tr>
<th>SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CONNCORP BALANCE SHEET</td>
</tr>
<tr>
<td>2. PROJECT PRO-FORMA</td>
</tr>
<tr>
<td>3. RESIDENTIAL MARKET STUDY</td>
</tr>
<tr>
<td>4. FOOD HALL MARKET STUDY</td>
</tr>
<tr>
<td>5. GROCERY STORE MARKET STUDY</td>
</tr>
<tr>
<td>6. ECONOMIC IMPACT ANALYSIS</td>
</tr>
<tr>
<td>7. PROJECT TEAM QUALIFICATIONS &amp; EXPERIENCE</td>
</tr>
</tbody>
</table>
1. CONNCORP BALANCE SHEET
## ASSETS

### Current Assets
- Cash *: $30,281,175
- Other Current Assets: $8,522

### Total Current Assets: $30,289,697

### Fixed Assets
- Buildings: $6,536,562
- Building Improvements: $13,648
- Construction In Progress: $1,200,463
- Equipment & Fixtures: $87,559
- Accumulated Depreciation: -$40,130

### Total Fixed Assets: $7,798,102

### Security Deposits: $5,250

### Total Other Assets: $5,250

### TOTAL ASSETS: $38,093,049

* Includes $30mm Off Balance Sheet Joint Venture with The New Haven Community Foundation Mission Investment Company, LLC

## LIABILITIES

### Current Liabilities
- Accounts Payable: $1,080
- Accrued Expenses: $98,953
- Payroll Protection Program: $73,980
- Due To Affiliate: $4,558

### Total Current Liabilities: $178,571

### TOTAL LIABILITIES: $178,571

## NET ASSETS

### Unrestricted Net Assets: $7,914,478

### Restricted Joint Venture Capital Grant *: $30,000,000

### TOTAL NET ASSETS: $37,914,478

### TOTAL LIABILITIES AND NET ASSETS: $38,093,049

* Includes $30mm Off Balance Sheet Joint Venture with The New Haven Community Foundation Mission Investment Company, LLC
2. PROJECT PRO-FORMA
## BUILDING #1 - DEVELOPMENT BUDGET
### PROPOSED CONNCAT HEADQUARTERS

New Haven, CT -- ConnCAT Place Masterplan of Development  
May 4th, 2021

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># of Units / Spaces</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Project GSF:</strong></td>
<td>74,000</td>
</tr>
<tr>
<td>Percent (%)</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Land Cost:</strong></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>$3,823,864</td>
</tr>
<tr>
<td><strong>Total Land Costs</strong></td>
<td>$3,823,864</td>
</tr>
<tr>
<td><strong>Hard Costs:</strong></td>
<td></td>
</tr>
<tr>
<td>Site Work</td>
<td>$0</td>
</tr>
<tr>
<td>Building Costs</td>
<td>$250 / SF</td>
</tr>
<tr>
<td>Interior Buildout / Tenant Improvement Allowance</td>
<td>$100 / SF</td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>Total Hard Costs</strong></td>
<td>$27,665,000</td>
</tr>
<tr>
<td>Hard Costs PSF</td>
<td>$374</td>
</tr>
<tr>
<td><strong>Soft Costs:</strong></td>
<td></td>
</tr>
<tr>
<td>Architecture &amp; Engineering</td>
<td>8.00%</td>
</tr>
<tr>
<td>Legal</td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td></td>
</tr>
<tr>
<td>Marketing / Public Relations</td>
<td></td>
</tr>
<tr>
<td>Leasing Commissions</td>
<td></td>
</tr>
<tr>
<td>Bank Fees</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>Permitting Costs</td>
<td></td>
</tr>
<tr>
<td>Financing Costs / Fees</td>
<td></td>
</tr>
<tr>
<td>Construction Loan Interest</td>
<td></td>
</tr>
<tr>
<td>Developer Fee</td>
<td>4.0%</td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>Total Soft Costs</strong></td>
<td>$4,048,855</td>
</tr>
<tr>
<td>Soft Cost Percent (%)</td>
<td>11.4%</td>
</tr>
<tr>
<td><strong>Total Development Budget</strong></td>
<td>$35,537,720</td>
</tr>
<tr>
<td>Total Dev. Costs PSF</td>
<td>$480</td>
</tr>
</tbody>
</table>
### DEVELOPMENT COSTS

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Unit 2021</th>
<th>Unit 2022</th>
<th>Unit 2023</th>
<th>Unit 2024</th>
<th>Unit 2025</th>
<th>Unit 2026</th>
<th>Unit 2027</th>
<th>Unit 2028</th>
<th>Unit 2029</th>
<th>Unit 2030</th>
<th>Unit 2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land / Property Costs</td>
<td>$(3,823,864)</td>
<td>$(3,823,864)</td>
<td>$0</td>
<td>$(3,823,864)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Demo / Abatement / Remediation Costs</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Site Development</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Hard Costs</td>
<td>$(21,015,000)</td>
<td>$(21,015,000)</td>
<td>$(12,258,750)</td>
<td>$(8,756,250)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Interior Buildout Costs</td>
<td>$(6,650,000)</td>
<td>$(6,650,000)</td>
<td>$(3,879,167)</td>
<td>$(2,770,833)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>$(4,048,855)</td>
<td>$(4,048,855)</td>
<td>$(2,361,832)</td>
<td>$(1,887,023)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Development Cost</strong></td>
<td>$(35,537,720)</td>
<td>$0</td>
<td>$(22,323,613)</td>
<td>$(13,214,106)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

### OPERATIONS

**Space Program:**

- **ConnCAT GLA (SF)**: 39,000
- **Hill Health Center GLA (SF)**: 5,000
- **Friends Center GLA (SF)**: 10,000
- **Banquet Hall GLA (SF)**: 20,000
- **TOTAL GSF**: 74,000

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ConnCAT Rent (NNN)</strong></td>
<td>$20.00</td>
<td>$0</td>
<td>$0</td>
<td>$390,000</td>
<td>$780,000</td>
<td>$780,000</td>
<td>$780,000</td>
<td>$780,000</td>
<td>$780,000</td>
<td>$780,000</td>
<td>$780,000</td>
</tr>
<tr>
<td><strong>Hill Health Center Rent (NNN)</strong></td>
<td>$27.00</td>
<td>$0</td>
<td>$0</td>
<td>$67,500</td>
<td>$135,000</td>
<td>$135,000</td>
<td>$135,000</td>
<td>$135,000</td>
<td>$148,500</td>
<td>$148,500</td>
<td>$148,500</td>
</tr>
<tr>
<td><strong>Friends Center Rent (NNN)</strong></td>
<td>$10.00</td>
<td>$0</td>
<td>$0</td>
<td>$51,000</td>
<td>$104,040</td>
<td>$106,121</td>
<td>$108,243</td>
<td>$110,408</td>
<td>$112,616</td>
<td>$114,895</td>
<td>$117,168</td>
</tr>
<tr>
<td><strong>Banquet Hall Rent (NNN)</strong></td>
<td>$30.00</td>
<td>$0</td>
<td>$0</td>
<td>$300,000</td>
<td>$620,000</td>
<td>$640,000</td>
<td>$660,000</td>
<td>$680,000</td>
<td>$700,000</td>
<td>$720,000</td>
<td>$740,000</td>
</tr>
<tr>
<td><strong>Gross Lease Revenue</strong></td>
<td>$17,199,732</td>
<td>$0</td>
<td>$0</td>
<td>$608,500</td>
<td>$1,739,040</td>
<td>$1,885,121</td>
<td>$2,060,043</td>
<td>$2,082,844</td>
<td>$2,119,803</td>
<td>$2,143,629</td>
<td>$2,167,932</td>
</tr>
<tr>
<td><strong>Non-Reimbursable Expenses</strong></td>
<td>0.0%</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>CapEx Reserve</strong></td>
<td>2.0%</td>
<td>$(343,995)</td>
<td>$0</td>
<td>$(16,170)</td>
<td>$(34,781)</td>
<td>$(37,702)</td>
<td>$(41,201)</td>
<td>$(41,659)</td>
<td>$(42,396)</td>
<td>$(42,873)</td>
<td>$(43,359)</td>
</tr>
<tr>
<td><strong>Net Operating Income</strong></td>
<td>$16,855,737</td>
<td>$0</td>
<td>$0</td>
<td>$792,330</td>
<td>$1,704,259</td>
<td>$1,847,418</td>
<td>$2,018,842</td>
<td>$2,041,285</td>
<td>$2,077,407</td>
<td>$2,100,756</td>
<td>$2,124,573</td>
</tr>
<tr>
<td><strong>NOI on Cost (Stabilized Year)</strong></td>
<td>5.20%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>2.23%</td>
<td>4.80%</td>
<td>5.20%</td>
<td>5.68%</td>
<td>5.74%</td>
<td>5.85%</td>
<td>5.91%</td>
<td>5.98%</td>
</tr>
<tr>
<td><strong>Net Oper. Margin (Stab. Year)</strong></td>
<td>98.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
<td>98.00%</td>
</tr>
</tbody>
</table>

### RESIDUAL VALUATION AND SALE

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terminal Value</strong></td>
<td>8.00%</td>
<td>$28,860,823</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Cost of Sale</strong></td>
<td>2.00%</td>
<td>$(537,216)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Net Residual Value</strong></td>
<td>$28,333,606</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Net New Market Tax Credits Proceeds</strong></td>
<td>$15,000,000</td>
<td>$15,000,000</td>
<td>$0</td>
<td>$15,000,000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>CF BEFORE DEBT SERVICE</strong></td>
<td>$22,641,624</td>
<td>$(7,323,613)</td>
<td>$(12,421,776)</td>
<td>$(1,704,259)</td>
<td>$(1,847,418)</td>
<td>$(2,018,842)</td>
<td>$(2,041,285)</td>
<td>$(2,077,407)</td>
<td>$(2,100,756)</td>
<td>$(2,124,573)</td>
<td>$(2,167,932)</td>
</tr>
</tbody>
</table>

**Project IRR (Unleveraged)** 11.03%
## BUILDING #2 - DEVELOPMENT BUDGET
### PROPOSED RESIDENTIAL MIXED-USE

New Haven, CT -- ConnCAT Place Masterplan of Development
May 4th, 2021

<table>
<thead>
<tr>
<th># of Units / Spaces</th>
<th>Total Project GSF:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n/a</strong></td>
<td><strong>226,700</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Land Cost:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>$3,823,864</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Land Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3,823,864</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hard Costs:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Work</td>
<td>$0</td>
</tr>
<tr>
<td>Building Costs</td>
<td>$185 / SF</td>
</tr>
<tr>
<td></td>
<td>$41,788,500</td>
</tr>
<tr>
<td>Amenities / Retail T.I.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$2,311,000</td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>$4,409,950</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Hard Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$48,509,450</td>
</tr>
</tbody>
</table>

| Hard Costs PSF      | $214             |

<table>
<thead>
<tr>
<th>Soft Costs:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture &amp; Engineering</td>
<td>6.00%</td>
</tr>
<tr>
<td>Legal / Liquor License</td>
<td>$250,000</td>
</tr>
<tr>
<td>Taxes</td>
<td>$0</td>
</tr>
<tr>
<td>Marketing / Public Relations</td>
<td>$275,000</td>
</tr>
<tr>
<td>Start-Up Capital</td>
<td>$400,000</td>
</tr>
<tr>
<td>Leasing Commissions</td>
<td>$75,000</td>
</tr>
<tr>
<td>Bank Fees</td>
<td>$50,000</td>
</tr>
<tr>
<td>Title</td>
<td>$100,000</td>
</tr>
<tr>
<td>Financing Costs / Fees</td>
<td>$600,000</td>
</tr>
<tr>
<td>Construction Loan Interest</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Developer Fee</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>$2,342,398</td>
</tr>
<tr>
<td>Contingency</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>$566,057</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Soft Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$8,569,021</td>
</tr>
</tbody>
</table>

| Total Soft Costs PSF | $141.4%          |

<table>
<thead>
<tr>
<th>Total Development Budget</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$60,902,335</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Dev. Costs PSF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$269</td>
</tr>
</tbody>
</table>
### Building #2 - Residential Mixed-Use

<table>
<thead>
<tr>
<th>UNIT RATE</th>
<th>TOTAL</th>
<th>2021 Year 1</th>
<th>2022 Year 2</th>
<th>2023 Year 3</th>
<th>2024 Year 4</th>
<th>2025 Year 5</th>
<th>2026 Year 6</th>
<th>2027 Year 7</th>
<th>2028 Year 8</th>
<th>2029 Year 9</th>
<th>2030 Year 10</th>
<th>2031 Year 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Escalation</td>
<td>0.0%</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Revenue Escalation</td>
<td>2.0%</td>
<td>1.00</td>
<td>1.02</td>
<td>1.04</td>
<td>1.06</td>
<td>1.08</td>
<td>1.10</td>
<td>1.13</td>
<td>1.15</td>
<td>1.17</td>
<td>1.20</td>
<td>1.22</td>
</tr>
<tr>
<td>Expense Escalation</td>
<td>2.0%</td>
<td>1.00</td>
<td>1.02</td>
<td>1.04</td>
<td>1.06</td>
<td>1.08</td>
<td>1.10</td>
<td>1.13</td>
<td>1.15</td>
<td>1.17</td>
<td>1.20</td>
<td>1.22</td>
</tr>
<tr>
<td>Capacity</td>
<td>123</td>
<td>0</td>
<td>0</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td>123</td>
</tr>
<tr>
<td>Average Daily Occupancy</td>
<td>117</td>
<td>0</td>
<td>7</td>
<td>87</td>
<td>109</td>
<td>117</td>
<td>117</td>
<td>117</td>
<td>117</td>
<td>117</td>
<td>117</td>
<td>117</td>
</tr>
<tr>
<td>Stabilized Occupancy Rate</td>
<td>95%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
<td>71%</td>
<td>89%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
</tr>
</tbody>
</table>

### Land and Construction Costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land / Property Costs</td>
<td>($3,823,864)</td>
<td>($3,823,864)</td>
</tr>
<tr>
<td>Demolition / Abatement / Remediation</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Site Development</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Building / Hard Costs</td>
<td>($46,198,450)</td>
<td>($46,198,450)</td>
</tr>
<tr>
<td>Amenities / Retail T.I.</td>
<td>($2,311,000)</td>
<td>($2,311,000)</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>($6,969,021)</td>
<td>($6,969,021)</td>
</tr>
</tbody>
</table>

| Total Development Cost | ($262) / SF | ($59,302,335) |

### Operations

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mkt. Rental Rate</td>
<td>$3.03 / sf</td>
<td>$34,956,174</td>
<td>$0</td>
<td>$0</td>
<td>$2,764,098</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Gross Potential Rent (less Concessions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>less Vacancy Loss</td>
<td>($2,905,779)</td>
<td>($0)</td>
<td>($0)</td>
<td>($87,103)</td>
<td>($1,036,520)</td>
<td>($407,797)</td>
<td>($184,868)</td>
<td>($192,336)</td>
<td>($200,107)</td>
<td>($204,109)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>less Bad Debt Expense</td>
<td>2.0%</td>
<td>($641,008)</td>
<td>($0)</td>
<td>($4,065)</td>
<td>($50,345)</td>
<td>($64,341)</td>
<td>($70,250)</td>
<td>($71,655)</td>
<td>($73,088)</td>
<td>($74,550)</td>
<td>($76,041)</td>
<td>($77,561)</td>
</tr>
<tr>
<td>Effective Gross Rental Income</td>
<td>$31,409,387</td>
<td>$0</td>
<td>$0</td>
<td>$199,174</td>
<td>$2,466,918</td>
<td>$3,152,721</td>
<td>$3,442,238</td>
<td>$3,511,083</td>
<td>$3,581,305</td>
<td>$3,652,931</td>
<td>$3,725,989</td>
<td>$3,800,509</td>
</tr>
<tr>
<td>Gross Margin</td>
<td>n/a</td>
<td>n/a</td>
<td>68.6%</td>
<td>69.4%</td>
<td>87.0%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
<td>93.1%</td>
</tr>
<tr>
<td>Gross Potential Affordbable Rent 80% AMI</td>
<td>($1,393)</td>
<td>$0</td>
<td>$0</td>
<td>$283,363</td>
<td>$289,030</td>
<td>$294,811</td>
<td>$300,707</td>
<td>$306,721</td>
<td>$312,855</td>
<td>$319,112</td>
<td>$325,495</td>
<td></td>
</tr>
<tr>
<td>Gross Potential Affordbable Rent 60% AMI</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Gross Potential Affordbable Rent Voucher</td>
<td>($1,213)</td>
<td>$0</td>
<td>$0</td>
<td>$246,696</td>
<td>$251,630</td>
<td>$256,663</td>
<td>$261,796</td>
<td>$267,032</td>
<td>$272,373</td>
<td>$277,620</td>
<td>$283,377</td>
<td></td>
</tr>
<tr>
<td>less Vacancy Loss</td>
<td>($160,594)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$85,009</td>
<td>$31,751</td>
<td>$5,896</td>
<td>$6,014</td>
<td>$6,134</td>
<td>$6,257</td>
<td>$6,382</td>
<td>$6,510</td>
</tr>
<tr>
<td>less Bad Debt Expense</td>
<td>3.0%</td>
<td>($78,105)</td>
<td>$0</td>
<td>$0</td>
<td>($5,951)</td>
<td>($7,718)</td>
<td>($8,667)</td>
<td>($8,841)</td>
<td>($9,018)</td>
<td>($9,198)</td>
<td>($9,382)</td>
<td>($9,570)</td>
</tr>
<tr>
<td>Effective Gross Rental Income</td>
<td>$4,931,831</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$439,100</td>
<td>$501,191</td>
<td>$536,910</td>
<td>$547,648</td>
<td>$558,601</td>
<td>$569,773</td>
<td>$581,168</td>
<td>$592,792</td>
</tr>
<tr>
<td>Other Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amenity / Other</td>
<td>$50 / Unit</td>
<td>$706,317</td>
<td>$0</td>
<td>$0</td>
<td>$4,479</td>
<td>$55,475</td>
<td>$70,897</td>
<td>$77,407</td>
<td>$78,955</td>
<td>$80,534</td>
<td>$82,145</td>
<td>$83,788</td>
</tr>
<tr>
<td>Parking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Hall Operations (EBITDA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supermarket Rental Income (NNN)</td>
<td>$15.00 PSF</td>
<td>$3,288,093</td>
<td>$0</td>
<td>$0</td>
<td>$27,311</td>
<td>$334,281</td>
<td>$340,966</td>
<td>$347,785</td>
<td>$354,741</td>
<td>$361,836</td>
<td>$369,073</td>
<td>$376,454</td>
</tr>
<tr>
<td>Retail Rental Income (NNN)</td>
<td>$20.00 PSF</td>
<td>$7,432,133</td>
<td>$0</td>
<td>$0</td>
<td>$61,730</td>
<td>$755,580</td>
<td>$770,692</td>
<td>$786,106</td>
<td>$801,828</td>
<td>$817,664</td>
<td>$834,221</td>
<td>$850,906</td>
</tr>
<tr>
<td>Reimbursement Income (Retail CAM)</td>
<td>$5.00 PSF</td>
<td>$2,570,583</td>
<td>$0</td>
<td>$0</td>
<td>$23,583</td>
<td>$283,000</td>
<td>$283,000</td>
<td>$283,000</td>
<td>$283,000</td>
<td>$283,000</td>
<td>$283,000</td>
<td>$283,000</td>
</tr>
</tbody>
</table>

| Total Other Revenue | $18,082,941 | $0 | $80,647 | $596,719 | $1,885,686 | $1,956,163 | $2,020,107 | $2,081,580 | $2,134,904 | $2,108,713 | $2,162,825 | |
| Total Operating Income | $54,474,629 | $0 | $80,647 | $831,827 | $4,794,716 | $5,615,066 | $6,000,134 | $6,141,208 | $6,254,524 | $6,361,727 | $6,366,822 | $5,957,096 |
## Operating Expenses

### Expenses by Types

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel/Benefits/Payroll Taxes</td>
<td>7.5%</td>
<td>($2,621,713)</td>
<td>$0</td>
<td>$0</td>
<td>($21,776)</td>
<td>($266,534)</td>
<td>($271,864)</td>
<td>($277,302)</td>
<td>($282,848)</td>
<td>($288,505)</td>
<td>($294,275)</td>
<td>($300,160)</td>
</tr>
<tr>
<td>Repairs &amp; Maintenance</td>
<td>2.5%</td>
<td>($873,904)</td>
<td>$0</td>
<td>$0</td>
<td>($7,259)</td>
<td>($88,845)</td>
<td>($90,621)</td>
<td>($92,434)</td>
<td>($94,283)</td>
<td>($96,168)</td>
<td>($98,092)</td>
<td>($100,053)</td>
</tr>
<tr>
<td>Marketing</td>
<td>1.0%</td>
<td>($349,562)</td>
<td>$0</td>
<td>$0</td>
<td>($2,903)</td>
<td>($35,538)</td>
<td>($36,249)</td>
<td>($36,974)</td>
<td>($37,713)</td>
<td>($38,467)</td>
<td>($39,237)</td>
<td>($40,021)</td>
</tr>
<tr>
<td>General &amp; Administrative Expenses</td>
<td>1.0%</td>
<td>($349,562)</td>
<td>$0</td>
<td>$0</td>
<td>($2,903)</td>
<td>($35,538)</td>
<td>($36,249)</td>
<td>($36,974)</td>
<td>($37,713)</td>
<td>($38,467)</td>
<td>($39,237)</td>
<td>($40,021)</td>
</tr>
<tr>
<td>Utilities</td>
<td>2.5%</td>
<td>($785,235)</td>
<td>$0</td>
<td>$0</td>
<td>($4,979)</td>
<td>($61,673)</td>
<td>($67,618)</td>
<td>($68,056)</td>
<td>($67,777)</td>
<td>($69,533)</td>
<td>($71,323)</td>
<td>($73,150)</td>
</tr>
<tr>
<td>Insurance (Property &amp; Liability)</td>
<td>2.0%</td>
<td>($699,123)</td>
<td>$0</td>
<td>$0</td>
<td>($5,807)</td>
<td>($71,076)</td>
<td>($72,497)</td>
<td>($73,947)</td>
<td>($75,426)</td>
<td>($76,935)</td>
<td>($78,473)</td>
<td>($80,043)</td>
</tr>
<tr>
<td>Legal</td>
<td>0.5%</td>
<td>($174,781)</td>
<td>$0</td>
<td>$0</td>
<td>($1,452)</td>
<td>($17,698)</td>
<td>($18,124)</td>
<td>($18,487)</td>
<td>($18,857)</td>
<td>($19,234)</td>
<td>($19,618)</td>
<td>($20,011)</td>
</tr>
<tr>
<td>Management Fee</td>
<td>2.5%</td>
<td>($785,235)</td>
<td>$0</td>
<td>$0</td>
<td>($4,979)</td>
<td>($61,673)</td>
<td>($67,618)</td>
<td>($68,056)</td>
<td>($67,777)</td>
<td>($69,533)</td>
<td>($71,323)</td>
<td>($73,150)</td>
</tr>
<tr>
<td>Real Estate and Other Taxes</td>
<td></td>
<td>($9,732,558)</td>
<td>$0</td>
<td>$0</td>
<td>($22,900)</td>
<td>($297,702)</td>
<td>($372,503)</td>
<td>($467,305)</td>
<td>($512,107)</td>
<td>($574,008)</td>
<td>($624,008)</td>
<td>($674,008)</td>
</tr>
</tbody>
</table>

### NOI

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$38,102,957</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>$80,647</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>$3,858,370</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>$44,444,600</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>$4,296,708</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>$4,143,675</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>$3,801,146</td>
</tr>
</tbody>
</table>

### NOI on Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.13%</td>
<td>$0</td>
</tr>
<tr>
<td>2</td>
<td>0.25%</td>
<td>$0</td>
</tr>
<tr>
<td>3</td>
<td>6.51%</td>
<td>$0</td>
</tr>
<tr>
<td>4</td>
<td>7.35%</td>
<td>$0</td>
</tr>
<tr>
<td>5</td>
<td>7.49%</td>
<td>$0</td>
</tr>
<tr>
<td>6</td>
<td>7.25%</td>
<td>$0</td>
</tr>
<tr>
<td>7</td>
<td>6.99%</td>
<td>$0</td>
</tr>
<tr>
<td>8</td>
<td>7.14%</td>
<td>$0</td>
</tr>
<tr>
<td>9</td>
<td>7.13%</td>
<td>$0</td>
</tr>
<tr>
<td>10</td>
<td>6.41%</td>
<td>$0</td>
</tr>
</tbody>
</table>

### NOCF on Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.13%</td>
<td>$0</td>
</tr>
<tr>
<td>2</td>
<td>1.25%</td>
<td>$0</td>
</tr>
<tr>
<td>3</td>
<td>6.34%</td>
<td>$0</td>
</tr>
<tr>
<td>4</td>
<td>7.16%</td>
<td>$0</td>
</tr>
<tr>
<td>5</td>
<td>7.29%</td>
<td>$0</td>
</tr>
<tr>
<td>6</td>
<td>7.04%</td>
<td>$0</td>
</tr>
<tr>
<td>7</td>
<td>6.78%</td>
<td>$0</td>
</tr>
<tr>
<td>8</td>
<td>6.93%</td>
<td>$0</td>
</tr>
<tr>
<td>9</td>
<td>6.91%</td>
<td>$0</td>
</tr>
<tr>
<td>10</td>
<td>6.21%</td>
<td>$0</td>
</tr>
</tbody>
</table>

### Net Operating Cash Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$33,235,009</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>$75,034</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>$142,232</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>$3,627,476</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>$4,247,021</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>$4,324,598</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>$4,173,884</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>$4,018,585</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>$4,098,869</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>$3,682,004</td>
</tr>
</tbody>
</table>

### Net Residual Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.00%</td>
<td>$73,640,088</td>
</tr>
<tr>
<td>2</td>
<td>0.00%</td>
<td>$72,167,287</td>
</tr>
</tbody>
</table>

### Net Proceeds from Public Subsidy

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$0</td>
</tr>
</tbody>
</table>

### CF BEFORE DEBT SERVICE

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$46,100,560</td>
</tr>
</tbody>
</table>

---

**Project IRR:** 8.14%
3. RESIDENTIAL MARKET STUDY
MULTIFAMILY MARKET ANALYSIS AND DEVELOPMENT RECOMMENDATIONS

PROPOSED MIXED-USE DEVELOPMENT
NEW HAVEN, CONNECTICUT

Prepared for ConnCORP
January 18, 2021
Since 1967, RCLCO has been the “first call” for real estate developers, investors, the public sector, and non-real estate companies and organizations seeking strategic and tactical advice regarding property investment, planning, and development.

RCLCO leverages quantitative analytics and a strategic planning framework to provide end-to-end business planning and implementation solutions at an entity, portfolio, or project level. With the insights and experience gained over 50 years and thousands of projects—touching over $5B of real estate activity each year—RCLCO brings success to all product types across the United States and around the world.

Learn more about RCLCO at www.RCLCO.com.

REPORT AUTHORS

Project Director:
Adam Ducker, Senior Managing Director
► P: (240) 644-0980 | E: ADUCKER@RCLCO.COM

Project Manager:
Philip Carney, Senior Associate
► P: (240) 669-5635 | E: PCARNEY@RCLCO.COM

Additional Authors:
Nicholas Stefanoni, Intern
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJECTIVES &amp; KEY FINDINGS</td>
<td>4</td>
</tr>
<tr>
<td>ECONOMICS AND DEMOGRAPHICS</td>
<td>10</td>
</tr>
<tr>
<td>RESIDENTIAL MARKET ANALYSIS</td>
<td>17</td>
</tr>
<tr>
<td>DEMAND &amp; SUPPLY ANALYSIS</td>
<td>25</td>
</tr>
<tr>
<td>ACHIEVABLE PRICING ANALYSIS</td>
<td>29</td>
</tr>
<tr>
<td>AFFORDABLE HOUSING ANALYSIS</td>
<td>37</td>
</tr>
<tr>
<td>DISCLAIMERS</td>
<td>42</td>
</tr>
<tr>
<td>APPENDIX: SUPPORTING EXHIBITS</td>
<td>45</td>
</tr>
</tbody>
</table>
OBJECTIVES & KEY FINDINGS
OBJECTIVES

ConnCORP is making considerable strides in the planning effort of a prime site at the intersection of Dixwell Avenue and Charles Street in Downtown New Haven, Connecticut. The development plan contemplates sophisticated, mid-rise, mixed-use construction including 561 parking spaces in above-grade concrete structures. The program is conceptualized as follows:

► Market driven land uses, including
  » 155 rental apartments with a mixed-income orientation
  » 20 townhome units
  » 50,000 square feet of medical office
  » 128,000 square feet of ground level retail

► Institutional/civic/cultural land uses, including
  » 35,000 square feet of headquarters space for ConnCAT
  » A 43,000 square foot performing arts center
  » Other potential civic, arts, and cultural spaces

ConnCORP is in the process of developing a creative financing plan for the project, which will include both private equity and debt, as well as New Market Tax Credit proceeds. To help advance the land and business planning efforts, ConnCORP has retained RCLCO to update our market analysis report, completed in March of 2019, focusing on the market depth and achievable rents under a range of mixed-income positioning scenarios.

Our updated analysis will address:

► What are the likely future supply/demand conditions in New Haven? Can the market support 155 units in this location?

► Who is the target customer for this project in this location? What mix of units best appeals to those customers?

► What rental rates can be achieved under a range of different positioning scenarios? What lease-up pace should be expected? What market rent rates should be underwritten under 10%, 20%, and 30% and higher shares of affordable units?

► What lease-up pace is reasonable under the above scenarios?
KEY FINDINGS

STABLE EMPLOYMENT INDUSTRIES IN NEW HAVEN LIKELY MITIGATE THE IMPACT OF COVID-19

- While the long-term impact of COVID-19 is unknown, the New Haven MSA relies on essential industries, such as education and health services, much more heavily than more volatile sectors, such as leisure and hospitality. RCLCO expects that New Haven’s employment dependency will help buoy near-term COVID-19 repercussions and allow the subject site to deliver in a healthy market in the next few years.

- The New Haven economy is driven largely by Yale University and Yale New Haven Hospital, the area’s two primary employers. Though only moderate employment growth is expected in New Haven over the next decade, the health & education sector is forecasted to continue its strong recent growth rate as the economy recovers from COVID-19. This growth, historically resilient through economic cycles, will provide continued demand for rental apartments in New Haven and at the subject site.

- While rent declines have occurred at some buildings in the market as a result of COVID-19, New Haven’s apartment market generally fared well during 2020, averaging positive rent growth above 2%. Given that the subject site is still in the planning phase, it is not likely to deliver for at least two years, at which point the economy is more than likely to have recovered from the COVID-19 downturn.

STRONG SITE OPPORTUNITY – ADDITIONAL PREMIUMS GENERATED FROM MIXED-USE DESIGN

- The subject site is well-located for rental apartments, within a few blocks of Yale University and high-end retail in Downtown New Haven. Though not located within the core of Downtown New Haven, residential development at the site will benefit significantly from its incorporation within the mixed-use development planned for the site, which has the potential to catalyze nearby development, allowing for more connectivity between the site, Downtown, and Yale’s campus.

- RCLCO’s analysis suggests that rental demand at the subject site will come primarily from students, young professionals, and mature professionals attending school or working in the New Haven area. This younger demographic will be drawn toward pedestrian-oriented locations and a diverse retail offering.

PROGRAM ORIENTED TO PROFESSIONALS

- Due to the anticipated demand from a younger demographic and smaller households, RCLCO recommends developing a program consisting of studio, one-, and two-bedroom apartments, with one-bedroom units comprising the largest share of the unit mix. RCLCO’s recommended program yields an average unit size of 760 square feet. Although two-bedroom units do not appear to perform as well in the market as smaller units, we recommend offering a subset of two-bedroom units with bed/bath parity to maximize demand potential and attract roommate households that otherwise may not be able to afford the recommended rents at the subject site, as well as to appeal to older households that may be attracted to the mixed-use environment at the site.

- Achievable pricing for the community positions it near the top of the market, trailing only a few high-end properties located in New Haven’s downtown core. RCLCO’s analysis supports a weighted average rent of approximately $2.96 per square foot, or $2,250 per month (in Q4 2020 dollars).

ADEQUATE DEMAND FUNDAMENTALS SUPPORT A SIGNIFICANT NEAR-TERM PIPELINE

- Construction activity in New Haven has increased over the past year, with 570 units under construction to be delivered in 2021 and 680 new units expected in 2022. Deliveries beyond 2022 are more uncertain, especially in light of the ongoing downturn, but over 2,800 units remain in the planned/proposed pipeline and should be closely monitored as these projects move through planning.

- While the market has absorbed as many as 500 units per year, periods of high deliveries have taken two years or less to fully absorb. The large share of deliveries in 2021 and 2022 will likely follow this historical trend and finish leasing in 2023 or 2024. Based on the planned and proposed pipeline, RCLCO estimates that approximately 750 competitive rental units will be in lease-up in a similar timeframe as the subject site at delivery.

- Assuming a fair-share capture of demand at the subject site, RCLCO anticipates a monthly absorption pace of approximately 10 market rate units during lease-up at the subject site, positioning it to reach stabilization in just over 14 months. This exposure period is well within our typical recommended range of 14 to 18 months.
PARKING ANALYSIS

Based on our analysis of parking utilization at competitive buildings in the market, we recommend targeting a parking ratio of no less than 0.7 spaces per residential unit at the subject site. Though some properties in the market have lower parking ratios than our recommended minimum, these properties appear to be undersupplied with parking and rely on tenants finding alternative options at nearby public and private parking decks. The subject site largely lacks this opportunity due to its location outside the downtown core, but may be able to hedge the risk of parking undersupply due to the necessity of a parking deck serving other planned uses within the mixed-use development.

UNDERSUPPLIED TOWNHOME MARKET – AN ATTRACTIVE ALTERNATIVE FOR PRICE CONSCIENTIOUS BUYERS

For-sale single family construction in New Haven has been limited during the past decade, and townhome development has been nearly nonexistent. Townhome development at the subject site may offer the opportunity to enter a market with shallow supply. Given the younger demographic surrounding the site, townhomes are likely to be an attractive product for households seeking less space and subsequently lower price points relative to single-family detached product in the area.

Coupled with the relatively poor performance of larger rental units in the market, RCLCO recommends developing for-sale townhomes at the subject site. Two- and three-bedroom units ranging between 1,100 and 1,700 square feet are recommended, with sale prices between $303,000 and $450,000, yielding an average per square foot sales price of $270.

AFFORDABLE HOUSEHOLD SHARE ANALYSIS

To aid ConnCorp’s planning of the affordable component of the subject site, RCLCO conducted an analysis aimed at quantifying the impact of differing shares of affordable units on the building’s market rate units. Using a paired pricing analysis of recently built apartment communities with varying amounts of affordable housing measured against comparable market rate buildings, our analysis revealed a pricing discount ranging from just 0.6% to 16.5% for the market rate units in buildings with an affordable component relative to comparable units in buildings with only market rate units.

Overall, the data revealed a trend indicating that a higher percentage of affordable units results in a bigger discount relative to market rate competitors. This data also corresponds with prior RCLCO research elsewhere in the country suggesting a threshold of affordable units must be reached before more obvious pricing impacts are realized in the building’s market rate units. Buildings with fewer than 20% affordable units displayed limited to no pricing impact, buildings with 20% to 30% affordable units displayed more moderate pricing impacts, and buildings with more than 50% affordable units displayed the highest pricing impact.

Based on this analysis, we expect the following impact to pricing at the subject site as a result of the amount of affordable housing offered:

- 0% - 20% affordable units: 0% to 5% discount
- 20% - 40% affordable units: 5% to 10% discount
- 40% or more affordable units: 10% to 15% discount

Priced appropriately, we do not expect the share of affordable units offered at the subject site will have a tangible impact on leasing velocity or the lease-up exposure period.
SITE ASSESSMENT

STRENGTHS

► **Mixed-Use Development**: Rental apartments at the subject will benefit from their adjacency to the large mixed-use development containing office, retail, and a mix of entertainment and cultural uses. Though the site currently offers little within the immediate proximity, this vibrant mixed-use development will engender a sense of place, drawing households to the site.

► **Proximity to Yale University**: The subject site is located six blocks from Yale University’s campus. Given that Yale is a primary driver of rental demand in New Haven, this location will attract demand from students and employees of the University. Proximity to campus and the various amenities offered on campus will also be appealing to households not directly affiliated with the school.

► **Farmington Canal Heritage Trail**: The subject site is located two blocks from the Farmington Canal Heritage Trail, an 80 mile paved biking and jogging trail spanning from the heart of Yale’s campus in New Haven north through Connecticut and into Massachusetts. In additional to providing a major recreational amenity, the trail also allows for a quick commute to the southern sections of Yale’s campus and to Downtown New Haven by bike or on foot.

OPPORTUNITIES

► **Access to Downtown New Haven and Broadway Retail**: The subject site is located a short walk along Dixwell Avenue from one of New Haven’s primary high-end retail centers. These shops along Broadway include an Apple Store, Urban Outfitters, the Yale University Bookstore, and various restaurants in a walkable urban environment. Though separated from this retail by four blocks, the mixed-use development at the subject site could serve as a catalyst for attracting additional development and augmenting walkability along Dixwell Avenue. Over time, the subject site may serve as an extension of the retail located along Broadway, increasing both demand and pricing for rental apartments at the site.

CHALLENGES

► **Located within a Challenged Neighborhood**: Though located near Yale’s campus and attractive retail offerings, the subject site also sits within a more challenged neighborhood, with lower average incomes and home values surrounding the site. In the near term this could serve as a detriment to demand potential and pricing on the site, but will likely be mitigated as agglomeration benefits permeate from the proposed mixed-use development.

► **Disconnected from Nearby Development**: While opportunity may exist for the subject site to serve as a catalyst for nearby development and create a more connected retail environment, the site is currently surrounded on all sides by lower value housing. Access to Downtown New Haven, the retail along Broadway, Yale University, and nearby development at Science Park is currently hindered by these more challenged neighborhoods.

**Broadway Retail**
New Haven, CT
New Haven is located within the New Haven-Milford, CT Metropolitan Statistical Area ("MSA"), which is made up of the entirety of New Haven County. Since the end of the Great Recession, the MSA has experienced a limited rate of population, household, and employment growth, all averaging positive growth below 1% annually. Moody's predicts employment growth in New Haven will retract considerably due to COVID-19, however, the MSA is poised for historic employment growth as the economy recovers. The subject site is well positioned to deliver after 2022 in the peak of economic recovery.

As of the writing of this report, the U.S. economy is beginning to recover from a deep, but hopefully relatively short-lived, recession. U.S. GDP fell by 9.6% year-over-year in Q2 2020, which followed a smaller drop in the first quarter of the year, but rebounded considerably in Q3 2020. GDP growth for the year in 2020 will still likely be in negative territory compared with 2019, with the severity of the contraction depending upon the trajectory of the pandemic and our ability to repair the damage that COVID-19 has wreaked upon the U.S. and global economies. There remains considerable uncertainty about durability of the recovery that began in May 2020.

The waning job recovery in the face of a recent resurgence of new cases and subsequent hesitation in, and in some cases, reversal of, phased reopening in many parts of the country reinforces our view that the shape of the downturn and subsequent recovery will most likely resemble a “Fall-U Swoosh Curve” trajectory. Under this scenario, the number of new reported cases and COVID-related deaths in the U.S. will continue to decline once again, but with ups and downs or possible rolling regional differences through the winter of this year, and job growth is expected to continue, but at a more moderate pace for the balance of the year. The patchwork of state and municipal responses to the pandemic, lack of a coherent national testing regime, and uncertainty during a second wave is making consumers cautious and will likely keep the economy from becoming fully engaged for the balance of 2020 and into the beginning of 2021. Under this scenario, the U.S. economy does not return to 2019 GDP levels until Q4 2021, or Q1 2022.

The good news is that the subject site still in the early planning phase, thus will likely not reach completion for at least two years, at which time the economy is likely to have already progressed to an expansionary phase.
REGIONAL ECONOMICS

Though Yale University and Yale New Haven Hospital are the MSA’s two primary employers, other employment sectors have seen significant recent growth, helping to diversify the local economy somewhat. The Education & Health Services sector has experienced significant growth in employment since 2010, but the Professional & Business Services, Leisure & Hospitality, and Construction sectors have all seen faster rates of employment growth and are currently the second, third, and fourth largest employment sectors in MSA. Major employers in these non-education & healthcare sectors include Bozzuto’s Inc., United Illuminating Co., and Frontier Communications.

Over the next decade, the Education & Health Services, Professional & Business Services, and Government sectors are expected to see continued expansion, driving the MSA’s overall projected employment growth, while most other sectors are expected to see more limited growth or slight decline.

### Comparison of Recent Job Growth by Industry, 2010-2019;
New Haven-Milford, CT MSA

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>TOTAL GROWTH</th>
<th>AVG. ANNUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Edu. &amp; Health Services</td>
<td>9,577</td>
<td>10.3%</td>
</tr>
<tr>
<td>Prof. &amp; Business Services</td>
<td>5,225</td>
<td>13.4%</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>4,882</td>
<td>17.2%</td>
</tr>
<tr>
<td>Construction</td>
<td>2,424</td>
<td>20.6%</td>
</tr>
<tr>
<td>Other Services</td>
<td>1,663</td>
<td>12.3%</td>
</tr>
<tr>
<td>Trade, Transp. &amp; Utilities</td>
<td>1,354</td>
<td>2.0%</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>-22</td>
<td>-10.5%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-235</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Government</td>
<td>-1,257</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Information</td>
<td>-2,174</td>
<td>-32.9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-2,182</td>
<td>-6.6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>19,255</strong></td>
<td><strong>5.4%</strong></td>
</tr>
</tbody>
</table>

### Historic Projected Employment by Industry, 1990-2030;
New Haven-Milford, CT MSA

Source: Moody’s Analytics; Connecticut Department of Labor; RCLCO
Out of the largest 150 Metropolitan areas in the United States, New Haven ranked as the 66th least likely metro area to experience a sizeable COVID-19 related negative impact. This ranking was driven by its substantial share of essential workers and relatively low share of workforce in occupations with a high unemployment risk as a result of the pandemic and related shut downs. With this as background, it may not be unreasonable to assume somewhat more stability in the employment markets and rental housing markets than in past cycles.

Education and Health Services represent 27% of New Haven’s total employment. This sector benefits from providing a mix of essential, high income and remote-capable jobs, that are less vulnerable to unemployment, which will help this region endure the current pandemic. Leisure and Hospitality, the industry most impacted by COVID-19, only makes up 9% of New Haven’s total employment.
ECONOMICS AND DEMOGRAPHICS

For the purposes of this analysis, RCLCO identified the primary market area ("PMA") as seen on the map below. The PMA includes all of the city of New Haven, and extends to an approximately 15-minute driving radius from the subject site. This represents the area from which the subject site is likely to draw a majority of demand for rental apartments.

New Haven is centrally located within the PMA and is home to major employers in the area, including Yale University, Yale New Haven Hospital, and Southern Connecticut State University. Downtown New Haven serves as the primary employment core for the New Haven MSA and the PMA, with a concentration of white collar jobs in the healthcare, education, and government sectors. In addition to local employment, New Haven also offers access to employment in or closer to New York City, including in Bridgeport and Stamford, via either car or train. An Amtrak and commuter rail station is located in Downtown New Haven, and allows for access to Manhattan in approximately two hours.

Map of Primary Market Area, 2020

Concentrations of Employment, 2017;
Subject Site

Source: Esri; RCLCO
Residents in the PMA primarily work in the City of New Haven, which boasts the highest concentration of employment with just over 40,000 workers. Although some residents commute along the coastline to work in Milford and Bridgeport, these clusters are much smaller than the Downtown New Haven employment core. Most workers in the PMA live in Downtown New Haven or West Haven, exhibiting the appeal of a mixed-use living environment. While some workers commuting into the PMA come from Waterbury and urban cores to the west, most workers in the PMA live in close proximity to their place of employment.
The demographics of the PMA are relatively strong, with moderately high household incomes, home values, and educational attainment levels. While the average household income in the PMA as a whole is quite high, more income disparity exists downtown, with lower income neighborhoods in close proximity to Yale’s campus and some surrounding neighborhoods with higher incomes. The subject site is located within a lower income neighborhood, but is just a short distance from Yale’s campus and high-end retail in Downtown New Haven.

Downtown New Haven consists of much younger households on average compared to its surrounding suburban neighborhoods. Younger households are attracted to the walkable urban environment offered by Downtown New Haven, and the presence of Yale University inherently attracts younger households to the downtown area. This benefits demand for rental apartments downtown, as younger households rent at far higher rates on average compared to older households.

Median Household Income by Census Tract, 2020;
Primary Market Area

Median Household Age by Census Tract, 2020;
Primary Market Area

Source: Esri; Moody’s Analytics
RESIDENTIAL MARKET ANALYSIS
Multifamily apartments in the PMA have consistently displayed healthy fundamentals following the Great Recession in 2009. Since then, 2,600 new units have delivered and the market has absorbed 2,470 units. A record delivery of 600 units in 2015 saw a slight vacancy increase, but the PMA absorbed the vacant units over the next two years. Even in the midst of COVID-19, the PMA is experiencing the lowest vacancy rates since before the Great Recession. Effective rent growth has averaged 1.5% annually since 2010, and is poised for additional growth with such low vacancy rates in the market. Currently, 570 units are under construction and expected to deliver in 2021, which would be the largest delivery since 2015. Market fundamentals may detract slightly as large deliveries have historically taken approximately two years to fully absorb.
COMPETITIVE MARKET

RCLCO evaluated eight of the most comparable properties to the proposed multifamily rental development at Dixwell Ave. and Charles St. within the PMA. Each of the selected properties is located within the city of New Haven and was constructed within the past five years, with the exception of the older CenterPointe and 360 State Street.

Rents among the competitive set currently average $2.86 per square foot, ranging as high as $3.17 per square foot at The Union and $3.05 at 360 State Street, a high-rise community located above a grocery store and directly across from the New Haven State Street Train Station. The newest property, Parkside City Crossing, achieves the highest average per-unit asking rent at $2,559, mainly due to its above market share of two-bedroom units.

Properties outside of Downtown New Haven, specifically Winchester Lofts and The Novella, experience significantly lower asking rents than apartment communities proximate to Yale’s campus and attractive retail offerings. Although a distinct locational premium exists, RCLCO anticipates that the subject site’s ability to create a sense of place through a dynamic mixed-use development will generate material advantages and position the site just below top of market options in Downtown New Haven.

<table>
<thead>
<tr>
<th>MAP KEY</th>
<th>COMMUNITY NAME</th>
<th>YEAR BUILT</th>
<th>MARKET RATE</th>
<th>UNITS</th>
<th>OCC. RATE</th>
<th>AVERAGE SIZE (SF)</th>
<th>AVERAGE ASKING RENT</th>
<th>AVERAGE ASKING $/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Winchester Lofts</td>
<td>2015</td>
<td></td>
<td>158</td>
<td>97%</td>
<td>676</td>
<td>$1,667</td>
<td>$2.47</td>
</tr>
<tr>
<td>2</td>
<td>The Novella</td>
<td>2015</td>
<td></td>
<td>136</td>
<td>92%</td>
<td>625</td>
<td>$1,792</td>
<td>$2.87</td>
</tr>
<tr>
<td>3</td>
<td>College &amp; Crown</td>
<td>2015</td>
<td></td>
<td>160</td>
<td>93%</td>
<td>804</td>
<td>$2,202</td>
<td>$2.74</td>
</tr>
<tr>
<td>4</td>
<td>The Union</td>
<td>2016</td>
<td></td>
<td>137</td>
<td>99%</td>
<td>620</td>
<td>$1,964</td>
<td>$3.17</td>
</tr>
<tr>
<td>5</td>
<td>CenterPointe</td>
<td>1971</td>
<td></td>
<td>83</td>
<td>99%</td>
<td>693</td>
<td>$1,773</td>
<td>$2.56</td>
</tr>
<tr>
<td>6</td>
<td>360 State Street</td>
<td>2010</td>
<td></td>
<td>453</td>
<td>86%</td>
<td>697</td>
<td>$2,128</td>
<td>$3.05</td>
</tr>
<tr>
<td>7</td>
<td>Parkside City Crossing</td>
<td>2019</td>
<td></td>
<td>110</td>
<td>86%</td>
<td>904</td>
<td>$2,559</td>
<td>$2.83</td>
</tr>
<tr>
<td>8</td>
<td>Corsair</td>
<td>2016</td>
<td></td>
<td>235</td>
<td>93%</td>
<td>812</td>
<td>$2,289</td>
<td>$2.82</td>
</tr>
</tbody>
</table>

Source: RCLCO; Google Maps; Axiometrics; CoStar
Consistent with the overall market trends discussed on page 18, the performance of the competitive set at the property level has also been generally positive during the past year, especially when compared to the poor performance experienced in many markets throughout the country as a result of COVID-19. On average, effective rents at the competitive set have increased 2.2% during the past 12 months, though much of this growth has been driven by the expansion of rents at Parkside City Crossing as it works through lease-up. Rents at the properties in the competitive set have generally remained stagnant or have seen slightly negative growth since December 2019.

Effective Rent Tied to Property’s Effective Rent in December 2019

Source: Axiometrics; Property Websites; RCLCO
RCLCO surveyed the parking ratios and utilization rates at newer multifamily properties throughout the New Haven market. On average, parking ratios are fairly low, typically ranging between 0.4 and 0.7 parking spaces per unit. However, parking at properties located in the heart of Downtown New Haven, which includes a majority of the competitive set, is supplemented by the availability of public and third-party operated parking garages throughout downtown. Parking within the competitive set tends to be uncovered surface parking, or a mix of uncovered surface and covered parking with the majority of parking offered being uncovered. Properties farther from Downtown, such as *Winchester Lofts* and *Corsair*, were constructed with much higher parking ratios, likely due to the lack of supplemental parking nearby and their less walkable locations.

Given the location of the subject site, RCLCO recommends targeting a parking ratio of at least 0.7 spaces per residential unit, and a mix of covered and uncovered spaces. A monthly fee of $100 for uncovered parking and $150 for covered parking will align the property with the rest of the market. The subject site will benefit from its mix of uses, and parking constructed at the site will be able to serve more than one use. However, offering a separate lot or section for residential parking is advisable to ensure parking availability and extra security for residents.

### Key Parking Statistics, December 2020; Competitive Set

<table>
<thead>
<tr>
<th>MAP KEY</th>
<th>COMMUNITY NAME</th>
<th>PARKING AVAILABLE</th>
<th>PARKING RATIO (SPACES PER UNIT)</th>
<th>TOTAL SPACES</th>
<th>PARKING TYPE</th>
<th>FEE</th>
<th>ADDITIONAL NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Winchester Lofts</td>
<td>Y</td>
<td>1.1</td>
<td>174</td>
<td>Surface</td>
<td>$75 / month</td>
<td>Abundant supply of parking currently</td>
</tr>
<tr>
<td>2</td>
<td>The Novella</td>
<td>Y</td>
<td>0.4</td>
<td>50</td>
<td>Covered (20 spaces);</td>
<td>Covered: $160 / month</td>
<td>Parking is completely occupied, with a waitlist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Surface (30 spaces)</td>
<td>Surface: $130 / month</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The Union</td>
<td>Y &amp; Third Party</td>
<td>0.06</td>
<td>9</td>
<td>Connected Garage (9 spaces); Third-Party Garage</td>
<td>Connected: $180 / month Third-Party Garage: $110 / month</td>
<td>There is always a waitlist for the 9 connected garage spaces. Approximately half the building has cars, likely due to the building’s location in close proximity to Downton New Haven which reduces residents' need to own a car.</td>
</tr>
<tr>
<td>5</td>
<td>CenterPointe</td>
<td>Third-Party</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Multiple garages nearby that offer monthly parking.</td>
</tr>
<tr>
<td>6</td>
<td>360 State Street</td>
<td>Third-Party</td>
<td>-</td>
<td>-</td>
<td>Connected Garage</td>
<td>$130 / month</td>
<td>Operated by LAZ Parking.</td>
</tr>
<tr>
<td>7</td>
<td>Parkside City Crossing</td>
<td>Y</td>
<td>-</td>
<td>-</td>
<td>Covered; Surface</td>
<td>Covered: $150 / month Surface: $100 / month</td>
<td>During the winter the covered garage is more popular and during the summer the majority of residents who use the covered parking switch to the surface lot.</td>
</tr>
<tr>
<td>8</td>
<td>Corsair</td>
<td>Y</td>
<td>0.9</td>
<td>220</td>
<td>Covered; Surface</td>
<td>Covered: $150 / month Surface: $100 / month</td>
<td>Residents prefer the uncovered lot as it is more easily accessible. During the winter the covered garage is more popular and during the summer the majority of residents who use the covered parking switch to the surface lot.</td>
</tr>
</tbody>
</table>

Source: CoStar; Interviews with leasing agents; RCLCO
Recently delivered buildings in the market have been met with sufficient demand to reach stabilization in an average of 21 months. The average monthly lease-up pace of each building depends heavily upon the building’s total size, with smaller buildings leasing fewer units per month. On average, buildings leased 10 units per month during initial lease-up, ranging as high as 19 units per month at the 500 unit 360 State Street, which delivered in 2010. In addition, four of the properties surveyed delivered within a two year span that saw above average multifamily deliveries in the market, creating increased lease-up competition in the market. Despite this, all of the properties reached stabilization in about two years. RCLCO expects the subject site to command similar or slightly higher average monthly unit absorption than that of similarly sized apartments in the market.

![Competitive Set Historical Lease-Up Pace](chart.png)

### Competitive Set Historical Lease-Up Pace;
Primary Market Area

<table>
<thead>
<tr>
<th>MAP KEY</th>
<th>COMMUNITY NAME</th>
<th>TOTAL UNITS</th>
<th>YEAR BUILT</th>
<th>OCCUPANCY</th>
<th>LEASE-UP PERIOD (MONTHS)</th>
<th>AVG. MONTHLY ABSORPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Winchester Lofts</td>
<td>158</td>
<td>2015</td>
<td>96.8%</td>
<td>19</td>
<td>7.9</td>
</tr>
<tr>
<td>2</td>
<td>The Novella</td>
<td>136</td>
<td>2015</td>
<td>91.9%</td>
<td>13</td>
<td>10.5</td>
</tr>
<tr>
<td>3</td>
<td>College &amp; Crown</td>
<td>160</td>
<td>2015</td>
<td>92.5%</td>
<td>21</td>
<td>7.4</td>
</tr>
<tr>
<td>6</td>
<td>360 State Street</td>
<td>500</td>
<td>2010</td>
<td>85.6%</td>
<td>In Lease-Up</td>
<td>19.2</td>
</tr>
<tr>
<td>7</td>
<td>Parkside City Crossing</td>
<td>110</td>
<td>2019</td>
<td>86.3%</td>
<td>25</td>
<td>7.9</td>
</tr>
<tr>
<td>8</td>
<td>Corsair</td>
<td>235</td>
<td>2016</td>
<td>92.7%</td>
<td>28</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Source: Axiometrics; Leasing Agent Interviews
Excluding the subject site, there are 26 multifamily projects either currently under construction or planned in the PMA, totaling over 3,600 total units. Four properties are under construction and set to deliver nearly 570 units in 2021, just shy of the previous unit delivery record in 2015. Following a slight increase in vacancy in 2015, the market took an additional year to fully absorb the new units. Projects in 2022 are expected to collectively deliver 680 units, a figure materially higher than the previous delivery peak.

Fortunately, the subject site is still in the planning phase and will likely deliver as the market is finishing absorbing new product from 2021 and 2022. RCLCO recommends closely monitoring the pipeline and absorption pace in next two years as the subject site approaches construction.

**Multifamily Pipeline Map, December 2020; New Haven, CT**
TOWNHOME ANALYSIS

For-sale housing in New Haven has historically been dominated by single-family detached product, with few townhomes and condominiums available in the market. New construction of townhomes and condominiums has been limited and does not appear to be seeing any sizeable upswings. However, the absence of condominiums and townhomes in the market does not necessarily mean that there is no demand for this product type in the market. In fact, given the market and subject site’s younger demographic, construction of higher density for-sale housing at lower price points could offer an opportunity to enter a market with shallow supply.

To determine a recommended price point for for-sale townhomes at the subject site RCLCO surveyed recent sales of townhomes and condominiums in the market. Though available data was limited, RCLCO identified three condominium buildings and two townhome developments in the market constructed since 2000. Recent sales prices within these communities averaged $167 per square foot, but, due to the lack of new construction, all sales price data was from resales, and four of the five communities are located well outside of Downtown New Haven. The most similarly located project to the subject site, 329 Greene Street, is a repurposed church with unique characteristics of the church incorporated into each unit. Recent sales at the property have averaged $267 per square foot. Based on this analysis, as well as analysis of recent single family detached homes in the area, of which new construction has also been limited, RCLCO recommends targeting sales prices averaging $270 per square foot for townhomes at the subject site. Two- and three-bedroom townhomes between 1,100 and 1,700 are recommended to appeal to the expected demographic for for-sale housing at the site. Recommended sales prices of townhomes at the subject site range between $303,000 and $450,000 per unit.

![Townhome and Condominium Development Sales Data, Sales Between December 2017 and December 2020; New Haven, CT](Image)

<table>
<thead>
<tr>
<th>KEY</th>
<th>COMMUNITY</th>
<th>HOME TYPE</th>
<th>YEAR BUILT</th>
<th>AVG. PRICE</th>
<th>AVG. SIZE</th>
<th>AVG. BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>343 Beach Street</td>
<td>Condominiums</td>
<td>2004</td>
<td>$238,000</td>
<td>1,667</td>
<td>$143</td>
</tr>
<tr>
<td>2</td>
<td>200 Harbour Cl</td>
<td>Condominiums</td>
<td>2013</td>
<td>$332,300</td>
<td>1,859</td>
<td>$179</td>
</tr>
<tr>
<td>3</td>
<td>157 Leeder Hill</td>
<td>Townhomes</td>
<td>2002</td>
<td>$143,000</td>
<td>1,147</td>
<td>$125</td>
</tr>
<tr>
<td>4</td>
<td>329 Greene St</td>
<td>Condominiums</td>
<td>2006</td>
<td>$507,400</td>
<td>1,901</td>
<td>$267</td>
</tr>
<tr>
<td>5</td>
<td>2720 State St</td>
<td>Townhomes</td>
<td>2006</td>
<td>$185,000</td>
<td>1,510</td>
<td>$122</td>
</tr>
</tbody>
</table>

Source: RedFin; Zillow; RCLCO
DEMAND & SUPPLY ANALYSIS
To measure the expected depth of demand for a rental apartment community at the subject site, RCLCO used a demographics-based statistical demand model to estimate the annual demand for new multifamily units within the PMA. Based on this analysis, RCLCO forecasts demand for approximately 729 new multifamily units within the PMA each year, of which 651 are income-qualified for the recommended pricing at the subject site.

RCLCO distributed the calculated demand by life stage and economic segment, based on information collected from current PMA renters according to the most recent American Community Survey data. This analysis suggests that the majority of demand for market rate and luxury rental units will stem from mature professionals and young professionals. In addition, significant demand for rental apartments in the market is generated by undergraduate and graduate students at Yale University and other colleges and universities nearby. While many graduate students are likely captured by RCLCO’s demand analysis, undergraduate students are often not accurately reflected in household data collected by the U.S. Census Bureau. For this reason, we expect some level of additional demand above the traditional demand model projection of 651 units annually. Additional analysis of projected student demand is included on the following page.

### SUMMARY OF MARKET DEPTH BY INCOME AND RENT RANGE

<table>
<thead>
<tr>
<th>INCOME RANGE</th>
<th>RENT RANGE</th>
<th>ANNUAL MULTIFAMILY RENTAL DEMAND FOR NEW UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER $35,000</td>
<td>UNDER $1,020</td>
<td>49 7%</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>$1,020 - $1,460</td>
<td>29 4%</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>$1,460 - $2,190</td>
<td>92 13%</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>$2,190 - $2,920</td>
<td>180 25%</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>$2,920 - $4,380</td>
<td>164 23%</td>
</tr>
<tr>
<td>$150,000 AND OVER</td>
<td>$4,380 AND OVER</td>
<td>215 29%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>729 100%</strong></td>
</tr>
</tbody>
</table>

**Minimum Income for Target Market $50,000**

**Income Qualified Market Depth 651 89%**

### Annual Multifamily Renter Demand for New Units by Lifestage and Economic Segment, 2020;

Primary Market Area

- **Affordable**
  - Post-Grad: 16
  - Young Professional: 24
  - Family: 27
  - Mature Professional: 18
  - Empty Nester: 17

- **Workforce**
  - Post-Grad: 17
  - Young Professional: 47
  - Family: 12
  - Mature Professional: 28
  - Empty Nester: 6

- **Market Rate**
  - Post-Grad: 9
  - Young Professional: 107
  - Family: 60
  - Mature Professional: 58
  - Empty Nester: 7

- **Luxury**
  - Post-Grad: 80
  - Young Professional: 31
  - Family: 89
  - Mature Professional: 66
  - Empty Nester: 0

Source: RCLCO; American Community Survey PUMS; Esri
The subject site, as well as all of the comparable properties in the competitive set, are located within walking distance of Yale University, which has an enrollment of 5,900 undergraduate students and 7,350 graduate students as of fall 2019. Over time, Yale’s total enrollment has slowly increased, averaging an increase of 1.1% each year since 2010; however, university provided housing has not kept up with this increase, causing more and more students to live in off-campus housing each year. As of the 2019 school year, 53.8% of Yale’s total enrollment does not live in university provided housing. In total, 6,187 graduate and 950 undergraduate students at Yale University currently do not live in university housing. While many may live locally with family, rent single family homes, or even own homes in the area, conversations with leasing agents within the competitive set revealed that Yale University students comprise a significant portion of their tenant base.

Based on the University’s housing data and RCLCO’s experience in the student housing space throughout the United States, we estimate annual demand for approximately 50 to 75 market rate and luxury units in the PMA above and beyond the demand calculated based upon RCLCO’s demographics-based statistical demand model on the previous page. Given its location, the subject site will likely capture a share of this demand from students.

### Student Housing Statistics; 2005 to 2019;
Yale University

<table>
<thead>
<tr>
<th>YEAR</th>
<th>UNDERGRADUATE</th>
<th>GRADUATE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ON CAMPUS</td>
<td>OFF CAMPUS</td>
<td>% ON CAMPUS</td>
</tr>
<tr>
<td>2005</td>
<td>4,582</td>
<td>661</td>
<td>87.4%</td>
</tr>
<tr>
<td>2006</td>
<td>4,688</td>
<td>627</td>
<td>88.2%</td>
</tr>
<tr>
<td>2007</td>
<td>4,600</td>
<td>651</td>
<td>87.6%</td>
</tr>
<tr>
<td>2008</td>
<td>4,586</td>
<td>679</td>
<td>87.1%</td>
</tr>
<tr>
<td>2009</td>
<td>4,597</td>
<td>639</td>
<td>87.8%</td>
</tr>
<tr>
<td>2010</td>
<td>4,650</td>
<td>581</td>
<td>88.9%</td>
</tr>
<tr>
<td>2011</td>
<td>4,649</td>
<td>622</td>
<td>88.2%</td>
</tr>
<tr>
<td>2012</td>
<td>4,689</td>
<td>627</td>
<td>88.2%</td>
</tr>
<tr>
<td>2013</td>
<td>4,704</td>
<td>672</td>
<td>87.5%</td>
</tr>
<tr>
<td>2014</td>
<td>4,715</td>
<td>692</td>
<td>87.2%</td>
</tr>
<tr>
<td>2015</td>
<td>4,688</td>
<td>763</td>
<td>86.0%</td>
</tr>
<tr>
<td>2016</td>
<td>4,643</td>
<td>858</td>
<td>84.4%</td>
</tr>
<tr>
<td>2017</td>
<td>4,520</td>
<td>906</td>
<td>83.3%</td>
</tr>
<tr>
<td>2018</td>
<td>4,828</td>
<td>913</td>
<td>84.1%</td>
</tr>
<tr>
<td>2019</td>
<td>4,988</td>
<td>950</td>
<td>84.0%</td>
</tr>
</tbody>
</table>

Source: Yale University
NEW HAVEN DEVELOPMENT
CAPTURE RATE AND ABSORPTION

To estimate the expected pace of absorption for rental apartments at the subject site, RCLCO analyzed the likely competitive rental apartment supply in the market and applied this estimate to the PMA’s demand projections summarized on the previous two pages.

Though the PMA’s development pipeline currently contains more than 3,600 units, many of the pipeline projects are scheduled to deliver in 2021 and 2022. Projects without an estimated opening date are too early in the planning stage to accurately predict their delivery date, therefore RCLCO suggests closely monitoring the pipeline.

Based on the market’s historical delivery pace, historical and current construction levels, and analysis of the existing pipeline, we predict that the subject site will face lease-up competition from approximately 750 units in the market at delivery and will be able to capture between 17% and 20% of the PMA’s demand for new rental units, as well as a share of the additional student demand expected in the market.

This 17% to 20% capture rate estimate, applied to the estimated PMA demand for new rental units and additional student demand, yields a projected absorption pace of 10 units per month at the subject site. With this in mind, we still believe there may be some room to expand the size of the currently planned community beyond 155 total units, which would yield a total market exposure time of just 14 and a half months. An expanded community consisting of approximately 180 units at the subject site would likely reach stabilized occupancy within a still reasonable timeframe of 17 to 18 months.

### MARKET STATISTICS

<table>
<thead>
<tr>
<th>Subject Site</th>
<th>Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units at Subject Site</td>
<td>155</td>
<td></td>
</tr>
<tr>
<td>Units Delivering in a Similar Time Frame</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>Total Competitive Units</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>Total Units (Competitive Units + Subject Site)</td>
<td>905</td>
<td></td>
</tr>
<tr>
<td>Subject Site Share of Total Units (Fair Share)</td>
<td>17.1%</td>
<td></td>
</tr>
<tr>
<td>Total Demand</td>
<td>703</td>
<td></td>
</tr>
<tr>
<td>Income-Qualified Demand ($50,000+)</td>
<td>632</td>
<td></td>
</tr>
<tr>
<td>Additional Student Demand</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

### SUBJECT SITE CAPTURE OF INCOME-QUALIFIED DEMAND

<table>
<thead>
<tr>
<th>Subject Site</th>
<th>Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Site Capture of Income-Qualified Demand</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>Monthly Absorption Potential</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Months to Stabilized Occupancy (95%)</td>
<td>14.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: Axiometrics; CoStar; RCLCO
ACIEVABLE PRICING ANALYSIS
The table and graph below summarize RCLCO’s recommended pricing and unit mix at the subject site. Overall, RCLCO believes that the subject site’s unit mix should be weighted more heavily toward smaller unit types because these units appeal to the young demographic expected at the site. Furthermore, properties in the market with unit mixes skewed toward studio and one-bedroom units have historically performed better compared to properties with a large proportion of two-bedroom units. Given the site’s location near Yale University and Southern Connecticut State University, we recommend building two-bedroom units with bed/bath parity, so these units will better appeal to roommates, which are more common in this market than a traditional multifamily market. Targeting average asking rents of $2.96 per square foot will position the property toward the top of the market, but at a discount to some newer properties located closer to the core of Downtown New Haven.

### Recommended Unit Mix and Pricing;
Subject Site

<table>
<thead>
<tr>
<th>UNIT TYPE</th>
<th>UNITS</th>
<th>MIX</th>
<th>UNIT SIZE RANGE</th>
<th>AVG. UNIT SIZE</th>
<th>RENT RANGE</th>
<th>AVG. RENT</th>
<th>AVG. $/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>40</td>
<td>25.8%</td>
<td>500 - 600</td>
<td>563</td>
<td>$1,715 - $1,875</td>
<td>$1,815</td>
<td>$3.23</td>
</tr>
<tr>
<td>1BR</td>
<td>80</td>
<td>51.6%</td>
<td>650 - 800</td>
<td>734</td>
<td>$1,990 - $2,295</td>
<td>$2,160</td>
<td>$2.94</td>
</tr>
<tr>
<td>2BR</td>
<td>35</td>
<td>22.6%</td>
<td>1,000 - 1,100</td>
<td>1,043</td>
<td>$2,870 - $3,040</td>
<td>$2,945</td>
<td>$2.82</td>
</tr>
<tr>
<td>TOTAL/AVG.</td>
<td>155</td>
<td>100.0%</td>
<td>500 - 1,100</td>
<td>760</td>
<td>$1,715 - $3,040</td>
<td>$2,250</td>
<td>$2.96</td>
</tr>
</tbody>
</table>

Source: RCLCO
The table below summarizes and compares the planned unit mix at the subject site to the unit mixes at the competitive properties. RCLCO believes that the planned unit mix, offering studio, one-bedroom, and two-bedroom units, will successfully appeal to the demographic expected at the subject site, and takes into account the subject site’s more residential location within New Haven, its close proximity to Yale University, and its location within a mixed-use development. The recommended unit mix at the subject site closely aligns with the best performing properties in the market. While two-bedroom units do not appear to perform as well as studio and one-bedroom units in the market, RCLCO still recommends developing some two-bedroom units at the subject site to appeal to a wider market audience and maximize demand potential at the site. Two-bedroom units with bed/bath parity will likely appeal to roommate households who otherwise would be unable to afford the subject site’s recommended rents, and the site’s location within a mixed-use development may attract a small subset of older renters, who are typically drawn to locations with retail and cultural amenities nearby.

### Unit Mix of Comparable Communities;
New Haven, CT

<table>
<thead>
<tr>
<th>Community</th>
<th>YEAR BUILT</th>
<th>OCCUPANCY %</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>TOTAL/ WTD. AVG.</th>
<th>SUBJECT SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winchester Lofts</td>
<td>2015</td>
<td>98%</td>
<td>79</td>
<td>72</td>
<td>64</td>
<td>67</td>
<td>33</td>
<td>79</td>
<td>17</td>
<td>50</td>
<td>461</td>
<td></td>
</tr>
<tr>
<td>The Novella</td>
<td>2015</td>
<td>95%</td>
<td>47</td>
<td>46</td>
<td>33</td>
<td>41</td>
<td>37</td>
<td>300</td>
<td>41</td>
<td>107</td>
<td>652</td>
<td></td>
</tr>
<tr>
<td>College &amp; Crown</td>
<td>2015</td>
<td>94%</td>
<td>28</td>
<td>18</td>
<td>45</td>
<td>29</td>
<td>13</td>
<td>59</td>
<td>41</td>
<td>68</td>
<td>301</td>
<td></td>
</tr>
<tr>
<td>The Union</td>
<td>2016</td>
<td>99%</td>
<td>18</td>
<td>1</td>
<td>18</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>10</td>
<td>36</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CenterPointe</td>
<td>1971</td>
<td>97%</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>360 State Street</td>
<td>2010</td>
<td>86%</td>
<td>158</td>
<td>136</td>
<td>160</td>
<td>137</td>
<td>83</td>
<td>453</td>
<td>110</td>
<td>235</td>
<td>1,472</td>
<td></td>
</tr>
<tr>
<td>Parkside City Crossing</td>
<td>2019</td>
<td>86%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Corsair</td>
<td>2016</td>
<td>94%</td>
<td>68</td>
<td>80</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

### Market Rate Units

<table>
<thead>
<tr>
<th>Studio</th>
<th>1BR</th>
<th>1BR+</th>
<th>2BR</th>
<th>2BR+</th>
<th>3BR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>79</td>
<td>47</td>
<td>28</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>158</td>
</tr>
<tr>
<td>72</td>
<td>46</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>18</td>
<td>136</td>
</tr>
<tr>
<td>64</td>
<td>33</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>160</td>
</tr>
<tr>
<td>67</td>
<td>37</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>137</td>
</tr>
<tr>
<td>33</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>83</td>
</tr>
<tr>
<td>79</td>
<td>300</td>
<td>59</td>
<td>59</td>
<td>59</td>
<td>59</td>
<td>453</td>
</tr>
<tr>
<td>17</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>110</td>
</tr>
<tr>
<td>50</td>
<td>107</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>235</td>
</tr>
<tr>
<td>461</td>
<td>652</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>1,472</td>
</tr>
</tbody>
</table>

### Unit Mix

<table>
<thead>
<tr>
<th>Studio</th>
<th>1BR</th>
<th>1BR+</th>
<th>2BR</th>
<th>2BR+</th>
<th>3BR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>30%</td>
<td>18%</td>
<td>18%</td>
<td>18%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>55%</td>
<td>34%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>40%</td>
<td>40%</td>
<td>28%</td>
<td>28%</td>
<td>21%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>40%</td>
<td>45%</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
<td>4%</td>
<td>100%</td>
</tr>
<tr>
<td>49%</td>
<td>66%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>4%</td>
<td>100%</td>
</tr>
<tr>
<td>49%</td>
<td>77%</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
<td>4%</td>
<td>100%</td>
</tr>
<tr>
<td>44%</td>
<td>46%</td>
<td>29%</td>
<td>29%</td>
<td>29%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>44%</td>
<td>42%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Axiometrics; CoStar; RCLCO
To determine the recommended pricing at the subject site, RCLCO considered the strengths and weaknesses of the subject site relative to each property in the competitive set, and adjusted recommended rents accordingly. The table below displays the adjustment given to the recommended pricing at the subject site relative to each competitive property for six key variables: age, unit finishes, amenities, location, construction type, and mixed-use environment. The adjustments assume a well-executed mixed-use development at the subject site with similar amenities and unit finishes compared to those offered at Corsair. The subject site compares favorably to the competitive set for the majority of categories; however, properties located closer to Downtown New Haven, including the competitive set’s two high-rise buildings, have a comparative advantage due to their superior locations.

### Adjustments from Comparable Communities to Proposed Subject Site Development, December 2020; New Haven, CT

<table>
<thead>
<tr>
<th>Property</th>
<th>Age</th>
<th>Unit Finishes</th>
<th>Amenities</th>
<th>Location</th>
<th>Construction Type</th>
<th>Mixed-Use</th>
<th>Total Adj.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Winchester Lofts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.5%</td>
</tr>
<tr>
<td>2 - The Novella</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.0%</td>
</tr>
<tr>
<td>3 - College &amp; Crown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.0%</td>
</tr>
<tr>
<td>4 - The Union</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.5%</td>
</tr>
<tr>
<td>5 - CenterPointe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.0%</td>
</tr>
<tr>
<td>6 - 360 State Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-4.0%</td>
</tr>
<tr>
<td>7 - Parkside City Crossing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.0%</td>
</tr>
<tr>
<td>8 - Corsair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.5%</td>
</tr>
</tbody>
</table>
RECOMMENDED POSITIONING

The price-to-size chart below compares unit sizes and the recommended prices at the subject site with those at the most relevant communities in the competitive set, and is based off the adjustments indicated on the previous page, as well as limited manual adjustments accounting for the recommended unit mix and relative pricing of unit sizes. The recommended pricing positions the subject site toward the top of the market. The recommended pricing positions per unit asking rents at the subject site close to current asking rents at Corsair and Parkside City Crossing. Both of these apartment communities are just outside of the Downtown New Haven core, similar to the subject site. The recommended pricing positions the subject property below current asking rents at 360 State Street, a high-rise apartment community positioned in the heart of New Haven.

Average Price-To-Size Comparison of Comparable Communities, December 2020;
New Haven, CT

Source: Axiometrics; CoStar; RCLCO
RECOMMENDED RENTS COMPARISON

The table below compares RCLCO’s recommended units sizes and rents at the subject site to the unit sizes and current asking rents at the properties in the competitive set. The recommended unit sizes and pricing position the subject site toward the top of the competitive set for each floorplan. The recommended rents reflect the location of the subject site, positioning it at a slight discount to top-of-market properties located in Downtown New Haven.

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>Winchester Lofts</th>
<th>The Novella</th>
<th>College &amp; Crown</th>
<th>The Union</th>
<th>CenterPointe</th>
<th>360 State Street</th>
<th>Parkside City Crossing</th>
<th>Corsair</th>
<th>TOTAL/ WTD. AVG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>488</td>
<td>455</td>
<td>623</td>
<td>426</td>
<td>438</td>
<td>531</td>
<td>583</td>
<td>539</td>
<td>505</td>
</tr>
<tr>
<td>1BR</td>
<td>701</td>
<td>710</td>
<td>800</td>
<td>720</td>
<td>778</td>
<td>642</td>
<td>709</td>
<td>743</td>
<td>692</td>
</tr>
<tr>
<td>1BR+</td>
<td>864</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>864</td>
</tr>
<tr>
<td>2BR</td>
<td>1,058</td>
<td>1,084</td>
<td>1,041</td>
<td>925</td>
<td>1,100</td>
<td>1,039</td>
<td>1,101</td>
<td>1,052</td>
<td>1,047</td>
</tr>
<tr>
<td>2BR+</td>
<td>1,420</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,420</td>
</tr>
<tr>
<td>3BR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,278</td>
</tr>
<tr>
<td>Total</td>
<td>676</td>
<td>625</td>
<td>804</td>
<td>620</td>
<td>693</td>
<td>697</td>
<td>904</td>
<td>812</td>
<td>726</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVERAGE ASKING RENT</th>
<th>Studio</th>
<th>1BR</th>
<th>1BR+</th>
<th>2BR</th>
<th>2BR+</th>
<th>3BR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>$1,409</td>
<td>$1,715</td>
<td>$2,088</td>
<td>$3,235</td>
<td></td>
<td>$4,590</td>
<td>$1,815</td>
</tr>
<tr>
<td>1BR</td>
<td>$1,480</td>
<td>$1,868</td>
<td>$2,272</td>
<td>$2,849</td>
<td>$2,849</td>
<td>$3,325</td>
<td>$2,945</td>
</tr>
<tr>
<td>1BR+</td>
<td>$1,598</td>
<td>$1,943</td>
<td>$2,346</td>
<td>$2,624</td>
<td>$2,624</td>
<td>$3,251</td>
<td>$2,346</td>
</tr>
<tr>
<td>2BR</td>
<td>$1,830</td>
<td>$2,272</td>
<td>$2,346</td>
<td>$2,843</td>
<td>$2,843</td>
<td>$3,251</td>
<td>$2,945</td>
</tr>
<tr>
<td>2BR+</td>
<td>$1,373</td>
<td>$1,900</td>
<td>$2,430</td>
<td>$2,430</td>
<td>$2,430</td>
<td>$3,039</td>
<td>$2,346</td>
</tr>
<tr>
<td>3BR</td>
<td>$1,739</td>
<td>$1,886</td>
<td>$3,251</td>
<td>$3,039</td>
<td>$3,039</td>
<td>$3,254</td>
<td>$2,346</td>
</tr>
<tr>
<td>Total</td>
<td>$1,787</td>
<td>$2,074</td>
<td>$3,251</td>
<td>$2,828</td>
<td>$2,828</td>
<td>$3,254</td>
<td>$2,945</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVERAGE ASKING $/SF</th>
<th>Studio</th>
<th>1BR</th>
<th>1BR+</th>
<th>2BR</th>
<th>2BR+</th>
<th>3BR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>$2.89</td>
<td>$2.63</td>
<td>$2.72</td>
<td>$2.52</td>
<td>$2.28</td>
<td>$2.47</td>
<td>$2.47</td>
</tr>
<tr>
<td>1BR</td>
<td>$3.25</td>
<td>$2.84</td>
<td>$3.75</td>
<td>$3.13</td>
<td>$3.07</td>
<td>$3.17</td>
<td>$3.17</td>
</tr>
<tr>
<td>1BR+</td>
<td>$3.75</td>
<td>$2.70</td>
<td>$3.54</td>
<td>$2.44</td>
<td>$2.21</td>
<td>$3.13</td>
<td>$2.72</td>
</tr>
<tr>
<td>2BR</td>
<td>$3.13</td>
<td>$2.44</td>
<td>$2.76</td>
<td>$2.13</td>
<td>$2.69</td>
<td>$3.42</td>
<td>$2.70</td>
</tr>
<tr>
<td>2BR+</td>
<td>$2.69</td>
<td>$2.92</td>
<td>$2.82</td>
<td>$2.69</td>
<td>$2.55</td>
<td>$2.82</td>
<td>$2.82</td>
</tr>
<tr>
<td>3BR</td>
<td>$3.22</td>
<td>$3.07</td>
<td>$2.76</td>
<td>$2.55</td>
<td>$2.82</td>
<td>$2.82</td>
<td>$2.82</td>
</tr>
<tr>
<td>Total</td>
<td>$3.17</td>
<td>$2.56</td>
<td>$2.83</td>
<td>$2.82</td>
<td>$2.82</td>
<td>$2.86</td>
<td>$2.86</td>
</tr>
</tbody>
</table>

Source: Axiometrics; CoStar; RCLCO
The amenities offered in the competitive set are fairly standard among newer large properties in the market. Including a well equipped fitness center with cardio space, clubhouse, and media room will position the subject site in line with the market, and provide a competitive advantage over the older properties in the competitive set, which generally have smaller and more dated amenity spaces. While these amenities alone will allow the subject site to compete in the market, the addition of amenities that are less common or absent in the market, such as a pet wash station, bike storage/repair room, and/or sport court/golf simulator, could provide an extra boost to demand and pricing for the subject site. Amenities could be a differentiating factor for the subject property, however, it is recommended that the scale of the amenities matches the scale of the subject site. RCLCO recommends offering amenities similar to Corsair at the subject site, with the potential addition of a sports court/golf simulator or other differentiating amenity in lieu of a swimming pool.

<table>
<thead>
<tr>
<th>MAP KEY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPERTY NAME</td>
<td>Winchester Lofts</td>
<td>The Novella</td>
<td>College &amp; Crown</td>
<td>The Union</td>
<td>CenterPointe</td>
<td>360 State Street</td>
<td>Parkside City Crossing</td>
<td>Corsair</td>
</tr>
<tr>
<td>AMENITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swimming Pool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Jacuzzi-Spa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBQ-Grilling Area</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lounge-Clubhouse</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Outdoor Seating</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rooftop Deck/Amenity</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Fitness and Exercise Studio</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitness Classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Center</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Media-Game Room</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Controlled Access</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Concierge Services</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security Patrol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike Storage Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike Repair Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pet Friendly</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dog Run/Relief Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pet Wash</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Courts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Apartments.com; Leasing Agent Interviews; Property Websites; RCLCO
RECOMMENDED FEATURES & AMENITIES

IN-UNIT FEATURES

Kitchen: Wood cabinets; granite or quartz countertops; stainless steel appliances; vinyl plank flooring; open floor plan to living room; glass tile backsplash; track lighting.

Bathrooms: Ceramic tile or vinyl plank flooring; white-tile and glass-tile accents; wood vanity and granite or quartz countertops.

Living Rooms: Vinyl plank flooring, large windows allowing ample natural light.

Bedrooms: Vinyl plank flooring, spacious closets with wood shelving system.

Smart Home Technology: NEST thermostats, keyless entry system, USB outlets.

COMMUNITY AMENITIES & SERVICES

Fitness: Large space with cardio and weight equipment; TRX system; yoga studio or spin room; bluetooth connectivity to cardio machines and speakers, on-demand training video access to spinning, yoga, or other fitness classes.

Pet Amenities: Pet friendly; dog run; pet spa/washing station.

Club Room: Open-style lounge space with coffee bar; business center with printing, maintain high-quality finish of the building; multiple televisions; gaming area with pool table or other game tables; Wi-Fi offered throughout common areas.

Outdoor Patio or Roof Deck: Outdoor seating; lounge furniture, fire pits; outdoor grills; partially covered to provide protection from rain.

Package Service: Room/locker area allowing for 24/7 package pickup for online retail deliveries.

Bike Storage: On-site bike storage racks or room with repair station.
AFFORDABLE HOUSING ANALYSIS
ConnCORP has envisioned a mixed-income orientation for the residential component of the development, with a yet to be determined portion of the residential units reserved for an affordable housing program. To aid ConnCORP’s planning of the affordable component of the building and its size, RCLCO conducted an analysis aimed at quantifying the impact of differing shares of affordable units within the building on the building’s market rate units.

This analysis is detailed below and on the following three pages, and utilized a paired analysis to evaluate buildings with affordable units compared to similar buildings nearby with only market rate units in New Haven, Hartford, and Stamford.

> Among recently constructed buildings, Rowe Apartments has the highest share of affordable units in New Haven, at 75%. After adjusting for size, age, and amenities, Rowe apartments is priced at a 16.5% discount relative to its closest comparable market rate building.

> The two other buildings with affordable units evaluated in New Haven, Winchester Lofts (11% affordable) and Parkside at City Crossing (28% affordable) both are discounted by approximately 7.5%.

### Affordable vs. Market Rate Comparisons

<table>
<thead>
<tr>
<th>PROPERTY NAME</th>
<th>YEAR BUILT</th>
<th>TOTAL UNITS</th>
<th>% AFFORDABLE</th>
<th>AVG SIZE</th>
<th>AVG PRICE</th>
<th>AVG $ / SF</th>
<th>SIZE ADJUSTED PRICE</th>
<th>AGE/AMENITY ADJUSTMENTS</th>
<th>AFFORDABLE HOUSING DISCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corsair</td>
<td>2016</td>
<td>235</td>
<td>0%</td>
<td>812</td>
<td>$2,290</td>
<td>$2.82</td>
<td>$3.06</td>
<td>-13.0%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Winchester Lofts</td>
<td>2015</td>
<td>158</td>
<td>11%</td>
<td>676</td>
<td>$1,670</td>
<td>$2.47</td>
<td>$2.47</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>The Audubon N. Haven</td>
<td>2019</td>
<td>269</td>
<td>0%</td>
<td>956</td>
<td>$2,725</td>
<td>$2.85</td>
<td>$3.09</td>
<td>-2.5%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Parkside at City Crossing</td>
<td>2019</td>
<td>110</td>
<td>28%</td>
<td>798</td>
<td>$2,226</td>
<td>$2.79</td>
<td>$2.79</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>The Novella</td>
<td>2015</td>
<td>136</td>
<td>0%</td>
<td>625</td>
<td>$1,794</td>
<td>$2.87</td>
<td>$2.32</td>
<td>-12.0%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Rowe Apartments</td>
<td>2011</td>
<td>104</td>
<td>75%</td>
<td>866</td>
<td>$1,516</td>
<td>$1.75</td>
<td>$1.75</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Adjusted by size (50% slope), age (0.5% per year), and amenities (manual adjustment)

Source: CoStar; Axiometrics; Property Websites; RCLCO
Hartford offers fewer recently developed apartment buildings with a significant component of affordable units. The two buildings analyzed, Spectra Pearl and Spectra Plaza Apartments, are both located in Downtown Hartford. RCLCO conducted the same paired analysis to determine the pricing discount of these two buildings with affordable components compared to their market rate counterparts.

After adjusting for size, Front Street Lofts and Spectra Pearl are identically priced at $2.48 per square foot. However, given the larger size and superior amenity package available at Spectra Pearl, we would expect the building to be able to achieve approximately a 5% premium compared to Front Street Lofts.

Spectra Plaza Apartments is 28% affordable. Without adjusting for the superior amenities at the property, it is currently achieving pricing at a 3.4% discount relative to its market rate counterpart, Front Street Lofts. Adding in an amenity adjustment given the superior amenity package at Spectra Plaza Apartments, we would expect the building to achieve even higher pricing, equating to a 11.1% discount relative to Front Street Lofts, which does not contain affordable units.

### Affordable vs. Market Rate Comparisons

<table>
<thead>
<tr>
<th>PROPERTY NAME</th>
<th>YEAR BUILT</th>
<th>TOTAL UNITS</th>
<th>% AFFORDABLE</th>
<th>AVG SIZE</th>
<th>AVG PRICE</th>
<th>AVG $ / SF</th>
<th>SIZE ADJUSTED PRICE</th>
<th>AGE/AMENITY ADJUSTMENTS</th>
<th>AFFORDABLE HOUSING DISCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Street Lofts</td>
<td>2020</td>
<td>96</td>
<td>0%</td>
<td>723</td>
<td>$1,554</td>
<td>$2.15</td>
<td>$2.48</td>
<td>5.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Spectra Pearl</td>
<td>2020</td>
<td>257</td>
<td>16%</td>
<td>501</td>
<td>$1,242</td>
<td>$2.48</td>
<td>$2.48</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROPERTY NAME</th>
<th>YEAR BUILT</th>
<th>TOTAL UNITS</th>
<th>% AFFORDABLE</th>
<th>AVG SIZE</th>
<th>AVG PRICE</th>
<th>AVG $ / SF</th>
<th>SIZE ADJUSTED PRICE</th>
<th>AGE/AMENITY ADJUSTMENTS</th>
<th>AFFORDABLE HOUSING DISCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Street Lofts</td>
<td>2015</td>
<td>121</td>
<td>0%</td>
<td>873</td>
<td>$1,624</td>
<td>$1.86</td>
<td>$2.12</td>
<td>7.5%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Spectra Plaza Apartments</td>
<td>2015</td>
<td>110</td>
<td>28%</td>
<td>631</td>
<td>$1,294</td>
<td>$2.05</td>
<td>$2.05</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Adjusted by size (50% slope), age (0.5% per year), and amenities (manual adjustment)

Source: CoStar; Axiometrics; Property Websites; RCLCO
The same analysis was conducted in Stamford, CT yielding more mixed results but a similar trend, with the discount for buildings with affordable units ranging from near zero to 14.9% at Metro Green Terrace, which is 56% affordable.

► After adjusting for size, age, and amenities, 101 Park Place is priced approximately evenly with Atlantic Station, at just a 0.6% discount for the building with 11% of its units affordable.

► 111 Harbor Point has a similar share of affordable units (12%), but is priced at a much larger discount compared to its market rate counterpart, Beacon Harbor Point. While some of this discount could be attributed to the affordable component of units, other factors that are more difficult to control for could also be in play, including the possibility that either building is simply not priced in line with the market.

► Metro Green Terrace offers the largest share of affordable units (56%) among recently delivered buildings in Stamford. After adjustments, it is priced at a 14.9% discount relative to its closest competitor, Vault Apartments.

**Affordable vs. Market Rate Comparisons**

<table>
<thead>
<tr>
<th>PROPERTY NAME</th>
<th>YEAR BUILT</th>
<th>TOTAL UNITS</th>
<th>% AFFORDABLE</th>
<th>AVG SIZE</th>
<th>AVG PRICE</th>
<th>AVG $ / SF</th>
<th>SIZE ADJUSTED PRICE</th>
<th>AGE/AMENITY ADJUSTMENTS</th>
<th>AFFORDABLE HOUSING DISCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Station</td>
<td>2018</td>
<td>325</td>
<td>0%</td>
<td>895</td>
<td>$2,703</td>
<td>$3.02</td>
<td>$3.05</td>
<td>-6.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>101 Park Place</td>
<td>2010</td>
<td>336</td>
<td>11%</td>
<td>878</td>
<td>$2,502</td>
<td>$2.85</td>
<td>$2.85</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Beacon Harbor Point</td>
<td>2015</td>
<td>239</td>
<td>0%</td>
<td>901</td>
<td>$2,973</td>
<td>$3.30</td>
<td>$3.08</td>
<td>-8.5%</td>
<td>8.4%</td>
</tr>
<tr>
<td>111 Harbor Point</td>
<td>2013</td>
<td>228</td>
<td>12%</td>
<td>1,021</td>
<td>$2,655</td>
<td>$2.60</td>
<td>$2.60</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Vault Apartments</td>
<td>2014</td>
<td>252</td>
<td>0%</td>
<td>964</td>
<td>$2,439</td>
<td>$2.53</td>
<td>$2.80</td>
<td>-8.5%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Metro Green Terrace</td>
<td>2017</td>
<td>131</td>
<td>56%</td>
<td>758</td>
<td>$1,890</td>
<td>$2.23</td>
<td>$2.23</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Adjusted by size (50% slope), age (0.5% per year), and amenities (manual adjustment)

Source: CoStar; Axiometrics; Property Websites; RCLCO
Utilizing the project profiles detailed on the previous three pages, RCLCO compiled the discount data collected for the buildings with affordable components to evaluate the impact of the size of a building’s affordable component on its market rate pricing. Though results varied, the data suggests a trend exists in which buildings with a higher proportion of affordable units are priced at a greater discount compared to fully market rate buildings. This discount reached as high as 16% in a building with more than 70% affordable units, but as low as just 0.6% in a building with 11% affordable units.

This data also corresponds with prior RCLCO research elsewhere in the country suggesting a threshold of affordable units must be reached before more obvious pricing impacts are realized in the building’s market rate units. As shown in the graph below, buildings with fewer than 20% affordable units displayed limited to no pricing impact, buildings with 20% to 30% affordable units displayed more moderate pricing impacts, and buildings with more than 50% affordable units displayed the highest pricing impact.

Based on this analysis and prior RCLCO analysis of affordable housing, we would expect the following impacts to the pricing of market rate units as a result of an affordable component at a multifamily development, assuming all else equal:

- 0% - 20% affordable units: 0% to 5% discount
- 20% - 40% affordable units: 5% to 10% discount
- 40% or more affordable units: 10% to 15% discount

Source: CoStar; Axiometrics; Property Websites; RCLCO
DISCLAIMERS
Our conclusions are based on our analysis of the information available 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.

We made certain assumptions about the future performance of the global, national, and 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 these conclusions. However, given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously and to revisit the aforementioned conclusions periodically to ensure that they are reflective of changing market conditions.

We assume that the economy and real estate markets will grow at a stable and moderate rate to 2020 and beyond. However, stable and moderate growth patterns are historically not sustainable over extended periods of time, the economy is cyclical, and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

With the above in mind, we assume that the long-term average absorption rates and price changes will be as projected, realizing that most of the time performance will be either above or below said average rates.

Our analysis does not consider the potential impact of future economic shocks on the national and/or local economy, and does not consider the potential benefits from major "booms" that may occur. Similarly, the analysis does not reflect the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

Further, the project and investment economics should be “stress tested” to ensure that potential fluctuations in revenue and cost assumptions resulting from alternative scenarios regarding the economy and real estate market conditions will not cause failure.

In addition, we assume that the following will occur in accordance with current expectations:

► Economic, employment, and household growth
► Other forecasts of trends and demographic and economic patterns, including consumer confidence levels
► The cost of development and construction
► Tax laws (i.e., property and income tax rates, deductibility of mortgage interest, and so forth)
► Availability and cost of capital and mortgage financing for real estate developers, owners and buyers
► Competitive projects will be developed as planned (active and future) and that a reasonable stream of supply offerings will satisfy real estate demand
► Major public works projects occur and are completed as planned

Should any of the above change, this analysis should be updated, with the conclusions reviewed accordingly (and possibly revised).
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.
APPENDIX: SUPPORTING EXHIBITS
I. ECONOMICS AND DEMOGRAPHICS
Exhibit I-1

Historical Employment Growth Trends
New Haven-Milford, CT MSA vs. National Average
1992-2019

Note: (f) denotes forecasted figure.; (e) denotes estimated figure.
Source: Moody’s Analytics; RCLCO

Historical Growth - New Haven-Milford, CT MSA
Growth Rate - New Haven-Milford, CT MSA
Growth Rate - National

*Historical Growth - New Haven-Milford, CT MSA
Growth Rate - New Haven-Milford, CT MSA
Growth Rate - National

ConnCORP | Market Analysis and Development Recommendations | New Haven, CT

U4-15019.01 | January 18, 2021 | 47
Exhibit I-2

Historical and Forecasted Non-Agricultural Employment, Households, and Population
New Haven-Milford, CT MSA
1990-2024
(in Thousands)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>EMPLOYMENT</th>
<th>HOUSEHOLDS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL (in 000's)</td>
<td>ANNUAL CHANGE</td>
<td>PERCENT CHANGE</td>
</tr>
<tr>
<td>1990</td>
<td>367</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1991</td>
<td>351</td>
<td>-15</td>
<td>-4.2%</td>
</tr>
<tr>
<td>1992</td>
<td>345</td>
<td>-6</td>
<td>-1.8%</td>
</tr>
<tr>
<td>1993</td>
<td>345</td>
<td>0</td>
<td>0.1%</td>
</tr>
<tr>
<td>1994</td>
<td>347</td>
<td>2</td>
<td>0.6%</td>
</tr>
<tr>
<td>1995</td>
<td>352</td>
<td>4</td>
<td>1.3%</td>
</tr>
<tr>
<td>1996</td>
<td>358</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td>1997</td>
<td>365</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td>1998</td>
<td>372</td>
<td>8</td>
<td>2.1%</td>
</tr>
<tr>
<td>1999</td>
<td>378</td>
<td>5</td>
<td>1.5%</td>
</tr>
<tr>
<td>2000</td>
<td>382</td>
<td>4</td>
<td>1.1%</td>
</tr>
<tr>
<td>2001</td>
<td>379</td>
<td>-3</td>
<td>-0.7%</td>
</tr>
<tr>
<td>2002</td>
<td>377</td>
<td>-2</td>
<td>-0.5%</td>
</tr>
<tr>
<td>2003</td>
<td>372</td>
<td>-5</td>
<td>-1.4%</td>
</tr>
<tr>
<td>2004</td>
<td>377</td>
<td>5</td>
<td>1.3%</td>
</tr>
<tr>
<td>2005</td>
<td>377</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2006</td>
<td>382</td>
<td>5</td>
<td>1.3%</td>
</tr>
<tr>
<td>2007</td>
<td>381</td>
<td>-1</td>
<td>-0.1%</td>
</tr>
<tr>
<td>2008</td>
<td>380</td>
<td>-1</td>
<td>-0.4%</td>
</tr>
<tr>
<td>2009</td>
<td>364</td>
<td>-16</td>
<td>-4.3%</td>
</tr>
<tr>
<td>2010</td>
<td>369</td>
<td>-4</td>
<td>-1.1%</td>
</tr>
<tr>
<td>2011</td>
<td>363</td>
<td>4</td>
<td>1.0%</td>
</tr>
<tr>
<td>2012</td>
<td>368</td>
<td>5</td>
<td>1.4%</td>
</tr>
<tr>
<td>2013</td>
<td>371</td>
<td>3</td>
<td>0.7%</td>
</tr>
<tr>
<td>2014</td>
<td>372</td>
<td>1</td>
<td>0.3%</td>
</tr>
<tr>
<td>2015</td>
<td>374</td>
<td>2</td>
<td>0.5%</td>
</tr>
<tr>
<td>2016</td>
<td>376</td>
<td>2</td>
<td>0.6%</td>
</tr>
<tr>
<td>2017</td>
<td>378</td>
<td>2</td>
<td>0.5%</td>
</tr>
<tr>
<td>2018</td>
<td>378</td>
<td>0</td>
<td>0.1%</td>
</tr>
<tr>
<td>2019</td>
<td>379</td>
<td>0</td>
<td>0.1%</td>
</tr>
<tr>
<td>2020 (f)</td>
<td>353</td>
<td>-26</td>
<td>-6.7%</td>
</tr>
<tr>
<td>2021 (f)</td>
<td>359</td>
<td>6</td>
<td>1.6%</td>
</tr>
<tr>
<td>2022 (f)</td>
<td>365</td>
<td>6</td>
<td>1.6%</td>
</tr>
<tr>
<td>2023 (f)</td>
<td>371</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td>2024 (f)</td>
<td>374</td>
<td>3</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Note: (f) denotes forecasted figure.; (e) denotes estimated figure.
Source: Moody's Analytics; RCLCO
Exhibit I-3

Comparison of Key Demographic Characteristics
New Haven City, Primary Market Area, and New Haven MSA
2000-2025

<table>
<thead>
<tr>
<th></th>
<th>New Haven City</th>
<th>Primary Market Area</th>
<th>New Haven MSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Household Incomes Above $50,000 (2020)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent</td>
<td>42.8%</td>
<td>59.2%</td>
<td>62.6%</td>
</tr>
<tr>
<td>Own</td>
<td>57.2%</td>
<td>40.8%</td>
<td>37.4%</td>
</tr>
</tbody>
</table>

- **Tenure (2020)**
  - Rent: 73.7%, 47.5%, 39.0%
  - Own: 26.3%, 52.5%, 61.0%

- **Average Household Size (2020)**
  - New Haven City: 2.65
  - Primary Market Area: 2.57
  - New Haven MSA: 2.58

- **Annual Household Growth Rate**
  - New Haven City: 0.4%, 0.3%, 0.4%
  - Primary Market Area: 0.2%, 0.1%, 0.0%
  - New Haven MSA: 0.5%, 0.0%, 0.0%

Source: Esri; RCLCO
Exhibit I-4

Household Distribution by Income
New Haven City, Primary Market Area, and New Haven MSA
2020

Source: Esri; RCLCO
II. COMPETITIVE SET
### Exhibit II-1

**Summary of Comparable Apartment Communities by Unit Type**

**Competitive Market Area**

**November 2020**

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>OCCUPANCY</th>
<th>YEAR BUILT</th>
<th>TOTAL UNITS</th>
<th>UNIT SIZE (SF)</th>
<th>ASKING RENT</th>
<th>EFFECTIVE RENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winchester Lofts</strong></td>
<td>98%</td>
<td>2015</td>
<td>158</td>
<td>373 - 1,420</td>
<td>$1,240 - $3,235</td>
<td>$1,667 - $2,47</td>
</tr>
<tr>
<td><strong>The Novella</strong></td>
<td>95%</td>
<td>2015</td>
<td>136</td>
<td>455 - 1,184</td>
<td>$1,480 - $3,150</td>
<td>$1,782 - $2,87</td>
</tr>
<tr>
<td><strong>College &amp; Crown</strong></td>
<td>94%</td>
<td>2015</td>
<td>160</td>
<td>603 - 1,220</td>
<td>$1,572 - $3,014</td>
<td>$2,202 - $2,74</td>
</tr>
<tr>
<td><strong>The Union</strong></td>
<td>99%</td>
<td>2016</td>
<td>137</td>
<td>426 - 920</td>
<td>$1,545 - $3,015</td>
<td>$1,964 - $3,17</td>
</tr>
<tr>
<td><strong>CenterPointe</strong></td>
<td>97%</td>
<td>1971</td>
<td>83</td>
<td>326 - 1,300</td>
<td>$1,195 - $2,695</td>
<td>$1,773 - $2,06</td>
</tr>
<tr>
<td><strong>360 State Street</strong></td>
<td>86%</td>
<td>2010</td>
<td>29</td>
<td>426 - 1,419</td>
<td>$1,594 - $5,190</td>
<td>$2,128 - $3,05</td>
</tr>
<tr>
<td><strong>Parkside City Crossing</strong></td>
<td>86%</td>
<td>2019</td>
<td>110</td>
<td>568 - 1,573</td>
<td>$1,721 - $3,975</td>
<td>$2,559 - $2,83</td>
</tr>
<tr>
<td><strong>Corsoir</strong></td>
<td>94%</td>
<td>2016</td>
<td>235</td>
<td>456 - 1,382</td>
<td>$1,261 - $5,308</td>
<td>$2,289 - $2,82</td>
</tr>
</tbody>
</table>

**Source:** Leasing agent interview; Property website; Axiometrics; CoStar; RCLCO
III. DEMAND ANALYSIS
# Exhibit III-1

## Annual Multifamily Rental Demand for New Units
### Primary Market Area
**2020-2025**

<table>
<thead>
<tr>
<th>AGE AND INCOME</th>
<th>RENT AS A % OF INCOME</th>
<th>AFFORDABLE MONTHLY RENT RANGE</th>
<th>OWNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNDER 25</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER $30,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $1,460 - $2,190</td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,190 - $2,920</td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,920 - $4,380</td>
<td>858</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>4%</td>
<td>$4,380 AND OVER</td>
<td>223</td>
</tr>
<tr>
<td><strong>UNDER 25</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER $30,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $1,460 - $2,190</td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,190 - $2,920</td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,920 - $4,380</td>
<td>858</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>4%</td>
<td>$4,380 AND OVER</td>
<td>223</td>
</tr>
<tr>
<td><strong>UNDER 25</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER $30,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $1,460 - $2,190</td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,190 - $2,920</td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,920 - $4,380</td>
<td>858</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>4%</td>
<td>$4,380 AND OVER</td>
<td>223</td>
</tr>
<tr>
<td><strong>UNDER 25</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER $30,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $1,460 - $2,190</td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,190 - $2,920</td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,920 - $4,380</td>
<td>858</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>4%</td>
<td>$4,380 AND OVER</td>
<td>223</td>
</tr>
</tbody>
</table>

## TOTAL DEMAND

<table>
<thead>
<tr>
<th>AGE AND INCOME</th>
<th>RENT AS A % OF INCOME</th>
<th>AFFORDABLE MONTHLY RENT RANGE</th>
<th>OWNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNDER 25</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER $30,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>35%</td>
<td>UNDER $1,020 - $1,460</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $1,460 - $2,190</td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,190 - $2,920</td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>35% - 35%</td>
<td>UNDER $2,920 - $4,380</td>
<td>858</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>4%</td>
<td>$4,380 AND OVER</td>
<td>223</td>
</tr>
</tbody>
</table>

## TOTAL SUMMARY

<table>
<thead>
<tr>
<th>RANGE</th>
<th>OWNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER $35,000</td>
<td>2,755</td>
</tr>
<tr>
<td>UNDER $40,000</td>
<td>2,317</td>
</tr>
<tr>
<td><strong>$50,000 - $74,999</strong></td>
<td>2,108</td>
</tr>
<tr>
<td><strong>$75,000 - $99,999</strong></td>
<td>2,198</td>
</tr>
<tr>
<td><strong>$100,000 AND OVER</strong></td>
<td>858</td>
</tr>
</tbody>
</table>

## Demographic Analysis

- **Primary Market Area**: 2020-2025
- **Demand from Existing Renters**: $4,062
- **Demand from Existing Owners**: $3,656
- **Demand from New Households**: $2,190
- **Total Demand**: $9,918

ConnCORP | Market Analysis and Development Recommendations  | New Haven, CT
U4-15019.01 | January 18, 2021 | 54
### Exhibit III-1

**Annual Multifamily Rental Demand for New Units**

**Primary Market Area**

**2020-2025**

#### Demand from Existing Renters

<table>
<thead>
<tr>
<th>Age and Income</th>
<th>Renter as a % of Income</th>
<th>Affordable Monthly Rent Range</th>
<th>Total HHS</th>
<th>Renters</th>
<th>In Turnover</th>
<th>Owners</th>
<th>Demand from Existing HHS</th>
<th>Net New HHS</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 25</td>
<td></td>
<td>5,571</td>
<td>4%</td>
<td>5,184</td>
<td>78%</td>
<td>4,044</td>
<td>387</td>
<td>38%</td>
<td>148</td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td>23,913</td>
<td>17%</td>
<td>20,897</td>
<td>41%</td>
<td>8,585</td>
<td>3,016</td>
<td>21%</td>
<td>620</td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td>23,279</td>
<td>16%</td>
<td>16,743</td>
<td>24%</td>
<td>6,536</td>
<td>1,010</td>
<td>10%</td>
<td>637</td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td>23,900</td>
<td>17%</td>
<td>12,126</td>
<td>25%</td>
<td>11,774</td>
<td>5%</td>
<td>627</td>
<td>0%</td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td>26,704</td>
<td>19%</td>
<td>17,624</td>
<td>13%</td>
<td>21,576</td>
<td>2%</td>
<td>622</td>
<td>7%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>142,567</td>
<td>100%</td>
<td>84,917</td>
<td>60%</td>
<td>57,650</td>
<td>3,231</td>
<td>2%</td>
<td>78</td>
</tr>
</tbody>
</table>

#### Demand from Existing Owners

<table>
<thead>
<tr>
<th>Age and Income</th>
<th>Demand from Existing Owners</th>
<th>In Turnover</th>
<th>Owners</th>
<th>Demand from Existing HHS</th>
<th>Net New HHS</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Demand from New Households

<table>
<thead>
<tr>
<th>Age and Income</th>
<th>Demand from New Households</th>
<th>In Turnover</th>
<th>Owners</th>
<th>Demand from New HHS</th>
<th>Net New HHS</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Annual Demand

<table>
<thead>
<tr>
<th>Age and Income</th>
<th>Total Annual Demand</th>
<th>In Turnover</th>
<th>Owners</th>
<th>Demand from Exising HHS</th>
<th>Net New HHS</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1. RCLCO determined propensity to spend on rent at various income levels. This was used to calculate the affordable monthly rent range for each income range.
2. Calculated using Esri Age by Income data.
3. Calculated using PUMS American Community Survey for Primary Market Area.
4. Applies PUMS American Community Survey data for Primary Market Area to annual net new households within the Primary Market Area. Where negative net new households are expected, applies PUMS American Community Survey data for % renter and % in turnover to the negative net new households.

Source: Esri, American Community Survey, PUMS, RCLCO.
### Exhibit III-2

**Summary of Annual Multifamily Rental Demand for New Units**

**Primary Market Area**

2020-2025

<table>
<thead>
<tr>
<th>AGE RANGE</th>
<th>ANNUAL MULTIFAMILY RENTAL DEMAND FOR NEW UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 25</td>
<td>74 (10%)</td>
</tr>
<tr>
<td>25-34</td>
<td>275 (39%)</td>
</tr>
<tr>
<td>35-44</td>
<td>155 (22%)</td>
</tr>
<tr>
<td>45-54</td>
<td>98 (14%)</td>
</tr>
<tr>
<td>55-64</td>
<td>38 (5%)</td>
</tr>
<tr>
<td>65+</td>
<td>63 (9%)</td>
</tr>
</tbody>
</table>

| TOTAL     | 703 (100%)                                         |

<table>
<thead>
<tr>
<th>INCOME RANGE</th>
<th>RENT RANGE</th>
<th>ANNUAL MULTIFAMILY RENTAL DEMAND FOR NEW UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER $35,000</td>
<td>UNDER $1,020</td>
<td>47 (7%)</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>$1,020 - $1,460</td>
<td>24 (3%)</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>$1,460 - $2,190</td>
<td>95 (14%)</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>$2,190 - $2,920</td>
<td>189 (27%)</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>$2,920 - $4,380</td>
<td>158 (23%)</td>
</tr>
<tr>
<td>$150,000 AND OVER</td>
<td>$4,380 AND OVER</td>
<td>189 (27%)</td>
</tr>
</tbody>
</table>

| TOTAL     | 703 (100%)                                         |

| Minimum Age for Target Market | None |
| Maximum Age for Target Market | None |
| Age Qualified Demand          | 703 (100%) |

| Minimum Income for Target Market | $50,000 |
| Maximum Income for Target Market | None |
| Income Qualified Demand         | 632 (90%) |

**Note:** See Exhibit III-1 for more details.

**Source:** Esri; American Community Survey PUMS; RCLCO
4. FOOD HALL MARKET STUDY
New Haven Food Hall

About CANAdev 3-9
About Food Halls 10-17
13-21: Statistics & Trends
22-23: Food Hall Successes & Challenges
24-25: Differences in Approach
Market Research 26-34
27: Area Info
28-29: Demographics & Targets
30-33: Maps
34-35: Pro Forma Comparisons
Design & Vision 36-45
37: Site Selection
38-39: Site Info and Floorplan
40-42: Food Hall Inspiration
43-45: Reference Tenants
Approach 46
47-50: Leasing Strategy and Key Prospects
51-53: Operations & Management
52-53: The Value
COMMUNITY

We proudly create places that our clients and their guests have always imagined and will never forget. Our places evoke a one-of-a-kind emotional experience through world class food & beverage options and an immersive sense of community.

We have collectively developed more than 42 million square feet of commercial real estate – including hotels, corporate headquarters, live music and sports arenas & stadiums – all with a particular focus on guest experience.
From our first food hall development in 2010, we have proven ourselves time and time again to deliver results in the planning, development and placemaking for similar food hall, marketplace and entertainment projects all around the United States.

CANAdev defines, develops and activates places with a relentless approach to quality retail development, leasing and operations. We are placemakers.
About Food Halls
FOOD COURTS:
• Recta-linear or squared by design
• 100% prepared food products
• Mostly national brands
• Large, singular common seating
• “Expect the expected”

FOOD HALLS:
• Typically not defined by clear-cut shapes
• Large collection of artisan food purveyors where majority of products are “prepared”
• Mixture of non-prepared and prepared food
• Blend of vignettes of common seating with more “private” seating inside vendor space or along their service counters
• Blend of local/small businesses with some regional brands
• “Sense of discovery”

PUBLIC MARKETS:
• Linear in design (reminiscent of street markets)
• Majority non-prepared food products
• Typically includes other crafts/non-food products
• Mostly local and small businesses
• Limited common area seating
Food halls can quickly become regional destinations, particularly in urban, transit-oriented districts.

As Americans become increasingly obsessed with all things culinary - and more conscientious about where our food comes from - a return to the traditional way of shopping by patronizing multiple specialized shops, instead of one big-box store, seems like a natural evolution.

Long a tradition in European countries and other parts of the world, the multi-faceted, typical indoor markets showcasing a variety of local vendors and artisans are finally hitting it big in America.
Artisans / Prepared

Commodity

Product / Base

Marketplaces

BY TYPE

LEXINGTON MARKET
READING TERMINAL
DETROIT EASTERN MARKET
BOSTON PUBLIC MARKET
FERRY BUILDING
LEXINGTON MARKET
PONCE CITY
FLAGSHIP COMMONS

QUINCY MARKET
EXIT 4 FOOD HALL
OXBOW MARKET
UNION MARKET
EATALY

MT VERNON MARKETPLACE
CHELSEA MARKET
GOTHAM WEST

NORTH MARKET
READING TERMINAL
DETROIT EASTERN MARKET
BOSTON PUBLIC MARKET
FERRY BUILDING
LEXINGTON MARKET
PONCE CITY
FLAGSHIP COMMONS

Marketplaces

BY TYPE
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>**80,000 SF</td>
<td>50 VENDORS**</td>
<td>**174,000 SF</td>
</tr>
<tr>
<td>5</td>
<td>RESTAURANTS</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>BEER/SPIRITS</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>BAKERY</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>COFFEE/TEA</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>CAFÉ/EATERY</td>
<td>29</td>
</tr>
<tr>
<td>7</td>
<td>DESSERT</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>MEAT/FISH</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>PRODUCE</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>CHEESE</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>SPECIALTY</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>APPAREL</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>COOKWARE</td>
<td>19</td>
</tr>
</tbody>
</table>
## Quick Stats

<table>
<thead>
<tr>
<th>Market</th>
<th>Location</th>
<th>Size</th>
<th>Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Market</td>
<td>Washington, DC</td>
<td>40,000 SF</td>
<td>39 VENDORS</td>
</tr>
<tr>
<td>Exit 4 Food Hall</td>
<td>Mount Kisco, NY</td>
<td>7,500 SF</td>
<td>9 VENDORS</td>
</tr>
<tr>
<td>Gotham West Market</td>
<td>New York, NY</td>
<td>20,000 SF</td>
<td>55 VENDORS</td>
</tr>
</tbody>
</table>

### Categories

- **1 | RESTAURANTS**
- **2 | BEER/SPIRITS**
- **1 | BAKERY**
- **3 | COFFEE/TEA**
- **5 | CAFÉ/EATERY**
- **5 | DESSERT**
- **3 | MEAT/FISH**
- **2 | PRODUCE**
- **2 | CHEESE**
- **8 | SPECIALTY**
- **0 | APPAREL**
- **2 | COOKWARE**

- **2 | RESTAURANTS**
- **1 | BEER/SPIRITS**
- **0 | BAKERY**
- **0 | COFFEE/TEA**
- **0 | CAFÉ/EATERY**
- **0 | DESSERT**
- **2 | MEAT/FISH**
- **0 | PRODUCE**
- **0 | CHEESE**
- **0 | SPECIALTY**
- **0 | APPAREL**
- **0 | COOKWARE**

- **1 | RESTAURANTS**
- **0 | BEER/SPIRITS**
- **0 | BAKERY**
- **1 | COFFEE/TEA**
- **5 | CAFÉ/EATERY**
- **1 | DESSERT**
- **0 | MEAT/FISH**
- **0 | PRODUCE**
- **0 | CHEESE**
- **1 | SPECIALTY**
- **0 | APPAREL**
- **1 | COOKWARE**
<table>
<thead>
<tr>
<th>Market</th>
<th>Location</th>
<th>Square Feet</th>
<th>Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ponce City Market</td>
<td>Atlanta, GA</td>
<td>320,000</td>
<td>28</td>
</tr>
<tr>
<td>West Side Market</td>
<td>Cleveland, OH</td>
<td>174,000</td>
<td>85</td>
</tr>
<tr>
<td>Mt. Vernon Marketplace</td>
<td>Baltimore, MD</td>
<td>15,000</td>
<td>17</td>
</tr>
</tbody>
</table>

### Quick Stats

<table>
<thead>
<tr>
<th>Category</th>
<th>Ponce City Market</th>
<th>West Side Market</th>
<th>Mt. Vernon Marketplace</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTAURANTS</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>BEER/SPIRITS</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BAKERY</td>
<td>1</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>COFFEE/TEA</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CAFÉ/EATERY</td>
<td>15</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>DESSERT</td>
<td>3</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>MEAT/FISH</td>
<td>1</td>
<td>32</td>
<td>2</td>
</tr>
<tr>
<td>PRODUCE</td>
<td>1</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>SPECIALTY</td>
<td>4</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>APPAREL</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>COOKWARE</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
A FOOD HALL IS  
HIGH-QUALITY  
UNIQUE VENDORS  
LOCALLY-SOURCED

A FOOD HALL IS NOT  
BORING  
UNINSPIRED  
CHAIN RESTAURANTS
MILLENNAL EATING PATTERNS

Favor Food Halls

55% of Millennials prefer communal tables when dining out.

40% of Millennials will order something different every time they visit the same restaurant.

44% of Millennial food dollars are spent on eating out.
DEMOGRAPHIC shifts as millennials move out of their parents’ homes, and Baby Boomers downsize.

LIKE WHAT’S DRIVING Food Hall Growth?

FOCUS on experience and convenience.

CHANGE in the way we are dining.
AMERICANS NOW SPEND MORE DINING OUT THAN EATING IN AT HOME:

$775.2 BILLION

AWAY FROM HOME:

$924.8 BILLION

2018 marks the first time in history that away from home spending GROSSED MORE than at home.

Source: U.S. Census Bureau; U.S. Department of Agriculture
RISE OF THE FOOD HALL: PROJECTIONS SHOW THE TREND IN THE U.S.

Source: Cushman & Wakefield
THE REALITY IS THAT FOOD HALLS ARE ON THE RISE

THREE MODELS
• LARGE SINGLE- PROPRIETOR MODEL (E.G. EATALY)
• SMALL-SINGLE PROPRIETOR, EMPORIUM MODEL (E.G. DEAN & DELUCA)
• PLUG & PLAY MODEL

THREE SIZES
• LARGE SINGLE-PROPRIETOR (40,000+SF)
• TRAVEL OR TOURISM PLUG & PLAY (40,000+SF)
• BITE-SIZE PLUG+PLAY (10,000+SF)
Restaurant Operators

NAME THEIR BIGGEST CHALLENGES

- High Operating / Food Costs: 36%
- Retaining Customers: 20%
- Staffing: 29%
- Other: 15%
Their Branded Approach

THE SAME CONCEPT NO MATTER THE LOCATION

St. Roch Market
Our White Label Approach

UNIQUE IDENTITY & CONCEPT FOR EVERY LOCATION
Market Research
Area Info

6-min BIKE RIDE to Downtown

14-min DRIVE to Tweed Airport

WALKSCORE
81: Very Walkable

TRANSIT SCORE
55: Good Transit

TOP EMPLOYERS
1. Yale University
2. Yale New Haven Hospital
3. Hospital of St. Raphael
4. Frontier Communications
5. Southern Connecticut State University
Demographics

**POPULATION**
- 156,874 within 3 miles
- 254,875 within 5 miles

**STUDENT POPULATION (2019)**
- 23,213
  - 13,816 Undergraduate
  - 9,397 Graduate

**AVERAGE HH INCOME**
- $44,018 within 3 miles
- $52,336 within 5 miles

**Demographics**
- 33.7% Millennial (Born 1981-1998)
- 24.5% Gen Z (Born 1999-2016)
- 24.5% Gen Z (Born 1965-1980)
THREE LEVEL Targets

**PRIMARY**
Daytime Office Worker, Students, within a 5–7-minute walk

**SECONDARY**
Residential Population within 10-15-minute walk

**TERTIARY**
Tourist / Regional & Local Visitor
Access Points

- Parking
- Farmington Canal Heritage Trail
- Bus Route
- State Street Station
- Union Station
- Major Routes
Food Comparables
# Pro Forma Comparisons

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Rental</td>
<td>$882,101</td>
</tr>
<tr>
<td>Operating Expense</td>
<td>$508,067</td>
</tr>
<tr>
<td>NOI</td>
<td>$374,034</td>
</tr>
<tr>
<td>Total Hard Cost</td>
<td>$3,483,700</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$4,515,623</td>
</tr>
<tr>
<td>Est. Stabilized EBITDA</td>
<td>$567,362</td>
</tr>
<tr>
<td></td>
<td>12.56%</td>
</tr>
<tr>
<td>Market Guests</td>
<td>1,209</td>
</tr>
<tr>
<td>Gross Sales</td>
<td>$6,456,150</td>
</tr>
<tr>
<td>Average Sales PSF</td>
<td>$1,481</td>
</tr>
<tr>
<td>PSF Vendor</td>
<td>$74.68</td>
</tr>
<tr>
<td>PSF Gross SF</td>
<td>$64.70</td>
</tr>
<tr>
<td>Market</td>
<td>Gross Sales</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Mt. Vernon Marketplace</td>
<td>$16,800,000</td>
</tr>
<tr>
<td>The Bourse</td>
<td>$22,500,000</td>
</tr>
<tr>
<td>Western Market</td>
<td>$20,500,000</td>
</tr>
<tr>
<td>Union Market</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>
Design & Vision
Strategic Site Selection

**BEST USE OF SPACE** (15,000+ square feet with multiple entrances and multi-use adjacencies.) The Food Hall will activate the main plaza, surrounding business & residential area, and tie into multiple community building programs.

**DIRECT VALUE ADD / AMENITY** to building tenants.

**COMMUTER PATHWAY** Located in the direct pathway of undergraduate and graduate student population and downtown New Haven commuter traffic.

**HEART OF BUSINESS ACTIVITY** Surrounded by dozens of office buildings, with limited lunch options.

**NON-EXISTENT FOOD AMENITIES & HAPPY HOUR OPTIONS** Food Hall will bring a unique option for daytime and evening food & drinks.

The Projects

- **PLUG & PLAY**: sublet tenant rents, often double direct rate paid by operators
- **URBAN** settings, with room for select suburban growth.
- **INNOVATIVE SPACES** Not just an updated food court model.
- **ADAPTIVE REUSE** or upscale mall space
15,100 Square Feet
13,000 SF Food Hall
2,100 SF Traditional Retail

Leasable Area (45.00%)
12 Anchor Tenants (245-455 SF):
1 Anchor Tenant (2,000+ SF)
100% Food & Beverage made to order

218 Food Hall Seats
166 Indoor and Rail Bar Seats
52 outdoor Seats

Common Area (35%)
Communal Seating
Restrooms
Janitorial

In-Building Storage
Cold Storage 400 SF minimum
Dry Storage 1,000 SF minimum
15,100 Square Feet
13,000 SF Food Hall
2,100 SF Traditional Retail

Connectivity & Adjacencies
Performing Arts Center 2nd level residential bldg.
• Better synergy w/ food hall
• Fitness center to corner parcel – better activation

Grocer
• Shared entrance
• Shared loading dock

Better Proximity to Parking Structure
Food Hall Inspiration

Unique Design Elements

Plants & Greenery
Food Hall Inspiration

- Natural Light
- Outdoor Seating
- High Ceilings
Food Hall Inspiration

Authentic & Approachable Vendors

Diverse & Unique Seating Options
Food + Craft Hall

Reference Tenants: Hudson Eats, Dekalb Market, Chelsea Market, Chophouse Row, UrbanSpace, Copenhagen Street Food

An inviting place to come together to celebrate regional food and craft culture.

Identity reinforcing sub-storefronts
Indoor / outdoor spaces
Interior glass canopies to further delineate space
Open corner cafe
Varied seating areas at different scales
Food + Craft Hall

Reference Tenants: Hudson Eats, Dekalb Market Chelsea Market, Chophouse Row, UrbanSpace, Copenhagen Street Food

This lively destination will house a variety of food vendors from local favorites to exotic delicacies.
Seasonal Kiosks

Reference Tenants: Dulcinea Churros, Loata, Destination Dumplings, Ube Kitchen, Pop Pasta

Mobile carts that allow for seasonal, local-scale food + craft concessions.

- Retrofitted vintage car kiosk
- Made to order items
- Fold down table with seating
- Classic Parisian feel
- Single-item compact kiosk
Approach
Our passion for customer experience, concept & branding – and of course, great food & beverage – drive our leasing team to identify ideal tenants, build relationships and help to grow independent businesses.

📍 We will focus on local start-ups, interesting independent concepts in and around the New Haven market.

💡 The curation of vendors will reflect a blend of known and successful names as well as emerging brands.

DIVERSE CUISINE - FAST CASUAL - FARM-TO-FORK – AUTHENTIC - LOCALLY-SOURCED - HEALTHY CONCEPTS - CHEF-DRIVEN - TRUCK-TO-BRICKS - LOWER PRICE POINTS

THE RIGHT MIX
AUTHENTICITY & DIVERSITY

Our Tenants

OUR FOOD HALL TENANTS ARE 50%+ MINORITY-AND/OR WOMAN-OWNED

"Being in a market or a food hall like this is a natural next step...especially coming off of a food truck..."
– Joey Vanoni, Pizza di Joey

"Western Market is a great opportunity for a small business..."
– Biniyam Habtemariam, Roaming Rooster
**BEST HOT AMERICAN Burgers & Beer**
- K LaMay’s (Meriden)
- Ted’s (Meriden)
- Jacke’s Diggity Dogs (Milford)
- Hapa Food Truck (Stamford)

**BEST COLD AMERICAN Deli & Diner**
- Meat & Co. (New Haven)
- Zoi’s on Orange (New Haven)
- Dottie’s Diner (Woodbury)
- Iron & Grain Co. (West Hartford)

**BEST ITALIAN Pizza & Wine**
- Big Green Truck (New Haven)
- Sally’s Apizza (New Haven)
- Paul’s Pasta Shop (Groton)
- Capetta’s (West Haven)

**BEST MEXICAN**
- Green Grunion (Danbury)
- El Segundo (Norwalk)
- Tacos los Michoacanos (New Haven)
- Ixtapa (New Haven)
BEST HEALTHY EATS
Salads and Juice Bar
- Embody (Westport)
- Freshii (Fairfield)
- ION Restaurant (Middletown)
- Naked Greens (Wilton)

BEST SEAFOOD
- Lobster Shack (East Haven)
- Lobster Hut (Milford)
- J’s Crab Shack (Hartford)
- Westville Seafood (New Haven)

BEST BAKERY & DESSERTS
- Mothership (Danbury)
- Scott’s Jamaican Bakery (Hartford)
- Ferris Acres Creamery (Newton)
- Bantam Bread Co. (Bantam)

BEST ASIAN
- The Art of Yum Taoy Truck (New Haven)
- Mom & Pop Poke & Sushi (Newington)
- Noodle Shack (New Haven)
- Roodle Rice & Noodle Bar (Wallingford)
On-site CANAdev team oversees the day-to-day:

- Programming & Events
- Tenant Coordination
- Marketing, PR, Social Media

We secure one umbrella Liquor License for the Food Hall:

- Guests can sample multiple products while exploring the space, rather than be restricted to a designated area.
- Provides incentive for strong concepts building their brand who may be financially restricted from entering the market.

Property Management Team continues to manage:

- Lease Administration
- General Building Repairs, Maintenance and Janitorial
- Building Security
- Coordination with Cana on all Food Hall needs.
**MARK TO MARKET**

**TRADITIONAL RETAIL STRATEGY**

**LEASING:** 9-12 MONTHS  
**BASE BUILDING:** 6-9 MONTHS OF CONSTRUCTION  
**FIXTURING:** 3-5 MONTHS OF CONSTRUCTION  
**TOTAL:** 18-26 MONTHS  

**LIKELY 1-2 QUICK SERVICE & 1 LARGE RETAIL TENANT**

**DESCRIPTION**

**GENERAL SCOPE DESCRIPTION**

**AVERAGE LEASE TERM**

5-10 YEARS

**TI ALLOWANCE**

$80-$100 PSF

$20-$25 PSF

**GROSS RENT**

FOOD OR TRADITIONAL RETAIL (FURNITURE, OFFICE SUPPLY, ETC.)

**TENANT USES / CONCEPT**

TRADITIONAL. TO BE PROVIDED BY BASE BUILDING.

TRADITIONAL. TENANTS TYPICALLY DO NOT FEEL THE VALUE.

**PM STAFFING**

**MARKETING**

**JANITORIAL**

**ADDITIONAL REVENUE OPPORTUNITIES**

**LANDLORD’S CONTRACTOR IS RESPONSIBLE FOR COMMON AREAS.**

**LIMITED.**

**FOOD HALL**

**REPOSITION TO “FOOD HALL STRATEGY”**

**LEASING:** CONCURRENT WITH CONSTRUCTION  
**BASE BUILDING:** 10-12 MONTHS OF CONSTRUCTION  
**FIXTURING:** INCLUDED IN ABOVE  
**TOTAL:** 10-12 MONTHS  

12-14 TENANTS. COMBINATION OF UNIQUE FOOD & BEVERAGE & QUALITY HOSPITALITY-RELATED RETAIL.

**DESCRIPTION**

**GENERAL SCOPE DESCRIPTION**

**LEASING:** CONCURRENT WITH CONSTRUCTION  
**BASE BUILDING:** 10-12 MONTHS OF CONSTRUCTION  
**FIXTURING:** INCLUDED IN ABOVE  
**TOTAL:** 10-12 MONTHS  

12-14 TENANTS. COMBINATION OF UNIQUE FOOD & BEVERAGE & QUALITY HOSPITALITY-RELATED RETAIL.

**AVERAGE LEASE TERM**

3-7 YEARS

**TI ALLOWANCE**

$261 PSF

$65 PSF

**GROSS RENT**

**TENANT USES / CONCEPT**

UNIQUE, FAST-CASUAL CONCEPTS, ARTISAN MAKERS, & HOSPITALITY-DRIVEN RETAIL, CREATING A TRUE DESTINATION AMENITY FOR THE BUILDING AND NEIGHBORHOOD.

**PM STAFFING**

ENGAGE A CO-MANAGER TO CURATE PROGRAMS.

**MARKETING**

CO-MANAGER ACTIVELY INVOLVED IN MARKETING SUPPORT: EVENT MGMT, SOCIAL MEDIA, PR, ETC.

**JANITORIAL**

**ADDITIONAL REVENUE OPPORTUNITIES**

**LANDLORD’S CONTRACTOR IS RESPONSIBLE FOR COMMON AREAS.**

PRIVATE EVENTS AND SPONSORSHIP ADVERTISING.
The retail has significant impact on the entire building – it creates the street address and sense of place.

A successful food hall will help activate the office tenant’s retail space and vice versa – creating an overall more engaging environment.

The food hall provides a better amenity to the office tenant that is both broader in its offerings and quality, as well as typically operating at a broader range of times than traditional retail.

The open floor plan of a food hall provides an additional co-working environment that most businesses are looking to provide to their employees and consultants.

Office leasing brokers communicate $1-$2.00 PSF increase in market rental rate is typical based on similar engaging retail amenities.
5. GROCERY STORE MARKET STUDY
SPROUTS
SITE 1000 ANALYSIS
New Haven, CT
April 2019

Project Lead
Larry Richardson
C: 208-861-3830
O: 435-767-1475
larry@mtnra.com

CONFIDENTIAL INFORMATION
EXECUTIVE SUMMARY

ConnCORP is planning a redevelopment of a prime site at the intersection of Dixwell Avenue and Webster Street in downtown New Haven, Connecticut. The development plan contemplates sophisticated mid-rise, mixed-use construction including 561 parking spaces in above-grade concrete structures. The project is conceptualized as follows:

- Market-driven land uses, including
  - 150 rental apartments
  - 20 townhome units
  - 50,000 square feet of medical office
  - 128,000 square feet of ground-level retail
- Institutional/civic/cultural land uses, including
  - 35,000 square feet of headquarters space for Conn CAT
  - A 43,000 square foot performing arts center
  - Other potential civic, arts and cultural spaces

Scenario
Sprouts opens at 20,000 sales area SQFT (28,000 total SQFT) in April of 2021, located on the NWC of Dixwell Ave & Webster St, in New Haven, CT.

Sales Forecast:

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Scenario</th>
<th>Projected Area</th>
<th>Sales Area</th>
<th>Total Area</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 1</th>
<th>$/sqft from Total Area</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Sprouts</td>
<td>91</td>
<td>20,000</td>
<td>28,000</td>
<td>$339k</td>
<td>$256k</td>
<td>$380k</td>
<td>$17.7M</td>
<td>$882.58</td>
<td>$630.41</td>
</tr>
</tbody>
</table>

*Assumed Power 135
*Volumes for year 1-3 represent weekly sales

Competitive Assumptions:
No planned competitive changes
SITE EVALUATION

Street Conditions:
Dixwell Ave is a two-lane, north/south residential arterial that bisects the trade area. Webster Ave is also a two-lane roadway that converts to Sperry St to the west; it T-intersects at Winchester Ave to the east at approximately 1/2 mile.

Comments:
The proposed Sprouts facility would occupy space on the immediate corner at the base of multiple floors of residential high-rise units. This is located on the southern-most end of the revitalized property.

Co-tenants:
TBD

Traffic Controls:
Fully-signalized intersection with unprotected left turns in each direction.

Affected Sister Stores:
None

<table>
<thead>
<tr>
<th>Site Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
</tr>
<tr>
<td>North</td>
</tr>
<tr>
<td>South</td>
</tr>
<tr>
<td>East</td>
</tr>
<tr>
<td>West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
</tr>
<tr>
<td>South</td>
</tr>
<tr>
<td>East</td>
</tr>
<tr>
<td>West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
</tr>
<tr>
<td>South</td>
</tr>
<tr>
<td>East</td>
</tr>
<tr>
<td>West</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingress/Egress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
</tr>
</tbody>
</table>
### Source of Volume

<table>
<thead>
<tr>
<th>Primary Source of Projected Volume</th>
<th>Address or Intersection</th>
<th>Map Key</th>
<th>Store Power</th>
<th>PIT SFT</th>
<th>Straight Line Dist. From Site</th>
<th>Size (sq ft)</th>
<th>Sales (sk)</th>
<th>Sales Growth Inflation &amp; Comp. Charges</th>
<th>Contrib. to Site</th>
<th>Mar 2022 Volume (sk)</th>
<th>Resulting Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Stores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprouts</td>
<td>NWC of Dixwell Ave &amp; Webster St / New Haven</td>
<td>1000</td>
<td>91</td>
<td>-</td>
<td>20,000</td>
<td>28,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Existing Competition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop &amp; Shop</td>
<td>SEC of Orchard St &amp; Whalley Ave / New Haven</td>
<td>7</td>
<td>82</td>
<td>0.31 mi</td>
<td>40,900</td>
<td>56,600</td>
<td>510</td>
<td>593</td>
<td>67</td>
<td>11.2</td>
<td>526</td>
</tr>
<tr>
<td>Stop &amp; Shop</td>
<td>WC of Amity Rd &amp; Wilbur Cross Pkwy / New Haven</td>
<td>1</td>
<td>105</td>
<td>2.84 mi</td>
<td>48,300</td>
<td>65,100</td>
<td>705</td>
<td>781</td>
<td>57</td>
<td>7.3</td>
<td>724</td>
</tr>
<tr>
<td>ShopRite</td>
<td>N/SEC of Dixwell Ave &amp; Wilbur Cross Pkwy / Hamden</td>
<td>3</td>
<td>153</td>
<td>3.68 mi</td>
<td>44,500</td>
<td>64,800</td>
<td>885</td>
<td>958</td>
<td>51</td>
<td>5.4</td>
<td>906</td>
</tr>
<tr>
<td>PriceRite</td>
<td>SEC of Dixwell Ave &amp; Rebekah St / Hamden</td>
<td>4</td>
<td>95</td>
<td>3.21 mi</td>
<td>28,100</td>
<td>37,500</td>
<td>375</td>
<td>411</td>
<td>26</td>
<td>6.3</td>
<td>385</td>
</tr>
<tr>
<td>Ferriro's Market</td>
<td>SWC of Grand Ave &amp; Hamilton St / New Haven</td>
<td>10</td>
<td>125</td>
<td>1.25 mi</td>
<td>10,200</td>
<td>13,600</td>
<td>195</td>
<td>224</td>
<td>26</td>
<td>11.4</td>
<td>199</td>
</tr>
<tr>
<td>Eli City Market</td>
<td>NC of Chapel St &amp; State St / New Haven</td>
<td>9</td>
<td>57</td>
<td>1.01 mi</td>
<td>14,800</td>
<td>18,900</td>
<td>140</td>
<td>163</td>
<td>20</td>
<td>12.4</td>
<td>143</td>
</tr>
<tr>
<td>C-Town</td>
<td>SEC of Ferry St &amp; Grand Ave / New Haven</td>
<td>11</td>
<td>70</td>
<td>2.11 mi</td>
<td>16,400</td>
<td>21,600</td>
<td>165</td>
<td>185</td>
<td>18</td>
<td>9.8</td>
<td>167</td>
</tr>
<tr>
<td>C-Town</td>
<td>SWC of Greenwich Ave &amp; Lamont St / New Haven</td>
<td>12</td>
<td>108</td>
<td>1.81 mi</td>
<td>5,700</td>
<td>7,600</td>
<td>85</td>
<td>96</td>
<td>10</td>
<td>10.2</td>
<td>86</td>
</tr>
<tr>
<td>Edge Of The Woods</td>
<td>E/SEC of Whalley Ave &amp; Norden St / New Haven</td>
<td>6</td>
<td>59</td>
<td>0.60 mi</td>
<td>5,600</td>
<td>8,600</td>
<td>65</td>
<td>76</td>
<td>9</td>
<td>11.3</td>
<td>67</td>
</tr>
<tr>
<td>Save-A-Lot</td>
<td>SEC of Dixwell Ave &amp; Putnam Ave / Hamden</td>
<td>5</td>
<td>60</td>
<td>1.85 mi</td>
<td>11,800</td>
<td>16,800</td>
<td>95</td>
<td>106</td>
<td>8</td>
<td>7.1</td>
<td>98</td>
</tr>
<tr>
<td>Good Nature Market</td>
<td>NC of Broadway &amp; York St / New Haven</td>
<td>8</td>
<td>83</td>
<td>0.46 mi</td>
<td>2,400</td>
<td>3,000</td>
<td>30</td>
<td>35</td>
<td>4</td>
<td>11.9</td>
<td>31</td>
</tr>
<tr>
<td>Westville Kosher Market</td>
<td>EC of Amity Rd &amp; Wilbur Cross Pkwy / New Haven</td>
<td>2</td>
<td>91</td>
<td>2.66 mi</td>
<td>2,300</td>
<td>3,100</td>
<td>30</td>
<td>33</td>
<td>3</td>
<td>7.7</td>
<td>31</td>
</tr>
<tr>
<td><strong>Average Power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sales Potential (Assumes Store Opens Apr 2021)

Mar 2022 - After Open 1 Year: $339

*Area Devoted to food groups

Note: Sales effects based on gravity model analysis

---

### Sprouts

Sales Transfer from Sprouts

Sales Transfer from Competition

Total Sales Transfer

Percent of Sales Explained After One Year: 87.7%
# Current Stores Weekly Summary - Apr 2019

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Store Name</th>
<th>Intersection</th>
<th>City</th>
<th>Volume</th>
<th>$/Sqft</th>
<th>Sales Area</th>
<th>PWTA</th>
<th>FIT Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stop &amp; Shop</td>
<td>WC of Amity Rd &amp; Wilbur Cross Pkwy</td>
<td>New Haven</td>
<td>$705,000</td>
<td>$14.60</td>
<td>48,300</td>
<td>90</td>
<td>105</td>
</tr>
<tr>
<td>2</td>
<td>Westville Kosher Market</td>
<td>EC of Amity Rd &amp; Wilbur Cross Pkwy</td>
<td>New Haven</td>
<td>$30,000</td>
<td>$13.04</td>
<td>2,300</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>3</td>
<td>ShopRite</td>
<td>NNWC of Dixwell Ave &amp; Wilbur Cross Pkwy</td>
<td>Hamden</td>
<td>$885,000</td>
<td>$19.89</td>
<td>44,500</td>
<td>75</td>
<td>153</td>
</tr>
<tr>
<td>4</td>
<td>PriceRite</td>
<td>NEC of Dixwell Ave &amp; Benham St</td>
<td>Hamden</td>
<td>$375,000</td>
<td>$13.35</td>
<td>28,100</td>
<td>85</td>
<td>95</td>
</tr>
<tr>
<td>5</td>
<td>Save-A-Lot</td>
<td>SEC of Dixwell Ave &amp; Putnam Ave</td>
<td>Hamden</td>
<td>$95,000</td>
<td>$8.05</td>
<td>11,800</td>
<td>95</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>Edge Of The Woods</td>
<td>ENEC of Whalley Ave &amp; Norton St</td>
<td>New Haven</td>
<td>$65,000</td>
<td>$11.61</td>
<td>5,600</td>
<td>95</td>
<td>59</td>
</tr>
<tr>
<td>7</td>
<td>Stop &amp; Shop</td>
<td>SEC of Orchard St &amp; Whalley Ave</td>
<td>New Haven</td>
<td>$510,000</td>
<td>$12.47</td>
<td>40,900</td>
<td>95</td>
<td>82</td>
</tr>
<tr>
<td>8</td>
<td>Good Nature Market</td>
<td>NC of Broadway &amp; York St</td>
<td>New Haven</td>
<td>$30,000</td>
<td>$12.50</td>
<td>2,400</td>
<td>95</td>
<td>83</td>
</tr>
<tr>
<td>9</td>
<td>Elm City Market</td>
<td>NC of Chapel St &amp; State St</td>
<td>New Haven</td>
<td>$140,000</td>
<td>$9.46</td>
<td>14,800</td>
<td>95</td>
<td>57</td>
</tr>
<tr>
<td>10</td>
<td>Ferraro's Market</td>
<td>SWC of Grand Ave &amp; Hamilton St</td>
<td>New Haven</td>
<td>$195,000</td>
<td>$19.12</td>
<td>10,200</td>
<td>95</td>
<td>125</td>
</tr>
<tr>
<td>11</td>
<td>C-Town</td>
<td>SEC of Perry St &amp; Grand Ave</td>
<td>New Haven</td>
<td>$165,000</td>
<td>$10.60</td>
<td>16,400</td>
<td>95</td>
<td>70</td>
</tr>
<tr>
<td>12</td>
<td>C-Town</td>
<td>SWC of Greenwich Ave &amp; Lumberton St</td>
<td>New Haven</td>
<td>$85,000</td>
<td>$14.91</td>
<td>5,700</td>
<td>95</td>
<td>108</td>
</tr>
</tbody>
</table>

**Average**

$273,333  13.25  19,250  91
## Projected Stores Weekly Summary - Mar 2022

<table>
<thead>
<tr>
<th>Map Key</th>
<th>Store Name</th>
<th>Intersection</th>
<th>City</th>
<th>Volume</th>
<th>$/sqft</th>
<th>Sales Area</th>
<th>PWTA</th>
<th>FIT Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stop &amp; Shop</td>
<td>WC of Amity Rd &amp; Wilbur Cross Pkwy</td>
<td>New Haven</td>
<td>$724,000</td>
<td>$14.99</td>
<td>48,300</td>
<td>90</td>
<td>105</td>
</tr>
<tr>
<td>2</td>
<td>Westville Kosher Market</td>
<td>EC of Amity Rd &amp; Wilbur Cross Pkwy</td>
<td>New Haven</td>
<td>$31,000</td>
<td>$13.48</td>
<td>2,300</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>3</td>
<td>ShopRite</td>
<td>NNWC of Dixwell Ave &amp; Wilbur Cross Pkwy</td>
<td>Hamden</td>
<td>$906,000</td>
<td>$20.36</td>
<td>44,500</td>
<td>75</td>
<td>153</td>
</tr>
<tr>
<td>4</td>
<td>PriceRite</td>
<td>NEC of Dixwell Ave &amp; Benham St</td>
<td>Hamden</td>
<td>$385,000</td>
<td>$13.70</td>
<td>28,100</td>
<td>85</td>
<td>95</td>
</tr>
<tr>
<td>5</td>
<td>Save-A-Lot</td>
<td>SEC of Dixwell Ave &amp; Putnam Ave</td>
<td>Hamden</td>
<td>$98,000</td>
<td>$8.31</td>
<td>11,800</td>
<td>95</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>Edge Of The Woods</td>
<td>ENEC of Whalley Ave &amp; Norton St</td>
<td>New Haven</td>
<td>$67,000</td>
<td>$11.96</td>
<td>5,600</td>
<td>95</td>
<td>59</td>
</tr>
<tr>
<td>7</td>
<td>Stop &amp; Shop</td>
<td>SEC of Orchard St &amp; Whalley Ave</td>
<td>New Haven</td>
<td>$526,000</td>
<td>$12.86</td>
<td>40,900</td>
<td>95</td>
<td>82</td>
</tr>
<tr>
<td>8</td>
<td>Good Nature Market</td>
<td>NC of Broadway &amp; York St</td>
<td>New Haven</td>
<td>$31,000</td>
<td>$12.92</td>
<td>2,400</td>
<td>95</td>
<td>83</td>
</tr>
<tr>
<td>9</td>
<td>Elm City Market</td>
<td>NC of Chapel St &amp; State St</td>
<td>New Haven</td>
<td>$143,000</td>
<td>$9.66</td>
<td>14,800</td>
<td>95</td>
<td>57</td>
</tr>
<tr>
<td>10</td>
<td>Ferraro's Market</td>
<td>SWC of Grand Ave &amp; Hamilton St</td>
<td>New Haven</td>
<td>$199,000</td>
<td>$19.51</td>
<td>10,200</td>
<td>95</td>
<td>125</td>
</tr>
<tr>
<td>11</td>
<td>C-Town</td>
<td>SEC of Ferry St &amp; Grand Ave</td>
<td>New Haven</td>
<td>$167,000</td>
<td>$10.18</td>
<td>16,400</td>
<td>95</td>
<td>70</td>
</tr>
<tr>
<td>12</td>
<td>C-Town</td>
<td>SWC of Greenwich Ave &amp; Lumberton St</td>
<td>New Haven</td>
<td>$86,000</td>
<td>$15.09</td>
<td>5,700</td>
<td>95</td>
<td>108</td>
</tr>
<tr>
<td>1000</td>
<td>Sprouts</td>
<td>NWC of Dixwell Ave &amp; Webster St</td>
<td>New Haven</td>
<td>$339,000</td>
<td>$16.95</td>
<td>20,000</td>
<td>95</td>
<td>91</td>
</tr>
</tbody>
</table>

**Average**

$284,769 | $13.84 | 19,308 | 91
### Demographic Summary

#### Population Data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Population</td>
<td>90,269</td>
</tr>
<tr>
<td>2018 Daytime Population</td>
<td>146,285</td>
</tr>
<tr>
<td>Projected Pop Growth 2018 to 2023</td>
<td>1.6%</td>
</tr>
<tr>
<td>Population Growth 2010 to 2018</td>
<td>0.67%</td>
</tr>
<tr>
<td>Population Per Square Mile</td>
<td>6,511.1</td>
</tr>
<tr>
<td>Median Age</td>
<td>32.3</td>
</tr>
<tr>
<td>Average Age</td>
<td>34.8</td>
</tr>
<tr>
<td>65 and over</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

#### 2018 Race and Ethnicity

<table>
<thead>
<tr>
<th>Race/Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White alone</td>
<td>43.2%</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>36.4%</td>
</tr>
<tr>
<td>Asian alone</td>
<td>6.2%</td>
</tr>
<tr>
<td>Other Race</td>
<td>14.2%</td>
</tr>
<tr>
<td>Hispanic (Independent of Race)</td>
<td>20.5%</td>
</tr>
</tbody>
</table>

#### 2018 Employment and Education

<table>
<thead>
<tr>
<th>Category</th>
<th>16 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian employed population</td>
<td>42,225</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>7.4%</td>
</tr>
<tr>
<td>White Collar</td>
<td>64.7%</td>
</tr>
<tr>
<td>Blue Collar</td>
<td>35.3%</td>
</tr>
<tr>
<td>High School Graduate, GED, or alternative</td>
<td>26.9%</td>
</tr>
<tr>
<td>College No Degree</td>
<td>18.3%</td>
</tr>
<tr>
<td>College or Advanced Degree</td>
<td>41.0%</td>
</tr>
</tbody>
</table>

#### Household Data

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Households</td>
<td>34,240</td>
</tr>
<tr>
<td>HH Growth 2010-2018</td>
<td>1.57%</td>
</tr>
<tr>
<td>Projected HH Growth 2018 to 2023</td>
<td>2.4%</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.3</td>
</tr>
<tr>
<td>2018 Median HH Income</td>
<td>$44,297</td>
</tr>
<tr>
<td>2018 Average HH Income</td>
<td>$69,662</td>
</tr>
<tr>
<td>Median Home Value</td>
<td>$246,588</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>25.9%</td>
</tr>
<tr>
<td>Contract Rent: Median</td>
<td>$975</td>
</tr>
</tbody>
</table>
ASSUMPTIONS & NOTATIONS

This projection and data within this marketing package consider the following assumptions:

1. Annual inflation will remain at 0.5%
2. New store pricing will be competitive & consistent with the company Price model.
3. New store will offer the level of customer service offered in other company stores.
4. The proposed new facility, to open April 2021, will achieve acceptance levels consistent with other company stores.
5. The store will maintain competitive hours of operations.
6. Advertising will reach customers in the Primary Trade Area.
7. The store will maintain adequate stock for advertised and unadvertised items.
8. The economy will remain stable for the study time frame.
9. No competitive changes, other than cited in this report, will occur during the time frame of this report. The likelihood of additional competitive changes increases with the passage of time.
10. The facility will be located optimally in the development with good real estate characteristics including adequate parking. Any single or cumulative inferior real estate characteristics may dramatically affect actual sales volume achieved.

All population, demographic, and lifestyle data provided by:

MTN Retail Advisors believes the information contained in this report to be accurate and sound. Client acknowledges that while it believes the services of MTN Retail Advisors will be a valuable tool in real estate and site location decision-making, it also understands that an important part of said services involves subjective judgment which is dependent upon the correctness of the information made available to MTN Retail Advisors. Therefore, Client fully acknowledges its understanding that MTN Retail Advisors does not guarantee any result from the use of the analysis or other services performed nor shall MTN Retail Advisors be responsible for any loss incurred as a result of the use of said analysis and services.
# Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leakage</td>
<td>The portion of the potential grocery dollars within the trade area that is not captured by the identified stores. This term is sometimes referred to as “float”.</td>
</tr>
<tr>
<td>Market Share</td>
<td>The percent of the potential obtained from the total available grocery dollars in a given area.</td>
</tr>
<tr>
<td>Model</td>
<td>A model is a collection of data that represents a study area on one specific date. Most models include data about stores, population, and trade area dynamics.</td>
</tr>
<tr>
<td>PCW</td>
<td>Per Capita Weekly Expenditure – This is the monetary amount that the average person is expected to spend on a specific commodity (such as food) over a specified week.</td>
</tr>
<tr>
<td>Potential</td>
<td>The total amount of dollars available for the purchase of a specified type of goods within a given population. Normally, the potential can be calculated by multiplying the PCW times the population.</td>
</tr>
<tr>
<td>Power</td>
<td>A measure of a store’s performance in relation to other stores of similar size and format. An average store would have a Power of 100. This term is sometimes referred to as “image” or “flavor”.</td>
</tr>
<tr>
<td>PWTA</td>
<td>Percent Within Trade Area – This is a percentage from 0 to 100 which measures the amount of store volume that is captured from within the trade area.</td>
</tr>
<tr>
<td>Sector</td>
<td>A discrete geographic unit with known boundaries. Most analysts prefer to use census tracts (or a portion) as one sector. This provides a known starting point for population and provides a verifiable boundary.</td>
</tr>
<tr>
<td>Trade Area</td>
<td>Geographical boundary outlined within a study.</td>
</tr>
</tbody>
</table>
FIT

The Excel-based FIT program identifies how well a store format “fits” the demographic profile of an individual trade area. It is a computer program that can address the “segmentation-blind” weak-point of traditional gravity models and update them to cope with the proliferation of highly-differentiated grocery store formats.

Essentially, the FIT program breaks down the single, all-encompassing POWER or IMAGE estimate to its two (2) core elements:

1. The specific appeal of the store format to different socio-economic groups, i.e. ethnic, income, age, and household size categories.
2. The (residual) POWER/IMAGE of the store, i.e. the qualities of its site characteristics (access, parking, and visibility), store operations, merchandising, etc.

The FIT program has been developed by DSR Marketing Systems Inc. (DSR) and Richards Consulting LLC through the analysis of Image Audit consumer research surveys conducted throughout the U.S. and Canada over the last ten (10) years. The development of this unique proprietary data base has enabled the direct linkage of demographics, store formats, and shopping patterns.

FIT incorporates data on the following thirteen (13) grocery store formats:

1. Club- BJs Wholesale, Costco Wholesale, Sam’s Club
2. Conventional – Albertsons, Giant, Safeway, Stop & Shop
3. Discount – Dollar General Market, Grocery Outlet
4. Hispanic – Amigos, Fiesta Foods, Mi Tienda, Vallarta
5. Natural/Organic- The Fresh Market, MOM’s, New Seasons, PCC
6. Quality/Service- Harris Teeter, Wegmans
7. Supercenter- Fred Meyer, Meijer, Super Target, Walmart SC
8. Warehouse Store- Buy For Less, Cub Foods, Food 4 Less, WinCo
9. Aldi
10. Save A Lot
11. Sprouts
12. Trader Joe’s
13. Whole Foods
ABOUT MTN RETAIL ADVISORS

MTN Retail Advisors, LLC is a premier site location company specializing in locating and validating sites for grocery store anchored developments. MTN Retail Advisors works directly with developers and grocery retailers, assisting in the site location process. MTN is comprised of former supermarket-employed site location analysts, skilled in the process of locating and validating future development opportunities. Additionally, MTN Retail Advisors employs an experienced Demographic/Residential analyst, skilled in assessing characteristics unique to each specific trade area and a GIS (Geographic Information Systems) specialist, skilled in high level mapping techniques. With a combined experience of over 60+ years in the supermarket site location industry, MTN Retail Advisors have the knowledge and skills essential to validating supermarket locations.

METHODOLOGY

MTN Retail Advisors utilizes the same processes and strategies as employed internally within the supermarket industry. The site evaluation process is a three-tiered process of 1) fieldwork data gathering; 2) computer gravity-model simulation of the existing market; and 3) computer gravity-model simulation of the projected market.

Fieldwork Data

The process of fieldwork includes visiting all major grocery competition within the defined trade area as a means of recording the physical attributes of each facility (sales area size, total store size, store features) and extracting weekly sales volumes. Additionally, MTN Retail Advisors reviews the market for grocery-related competitive changes anticipated to occur within the trade area.

Simulation of Existing Market

Upon completion of the fieldwork evaluation of existing grocery store competition and residential housing activity, MTN Retail Advisors enters the pertinent store/demographic data into a computer market simulation model. This model now represents the current grocery study area and is utilized to evaluate detailed market shares for each store based on a block group level geography. The model allows MTN to determine the overall strength of each individual grocery competitor and access the specific trade area of each store. General market characteristics, such as total grocery trade area potential, specific total chain volume with market shares and demographic assessments, are also determined. All of this information is used to simulate the existing grocery market for the trade area.
Simulation of Projected Market

Once the existing grocery market is simulated, the information is forwarded to a tactical, or projected, market scenario. Within the computer gravity-model analysis, all known grocery-related competitive activity is incorporated allowing projected market shares and trade area volume impacts to be determined for existing and planned grocery stores. Following the market share assignment for all existing and planned grocery competition, the computer gravity-model is utilized to extract market share opportunities for all applicable grocery operators within the defined trade area.

Specific Grocery Operator/Market Considerations

Given the features that differentiate niche supermarket operators (primarily the natural/organic foods selection) from conventional supermarket operators, special attention is given to the potential sites selected for these unique operators. Conventional grocery operators, such as Safeway and Giant Food, have considerably smaller trade areas, due to their generic offerings and the presence of more competition. Conversely, a Whole Foods, The Fresh Market, or Trader Joe’s experiences much larger trade areas with their destination type format. Throughout the computer-gravity model process, MTN Retail Advisors carefully weighs the ability for each facility to attract customers beyond the typical two or three-mile trade area.
6. ECONOMIC IMPACT ANALYSIS
Economic Impact Study: ConnCAT Place

Prepared by: AdvanceCT
March 2021

AdvanceCT strives to build a place where business, government, higher education and
nonprofits come together to implement high impact and inclusive economic
development solutions to advance the overall competitiveness of Connecticut.
Table of Contents

Executive Summary of Economic Impacts of ConnCAT Place ................................................................. 5
  Summary of All Activity 2021-2030 ........................................................................................................ 5
  Impacts by Year .................................................................................................................................. 8
  Impacts by Effects ................................................................................................................................. 9
  Conclusion .......................................................................................................................................... 12

Detailed Analysis of the Economic Impacts from Construction and Operations of ConnCAT Place ....... 13
  Impact from All Activity Associated with ConnCAT Place, 2021-2030 ............................................... 14
  Impacts from Construction and Ongoing Activities ............................................................................. 15
  Impacts by Year .................................................................................................................................. 17
  Construction Impacts by Building ........................................................................................................ 20
  Impacts from Ongoing Activities ......................................................................................................... 23
  Summary of Overall Impacts by Effects ............................................................................................... 26
  Impact Effects by Industry Sectors ......................................................................................................... 29
  Conclusion .......................................................................................................................................... 31

Appendix A: Modeling Assumptions ...................................................................................................... 33
Executive Summary of Economic Impacts of ConnCAT Place

The Connecticut Community Outreach Revitalization Program (ConnCORP) plans to invest $163 million dollars on the development of ConnCAT Place, a mixed-use project in the Dixwell/Newhallville section of New Haven. The proposed development, when complete, would include approximately 235,000 square feet of office, retail, and other commercial space, as well as 155 housing units, parking, a public plaza, and other amenities. This investment will create significant economic benefits from both the initial construction activity as well as from the ongoing economic activity that will take place at the new development. This analysis provides estimates of these economic benefits utilizing three geographic perspectives (the City of New Haven, New Haven County, and Connecticut); four key economic measures (output, value added, labor income, and employment), and three discrete impact effects (direct, indirect, and induced), over a ten-year period.

The results reported here assess the impacts associated with the construction of ConnCAT Place and a set of likely scenarios associated with the ongoing use of the space, tracking the spending associated with the project as those dollars flow through the economy. It should be noted, these estimates do not include the value of secondary investments occurring in the surrounding neighborhood as a result of the redevelopment, nor do they include the value of social benefits, such as local sources for healthcare, childcare, grocery and other retail establishments that may be located in the redeveloped plaza, reduced commuting time, the social value of local jobs, and the engagement of neighbors in their community. As a result, the estimates provided in this analysis reflect a conservative approach to the impact of the ConnCAT Place development.

The impacts presented in this report have been specified from data provided by ConnCORP and have been estimated using IMPLAN impact models based on the economies for the State of Connecticut, New Haven County, and the City of New Haven. IMPLAN provides well-respected models based on a comprehensive set of economic and demographic data. This analysis is based on the 2019 IMPLAN models, the most recent version available for these geographies.

This report is structured to provide an overview of the impacts associated with ConnCAT Place, followed by a more detailed analysis that will disaggregate the overall effects to provide more clarity.

Summary of All Activity 2021-2030

The total impact of the ConnCAT Place development during the ten years estimated here includes the activity from construction of seven buildings from 2021 through 2024 and the ongoing activity that is phased in starting in 2022 and estimated yearly until 2030. The total economic impact from the construction and ongoing activity from ConnCAT Place from 2021 through 2030 as presented in Table 1 includes:

- $945 million in additional output for the state of Connecticut, $799 million in New Haven County, and $619 million for the City of New Haven.
- An annual average of 745 additional jobs across the state, 675 for New Haven County, and 544 in the City of New Haven.
- Value added of $617 million statewide, $506 million for New Haven County, and $386 million within the City of New Haven.
- Labor income of $452 million in Connecticut, $369 million in New Haven County, and $284 million in the City of New Haven.
Table 1: Regional Distribution of the Total Economic Impact from All Activity Associated with ConnCAT Place, 2021-2030

<table>
<thead>
<tr>
<th>Economic Measure</th>
<th>Connecticut Statewide</th>
<th>New Haven County</th>
<th>New Haven City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (Sales+)</td>
<td>$945m</td>
<td>$799m</td>
<td>$619m</td>
</tr>
<tr>
<td>Employment (annual average)</td>
<td>745</td>
<td>676</td>
<td>544</td>
</tr>
<tr>
<td>Total Value-Added</td>
<td>$617m</td>
<td>$506m</td>
<td>$386m</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$452m</td>
<td>$369m</td>
<td>$284m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Output is a measure of the total value of production, including revenue plus inventory changes. Value added represents the total wealth generated for the region, or the contribution to GDP, and is measured as total output minus the cost of intermediate inputs. Labor income is the component of value added that measures total employee income plus proprietor income.

The statewide impacts from the construction activity account for between 23 to 28 percent of the total impact from all activity depending on the specific economic measure, as shown in Table 2. The ongoing activity includes 16 unique uses\(^1\) that begin as the facilities are completed and are phased in to reach their maximum capacity within two to four years. The total impacts for the construction and ongoing activity across the ten years are shown in Table 2 for the State of Connecticut and include:

- The four years of construction generate an annual average of 420 jobs while the ongoing activities modeled average 641 annual jobs from 2022 through 2030. Because construction and ongoing activities overlap for three years, from 2022 through 2024, the annual average for the overall activity is 745, more than the average for either the construction or the ongoing activities, but less than the total of the two averages as would be the case if they overlapped for all years.\(^2\)
- The total labor income, the sum of the total for construction and the total for the ongoing activity is split with $129 million going to employee compensation and proprietor’s income from the construction activity and $323 million from the nine years modeled for the ongoing activity.
- 74% or $323 million of the total estimated impact on the State’s Value-Added comes from the ongoing activities at ConnCAT Place over the nine years while the remainder of the $452 million ($129 million) comes during the four years of construction.

\(^1\) The 16 specific ongoing activities are all specified uniquely in the model and begin as the building they use is completed. A presentation of all 16 of these impacts is presented in the full report.

\(^2\) It should also be noted that the average 641 annual jobs for the study period is lower than the annual ongoing jobs in a single year once the development is operating at full capacity, since the study period includes a “ramp up” period after construction, during which the property is assumed to operate at less than full capacity.
Table 2: Total Impacts on the State of Connecticut from Construction and from Ongoing Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>All Activity (2021-2030)</th>
<th>Total Construction, 2021-2024</th>
<th>Total Ongoing, 2022-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (Sales+)</td>
<td>$945m</td>
<td>$232m</td>
<td>$713m</td>
</tr>
<tr>
<td>Employment (annual average)</td>
<td>745</td>
<td>420</td>
<td>641</td>
</tr>
<tr>
<td>Total Value-Added</td>
<td>$617m</td>
<td>$163m</td>
<td>$454m</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$452m</td>
<td>$129m</td>
<td>$323m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

To focus in more detail on the geographic distribution of the impacts presented in Table 1 and Table 2, Table 3 shows the total impacts for the construction and the ongoing activities in New Haven County and the City of New Haven.

Table 3: Distribution of Total Impacts for Construction and Ongoing Activity for New Haven County and the City of New Haven

<table>
<thead>
<tr>
<th>Activity</th>
<th>New Haven County</th>
<th>City of New Haven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (Sales+)</td>
<td>$188m</td>
<td>$611m</td>
</tr>
<tr>
<td>Employment (annual average)</td>
<td>345</td>
<td>597</td>
</tr>
<tr>
<td>Total Value-Added</td>
<td>$126m</td>
<td>$380m</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$98m</td>
<td>$271m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Figure 1 presents a visual distribution of the employment estimates provided in Tables 2 and 3. As we see in Figure 1, construction jobs are likely to accrue to residents across the state of Connecticut, while the jobs related to the ongoing economic activity will be more heavily concentrated locally. Of the total construction jobs generated in Connecticut, 31% will likely be generated within the City of New Haven and 82% will be within New Haven County. Jobs related to the ongoing activity are more highly concentrated; with 85% of the jobs generated within the City of New Haven and 93% within New Haven County (Figure 1).
Impacts by Year

The economic impacts presented above occur continuously, as shown in Table 4 over the ten years modeled with 2023 recording the highest impact on the economies of the State and New Haven County. The mix of the construction activities as well as some of the ongoing activities occurring in 2023 result in a total estimated increase in output of $122 million across the state with $98 million of that occurring within New Haven County. The necessity internalized by the model for many of the construction inputs to be purchased from companies outside of the City as well as the inflow of construction workers required to meet the productivity demand, result in the total output impact on the economy of New Haven continuing to grow throughout the construction period and as more of the ongoing activities are modeled to achieve their full capacity in 2025. By that year, with all construction completed and all 16 ongoing scenarios estimated to be at full capacity the ongoing impacts are stable with $77 million primarily in estimated sales being generated in the City of New Haven, another $11 million being generated in the economy of the County exclusive of the City and an additional $14 million in sales from economic activity to the economies of the other seven counties in the State of Connecticut.

---

3 Annual figures shown in this report may be off slightly from the total impact due to rounding.

4 Although the direct effects modeled occur in the year shown, it is likely that the indirect and induced impacts included may continue into subsequent years (thought the full impact is measured in the year the initial spending occurred).
Table 4: Total Impact on Output from All Activity from ConnCAT Place: 2021-2030

<table>
<thead>
<tr>
<th>Geography</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>$22 m</td>
<td>$122 m</td>
<td>$100 m</td>
<td>$87 m</td>
<td>$102 m</td>
<td>$102 m</td>
<td>$102 m</td>
<td>102 m</td>
<td>102 m</td>
<td>102 m</td>
</tr>
<tr>
<td>New Haven County</td>
<td>$18 m</td>
<td>$98 m</td>
<td>$82 m</td>
<td>$73 m</td>
<td>$88 m</td>
<td>$88 m</td>
<td>$88 m</td>
<td>$88 m</td>
<td>$88 m</td>
<td>$88 m</td>
</tr>
<tr>
<td>New Haven City</td>
<td>$9 m</td>
<td>$45 m</td>
<td>$48 m</td>
<td>$53 m</td>
<td>$77 m</td>
<td>$77 m</td>
<td>$77 m</td>
<td>$77 m</td>
<td>$77 m</td>
<td>$77 m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The annual estimates for total employment, as shown in Table 5, follow a similar trend to that seen for output above.

- The total impact on the state’s economy is highest in 2022 when the activity at the ConnCAT Place generates nearly 900 jobs.
- The effect statewide from the ongoing activity is estimated to create 822 jobs statewide.
- For New Haven County 2022 also generates the highest number of jobs for any year between 2021 and 2030 with 738.
- Employment increases within the City of New Have from the total impact of all activity associated with the ConnCAT Place until 2025 when it is estimated to stabilize at 700 jobs.

Table 5: Impact on Employment for Connecticut, New Haven County and New Haven City, From All Activity for ConnCAT Place 2021-2030

<table>
<thead>
<tr>
<th>Geography</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>152</td>
<td>896</td>
<td>771</td>
<td>700</td>
<td>821</td>
<td>822</td>
<td>822</td>
<td>822</td>
<td>822</td>
<td>822</td>
</tr>
<tr>
<td>New Haven County</td>
<td>127</td>
<td>738</td>
<td>663</td>
<td>624</td>
<td>766</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>767</td>
</tr>
<tr>
<td>New Haven City</td>
<td>57</td>
<td>305</td>
<td>398</td>
<td>477</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 model

Impacts by Effects

The analysis of the economic impact presented in this report includes three effects: direct, indirect, and induced impacts. The “first tier” or the direct effects of an activity are initially specified by the analyst and applied to the model based on the unique characteristics of the activity and the economic profile of the region. The IMPLAN model used for this analysis is an input/output model with an extended set of social accounts which are used to estimate the indirect and induced effects respectively. The inputs, the “business to business” purchases that drive additional economic activity up the supply chain are estimated in the indirect effects. The induced effects are based on the change in the economic activity observed in the direct and indirect effects and use the social accounts in the model to estimate the changes in spending patterns for households and when appropriate governments as the labor income and revenues ripple through the region’s economy.
The following three tables present the direct, indirect, and induced impacts from the construction and the ongoing activities for each of the State of Connecticut, New Haven County, and the City of New Haven respectively.

The total impacts on the State of Connecticut by effect as shown in Table 6 include:

- The total impact on output is estimated to be $945 million across the state for the ten years.
  - This includes the direct effect of $445 million, reflecting the estimated purchases of the construction materials and payments to labor within the state as well as the output associated with the ongoing activities.\(^5\)
  - The indirect effects within the State are estimated to add $165 million in sales and inventory changes, while the induced effects are estimated to generate an additional $335 million in sales across the state.
- Total labor income is estimated to increase by $452 million for Connecticut residents.
  - The immediate direct income from the activities specified over ten years is estimated to be $262 million.
  - An additional $59 million is estimated to result from the indirect effects.
  - The estimated induced effects of $131 million include the activity as households spend some of their earnings with the state and the state and local governments revenues are spent.
- Overall, the annual average number of jobs generated is estimated to be 745.\(^6\)
  - 469 jobs are estimated to be created from the direct activities at ConnCAT Place.
  - An estimated 84 annual jobs on average over the ten years are estimated to be required statewide to meet the productivity increases associated with ConnCAT Place (indirect effects).
  - The expenditures of income generated by the direct and indirect activity noted above will create an additional 192 estimated jobs annually, on average, over the 10 years modeled (induced effects).

Table 6: Impacts by Effects on the State of Connecticut, 2021-2030

<table>
<thead>
<tr>
<th>Impact Effect</th>
<th>Output</th>
<th>Employment (annual average)</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$945m</td>
<td>745</td>
<td>$617m</td>
<td>$452m</td>
</tr>
<tr>
<td>Direct effects</td>
<td>$445m</td>
<td>469</td>
<td>$303m</td>
<td>$262m</td>
</tr>
<tr>
<td>Indirect effects</td>
<td>$165m</td>
<td>84</td>
<td>$93m</td>
<td>$59m</td>
</tr>
<tr>
<td>Induced effects</td>
<td>$335m</td>
<td>192</td>
<td>$221m</td>
<td>$131m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The impacts that are expected to accrue to New Haven County as shown Table 7 are estimated to include:

- A total impact of $799 million, including the direct effect on output (sales and inventory changes) of $420 million, $123 million in indirect activity, and $256 million in additional induced activity.

\(^5\) The direct effects for all ongoing activities will be the same at each geography level as the for the direct sales and employment associated with those activities occur within the City of New Haven.

\(^6\) Noting, again, that the average over the study period is lower than the total annual jobs each year once the development is fully operational, due to the “ramp up” period. See Table 5.
• This increase in activity as measured in output includes a total of $506 million in value-added which is driven by the direct increase of $281 million.
  ○ The total from both secondary effects, the indirect and induced effects is estimated to be $225 million with $67 million in indirect effects and $158 in induced effects.
• The total annual average on the County’s employment is estimated to be 675.
  ○ This impact is primarily identified with the 444 jobs on average required to meet the direct activity associated with ConnCAT Place.
  ○ In addition to these direct jobs, 75 jobs are estimated to be included from the production required to meet the new output levels (indirect effects) and an additional 157 jobs across the county as the increases in household incomes are spent within the region (induced effects).

Table 7: Impacts by Effects on New Haven County, 2021-2030

<table>
<thead>
<tr>
<th>Impact Effect</th>
<th>Output (annual average)</th>
<th>Employment (annual average)</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$799m</td>
<td>675</td>
<td>$506m</td>
<td>$369m</td>
</tr>
<tr>
<td>Direct effects</td>
<td>$420m</td>
<td>444</td>
<td>$281m</td>
<td>$240m</td>
</tr>
<tr>
<td>Indirect effects</td>
<td>$123m</td>
<td>75</td>
<td>$67m</td>
<td>$43m</td>
</tr>
<tr>
<td>Induced effects</td>
<td>$256m</td>
<td>157</td>
<td>$158m</td>
<td>$87m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Significant impacts also accrue to the City of New Haven due to the economic activity of the development and ongoing operations of ConnCAT Place (Table 8):

• An increase in total output of $619 million, including $374 million from direct, $80 million from indirect, and $165 million from induced effects.
• Value added, the addition to the region’s wealth, increases by an estimated $386 million.
• The total increase estimated to go to labor across the city during this time frame is an additional $284 million with $28 million coming from the indirect effects and $56 million more from the induced effects. More than 83% of the total direct value added ($200 million of the $240 million) from the payments to labor is associated directly with the development and ongoing activities from 2021 through 2030.
• The total increase in the annual average estimate of employment across the city of 544 is driven by the initial direct effects of 392 employees with an additional 51 employees associated with the indirect activity and 101 employees being hired within the city to meet the spending associated with the increases in overall labor income. This economic activity includes spending in all industry sectors.
Table 8: Impacts by Effects on the City of New Haven, 2021-2030

<table>
<thead>
<tr>
<th>Activity</th>
<th>Output</th>
<th>Employment (Annual)</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$619m</td>
<td>544</td>
<td>$386m</td>
<td>$284m</td>
</tr>
<tr>
<td>Direct effects</td>
<td>$374m</td>
<td>392</td>
<td>$240m</td>
<td>$200m</td>
</tr>
<tr>
<td>Indirect effects</td>
<td>$80m</td>
<td>51</td>
<td>$43m</td>
<td>$28m</td>
</tr>
<tr>
<td>Induced effects</td>
<td>$165m</td>
<td>101</td>
<td>$103m</td>
<td>$56m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Conclusion

This analysis estimates that over ten years, from 2021 through 2030, the City of New Haven will see an increase in output associated with the development and ongoing operations of ConnCAT Place of $619 million. This overall measure of economic activity includes an increase to the City’s wealth as measured by value-added estimated to be $386 million. $284 million of that increase in wealth is further estimated to go to workers within the City’s economy as labor income. Overall, these estimates show that on an annual average, the city would see 544 jobs generated from all of that activity. Importantly, Table 5 shows that the ongoing activity generated from this investment could easily average 700 jobs within the city annually starting in 2025.

Countywide, including the impacts noted for the City of New Haven, the increase in total output is estimated to be $799 million. Accompanying this impact is an estimated $506 million in value-added, of which $369 million is associated with labor income. Countywide, employment associated with the activity from ConnCAT Place at Dixwell/Newhallville section of New Haven is estimated to average 675 jobs over the 10 years. Starting in 2026 the model estimates that the total annual employment generated from the ongoing activity within the County would be 767.

As the activity specified in this analysis ripple across the State of Connecticut and require inputs from each of the State’s industry sectors the model estimates a total impact on the State’s output of $945 million in the first 10 years. Carrying it over to include 2031 would push the total impact easily over $1 billion. The total wealth generated from this activity from 2021 through 2030 is estimated to be $617 million with $452 million going to labor. This activity is estimated to require 745 jobs across the state on average over the time frame analyzed. Again, the ongoing activity from this investment, is estimated to require 822 annual jobs starting in 2026.

As a final note, these types of analyses often reference multipliers. Multipliers reflect the ratio of the initial cost of the investment to the total revenue generated on that investment, illustrating the return from the initial investment. The initial investment for the development of ConnCAT Place is expected to be $163 million. As this is an estimate similar in concept to total sales or output, multiplier at the city level is 3.8. That is, for every dollar invested in this activity the full return to the City’s economy will be 3.8 dollars by 2030. At the county level the economic multiplier observed is 4.9, while Statewide the multiplier from this investment is 5.8. It is important to note that these multipliers, as well as all estimates in this analysis, are only the estimates of the economic returns to the region for this investment and therefore they do not include any of the social benefits that will be associated with this development. These estimates also do not include any potential secondary investments that would be likely to occur within the region because of the development and operations occurring at ConnCAT Place.
Detailed Analysis of the Economic Impacts from Construction and Operations of ConnCAT Place

ConnCORP expects to spend $163 million dollars on the development of ConnCAT Place, a mixed-use project in the Dixwell/Newhallville section of New Haven. A more comprehensive review of the impact on the economies of the State of Connecticut, New Haven County and the City of New Haven is presented in this section of this report. This section will also address the specifications used to develop this analysis. The impacts estimated herein are based on the IMPLAN input/output economic models for the State of Connecticut, New Haven County and the City of New Haven based on the most current data available for each of those geographies (2019) and specified to report results in 2021 dollars. At the state level, the models have been specified to include the state and local government spending patterns as well as households in the social accounts. However, at the county and city levels, the state and local government are not included, in accordance with best practices in using the IMPLAN model.

The overall approach that is generally used in economic impact analyses with the IMPLAN model is to not include a set of secondary investments that are likely to result from the initial investments. Thus, this report includes impacts flowing from the construction and ongoing economic activity related to the ConnCAT Place development; but there is no attempt in this analysis to extend the potential impacts from these activities to include the additional development that may occur in the surrounding area as organizations and companies seek to leverage the changes to the neighborhood that would result from the investments by ConnCORP. This analysis also does not include the value of social benefits of the ConnCAT Place development, including the benefits to the neighborhood of local sources for healthcare, childcare, grocery and other retail establishments, reduced commuting time, the value of local jobs, the engagement of neighbors in their community. As such, this analysis represents a conservative set of estimates of the total potential impact of the ConnCAT Place development.

The IMPLAN model provides impact estimates for any activity specified for the unique economy of the region defined in the model for six distinct measures. There are two aggregate measures also included in its reports. The six measures include:

- Output, a measure of the total sales and changes in inventory
- Employment, based on a definition that includes both full and part time jobs
- Employee compensation (including benefits)
- Proprietor’s income
- Other profit-type income (profits, losses and returns on investments as they accrue to households and owners of capital within the region)
- Indirect business taxes (also a measure of wealth that accrues from economic activity and is used by governments)

The two aggregate measures are:

- Value added, a measure of the impact on the region’s total wealth. Value added is comprised of four of the components listed above: employee compensation, proprietor’s income, other profit-type income, and indirect business taxes.
- Labor income, which is comprised of the first two components of value added: employee compensation and proprietor’s income

Value added, as the name suggests, represents the increase in value as a result of production, once the cost of the materials is accounted for. As such, it is important to recognize that value added is part of the total output (sales and inventory changes) that is estimated, and that labor income is often the most significant part of value-added as it is the measure of the total wealth generated in a region from the production of the goods and services used in the region and exported out of the region.

Each of these economic measures are estimated in an IMPLAN impact. All the metrics in the models depend on federal and state government statistical programs and if necessary, can be adjusted to reflect a unique aspect of the region that is incompletely captured by the default measure. The total impact is
comprised of three parts. The direct effect is determined by the analyst based on the data provided. In this analysis, the data comes from ConnCORP and represents their best estimates of the costs and or employment associated with a specific activity, or estimates modeled by AdvanceCT based on comparable market data. Because these costs enter into the region’s economies at different levels, the model are defined to account for these costs differently with the state’s economy being the largest and most capable of meeting the production requirements while the county and city economies are specified to meet the as much of the needed inputs, including labor, as possible given their economic and demographic profiles.

There are two secondary effects that are driven by the direct effects. The first of these secondary effects, the indirect effects are based on the production functions of the industries identified in the direct effects. The production functions are the core of any input/output model and define the required inputs (goods and services) used for any given industry in the model. The 2019 IMPLAN model used for this analysis is based on a 544-industry sector and includes the same number of commodities that are produced as products and by products from those industries. The production function includes information on the amount of each input that is supplied from within the region. The total economic activity associated with the production of the inputs necessary from all the industries in the region is estimated in the indirect effects. All estimates for all eight of the economic measures are provided in the estimates of the indirect effects.

The other secondary effect, induced effect, is the impact on the region’s economy that is associated primarily with the expenditures of the household income that is generated by the direct and indirect activity. In the IMPLAN model used there are nine different household groups based on their income levels. The relative size of each income level as well the total income at each level is provided from federal government estimates and their estimated expenditure patterns are derived from the federal government’s Bureau of Labor Statistics reports on expenditures. In addition, when appropriate, the social matrix of a IMPLAN model will include government activity. Government activity allows the expected tax revenues to also be spend across the region. The capturing of the spending as defined in the model’s “social accounts” ripples across the regions industries and requires them to meet the productivity levels with additional sales, employment, and value-adding activity.

The impacts reported in this analysis are the results from 32 impacts run for each geography. Each geography had two distinct models built. One model for the construction analysis in which the production function for the construction industry used was modified to appropriately account for the soft costs (legal, accounting, architectural and engineering and company management) associated with each year’s building activity. Each of the seven buildings and landscaping activity were modeled uniquely for each year. Each of the 16 scenarios developed for the ongoing activity were specified in three other IMPLAN models (state, county, and city) without the adjustments to the construction industry, to provide a consistent base for those ongoing activities. The 16 scenarios developed for the ongoing activities were all specified for full capacity and distributed across the nine years of potential activity (2022-2030) based the share of activity estimated for that year. This distribution is presented below in Table 12.

Impact from All Activity Associated with ConnCAT Place, 2021-2030

The total economic impact from the construction and ongoing activity for ConnCAT Place from 2021 through 2030 as shown in Table 9 is estimated to be:

- $945 million in additional output for the state of Connecticut; $799 million for New Haven County; and $619 million for the City of New Haven.
- Construction and ongoing activities together are estimated to generate an average of 745 annual jobs across the state, 675 for New Haven County, and 544 in the City of New Haven from 2021 through 2030.
- Value added, the total wealth generated for the region, is estimated to be $617 million statewide, $506 million across the County and $386 million within the City of New Haven.
- Labor income associated with the construction and ongoing activity is estimated to be $452 million in Connecticut; $369 million in New Haven County; and $284 million in the City of New Haven.
The total impacts for the state across the ten year study period include the activity from construction from 2021 through 2024 and the ongoing activity that begins in 2022. For this analysis, these impacts are estimated yearly until 2030. The impacts from the construction activity account for between 23 to 28 percent of the total impact from all activity, depending on the specific economic measure as shown for the state (Table 10). The ongoing activity is specified according to 16 unique activities that begin as the facilities are completed and are specified to reach full operating capacity within two to four years.

- The four years of construction generate an annual average of 420 jobs while the scenarios for the ongoing activities specified average 641 annual jobs from 2022 through 2030. Because construction and ongoing activities overlap for three years, from 2022 through 2024, the annual average for the overall activity is 745, more than the average for either the construction or the ongoing activities, but less than the total of the two averages as would be the case if they overlapped for all years.
- The total labor income of $452 million over the ten years is split with $129 million generated by the construction activity and $323 million generated by the ongoing activity.
- 74 percent, or $454 million of the total estimated impact on the State’s value added comes from the ongoing activities at ConnCAT Place, while the remainder, $163 million, accrues to the State of Connecticut from the four years of construction.

---

7 The 16 specific ongoing activities are all specified uniquely in the model and begin as the building they occupy is completed, with a ramp-up period before they reach full operating capacity. These activities are further described in Appendix A.
Table 10: Total Impacts on the State of Connecticut from Construction and from Ongoing Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>All Activity, 2021-2030</th>
<th>Total Construction, 2021-2024</th>
<th>Total Ongoing, 2022-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (Sales+)</td>
<td>$945m</td>
<td>$232m</td>
<td>$713m</td>
</tr>
<tr>
<td>Employment (annual average)</td>
<td>745</td>
<td>420</td>
<td>641</td>
</tr>
<tr>
<td>Total Value Added</td>
<td>$617m</td>
<td>$163m</td>
<td>$454m</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$452m</td>
<td>$129m</td>
<td>$323m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

To expand on the analysis of the total impacts presented in Table 9 and Table 10 and focus on the geographic distributions, Table 11 shows the total impacts for the construction and the ongoing activities in New Haven County and the City of New Haven.

Table 11: Distribution of Total Impacts for Construction and Ongoing Activity for New Haven County and the City of New Haven

<table>
<thead>
<tr>
<th>Activity</th>
<th>New Haven County</th>
<th>City of New Haven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (Sales+)</td>
<td>$188m</td>
<td>$611m</td>
</tr>
<tr>
<td>Employment (annual)</td>
<td>345</td>
<td>597</td>
</tr>
<tr>
<td>Total Value Added</td>
<td>$126m</td>
<td>$380m</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$98m</td>
<td>$271m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The total impacts on employment shown in Table 10 and Table 11 are presented in Figure 2. The visual presentation of the geographic distributions clarifies the full impact from the regional distribution of employment. Construction generates 420 jobs across the state, with 345 of those jobs within New Haven County, and 75 jobs in the rest of the state (outside of New Haven County). Similarly, of the 345 construction jobs in New Haven County, 131 of those are within the City of New Haven, and 214 jobs are in the rest of New Haven County (outside the City of New Haven). Similarly, calculations are done for the ongoing operations. This illustrates that 31 percent of construction jobs will be generated in the City of New Haven, with another 51 percent in the rest of the County outside of New Haven, and 18 percent in the rest of the State, outside of New Haven County. In contrast, 546 of the 641 ongoing jobs (85%) are estimated to be generated within the borders of the City of New Haven, with 8 percent in the rest of New Haven County and 7 percent in other areas of the State.
Impacts by Year

The construction activity has been modeled by a distribution between soft costs (engineering, architectural, general construction management, and legal costs) and the other general construction costs across a two-year time frame for each building. The ongoing activity specified in this analysis is based on 16 likely activities as identified by the client. These activities are assumed to start after the building they are dependent on is completed and will reach full operating capacity after a ramp-up period. The estimates used for this analysis of the annual distribution of the construction costs and the percent of full capacity for each of the ongoing operations are presented in Table 12.
Table 12: Annual Distribution of Construction Costs 2021-2024 and Percent of Capacity for Ongoing Operations 2022-2030

<table>
<thead>
<tr>
<th>Construction</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 1 Headquarters</td>
<td>25%</td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 2 Performing Arts Center</td>
<td>17%</td>
<td>83%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 3 Residential/Retail/Groceries</td>
<td>56%</td>
<td>44%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 4 Medical offices</td>
<td>25%</td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 5 Parking Garage</td>
<td>20%</td>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 6 Parking Garage &amp; Townhomes</td>
<td>92%</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 7 Food hall</td>
<td>25%</td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>25%</td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ongoing operations</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 1 ConnCORP Headquarters</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Headquarters for Health Center</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Friends Center Day Care</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 2 Performing Arts Center</td>
<td>25%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Banquet Hall</td>
<td>25%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Retail &amp; Museum</td>
<td>25%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 3 Residential Apts</td>
<td>24%</td>
<td>77%</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Retail Grocery store</td>
<td>33%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Other Retail Trade</td>
<td>33%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 4 Medical back offices</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Fitness Center</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 5 Parking Garage</td>
<td>24%</td>
<td>77%</td>
<td>98%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Plaza</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 6 Parking Garage</td>
<td>73%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Greenhouse</td>
<td>73%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Building 7 Food hall</td>
<td>17%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT.

Table 13 and Table 14 show the impacts on an annual basis for output and employment, respectively. The tables show the estimated impacts based on the initial direct activity as specified in Table 12. The mix of the construction activities as well as some of the ongoing activities that occurs from 2021 to 2024.

8 Impacts for indirect and induced effects are tabulated in the year the original spending that led to those impacts occurred, although it is likely that the full impact shown in this table may be spread over time.
combine to create relatively large impacts in those years. Notably, the highest overall single-year impact on output of $122 million across the State with $98 million of that within New Haven County occurs in 2022. As discussed previously, construction activity has a smaller impact on the City of New Haven than the ongoing activity, and as such, the largest single-year impact for the City of New Haven occurs later. The necessity for some of the construction inputs to be acquired outside of the City of New Haven as well as the expected inflow of construction employee workers result in the total output and employment impacts on the economy of New Haven growing from 2021 to 2025, when the impact stabilizes at $77 million annually.

- The ongoing annual impact on output for the State of Connecticut is $102 million, from 2025 onward (as the property is fully constructed and expected to be operating at full capacity).
- The ongoing annual impact on output for New Haven County is $88 million.
- The ongoing impact on the economy of the City of New Haven is estimated to be $88 million per year.

**Table 13: Total Impact on Output from All Activity from ConnCAT Place: 2021-2030**

<table>
<thead>
<tr>
<th>Geography</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>$22m</td>
<td>$122m</td>
<td>$100m</td>
<td>$87m</td>
<td>$102m</td>
<td>$102m</td>
<td>$102m</td>
<td>$102m</td>
<td>102m</td>
<td>102m</td>
</tr>
<tr>
<td>New Haven County</td>
<td>$18m</td>
<td>$98m</td>
<td>$82m</td>
<td>$73m</td>
<td>$88m</td>
<td>$88m</td>
<td>$88m</td>
<td>$88m</td>
<td>$88m</td>
<td>$88m</td>
</tr>
<tr>
<td>New Haven City</td>
<td>$9m</td>
<td>$45m</td>
<td>$48m</td>
<td>$53m</td>
<td>$77m</td>
<td>$77m</td>
<td>$77m</td>
<td>$77m</td>
<td>$77m</td>
<td>$77m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The annual estimates for total employment are shown in Table 13, and include:

- The total impact on the state’s economy is highest in 2022, when the activity at ConnCAT Place (construction and ongoing activity) generates nearly 900 jobs.
- The effect statewide from the ongoing activity is estimated to stabilize at 822 jobs.
- For New Haven County, 767 jobs are estimated to be created from ongoing activity.
- Employment within the City of New Haven from all activity associated with ConnCAT Place is estimated to stabilize at 700 jobs.

**Table 14: Impact on Employment for Connecticut, New Haven County and New Haven City, From All Activity for ConnCAT Place 2021-2030**

<table>
<thead>
<tr>
<th>Geography</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>152</td>
<td>896</td>
<td>771</td>
<td>700</td>
<td>821</td>
<td>822</td>
<td>822</td>
<td>822</td>
<td>822</td>
<td>822</td>
</tr>
<tr>
<td>New Haven County</td>
<td>127</td>
<td>738</td>
<td>663</td>
<td>624</td>
<td>766</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>767</td>
</tr>
<tr>
<td>New Haven City</td>
<td>57</td>
<td>305</td>
<td>398</td>
<td>477</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>700</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models.

Figure 3 provides further illustration of the contribution to employment, by year and by geography, of each economic activity (construction and ongoing) related to the ConnCAT Place development. The County and State bars in Figure 3 represent the “rest of County” (excluding the portion within the City of New Haven) and the “rest of the State” (excluding the portion already counted within the City or County). For
example, 2023 has both construction and ongoing impacts for each geography. In sequence from the bottom section to the top section of the bar for that year:

- 139 – Total employment impact on the economy of the City of New Haven from all construction activity.
- 244 – Total employment impact on economy of New Haven County outside of the City of New Haven from all construction activity.
- 84 – Total employment impact on economy of the rest of the State of Connecticut outside of New Haven County from all construction activity.
- 259 – Total employment impact on the economy of the City of New Haven from ongoing activity.
- 22 – Total employment impact on economy of New Haven County outside of the City from all ongoing activity.
- 24 – Total employment impact on economy of the rest of the State of Connecticut outside of New Haven County from all ongoing activity.

This illustrates the trends discussed previously in this report; namely, that construction employment has the greatest impact in earlier years, from 2021 to 2024, and with a larger employment impact on the County, while ongoing operations have the greatest impact on employment within the City of New Haven. The “ramp up” period, during which construction is continuing and ongoing operations are not yet at full capacity, can be seen represented in the growth of the light green, dark orange, and light blue bars between 2022 and 2025.

**Figure 3: Annual Impacts on Employment by General Activity and Geography, 2021-2030**

* In Figure 3, “County” jobs refers to the rest of New Haven County, excluding those jobs already counted as part of the City of New Haven. “State” refers to jobs in the state of Connecticut, excluding those jobs already counted as part of the City or County.

**Construction Impacts by Building**
There are seven new buildings associated with the construction activity for ConnCAT Place. These seven buildings each will take two years to construct and the impact for each year for each building was specified independently in the model. As can be seen in Table 15, the construction activity generates the highest employment during 2022, when construction is underway on all but buildings 4 and 6, and 848 jobs are generated across the state. Building 3, the residential building with retail stores, will generate the most jobs both that year and the next, with 291 jobs in 2022 and 233 jobs in 2023. Overall, the 524 jobs generated by the construction activity for Building 3 reflect 31 percent of all jobs associated with construction. Table 15 also includes the generation of 82 jobs across the state associated with the landscaping activity.

Table 15: Total Employment Generated Across Connecticut from Construction Activity 2021 through 2024 by Building

<table>
<thead>
<tr>
<th>Employment</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment Generated</td>
<td>152</td>
<td>848</td>
<td>466</td>
<td>216</td>
</tr>
<tr>
<td>Building 1 - Headquarters</td>
<td>61</td>
<td>181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 2 - Performing Arts Center</td>
<td>32</td>
<td>161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 3 - Residential/Retail/Groceries</td>
<td>291</td>
<td>233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 4 - Medical offices</td>
<td></td>
<td>67</td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Building 5 - Parking Garage</td>
<td>26</td>
<td>113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 6 - Parking Garage &amp; Townhomes</td>
<td></td>
<td>166</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Building 7 - Food hall</td>
<td>13</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>20</td>
<td>62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

It should be noted that Table 15 includes not just the direct construction jobs, but also include the jobs across the state that are necessary to provide the construction activity with inputs (indirect) and the jobs generated from the within state household expenditures from the labor income associated with that activity (induced). The total impact on output as presented in Figure 4 also shows the highest activity occurring in 2022.

Figure 4: Total Impact on Output Across Connecticut from Construction Activity 2021 through 2024 by Building

The more than $116.2 million generated in 2022 accounts for 50 percent of the total of $232.5 million in total impact generated by construction activity over the four years. As with employment, Building 3 accounts for 31 percent of the total impact, with $72 million in output generated across the state.

The total impact on New Haven City from all components of value added including labor income and other profit type income from the construction activity associated with ConnCAT Place is $50 million, as noted in Table 11. This $50 million is distributed by year and by building activity as noted above with the statewide impacts for employment (Table 14) and output (Figure 4). As was noted in the State analysis, Building 3 generated the largest impact. The total impacts on value-added for the City of New Haven associated with the construction each of the buildings is shown in Figure 5 from a different perspective.
from that presented in Figure 4 for the total output impact Statewide. The perspective used for the data on value added in Figure 5 is more accurate economically, as the impacts that begin in a specific year with the direct effects are likely to accrue beyond the initial year they are identified with as companies recover inventory levels and households spend income. For example, the total impact on the City of New Haven, from Building 3 of nearly $15 million that occurs in 2022 and 2023 is shown in Figure 5 to trend to zero by 2024. The construction activity associated with Building 4 is estimated to be the second largest contributor to value-added associated with construction with just over $8 million in total value-added being generated within the City.
There are 16 scenarios developed for this analysis to estimate the potential for ongoing activities directly associated with the development of ConnCAT Place. These activities are associated with the seven buildings identified above with the total impact over the nine years from 2022 through 2030 being nearly $713 million in output, 641 annual average jobs, total value-added of more than $454 million and total labor income nearly $323 million. The distribution of these totals by building shows that the ongoing activities in building 4 accounts for $316 million (44 percent) of the total estimated increase in output and an impact on the State’s annual average employment of 263 (Table 16).
Buildings 1, 2 and 3 each have three ongoing scenarios utilizing the space created by the building while buildings 4, 5 and 6 have two each and building 7 has one. The total impacts for each of these scenarios on the City of New Haven are presented in Table 17. The largest impact is associated with the activity for the medical back offices which is estimated to generate $236 million in output and $156 million in value-added in the City of New Haven between 2022 and 2030. The labor income that will ripple across the City’s economy is estimated to be $131 million and the average annual employment generated over those years is estimated to be 213. With the fitness center in that building generating another 12 annual jobs on average over those years 225 jobs of the 263 jobs associated with Building 4 will be in the City of New Haven.

Table 16: Total Impacts Accruing to Connecticut from Ongoing Activities 2022 – 2030 by Building

<table>
<thead>
<tr>
<th>Building #</th>
<th>Output</th>
<th>Annual Employment</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>$103m</td>
<td>91</td>
<td>$68m</td>
<td>$42m</td>
</tr>
<tr>
<td>#2</td>
<td>$57m</td>
<td>65</td>
<td>$34m</td>
<td>$22m</td>
</tr>
<tr>
<td>#3</td>
<td>$129m</td>
<td>120</td>
<td>$81m</td>
<td>$54m</td>
</tr>
<tr>
<td>#4</td>
<td>$316m</td>
<td>263</td>
<td>$208m</td>
<td>$165m</td>
</tr>
<tr>
<td>#5</td>
<td>$13m</td>
<td>12</td>
<td>$8m</td>
<td>$6m</td>
</tr>
<tr>
<td>#6</td>
<td>$13m</td>
<td>13</td>
<td>$8m</td>
<td>$5m</td>
</tr>
<tr>
<td>#7</td>
<td>$80m</td>
<td>76</td>
<td>$46m</td>
<td>$29m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.
The ongoing activities are staggered in the modeling of their impacts, based on when they will reach full operating capacity. All of these activities have a phase-in requiring at least one year, with two—the parking garage in building 5 and the residential apartments in building 3—taking three years to achieve 100 percent capacity. However, by 2026 each of the scenarios are estimated to be at full operating capacity. The estimated impacts from the full capacity of each scenario are shown in Table 18. These estimated impacts are annual on the City of New Haven starting once each of the activities modeled reaches its full potential.

---

**Table 17: Total Impacts on City of New Haven from Ongoing Activities 2022-2030 by Activity Scenario**

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Ongoing Activity</th>
<th>Output</th>
<th>Annual Average Employment</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ConnCORP headquarters</td>
<td>$40m</td>
<td>28</td>
<td>$26m</td>
<td>$13m</td>
</tr>
<tr>
<td></td>
<td>Health center office</td>
<td>$14m</td>
<td>13</td>
<td>$8m</td>
<td>$6m</td>
</tr>
<tr>
<td></td>
<td>Day care</td>
<td>$25m</td>
<td>36</td>
<td>$17m</td>
<td>$11m</td>
</tr>
<tr>
<td>2</td>
<td>Performing arts center</td>
<td>$5m</td>
<td>12</td>
<td>$3m</td>
<td>$2m</td>
</tr>
<tr>
<td></td>
<td>Banquet hall</td>
<td>$17m</td>
<td>19</td>
<td>$9m</td>
<td>$5m</td>
</tr>
<tr>
<td></td>
<td>Retail &amp; museum</td>
<td>$18m</td>
<td>25</td>
<td>$11m</td>
<td>$8m</td>
</tr>
<tr>
<td>3</td>
<td>Residential apartments</td>
<td>$15m</td>
<td>9</td>
<td>$8m</td>
<td>$5m</td>
</tr>
<tr>
<td></td>
<td>Retail grocery store</td>
<td>$68m</td>
<td>75</td>
<td>$42m</td>
<td>$29m</td>
</tr>
<tr>
<td></td>
<td>Other retail trade</td>
<td>$12m</td>
<td>17</td>
<td>$8m</td>
<td>$5m</td>
</tr>
<tr>
<td>4</td>
<td>Medical back offices</td>
<td>$236m</td>
<td>213</td>
<td>$156m</td>
<td>$131m</td>
</tr>
<tr>
<td></td>
<td>Fitness center</td>
<td>$8m</td>
<td>12</td>
<td>$4m</td>
<td>$3m</td>
</tr>
<tr>
<td>5</td>
<td>Parking garage</td>
<td>$4m</td>
<td>4</td>
<td>$2m</td>
<td>$2m</td>
</tr>
<tr>
<td></td>
<td>Public plaza</td>
<td>$7m</td>
<td>6</td>
<td>$4m</td>
<td>$3m</td>
</tr>
<tr>
<td>6</td>
<td>Parking garage</td>
<td>$4m</td>
<td>4</td>
<td>$2m</td>
<td>$2m</td>
</tr>
<tr>
<td></td>
<td>Greenhouse</td>
<td>$6m</td>
<td>6</td>
<td>$4m</td>
<td>$2m</td>
</tr>
<tr>
<td>7</td>
<td>Food hall</td>
<td>$58m</td>
<td>64</td>
<td>$31m</td>
<td>$19m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

---

9 “Full operating capacity” includes an allowance for vacancy and tenant turnover.
Table 18: Total Annual Impacts on the City of New Haven from the Ongoing Activities at full Capacity by Activity Scenario

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Ongoing Activity</th>
<th>Output</th>
<th>Employment</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ConnCORP Headquarters</td>
<td>$4.86m</td>
<td>31</td>
<td>$3.19m</td>
<td>$1.65m</td>
</tr>
<tr>
<td></td>
<td>Headquarters for Health Center</td>
<td>$1.67m</td>
<td>14</td>
<td>$1.03m</td>
<td>$0.76m</td>
</tr>
<tr>
<td></td>
<td>Friends Center Day Care</td>
<td>$3.05m</td>
<td>40</td>
<td>$2.06m</td>
<td>$1.34m</td>
</tr>
<tr>
<td>2</td>
<td>Performing Arts Center</td>
<td>$0.63m</td>
<td>13</td>
<td>$0.33m</td>
<td>$0.22m</td>
</tr>
<tr>
<td></td>
<td>Banquet Hall</td>
<td>$2.12m</td>
<td>21</td>
<td>$1.13m</td>
<td>$0.67m</td>
</tr>
<tr>
<td></td>
<td>Retail &amp; Museum</td>
<td>$2.16m</td>
<td>27</td>
<td>$1.35m</td>
<td>$0.97m</td>
</tr>
<tr>
<td>3</td>
<td>Residential Apartments</td>
<td>$2.12m</td>
<td>11</td>
<td>$1.15m</td>
<td>$0.67m</td>
</tr>
<tr>
<td></td>
<td>Retail Grocery store</td>
<td>$9.25m</td>
<td>93</td>
<td>$5.76m</td>
<td>$3.98m</td>
</tr>
<tr>
<td></td>
<td>Other Retail Trade</td>
<td>$1.66m</td>
<td>21</td>
<td>$1.04m</td>
<td>$0.75m</td>
</tr>
<tr>
<td>4</td>
<td>Medical back offices</td>
<td>$38.20m</td>
<td>312</td>
<td>$25.22m</td>
<td>$21.19m</td>
</tr>
<tr>
<td></td>
<td>Fitness Center</td>
<td>$1.22m</td>
<td>18</td>
<td>$0.73m</td>
<td>$0.42m</td>
</tr>
<tr>
<td>5</td>
<td>Parking Garage</td>
<td>$0.56m</td>
<td>6</td>
<td>$0.32m</td>
<td>$0.23m</td>
</tr>
<tr>
<td></td>
<td>Plaza</td>
<td>$0.56m</td>
<td>6</td>
<td>$0.32m</td>
<td>$0.23m</td>
</tr>
<tr>
<td>6</td>
<td>Parking Garage</td>
<td>$1.07m</td>
<td>9</td>
<td>$0.65m</td>
<td>$0.48m</td>
</tr>
<tr>
<td></td>
<td>Greenhouse</td>
<td>$0.91m</td>
<td>8</td>
<td>$0.57m</td>
<td>$0.23m</td>
</tr>
<tr>
<td>7</td>
<td>Food hall</td>
<td>$7.09m</td>
<td>71</td>
<td>$3.77m</td>
<td>$2.38m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Summary of Overall Impacts by Effects

The analysis of the economic impact presented in this report includes three effects: direct, indirect, and induced impacts. The “first tier” or the direct effects of an activity were provided by the client or estimated using market data, as described in Appendix A. These inputs were then applied to the model based on the unique characteristics of the activity and the economic profile of the region. The IMPLAN model used for this analysis is based on input/output concept where each industry in the model can have a given level of output and that output is dependent on a set of inputs (commodities produced by the industries) that are defined in the production function for that industry. It is this production function that has coefficients that define the level of local use for each commodity used in the industry that generates the indirect effects estimated in an impact analysis. The IMPLAN model also includes a full set of social accounts that have estimates for spending patterns for nine different household groups based on income levels, for three types of federal government spending and three types of state and local government spending. The specific entities or institutions (households, governments, and a few others) that the model uses are specified by the user depending on the region and activity being analyzed. The induced effects estimated by the model use the regionally specified spending patterns for each of the institutions in the model’s set of social accounts to estimate the effect on the regional economy as the institutions (households, governments, etc.) spend the labor income and tax revenues generated from the direct and indirect effects.
The following three tables present the direct indirect, and induced impacts from the construction and the ongoing activities for each of the State of Connecticut, New Haven County, and the City of New Haven respectively.

The total impacts with the indirect and induced effects on the State of Connecticut shown in Table 19 include:

- The total impact on output is estimated to be $945 million across the state for the ten years.
  - This includes the direct effect of $445 million, reflecting the estimated purchases of the construction materials and payments to labor within the state as well as the output associated with the ongoing activities.\(^{10}\)
  - The indirect effects on output within the State are estimated to add $165 million in sales and inventory changes.
  - An additional $335 million in sales across the state are associated with the expected induce effect from the total activity over 10 years at ConnCAT Place.
- An estimated $452 million for Connecticut residents is estimated to be associated with this activity.
  - The immediate direct income from the activities specified over ten years is estimated to be $262 million.
  - An additional $59 million is estimated to result from the indirect effects and
  - The induced effects on labor income are estimated to be $131 million as the household earnings and state and local government revenues are spent.
- Overall, the annual average number of jobs created is estimated to be 745. These are defined by the model as both full and part time employment.
  - 469 of these jobs are created on average and continue across the ten years from the direct activity at ConnCAT Place (during both the construction and ongoing phases.)
  - On average, 84 annual jobs are estimated to be generated from the indirect effects associated with the inputs provided by business activity within the state to meet the added output requirements.
  - The expenditures of income generated by the direct and indirect activity noted above will create an additional 192 jobs annually on average over the 10 years modeled.

### Table 19: Impacts by Effects on the State of Connecticut, 2021-2030

<table>
<thead>
<tr>
<th>Impact Effect</th>
<th>Output (Annual average)</th>
<th>Employment (Annual average)</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$945m</td>
<td>745</td>
<td>$617m</td>
<td>$452m</td>
</tr>
<tr>
<td>Direct effect</td>
<td>$445m</td>
<td>469</td>
<td>$303m</td>
<td>$262m</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>$165m</td>
<td>84</td>
<td>$93m</td>
<td>$59m</td>
</tr>
<tr>
<td>Induced effect</td>
<td>$335m</td>
<td>192</td>
<td>$221m</td>
<td>$131m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The impacts that are expected to accrue to New Haven County as shown Table 20 are estimated to include:

- The total impact of $799 million on sales and inventory changes as shown in the output measure is estimated to accrue across New Haven County’s regional economy.

---

\(^{10}\) The direct effects for all ongoing activities will be the same at each geography level as the for the direct sales and employment associated with those activities occur within the City of New Haven.
This includes the initial direct effect of $420 million
- The indirect effect of $123 million
- And $256 million from the induced activity.

- This increase in activity as measured in output includes the increase in the region’s measure of wealth, value-added (which includes labor income) of $506 million.
  - The $225 million in secondary effects include $67 million in indirect effects and $158 in induced effects.
  - The total impact of the average annual employment across the county is 675 jobs.
  - This impact is initiated from the direct activity which is estimated to require 444 jobs on average annually over the ten years.
  - In addition to these direct jobs, 75 jobs are estimated to be included from the production required to meet the new output levels.
  - Wrapping up the overall impact on employment, the induced effect is expected to require 157 jobs on average annually as the increases in household incomes are spent across the county.

### Table 20: Impacts by Effects on New Haven County, 2021-2030

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$799m</td>
<td>675</td>
<td>$506m</td>
<td>$369m</td>
</tr>
<tr>
<td>Direct effect</td>
<td>$420m</td>
<td>444</td>
<td>$281m</td>
<td>$240m</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>$123m</td>
<td>75</td>
<td>$67m</td>
<td>$43m</td>
</tr>
<tr>
<td>Induced effect</td>
<td>$256m</td>
<td>157</td>
<td>$158m</td>
<td>$87m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

As already noted, significant impacts will accrue to the City of New Haven due to the economic activity of the development and ongoing operations of ConnCAT Place. As noted in Table 21 these impacts include:

- A total increase across the city over ten years of $619 million in output. This is 77 percent of the total impact on output observed for the county and 66 percent of the total output estimated across the state.
  - The direct contribution on that output is estimated to be $374 million.
  - The indirect estimate on output is estimated to be $80 million which is the sales of goods and services of other businesses within the city to meet the construction and ongoing activity at ConnCAT Place.
  - The income earned by households from the direct and indirect activity is estimated to generate an $165 million in additional sales within the city.\(^{11}\)
- $386 million is the estimated impact on the wealth that would accrue across the City of New Haven over the first ten years from the development and operations of ConnCAT Place.
  - In addition to the direct increase of $240 million the total impact on value-added includes the indirect impact of $43 million and an estimate of induced impact of $103 million.
- The total estimated impact that would accrue to households within the City is estimated to be $284 million over the 10 years.
  - The direct effect on labor income, the share paid to workers from all activities during the construction and ongoing operations at ConnCAT place, is estimated to be $200 million.

\(^{11}\) The IMPLAN model built for both the City of New Haven and New Haven County does not include the social accounts for state and local governments which follows best practice procedures for modeling economic impacts at most sub-state levels.
or 83 percent of the $240 million total direct value-added.

- The indirect and induced effects estimated by the IMPLAN model on labor income within the City’s economy are $28 and $56 million respectively.
- The total estimated increase in the annual average employment across the City of New Haven is 544.
  - This employment estimate is driven by the direct effects of 392 city residents expected to be hired annual, on average, for the construction and ongoing activities at ConnCAT Place.
  - The total of 544 annual average jobs generated to city residents by ConnCAT Place also include 51 employees associated with the indirect activity and 101 employees, again as city residents being hired to meet the demands of household spending created from this activity.

Table 21: Impacts by Effects on the City of New Haven, 2021-2030

<table>
<thead>
<tr>
<th>Activity</th>
<th>Output (Annual)</th>
<th>Employment (Annual)</th>
<th>Value-Added</th>
<th>Labor Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$619m</td>
<td>544</td>
<td>$386m</td>
<td>$284m</td>
</tr>
<tr>
<td>Direct effect</td>
<td>$374m</td>
<td>392</td>
<td>$240m</td>
<td>$200m</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>$80m</td>
<td>51</td>
<td>$43m</td>
<td>$28m</td>
</tr>
<tr>
<td>Induced effect</td>
<td>$165m</td>
<td>101</td>
<td>$103m</td>
<td>$56m</td>
</tr>
</tbody>
</table>

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

Impact Effects by Industry Sectors

The economic activity created by the construction and ongoing activity from ConnCAT Place depends on the contributions from all industrial sectors. The impacts on the major industry sectors as they are estimated to accrue for output and employment the across the state are shown in Table 22. The impacts by industry are estimated by the impact effect and Table 22 shows the total secondary effects (the indirect and induced effects) as well as the total impact across the state. The largest total effect is seen in company management sector with nearly $174 million of the $945 million accounting for only 18 percent of the total sales associated with ConnCAT Place across the state of Connecticut between 2021 and 2030 while 21 percent of the total impact on employment is generated in this sector (157 jobs out of 745 jobs statewide). The Company Management sector receives relatively large direct effects as it is identified for the headquarters of ConnCORP as well the the medical support facilities in building 4 and both of these activities are estimated to reach capacity in 2022 and 2024 respectively and therefore accrue their annual activity for a combined total of eight years. The sector that requires the largest amount of employment associated with the indirect and induced effects is the combined sector of wholesale trade, retail trade rentals and household services, 42. The annual average employment necessary to meet the economic activity indirectly generated by ConnCAT Place is estimated to be nearly 51 jobs. Overall, counting the direct activity at ConnCAT Place that sector will generate 131 annual average jobs to support all activities (including the direct effects) at ConnCAT Place. Many of the direct jobs in this sector are associated with the development of a retail grocery store and some other retail facilities that are modeled to be established in the newly created space. As such 100 percent of these direct jobs will accrue within the City of New Haven and have been modeled to go predominantly to New Haven residents.
The industry distribution of the impacts for the City of New Haven are presented in Table 23, and as would be expected they show a similar percent distribution. However, at the city level an even larger share is associated with the overall impact of the Company Management sector with an annual average of 157 of the 745 total impact on jobs across the city (over 26 percent). When comparing the total jobs by location, 142 of the 157, or 90 percent, of the jobs in that sector are in New Haven. As in Table 22 for the full impacts across the state of Connecticut, the industry sector second largest impact for both employment and output in Table 23 for the City of New Haven is the combined wholesale, retail, rentals and household services sector with $94 million over the ten years in sales and an annual average employment of 109. The restaurant, hotel and entertainment sector is estimated to generate 88 jobs on average over the 10 years of activity modeled. Also of note, the health care, social assistance and educational services sector is estimated to generate 78 jobs on average over the ten years modeled. These four industry sectors are estimated to generate about 77 percent, (417) of the total 544 jobs within the city.
Table 23: Total and Secondary Effects within the City of New Haven by Industry for Output and Employment, 2021-2030

| NAICS Industry Description (Sector)                          | Output      | Employment  |  |  |
|---------------------------------------------------------------|-------------|-------------|  |  |
|                                                               | Total Effect| Secondary Effect| Total Effect| Secondary Effect |
| All Industries                                               | $618.6m     | $244.8m     | 544         | 152.2           |
| Agriculture, Mining, Extract and Utilities                   | $7.9m       | $3.4m       | 5           | 0.6             |
| Construction                                                 | $37.5m      | $2.5m       | 26          | 1.3             |
| Manufacturing                                                | $6.0m       | $6.0m       | 2           | 1.8             |
| Wholesale & Retail Trade, Rentals, HH services               | $94.0m      | $36.1m      | 109         | 27.9            |
| Transport, Couriers, & Warehousing                           | $8.6m       | $8.6m       | 10          | 10.1            |
| Information                                                  | $8.3m       | $8.3m       | 2           | 1.8             |
| Finance, Insurance, & Real Estate costs                      | $80.9m      | $76.5m      | 23          | 20.7            |
| Professional, Scientific, and Technical Services             | $74.2m      | $20.6m      | 49          | 12.3            |
| Company Management                                           | $150.9m     | $19.9m      | 142         | 16.4            |
| Health Care, Social Assist, Ed Srvs                          | $69.5m      | $38.9m      | 78          | 33.6            |
| Restaurants, Hotels, Entertainment,                          | $64.5m      | $16.0m      | 88          | 20.5            |
| Other Services (except Public Administration)                | $14.1m      | $6.0m       | 10          | 4.6             |
| Other Non-Industry Activity                                  | $1.8m       | $1.8m       | 0           | 0.5             |

Source: ConnCORP, AdvanceCT, IMPLAN 2019 models. Dollar values are in millions of 2021 dollars.

The nearly $245 million in total sales within the City of New Haven from the secondary effects include the indirect effects that support the construction and ongoing operations at ConnCAT Place between 2021 and 2030 and the increase in household expenditures across the region as estimated by the induced effects are presented in Figure 6. While the largest secondary effect is in the combined sectors of Finance, Insurance, and real estate costs at $76 million only about $21.3 million of that is from the indirect activity with the remainder, $55.3 million coming from household expenditures. Household expenditures account for nearly 99 percent of all expenditures associated with the Health Care and Social Assistance sectors. In addition to the more than $21 million noted above being used as inputs from the specified activity at ConnCAT Place during the construction and ongoing phases Information and Company management account for $19.5 million of the nearly $80 million in the total indirect effects on sales estimated as accruing within New Haven over the ten years. As shown in Figure 6 a third important industrial sector is the Professional, Scientific, and Technical with nearly $13.4 million in sales, the indirect effect that is associated with the inputs needed for the activity at ConnCAT Place.

Figure 6

Conclusion

This analysis estimates that over ten years, from 2021 through 2030, the City of New Haven will see an increase in output associated with the development and ongoing operations of ConnCAT Place of $619
This overall measure of economic activity includes an increase to the wealth of the region estimated to be $386 million with $284 million of that increase in wealth going to workers as labor income. Overall, annually the city could see 544 jobs generated from that activity. Importantly, Table 5 shows that the ongoing activity generated from this investment could easily average 700 jobs within the city annually starting in 2025.

Countywide, including the impacts noted for the City of New Haven, the increase in total output is estimated to be $799 million. Accompanying this impact is an estimated $506 million in value added, of which $369 million is associated with labor income. Countywide, employment associated with the activity from ConnCAT Place at Dixwell/Newhallville section of New Haven is estimated to average 675 jobs over the 10 years. Starting in 2026 the model estimates that the total annual employment generated from the ongoing activity within the County would be 767.

As the activities specified in this analysis ripple across the State of Connecticut and require inputs from each of the State’s industry sectors, the model estimates a total impact on the State’s output of $945 million in the first 10 years. Carrying it over to include 2031 would push the total impact easily over $1 billion. The total wealth generated from this activity from 2021 through 2030 is estimated to be $617 million with $452 million going to labor. This activity is estimated to require 745 jobs across the state on average over the time frame analyzed. Again, the ongoing activity from this investment is estimated to require 822 annual jobs starting in 2026 with only 122 of those being outside the City of New Haven.

As a final note, impact analyses often reference multipliers. Multipliers reflect the ratio of the initial cost of the investment to the total economic activity generated by that investment, and illustrate the return from the initial investment. As was noted in the first paragraph of the executive summary the initial investment is expected to be $163 million. As this is an estimate similar in concept to total sales or output, multiplier at the city level is 3.8. That is, for every dollar invested in this activity the full return to the City’s economy will be 3.8 dollars by 2030. At the county level the economic multiplier observed is 4.9, while statewide the multiplier from this investment is 5.8. It is important to note that these multipliers, as well as all estimates in this analysis, are only the estimates of the economic returns for this investment and therefore they do not include any of the social or other non-economic benefits that will be associated with this development. These estimates also do not include any potential secondary investments that would be likely to occur within the region because of the development and operations occurring at ConnCAT Place.
## Appendix A: Modeling Assumptions

<table>
<thead>
<tr>
<th>Building #</th>
<th>Use, SF</th>
<th>Total Revenue / Total Employment</th>
<th>Base value (in 2021 dollars)</th>
<th>Assumptions</th>
<th>Capacity Scaling Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ConnCAT HQ (37,400 SF)</td>
<td></td>
<td>Total Revenue</td>
<td>$3,300,000</td>
<td>Estimate provided by client</td>
<td>Determined by dividing number of months rent is collected by 12 for each year, based on when Gross Potential Rent starts being collected - Month 23 (Nov. 2022)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Employment</td>
<td>21</td>
<td>Estimate provided by client</td>
<td></td>
</tr>
<tr>
<td>Hill Health Center (5,000 SF)</td>
<td></td>
<td>Total Revenue</td>
<td>$932,770.00</td>
<td>Estimated by multiplying employment by Implan's employee output ratio for Community Health Centers (#491)</td>
<td>Determined by dividing number of months rent is collected by 12 for each year, based on when Gross Potential Rent starts being collected - Month 23 (Nov. 2022)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Employment</td>
<td>10</td>
<td>Estimate provided by client</td>
<td></td>
</tr>
<tr>
<td>Friends Center (10,000 SF)</td>
<td></td>
<td>Total Revenue</td>
<td>$1,941,608</td>
<td>Estimate taken from Friends Centers Form 990</td>
<td>Determined by dividing number of months rent is collected by 12 for each year, based on when Gross Potential Rent starts being collected - Month 23 (Nov. 2022)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Employment</td>
<td>33</td>
<td>Estimate provided by client</td>
<td></td>
</tr>
<tr>
<td><strong>Building 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performing Arts Center (18,400 SF)</td>
<td></td>
<td>Total Revenue</td>
<td>$355,050</td>
<td>Calculated using an estimated seating capacity of 350 provided by client, multiplied by a ratio of College Street Music Hall's seating capacity and revenue, obtained from College Street Music Hall's Form 990</td>
<td>Determined based on client's proforma, which indicates Month 21 (Sept. 2022) as the last month with development costs, thus year one year of reduced costs based on total number of months operational (3months/12months), and nine years of full capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Employment</td>
<td>6</td>
<td>Estimate taken from the Shubert Theater's website, which listed six staff members in administrative roles as of Dec. 2020</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Revenue</td>
<td>$1,350,000</td>
<td>Estimate provided by client</td>
<td>Determined based on client's proforma, which indicates Month 21 (Sept. 2022) as the last month</td>
</tr>
<tr>
<td>Building 2</td>
<td>Banquet Hall (16,000 SF)</td>
<td>Total Employment</td>
<td>15.27</td>
<td>Estimated as one employee per $88,400 in rental revenue, which is equal to having one event a week at a price equal to the average of the weekend and midweek rate at The Ballroom at LoRicco Tower</td>
<td>Estimated as one employee per $88,400 in rental revenue, which is equal to having one event a week at a price equal to the average of the weekend and midweek rate at The Ballroom at LoRicco Tower</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Other museum/ Retail (13,000 SF)</td>
<td>Total Revenue</td>
<td>$1,273,978</td>
<td>Estimated by multiplying forecasted employment by Implan’s ‘Output per Employee’ ratio for Misc. Retail (Industry Code #412)</td>
<td>Determined based on client’s proforma, which indicates Month 21 (Sept. 2022) as the last month with development costs, thus year one year of reduced costs based on total number of months operational (3months/12months), and nine years of full capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Employment</td>
<td>21.66666667</td>
<td>Estimated roughly 1 employee per 600SF using data from ICSC Industry Snapshot report</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Building 3**

<table>
<thead>
<tr>
<th>Residential (139 units) (155,000 SF)</th>
<th>Economic Activity Operating Expenditures</th>
<th>$1,267,485.00</th>
<th>Sum of Operating Expenses from client’s proforma once stabilized occupancy has been reached</th>
<th>Scale is equal to the stabilized occupancy rate for non-affordable units found in client’s proforma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Employment</td>
<td>6</td>
<td>Taken as the number of roles identified under the Property Management section of the Stabilized Asset Management Chart provided by client</td>
<td></td>
</tr>
<tr>
<td>Grocery (38,000)</td>
<td>Total Revenue</td>
<td>$5,614,944</td>
<td>Estimated by multiplying forecasted employment by Implan’s ‘Output per Employee’ ratio for Food Retail (#406)</td>
<td>Estimated based on the number of months of stabilized occupancy for residential units starting in Month 33 (Sept 2023), and assuming a grocery space would either be 0% occupied or 100% occupied</td>
</tr>
<tr>
<td>Misc. Retail (10,000 SF)</td>
<td>Total Revenue</td>
<td>$979,983</td>
<td>Estimated by multiplying forecasted employment by Implan’s ‘Output per Employee’ ratio for Misc. Retail (Industry Code #412)</td>
<td>Estimated based on the number of months of stabilized occupancy for residential units starting in Month 33 (Sept 2023), and assuming a retail space would either be 0% occupied or 100% occupied</td>
</tr>
<tr>
<td></td>
<td>Total Employment</td>
<td>16.66666667</td>
<td>Estimated roughly 1 employee per 600SF using data from ICSC “ICSC Industry Snapshot” report</td>
<td></td>
</tr>
</tbody>
</table>

| Building 4 |
| --- | --- | --- | --- |

*34*
<table>
<thead>
<tr>
<th>Building</th>
<th>Use</th>
<th>Total Revenue</th>
<th>Employment</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 4</td>
<td>Medical Office/Administrative - (52,000 SF)</td>
<td>$17,324,736</td>
<td>208</td>
<td>Determined by dividing number of months rent is collected by 12 for each year, based on when development costs finish and rent collection begins - Month 46 (Oct. 2024)</td>
</tr>
<tr>
<td>Building 4</td>
<td>Fitness - (20,000 SF)</td>
<td>$914,110</td>
<td>15.04211793</td>
<td>Determined by Edge Fitness of Meriden contact’s conservative estimate of 25 employees, scaled using Building 4’s Fitness Centers SF in comparison to Edge Fitness’s SF</td>
</tr>
<tr>
<td>Building 5</td>
<td>Underground Parking - (80,000 SF)</td>
<td>$622,222</td>
<td>4.25</td>
<td>Estimated using the same capacity scheduled as the residential units from Building 3 based on the assumption this parking facility may serve those units</td>
</tr>
<tr>
<td>Building 6</td>
<td>Public Plaza</td>
<td>N/A</td>
<td>7</td>
<td>Taken as the number of roles identified under the Property Management section of the Stabilized Asset Management Chart provided by client. Assumption is other areas will share this same property management headcount</td>
</tr>
</tbody>
</table>

- Total Revenue estimated by multiplying forecasted employment by Implan’s ‘Output per Employee’ ratio for Business Support Services (Industry Code #473).
- Estimated as 4 employees per 1,000 square feet.
- Estimated by multiplying forecasted employment by Implan's 'Output per Employee' ratio for a Fitness Center (Industry Code #501).
- Determined by dividing number of months rent is collected by 12 for each year, based on when development costs finish and rent collection begins - Month 46 (Oct. 2024).
- Determined using findings from International Parking and Mobility Institute’s “IPMI Parking Data Analytics Snapshot” 2017, which approximates FT at ~3 and PT at ~2.
- Set as equal to the same capacity schedule used by Building 4 and Building 6.
<table>
<thead>
<tr>
<th>Building 6</th>
<th>Total Revenue</th>
<th>Approximated by assuming HOA fees would be $300/month</th>
<th>Derived using client's proforma, which indicates sales starting in Month 38 (Feb. 2024) and 3 units selling a month until all 16 are sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Townhomes (16 units) (34,000 SF)</td>
<td>Town Revenue</td>
<td>$57,600.00</td>
<td></td>
</tr>
<tr>
<td>Total Employment</td>
<td>N/A</td>
<td>Assumption is Townhomes will employ few to no employees</td>
<td></td>
</tr>
<tr>
<td>Parking Structure (144,000 SF)</td>
<td>Total Revenue</td>
<td>$1,120,000</td>
<td>Estimated by dividing the structure's square footage by 162, which is the square footage of a parking space per New Haven code, to determine total number of spaces. Total revenue per space per year was estimated as $5 a day for 252 working days.</td>
</tr>
<tr>
<td>Total Employment</td>
<td>4.25</td>
<td>Derived using findings from International Parking and Mobility Institute's &quot;IPMI Parking Data Analytics Snapshot&quot; 2017, which approximates FT at ~3 and PT at ~2</td>
<td>Capacity schedule is equal to the capacity schedule of the Townhomes, based on the assumption this facility may serve those units</td>
</tr>
<tr>
<td>Greenhouse</td>
<td>Total Revenue</td>
<td>$467,369.00</td>
<td>Estimated by multiplying forecasted employment by Implan's 'Output per Employee' ratio for Greenhouses (Industry Code #6)</td>
</tr>
<tr>
<td>Total Employment</td>
<td>7</td>
<td>Estimated using employment figures from CT DOL for greenhouses, which most commonly had employment in the 5 - 9 range</td>
<td>Capacity schedule is equal to the capacity schedule of the townhomes</td>
</tr>
<tr>
<td>Building 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building 7</td>
<td>Food Hall (15,100 SF)</td>
<td>Total Revenue</td>
<td>$4,680,940</td>
</tr>
<tr>
<td>Total Employment</td>
<td>55</td>
<td>Estimate provided by client</td>
<td>Determined by dividing number of months rent is collected by 12 for each year, based on when Gross Potential Rent starts being collected - Month 23 (Nov. 2022)</td>
</tr>
</tbody>
</table>
7. PROJECT TEAM QUALIFICATIONS & EXPERIENCE
RJ Development + Advisors (RJDA) is a full-service commercial real estate development company. RJDA delivers services in real estate development, acquisition, and asset repositioning for commercial and multi-family residential properties and is currently active in developing a variety of projects throughout greater New England and across all property types. With over 25 years of combined experience in commercial real estate, development, finance, and law, RJDA’s Principals offer its clients and tenants with expertise in all aspects of deal origination, planning and execution. RJDA’s recently completed and currently active development projects include: College & Crown in New Haven CT, Route 34 West Master Plan of Development in New Haven CT, The Residences at Fort Trumbull in New London CT, and ConnCAT Place on Dixwell Masterplan of Development in New Haven CT.

RJDA’s Principals have delivered over $350 Million in real estate development projects across a variety of project types and including: multi-family residential, for-sale residential, Class-A office, medical office, industrial, retail, parking, and mixed-use developments. RJDA also provides a broad spectrum of strategic advisory services to select clients in the commercial real estate space. Advisory services include, Fee Development, Financial Analysis, Project Management, Asset Management, Deal Structuring/Negotiation and Debt Restructuring.

RJDA is committed to delivering the highest quality results to its clients and partners. RJDA achieves these results through its relentless attention to detail and its unwavering commitment to the personal relationships cultivated with its partners, clients, consultants, and vendors. RJDA strives to attain an intimate understanding of its partners’ goals and objectives prior to any undertaking so that it can customize its services and delivery system to its partners’ needs. As a result, RJDA is able to predictably and reliably execute transactions -- transforming vision into reality.
As part of the Route 34 masterplan development in New Haven, CT, RJ Development + Advisors’ Principals delivered a 30,000 square foot built-to-suit corporate headquarters for Continuum of Care Inc. This $15MM Class-A office building currently serves as Continuum of Care Inc’s administrative and homecare base. Continuum of Care Inc is a non-profit 501(c)3 provider of housing and residential support services for persons with psychiatric and developmental disabilities and serves as the anchor tenant of the Rt 34 masterplan development.

The Continuum of Care headquarters building was designed by Svigals + Partners – a renowned local New Haven architecture firm – who delivered an elegant and compelling design which has significantly enhanced the aesthetic appeal of the Route 34 corridor and has set the tone for the architectural character of future additions. The attention to detail, incorporation of artistic design elements, and the overall cohesion of the design make an extraordinary contribution to the community and the development overall.

A unique financing structure was applied to capitalize the development incorporating State of CT bond funds, New Market Tax Credits, and private capital. As such, the Continuum of Care headquarters facility was the first project in the State of CT to combine New Market Tax Credits with State bond funds.

Contact—Patti Walker, President & CEO (203) 562-2264
RJ Development + Advisors LLC, in November 2019, completed the development, entitlement, and permitting of a 71,430 square foot hotel for the publicly traded Choice Hotels International (NYSE: CHH). The hotel development marks the completion of the final phase of the Route 34 West Masterplan of Development, which the RJ Development + Advisors’ Principals have led since 2013. The development site is located steps away from Yale-New Haven Hospital’s Main Campus as well as Downtown New Haven.

Choice Hotels will deliver its upscale Cambria Hotel brand as the company’s first and only entry into New Haven proper. The Cambria Hotel New Haven will include 130 rooms, an onsite restaurant / bar, meeting and fitness amenities, and more. Featuring compelling design inspired by the location, the Cambria Hotel New Haven also offer spacious and comfortable accommodations, flexible meeting space, and local freshly prepared food and craft beer.

The hotel broke ground in March 2021 and is currently under construction. Construction completion and Grand-Opening is scheduled for 3Q 2022. With its upscale appointments and offerings, the Cambria Hotel New Haven will be a welcome addition to the market and will represent a satisfying completion to the Route 34 West Masterplan of Development.
College & Crown is the premier luxury multi-family rental apartment development in downtown New Haven, CT. It is ideally located at the nexus of the City’s primary business district, the world-renowned Yale University, Yale-New Haven Hospital, and New Haven’s major retail corridor. The development boasts state-of-the-art amenity offerings, including: fitness center, two rooftop courtyards, attended front desk with concierge services, clubhouse, 140 secured and climate-controlled parking spaces, and a hotel-quality lobby. These amenities contribute to its status as the newest and most desirable luxury apartment development in New Haven. The building includes 160 studio, one-bedroom, two-bedroom, and loft style apartment units all of which are furnished with top-of-the-line finishes, including: nine-foot ceilings, granite countertops, stainless steel appliances, custom cabinetry, hardwood floors in the living areas, and upgraded bathrooms.

College & Crown also includes approximately 20,000 square feet of retail space on the ground floor. College & Crown’s retail tenants have been carefully curated to create dynamic and vibrant street level experiences that will both serve as amenities for the building residents while generating significant foot traffic at street-level, energizing the corridor. College & Crown’s retail tenants include: BonChon Chicken, Jack’s Steakhouse, JPress Men’s Apparel, T-Swirl, Shiru Café and Webster Bank.

Construction on College & Crown started in 2014 and was completed in the Fall of 2015. The asset stabilized in 2017 at 95%+ residential occupancy and commands the highest rents in the market on an absolute and per square foot basis. College & Crown recently traded at a record sale price, which is only further testament to the quality and value created by this development.
RJ Development + Advisors’ Principals are responsible for the development of several Rite Aid Pharmacies across New England. They have developed successfully for Rite Aid in each of Connecticut, Massachusetts, Rhode Island and Vermont. Each of these developments overseen were build-to-suits which required locating the site for development, developing the plans for construction, taking the project through entitlements, arranging for both construction and permanent financing, lease negotiations with Rite Aid (which was ultimately reduced to a form after the first development) and management of the completed asset.

Among these is the Rite Aid facility that is a part of the Rt. 34 masterplan development in New Haven, CT. This 14,673 square foot facility is unlike any other Rite Aid in the region. Designed by New Haven based Svigals + Partners, the facility has been meticulously detailed with specialty architecture and green elements. From the specialty brick courses to its green ‘living’ walls, the building incorporates forward-thinking design elements rarely found in prototypical retail / pharmacy architecture.

Other Rite Aid developments, overseen by RJDA’s Principals include the Fair Haven, VT store, which was constructed and was delivered in November 2017. This was a unique project from the outset as it required adherence to Vermont’s ACT 250, the Land Use and Disposition Act, that seeks to mitigate the effects of development by reviewing all aspects of the development at the State level. Now completed, the Fair Haven, VT store is a free-standing 11,151 square foot relocation of Rite Aid’s prior in-line facility.

Contact—Carrie Hoffman, Former Sr. VP Real Estate (609) 876-8622
Yves Joseph is a Founding Principal of RJ Development + Advisors LLC. In his capacity as Principal, Mr. Joseph is responsible for leading all aspects of the evaluation, procurement, financing, and execution of Real Estate Development projects. Within the broad spectrum of Real Estate Development projects that RJDA pursues, Mr. Joseph focuses on leading the growth and expansion of RJDA’s urban mixed-use development practice which focuses on developing residential multi-family, hospitality, and mixed-use development projects in urban environments throughout the northeastern United States.

Mr. Joseph has an extensive background as a Real Estate Developer and Advisor and has touched development projects throughout the United States and across product types including hospitality, residential, retail, office, industrial, casino, resort and mixed-use. Prior to founding RJDA, Mr. Joseph spent seven years at Centerplan Development Company where he was a Vice President and Principal. At Centerplan, Mr. Joseph oversaw and led the successful execution of over $100MM of new-construction development projects across multiple property types including: multi-family residential, class-A office, medical office, and retail.

Prior to Centerplan, Mr. Joseph spent four years working with RCLCO’s Development Services Group (DSG) in Washington D.C. At RCLCO, he provided strategic advisory services to a variety of clients across the United States and the Caribbean, including: Vail Resorts Development Company, MacFarlane Partners, Lowe Enterprises, The Rockefeller Group, CNL Financial Group Inc., and The District of Columbia.

Mr. Joseph received his B.A. in Economics from Harvard College and his MBA from Columbia University’s Graduate School of Business with highest honors. He is a member of several professional organizations including the Harvard Alumni Real Estate Board (HAREB), Real Estate Executive Council (REEC), the Urban Land Institute (ULI), African American Real Estate Professionals (AAREP), and International Council of Shopping Centers (ICSC). Mr. Joseph also serves on the board of directors for The Prosperity Foundation (TPF) and Jump for Haiti (J4H).
Jason S. Rudnick is one of the two founding Principals of RJ Development + Advisors LLC. Jason brings more than 25 years of experience in real estate development, sales, finance and law to all that RJDA undertakes. With a hands-on approach, Jason is involved in all aspects of RJDA’s projects from deal origination, to obtaining government approvals, to financing.

For the decade prior to founding RJDA, Jason was the President of Centerplan Development Company and oversaw more than $200 million and a million SF of development throughout New England. The developments included Retail Centers, Mixed Use Centers, Medical Centers, Industrial Complexes and Residential Buildings. Jason brings these successes and his experiences with all these developments to each of RJDA’s projects.

Earlier in time, Jason was engaged in the private practice of law at both a real estate boutique firm and the internationally known tax firm, Withers Bergman. Jason continually draws from his representation of entrepreneurs, high-net worth families and individuals, foundations, partnerships, corporations, lending institutions, investment firms and municipalities, regarding complex commercial real estate transactions. Jason’s extensive background in structuring entities, tax and finance gives him a unique understanding of the commercial finance and real estate markets.

Jason received his B.A. in history from Johns Hopkins University in Baltimore, Maryland and his J.D. from the University of Connecticut School of Law in Hartford, Connecticut. Though not practicing, Jason maintains his Bar Admissions in multiple states and was also admitted to the United States Tax Court.
Salvatore Raffone is an architect and real estate investor with over 20 years of design and project management experience. He has been recognized for leading award-winning projects globally, including a wide range of residential, commercial, institutional and public projects in New York, Seoul, Cairo and Manila. Skilled in developing business strategy, conducting financial and market analysis, navigating complex projects and negotiation, Sal possesses a rare combination of design sensibility and deep understanding of real estate transactions, development and construction that allow him to be versatile and ensure excellence in his projects.

Born in New Haven, CT, Sal received a Master of Architecture degree from Harvard University's Graduate School of Design in 2000 and his undergraduate degree in Architecture from Northeastern University in 1995. He recently received his MBA from Columbia University in 2014.

Sal has worked in Boston, New York and Connecticut for over 18 years and, prior to founding his own practice, he worked for internationally renowned firms such as Machado Silvetti, Office dA, and Skidmore, Owings & Merrill. In 2004, Salvatore established The Raffone Group, a platform of real estate related businesses engaged in investment, development and servicing, co-founded with his two brothers. His practice is supplemented by his academic involvement, and he currently holds a Visiting Assistant faculty position at the Pratt Institute School of Design. In addition, Sal has been an invited critic and lecturer at several respected institutions, including CUNY, NYIT, NJIT, UPenn, Syracuse University, Pratt Institute and the Instituto Universitario di Architettura in Venice.

Sal is a Registered Architect in New York, Connecticut and Massachusetts, and is NCARB certified. He is also a member of the American Institute of Architects (AIA).
Start with **curiosity**.  
Build **empathy**.  
Do the **hard work**.  
Seek **originality**.  
Leave a **legacy**.

It is no small thing to leave a mark on the world.

We believe that great design requires a sense of curiosity—forming deep insight into our clients, their contexts, and the human condition. As a collective of design professionals working together across diverse backgrounds and disciplines, we seek to understand and optimize all aspects of each unique environment: human experience, cultural significance, technical rigor, systems performance, and resiliency.
FIRM OVERVIEW

HGA is an interdisciplinary design firm committed to making a positive, lasting impact for our clients and communities through research-based, holistic solutions.

With over 800 architects, engineers, interior designers, planners, researchers, and strategists, HGA has built a network of expertise and a culture of knowledge-sharing to address the increasing complexities faced by our clients. With a history of working as an interdisciplinary practice, we have developed a truly integrated approach that yields inventive, efficient, and humane responses to the profound challenges of our time.

Founded in Minneapolis in 1953, HGA now has 11 locations coast to coast. Our practice spans multiple markets, including corporate, cultural, education, local and federal government, healthcare, and science and technology.
Design that answers to the future.
FORWARD THINKING
FOR A CHANGING WORLD

As a design firm, we have the unique opportunity to leave a positive impact on the world; not only with beautiful, functional buildings, but also with responsible, sustainable development.

We believe that enduring, impactful design can only hold that distinction if it fulfills its responsibility to our clients and to the environment. To us, good design and sustainability are intertwined and inextricably linked. Our projects become beloved parts of their communities, support the health and wellbeing of their inhabitants, and reach the highest levels of building performance.

As a founding signatory of the AIA 2030 initiative, we are committed to meeting our clients’ goals as well as challenging our industry. This means developing the expertise and research to push beyond net zero energy to net positive energy; from a neutral effect on health, safety, and resources to a positive one. As the need and desire for sustainable environments grow, so does the focus on high-performance buildings with sound data that we can share back with clients and our design teams.

Our decades of sustainable design experience serve our clients on new construction and renovation projects; with LEED, Living Building Challenge, and WELL certification; resilient design planning and implementation; infrastructure optimization; and sustainable partnerships. Our approach is inspired by the unique aspirations of each client, infused with our collective insight, and implemented as part of a holistic vision for a project’s impact.

HGA SUSTAINABILITY STATS

- **202 LEED PROJECTS** (certified & registered)
- **12 NET ZERO ENERGY PROJECTS** (complete & underway)
- **01 LIVING BUILDING CHALLENGE PROJECT** (in progress)
- **05 WELL PROJECTS** (certified & registered)
- **566 PROJECTS** reported to Architecture 2030
- **162 LEED ACCREDITED PROFESSIONALS** on staff
- **14 WELL ACCREDITED PROFESSIONALS** on staff
- **AIA 2030 INITIATIVE** founding signatory
- **SE 2050 COMMITMENT** signatory
- **TOP “ZERO ENERGY” ARCHITECT** by New Building Institute
- **NATIONAL ENVIRONMENTAL STEWARDSHIP** award

SUSTAINABLE DESIGN SERVICES

Third Party Certifications (LEED, WELL, etc.) • Net Zero Energy • Carbon Neutral Planning & Design • Sustainability Master Planning • Resilience Planning & Implementation • Climate Action Planning • Climate Adaptation • Decarbonization • Renewable Energy & Power Generation • Microgrids • Mass Timber
Our Commitment to Equity and Inclusion

HGA was founded in 1953 on the belief that diverse perspectives—primarily of different disciplines—are integral to great design. As a firm committed to learning and growing, our definition of diversity has evolved, and is inspiring us to build a more equitable and inclusive culture.

Guided by our beliefs and our responsibility to encourage equity throughout our industry, we are on a path to create

- a truly equitable culture, where policies, practices, and resources are aligned so all people can thrive;
- a wholly inclusive environment, in which everyone feels valued and respected; and
- a more diverse HGA, where differences are cultivated, appreciated, and reflect the world as it is today.

In 2017, with the guidance of a consultant, we performed a firm-wide survey that measured our understanding of equity issues, and where we have room for progress.

Informed by the survey results, we have invested in training for all 11 offices (almost 800 employees from coast-to-coast) to build a foundational understanding of equity and its role in HGA’s culture, in design, and in promoting equal employment opportunities.
We work to review our internal policies, practices, and procedures through an equity lens, and have made changes as a result, from recognizing differences in identity and family structure in our employee benefits, to creating partnerships with organizations focused on welcoming more people of color to the design industry, to making changes to our recruiting, hiring, and promotion practices. We have been, and will continue to be, proactive in providing promotion and pay parity for women and people of color in the same roles.

We are beginning to build a reputation, shared by just a few large design firms in the country, around our firm-wide understanding and focus on equity. It is one of three primary strategies for the firm moving forward. However, the current civil unrest in our country and the resulting call to action has accelerated our efforts, in particular in understanding the systemic racism and inequity designed into our cities, neighborhoods, and buildings. We have much more work to do and progress to make, but we will continue to broaden and deepen our efforts in order to make positive change through design.

<table>
<thead>
<tr>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>HGA starts sponsoring Equity by Design survey</td>
<td>Kicked off gender equity training with Dr. Heather Hackman (Diversity, Equity, and Social Justice consultant)</td>
<td>HGA engaged in 3rd party audit for pay equity</td>
<td>All HGA staff trained in gender equity</td>
<td>Kicked off racial equity training, which is ongoing</td>
</tr>
<tr>
<td>HGA engaged with Dr. Heather Hackman (Diversity, Equity, and Social Justice consultant)</td>
<td>Survey to all HGA on gender functions, definitions, sexism, etc.</td>
<td>Formed Equity Task Force</td>
<td>HGA trained next group of 40 shareholders in gender equity</td>
<td></td>
</tr>
</tbody>
</table>
HGA offers a full complement of architecture, engineering, planning, and design services. All of these in-house resources are available to be seamlessly integrated into our clients’ design process, if needed. This multidisciplinary approach allows us to offer great value to our clients with single-source delivery efficiencies, including the following:

- We can front-load projects with most talented people to evaluate your needs and make decisions to impact cost, schedule, and future flexibility needs
- We can expedite schedules
- We can reduce overall costs
- We can reduce change orders

<table>
<thead>
<tr>
<th>ARCHITECTURE</th>
<th>INTERIOR DESIGN</th>
<th>ENGINEERING</th>
<th>PLANNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility Consulting</td>
<td>Programming</td>
<td>Civil Engineering</td>
<td>Master Planning</td>
</tr>
<tr>
<td>Building Design</td>
<td>Master Planning</td>
<td>Electrical Engineering</td>
<td>Space Planning</td>
</tr>
<tr>
<td>Building Code Analysis</td>
<td>Space Planning</td>
<td>Industrial Engineering</td>
<td>Programming</td>
</tr>
<tr>
<td>Code/Regulatory Compliance</td>
<td>Furniture Design, Selection &amp; Specification</td>
<td>Mechanical Engineering</td>
<td>Predesign</td>
</tr>
<tr>
<td>Construction Administration</td>
<td>Site Evaluations</td>
<td>Structural Engineering</td>
<td></td>
</tr>
<tr>
<td>Construction Documents</td>
<td>Finishes and Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Estimating</td>
<td>Signage and Wayfinding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Facilities Surveys</td>
<td>Environmental Graphics and Branding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GMP Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life-Cycle Costing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape Architecture</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTEGRATED SERVICES, UNDER ONE ROOF

PLANNING
• Master Planning
• Space Planning
• Programming
• Predesign

LIGHTING
• Specialty Lighting
• Daylighting Analysis
• Custom Luminaries
• Lighting Controls
• Computer Modeling
• Lighting Calculations
• Maintenance Manuals

TECHNOLOGY
• Virtual Reality
• Telecommunications Design
• Audio/Video Design
• Security, Fire and Life Safety
• Intelligent Buildings

DESIGN INSIGHTS
• Visioning
• Workplace Strategy
• Research
• Feasibility Studies
• Change Leadership
• Real Estate Strategy
• Positive Organizational Development
Recognized nationally for design excellence, Peter has over 30 years of experience in the design of cultural, educational, civic and commercial spaces. Peter’s design process is centered on listening closely to the client and their communities, translating aspirational and programmatic needs into a compelling story and vision. As a graduate of Harvard University, Peter’s work has led to appointments to the Peer Review Committee of the GSA’s Design Excellence program as well as recognition by the American Institute of Architects, Chicago Athenaeum and the Urban Land Institute.

SELECTED EXPERIENCE

ConnCORP | Connecticut Center for Arts and Technology “ConnCAT” Place Feasibility Study
New Haven, Connecticut

District of Columbia Public Library | Benning Neighborhood Library
Washington, DC*

Embassy of South Africa | Modernization and Expansion
Washington, DC*

Metropolitan Police Memorial Foundation | Memorial Concept Design
Washington, DC*

National Great Blacks in Wax Museum / Justice Learning Center
Baltimore, Maryland*

North Carolina Museum of Natural Sciences | Programming, Concept, Schematic Design (Public Spaces)
Raleigh, North Carolina*

Queens Borough Public Library | Langston Hughes Community Library and Cultural Center
Queens, New York*

Smithsonian Institution | National Museum of African American History and Culture
Washington, DC*

The Thomas Jefferson Foundation | Monticello
Contemplative Site & African American Burial Ground
Charlottesville, Virginia

Architect of the Capitol | Capitol Visitor Center
Exhibition Hall Redesign
Washington, DC

Brookfield Properties | Reston Crescent Master Plan
Reston, Virginia*

LCOR | Marriott Headquarters Concept Study
Bethesda, Maryland*

Lennar | Hunters Point Master Plan
San Francisco, California*

Neustar | Tenant Improvements
Sterling, Virginia

Western Development | Global Center of for Climate Resilience Feasibility Study
Washington, DC*

EDUCATION

Masters of Architecture: Columbia University Graduate School of Architecture, Planning and Preservation

Bachelor of Arts in Visual and Environmental Studies: Harvard University

REGISTRATIONS / AFFILIATIONS

Licensed Architect: DC, MD

American Institute of Architects: Member
National Organization of Minority Architects: Member
Peter K. Dahl, Ph.D., LEED AP BD+C & O+M, CEM
Principal – Energy and Infrastructure

Peter is a principal for HGA’s energy and infrastructure group. He has extensive experience identifying, evaluating and implementing sustainable solutions for office, healthcare and higher education projects nationally. He partners with building owners to evaluate their current energy state and identify sustainable design opportunities to increase energy and resource outcomes. His expertise includes sustainable design, energy assessments, energy modeling, feasibility studies, sustainable master planning, climate action plans, retro-commissioning, and sustainable building rating systems such as LEED and ENERGY STAR.

SELECTED EXPERIENCE

Abbott Northwestern Hospital
Chilled Water Plant Optimization  |  Minneapolis, Minnesota

Aurora Health Care
Aurora Baycare Medical Center; Retro-commissioning
Green Bay, Wisconsin

Boston Scientific
WELL and LEED Consulting  |  San Jose, California

California State University - Monterey Bay
Student Union Building  |  Seaside, California

Cedars-Sinai Medical Center
MEP Assessment  |  Los Angeles, California

East Los Angeles College
Central Utility Plant Study  |  Monterey Park, California

Gundersen Health System
St. Joseph’s Hospital and Clinics; Replacement Critical Access
Hospital and Clinic  |  LEED Consulting  |  Hillsboro, Wisconsin

Hennepin County
Hennepin Energy Recovery Center  |  Minneapolis, Minnesota

Hines
LEED-EB Volume Program  |  321 N. Clark  |  300 N. LaSalle  |  One N. Wacker  |  131 S. Dearborn  |  Chicago, Illinois

Hines
LEED-EB Volume Program  |  Atlanta Financial Center  |  Atlanta, Georgia

Hines
LEED-EB Volume Program  |  Carillon  |  Charlotte, North Carolina

Minneapolis Institute of Art
Facilities Assessment and Capital Planning Analysis  |  Minneapolis, Minnesota

Milwaukee County Zoo
Clean Energy Plan  |  Milwaukee, Wisconsin

Minnesota Orchestral Association
Orchestra Hall Engineering Assessment and LEED Certification  |  Minneapolis, Minnesota

Wellesley College
Career Education  |  LEED Consulting  |  Wellesley, Massachusetts

EDUCATION | AFFILIATIONS

Ph.D. in Architectural Engineering
Pennsylvania State University, 2008

Integrated Bachelor & Master, Architectural Engineering
Pennsylvania State University, 2004

Certified Energy Manager
#22187

U.S. Green Building Council
Board of Directors 2012 - 2017; Vice President, 2015; Market Leadership Advisory Board Volunteer Chair, 2016; Technical Lead for Performance Metrics Initiative 2012-Present; Education Committee 2009-2011; Membership Committee 2008-2009

American Society of Heating, Refrigerating and Air-Conditioning Engineers
Member

LEED AP BD+C & O+M
U.S. Green Building Council
AMANDA CLEMENTS, PE
PROJECT MANAGER, STRUCTURAL ENGINEER

Amanda has been with HGA for more than 19 years, beginning her career in the Minneapolis headquarters and continuing leadership in Alexandria since 2014. Both a licensed structural engineer and experienced project manager, Amanda has served in both roles for projects across multiple practice sectors, including corporate, government, cultural, higher education, and healthcare. As a Project Manager, Amanda brings her experience in an integrated A/E setting, which leads to understanding of all aspects of the design and construction process. Her style is both energetic and highly organized and she helps the team work together toward project goals in an efficient way. She has excellent communication skills and is a skilled facilitator who works closely with client leadership and stakeholders in creating transparent and inclusive processes. One of her specialties is facilitating pull scheduling exercises and facilitated work sessions, which enable teams to collaborate within proactive, efficient, and client-focused frameworks.

SELECT EXPERIENCE

Architect of the Capitol | Capitol Visitor Center
Exhibition Hall Redesign
Washington, DC

Bowie State University | Henry Administration Building
First Floor Enrollment Management Modernization
Bowie, Maryland

Brambleton Group LLC | Library and Office Building
Ashburn, Virginia

Capital One | Capital One Hall
Tysons, Virginia

Commonwealth of Pennsylvania | New State Archives Facility
Harrisburg, Pennsylvania

Commonwealth of Virginia | Northern Virginia Science Center
Loudoun County, Virginia

Discovery World at Pier Wisconsin
Milwaukee, Wisconsin

General Services Administration | Confidential Central Utility Plant 2
Washington, DC

JBG Smith | National Landing The Parks Facade Replacement
Arlington, Virginia

LifeBridge Health | Center for Hope
Baltimore, Maryland

North Dakota Heritage Center | State Museum Expansion and State Archives | Exhibit Design Assist
Bismarck, North Dakota

Orange Regional Medical Center | MOB and Cancer Center
Middletown, New York (Forum Studio)

Skanska USA | Harrison Substation Rebuild
Washington, DC

Thomas Jefferson Foundation | Monticello Contemplative Site and African American Burial Ground Project
Charlottesville, Virginia

University of Virginia | 515 and 545 Ray C Hunt Drive | Heart and Vascular Center Fontaine | Nobel Laureate Gallery and Terrace | North Grounds Mechanical Plant
Charlottesville, Virginia

Virtua Health | Replacement Facility
Voorhees, New Jersey

EDUCATION | AFFILIATIONS

Master of Architectural Engineering
Pennsylvania State University

Bachelor of Architectural Engineering
Pennsylvania State University

Professional Engineer
Minnesota (44218), Virginia (0402058588)
VANCE CUNNINGHAM
PROJECT COORDINATOR

Vance bring six years of experience on project types such as government and embassy work. Vance gained extensive knowledge detailing production of construction documents and specifications, managing coordination efforts between consultants and architecture, and collaborating and working closely with other Architects and Project Managers to successfully complete a variety of efforts.

SELECTED HEALTHCARE EXPERIENCE
Architect of the Capitol | Capitol Visitor Center
Exhibition Hall Redesign
Washington, DC

Architect of the Capitol | National Library Services
Washington, DC

Consulate General of the United States of America
Harare, Zimbabwe

Consulate General of the United States of America
Nuevo Laredo, Mexico

Consulate General of the United States of America
Rio de Janeiro, Brazil

Consulate General of the United States of America
Doha, Qatar

Salvation Army Headquarters | Office Renovation
Alexandria, Virginia

Salvation Army Headquarters | Bridge Study & Addition
Alexandria, Virginia

TLC Group | Urbano 116
Alexandria, Virginia

TLC Group | Urbano Mosaic District
Fairfax, Virginia

TLC Group | Augie’s Mussel House and Beer Garden
Alexandria, Virginia

Children’s National | Vertical Transportation and Entry Enhancements
Washington, DC

Thomas Jefferson Foundation | Monticello
Contemplative Site and African American Burial Ground Project
Charlottesville, Virginia

Department of the Army | OFMD HQ Transportation Services Center Feasibility Study
Washington, DC

Secure Government Building Complex | Phase III
Undisclosed Location

EDUCATION | AFFILIATIONS
Bachelor of Architecture
Howard University

Future Cities Program
Institute of Advanced Architecture of Catalonia
Cultural centers serve a unique role in preserving local history and culture. This mission has expanded in recent decades to accommodate new levels of educational uses, digital technology hubs, and social gathering. HGA's team of experts is skilled at balancing the evolving nature of cultural programs in museums, historical societies, religious gathering spaces and community hubs with the specialized technical requirements often needed to support them. Cultural spaces must be designed with the long-view in mind, able to embrace traditional uses today while also being flexible enough to encourage and support what’s next.

We have developed a national reputation for designing extraordinary cultural facilities that artfully balance form with function. Our breadth of experience and expertise gives us a unique view of peer benchmarks and technical innovations relevant to our clients. These, along with the following guiding principles, creates a collective insight that results in extraordinary solutions.
Located at the heart of Capital One Center, a new 24.5-acre, mixed-use urban redevelopment of Capital One’s corporate headquarters. The flexible new corporate and performing arts center comprises several public spaces suited to host a range of large and small events –from community-based programs to international theater or concert tours –as well as office and meeting spaces for the company.

The Hall stands at a hub of multi-modal transportation options, where pedestrians, cyclists, Metro riders on the Silver Line, and drivers can come together to enjoy the convenience of a dynamic live, work, play environment enhanced by some of the area’s most unique offerings. The building itself brings together key features of urban life, including a street-level grocery store, state-of-the-art performance and event spaces in its interior (The Atrium: 1,600-person flexible space, The Vault: 250-seat black box theater, The Main Theater: 1,600-seat performance hall), and a fully landscaped rooftop park (The Perch), featuring a biergarten, open-air amphitheater, bocce courts, and sculpture garden. Also included in the program are conferencing and meeting rooms, gallery areas, terraces, and bars/concession stands.
Originally constructed in 1905, the Beaux-Arts inspired Minnesota State Capitol had reached a critical deterioration point. By 2010, with crumbling exterior marble and stone, antiquated systems, inefficient public areas, and poorly conserved paint and murals, it became clear this century old masterpiece needed a comprehensive restoration.

After studying and assessing these areas of improvement, HGA identified three primary objectives for the project: improve functionality, enhance security systems and infrastructure; and preserve and restore the architectural integrity of this historic landmark. Today, the Minnesota State Capitol enjoys all the conveniences of a modern, state-of-the-art government building. The project balanced innovative solutions and high impact interventions with technical restoration, while seamlessly integrating modern systems into the historic fabric.

**PROJECT DATA**

**Services Provided:** HGA provided architectural/design, facility planning/assessment, pre-design, interior design, lighting design and structural engineering.

**Dates Services Performed:** Design start 2012; construction complete 2017

**Project Size:** 378,826 SF renovation

**CLIENT REFERENCE**

Wayne Waslaski Senior Director, State of Minnesota, Department of Administration
651.201.2548 | Wayne.Waslaski@state.mn.us
Integrating a welcoming experience with the landscape

For more than a century, the Walker Art Center has been one of the nation’s top contemporary art institutions. Nestled on a sloping hill just outside of downtown Minneapolis, the Walker campus is home to a diverse program focused on visual, performing and media arts.

HGA created a more visitor-friendly and welcoming entry experience at the Walker’s front door. The new addition was designed as the epicenter of the Walker Art Center’s 19-acre campus to strengthen the museum’s identity and presence. The project is part of a larger re-imagination of the museum’s garden campus, including the construction of an “Open Field” to provide flexible, impromptu programming to accommodate large-scale public events.

The project reinforces the Walker’s status as an artistic, social, and virtual hub and a national model of civic engagement through the integration of the landscape with the built environment. Landscape integration drove the design concept for the new construction. The addition was nestled into an existing hillside with a green roof above to seamlessly integrate with a new 6-acre garden. Expansive windows highlight activity inside and frame views to the surrounding landscape.
The Soraya serves as the intellectual and cultural heart of the San Fernando Valley hosting a rich array of arts performances, esteemed lectures and special events for the University community and beyond. This acclaimed multi-use arts facility features a technically and acoustically superior 1,700 seat auditorium, designed to seamlessly accommodate theatre, dance, music, lecture, radio and film. Unique design elements were skillfully integrated to allow for state-of-the-art acoustic, audio and lighting adjustments, resulting in a hall that accommodates a high degree of fine tuning yet retains its dramatic appearance. Designed to LEED Gold, the Soraya also features a 178-seat black box, 254-seat recital/lecture hall, dressing and green rooms, rehearsal space, costume, scene, props and paint shops, computer design labs, radio/music production studios, and gallery and events spaces.

HGA began master planning and feasibility work on the center in 2001, which led to continued full services from program confirmation through construction.
The nature of education is changing rapidly. Each generation of students experiences new models of learning and engagement.

Designing for learning provides an opportunity to create significant academic impact and distinct visual identity with academic buildings, gathering spaces, arts centers, residence halls, and more.

Spanning 60 years and hundreds of diverse campuses nationwide, our portfolio in education includes iconic, award-winning facilities that adapt to evolving academic needs while staying true to their institutional missions.
Situated at the nexus of student life on the Tempe campus of ASU, the Student Pavilion serves as a central hub for the community. Here, students experience campus life through performances, study and social interaction—all occurring within a building that demonstrates mindful design and construction, healthy environments, and a University’s commitment to sustainability in the built environment.

As part of ASU’s goal to achieve carbon neutrality by 2025, the Student Pavilion aims to become the University’s first and largest net zero energy (NZE) building. The facility is powered by an adjacent photovoltaic array in conjunction with a building mounted array, with other green features including: chilled-beam and indirect evaporative cooling; external window and wall shading; energy-efficient office, classroom and kitchen equipment; high-efficiency heating, ventilation, and air conditioning (HVAC) systems; interior daylighting, including solar tube use; LED and energy-efficient lighting systems.

The lighting design contributed to the building’s NZE achievement and LEED Platinum® certification. Focusing on energy allowed for maximum impact at 0.58W/sf for the entire project lighting power density. The event space lighting itself is 30% below code. With energy as the driving factor, the architectural lighting design is controlled and constrained. Optimization of both the natural and electric lighting design reinforces the variety of programming for students and faculty. Lighting placement is focused on the task, while considering visual comfort and architectural integration with both interior and exterior elements.
Beginning with an arts master plan in 2005, HGA collaborated with Macalester College to transform their campus arts precinct into an interconnected arts complex via a multi-phased approach.

In Phase I, the Music Building was transformed into a state-of-the-art facility with greatly increased functionality and flexibility. Anchored by a new light-filled, two-story Arts Commons, the project created a welcoming front door to the arts and a highly sought-after gathering space on campus. Phase II transformed the Fine Arts building, providing safe and functional spaces for studio art instruction and exhibition opportunities. Phase III addressed the needs of the Theatre and Dance Department. Requiring demolition and new construction, the facility now provides spacious and flexible teaching, rehearsal and performance space for theatre and dance including a dedicated “white studio” for dance rehearsal. The building also provides nine new active-learning classrooms for use by all college departments.

### PROJECT DATA

**Services Provided:** HGA was design and architect of record providing architecture, interior design, landscape architecture, cost estimating, fundraising materials, and engineer of record for Phase III.

**Team:** HGA, Schuler Shook, Acoustic Distinctions

**Phase I Music & Commons:**
- 108,000 SF | $27.4M | 2012

**Phase II Art:**
- 34,000 SF | $14M | 2014

**Phase III Theatre, Dance and Classrooms:**
- 59,000 SF | $26M | 2019
To meet the demands of growing Physical Sciences, Life Sciences and Family and Consumer Studies divisions, HGA led the programming validation and subsequent design for the new 73,767 SF Physical Sciences building. The new complex unites the once scattered science programs into a multi-disciplinary, flexible learning environment and puts “Science on Display”.

The design mimics living biological organisms inspired by nature and incorporates concepts of sun, water, and wind. For example, a tree-like canopy of photovoltaic panels blocks and captures the intense summer solar rays, yet allows the lower, winter sun to penetrate and warm the outdoor spaces. The PV canopy provides this much needed shading, but also accounts for over one third of the building’s energy needs.

An outdoor solar lab compliments an indoor solar lab that includes monitors for students to track building energy production from photovoltaic panels. An outdoor classroom offers flexible learning configurations, enhanced with plug-in options for laptops. Corridor alcoves, lounges, and the open-air science court encourage interaction between students, faculty and staff to extend learning experiences beyond the classroom.

**PROJECT DATA**

**Size:** 73,767 SF New Construction

**Project Data:** Magdalen Yen Hron AIA, LEED AP BD+C
USC Design Management
(former LACCD Design Manager)
3434 South Grand Avenue, CDF,
Los Angeles, CA 90089
T: 213.740.8224 | E: hron@usc.edu
MIXED-USE & MULTIFAMILY

The most successful multifamily developments combine environments that serve to live, work, and play, all while enhancing market appeal. The distinctive spaces that we design provide great benefit to investors and developers, while enhancing the community and providing wonderful places to call home.

HGA provides creative unit planning and design, knowledge of all the amenities tenants want in their buildings, efficient parking and connectivity to great outdoor spaces.
Our incremental redesign of a 5-building office complex is part of a comprehensive redevelopment of a 6 million SF mixed-use urban site, anchored by a new corporate headquarters complex. We are engaged in a collaborative revitalization and place-making process involving landscape and streetscape designers, retail strategists, urban planners, and architects. This team is charged with transforming a car-centric precinct of stand-alone towers into an inviting, walkable, urban setting that appeals to a new generation of tech workers.

The designs build upon a flexible ‘kit of parts’ that we created to provide appropriate scale, openness, and visual coherence while allowing the renovation work to be implemented for diverse uses at different scales over time. We sought to transform a weighty, shadowy, monolithic precast concrete environment into something light, inviting, transparent, and refined. The designs use purpose-built, localized interventions to bring about dramatic and coherent change across a very large complex. A primary goal is to elevate and dignify an aging, fussy, Brutalist complex with simple, restrained gestures.

Our work distills the transformative goals laid down by the larger collaborative team into site-specific designs that provide varied and accessible experiences at a human scale.

The keystone project within the complex is an amenity hub that anchors a large landscaped court and provides meeting and co-working space with strong connections to nature. The project addresses a well-established market demand for shared space where people can work and collaborate outside traditional workplace settings.

The design celebrates openness, visibility and human scale, introducing warm materials and refined details into a challenging precast concrete environment.
Roughly 70 of Dixwell Plaza’s Dixwell neighbors, business owners, and community organizers attended the two-hour gathering, which featured a presentation update by the project’s lead architect, HGA Design Principal Peter Cook.
ENGAGING & INSPIRING THE COMMUNITY

CONNMCORP | CONNECTICUT CENTER FOR ARTS AND TECHNOLOGY “CONNMCAT” PLACE AT DIXWELL MASTER PLAN
NEW HAVEN, CONNECTICUT

Upon completion, ConnCAT Place will be a vibrant, arts-focused development providing needed services to the Dixwell and Newhallville communities in New Haven. Guided by ConnCAT’s (Connecticut Center for Arts and Technology) mission to “inspire, motivate, and prepare youth and adults for educational and career advancement, through after-school arts, and job training programming”, ConnCAT Place will become a neighborhood center.

Located at the edge of Yale University, it will include a wide range of spaces including mixed-income housing, start-up office and incubator spaces, a grocer and food hall, a 350-seat Performing Arts Center, a wide range of Classrooms and Teaching Labs, a Community Health Center, an array of Retail spaces, a Daycare Facility, and an Art Gallery featuring the work of internationally recognized artists; all envisioned to create an economically and environmentally sustainable live-work-play neighborhood. At the center of this neighborhood a Public Plaza will be created as the heart of ConnCAT Place at Dixwell.

HGA was engaged in 2019 to explore alternate master planning and programming approaches. At the conclusion of the successful initial phase, HGA was retained as the design architect, advancing the design and integrating sustainability concepts throughout.
DOMUS APARTMENTS
Milwaukee, Wisconsin

LUXURY LIVING IN THE THIRD WARD
DoMUS is a premier mixed-use six-story building located on the Milwaukee River in the city’s Historic Third Ward. The new building includes 132 luxury apartment units, ranging in size and type, and 175 interior parking spaces. On the first level, two retail tenants occupy the east and west corner. The apartment units, on levels two through six, showcase luxury, high-end finishes and features creating an experience of high quality living. The residents of DoMUS have amenities that include a club room, a fitness club, and direct access to Milwaukee’s Riverwalk unlike any other housing property.

The design achieves a refined experience from the building’s front lobby to the inside of the units. Luxury living can be felt throughout all spaces in the building.

DETAILS
Size: 228,500 SF
Completed: April 2017
Cost: $42.3 Million
Contact: Bob Monnat | Chief Operating Officer
414.270.2741 | rbm@mandelgroup.com

AWARDS
2018  IIDA Wisconsin 1st Place Residential
The intent of this 75,000 SF design was to create artist live/work affordable housing, along with arts-oriented venues and services, to draw artists from local colleges and neighborhoods to the Arts District.

The program called for a wide diversity in unit types, drawing on the developer’s previous experience in adapting warehouses into artists’ housing. Each unit is adaptable with layouts maximizing flexible open space—allowing for living changes, as well as, work and exhibit needs. Two-story central commons areas and a large workshop on the lower level provide space for exhibits and interaction.

The city required the building’s exterior to address the scale and architectural style of the area. The design knits together historic context, while reflecting the diversity of the inhabitants and their work on the inside.
HGA works with corporate clients on new and renovated office buildings and workplaces across the country. We have deep experience in everything from the latest workplace trends to efficient affordable floor plates to renovations of existing facades.

We work with nimble start-ups to Fortune 10 leaders, to strategize, design, move, and change their workplaces. We value developing and maintaining client relationships, some for decades, to help companies adapt their workplaces as their capabilities and needs change. We are proud to collaborate with corporations around the world, creating workplaces that foster collaboration and innovation.
COMMITTED TO THE COMMUNITY

FORTUNE 500 FINANCIAL SERVICES ORGANIZATION | CORPORATE CENTER | MINNEAPOLIS, MINNESOTA

Located within the downtown central business district, the new corporate center for a Fortune 500 financial services organization reflects the company’s commitment to Minneapolis, but also a strengthened connection between the Minneapolis downtown core and the growing Elliot Park and East Town neighborhoods. The Corporate Center anchors the vision for a proposed full block redevelopment that also includes a pocket park, two levels of below grade parking and a shared center court drive.

The public areas of the building represent the client’s commitment to its clients and especially the neighborhood by providing community-centric spaces including a welcoming lobby, an art gallery, a credit union, a reflection room and a coffee café, all of which are connected to the well-established downtown Minneapolis skyway system. The building design incorporates opportunities to showcase both their culturally significant art collection and the unique brand and mission.

An open communicating glass-enclosed stair tower links all eight floors of the building and encourages connection and collaboration amongst employees throughout the day. Each upper level office floor plan is anchored by the communicating stair and a welcoming café style space that includes informal seating, meeting spaces and an open pantry. The modern workplace is designed as a flexible office environment with fixed elements at the building core, open office workstations and meeting spaces along the perimeter. It is organized into work zones ranging from active and collaborative near the stair tower “front porch” to more focused, quiet zones on the opposite end of the building.

The building was completed in June of 2020.
For more than 15 years, HGA has provided Apple Federal Credit Union (AFCU) with architectural and interior design services for their headquarters and branches throughout Northern Virginia.

HGA recently completed AFCU’s new six-story, 150,000 SF new corporate headquarters at Fairfax Corner, Virginia.

The high-performance office building was developed by The Peterson Companies for AFCU and is designed to meet LEED certification through energy and water saving strategies, as well as increased indoor environmental quality. The headquarters includes an AFCU bank branch, conference and training areas, as well as a fitness center for employees.

AFCU has relocated 225 employees from previous current headquarters located in Fair Oaks, which was also designed by HGA.

The project includes a new seven-level parking garage, featuring 990 parking spaces.
Mortenson is a well-established construction company based in Minnesota. They relocated their DC Metro Area headquarters to Westpark Drive. Prior to occupancy, they wanted to renovate the space to fit their current needs and accommodate future growth.

Primary goals included showcasing Mortenson’s work using as many natural materials as possible. We used steel, concrete, metal, and wood throughout the space, while staying true to Mortenson’s roots, incorporating a general aesthetic reminiscent of Minnesota and the Midwest. Our design concept is elegant, sleek, simple, and timeless, with a hint of Mortenson’s signature blue permeating the space.

We emphasized the high ceiling by leaving it open with suspended acoustical tiles. We designed this office with an open floor plan of work stations, as well as closed offices for senior level employees, allowing everyone to enjoy the natural light.

The space also includes a lobby, two large conference rooms, a break room, mother’s room, three smaller meeting rooms for collaboration, a bid room, and SCIF space. The break room multi-purpose for uses such as hosting events and collaborating, and offers different types of seating: booths, tables, and a bar island.
With this expanded 62,000 SF office on the top three floors of the prestigious 387 Park Avenue South building, HGA’s design doubled Criteo’s footprint in New York City with a space that embodies the Criteo’s culture of innovation and collaboration.

A contemporary office design was critical to Criteo’s new location, as the company uses the environment as a major recruiting tool. Named a “Best Place To Work” by Crains and Advertising Age, the company’s culture is enhanced by fully stocked kitchens, frequent office events and outings, happy hours, and arcade and game rooms that inspire friendly competition and camaraderie among coworkers. Criteo strives to ensure its employees enjoy coming to work every day by providing an environment that inspires them to be innovative and the best in the industry.

HGA’s fresh, motivating design captures Criteo’s culture of innovation and collaboration. The offices feature an open layout, with no private offices; a spacious town hall and pantry area that opens up to a training room; numerous small conference and meeting rooms with teleconferencing capabilities; and large skylights to provide ample day lighting. An interconnecting staircase with stadium seating and an amphitheater below encourages teaming and collaboration. Exclusive access to the building’s 2,000 SF outdoor roof deck includes a glass penthouse and rooftop garden, creating a perfect area for social gatherings and client conferences.

Criteo’s signature color, orange, and the “swoosh” from the brand’s logo are incorporated into numerous design elements, including the reception desk and acoustical ceiling treatments. This project was designed to meet LEED® Gold certification under Building Design + Construction guidelines.
Bypassing the typical design aesthetics found in many of the area’s tech start-ups, we transformed this 65,000 SF space by using subtle interior design elements.

HGA completed the office interior design for Ooyala, a leading innovator in premium video publishing, that accommodates 200 additional employees for the tech company’s future expansion plans. Included are two open office areas, two circular innovation rooms, more than 50 conference rooms and an all-hands area equipped with a kitchen, espresso cafe, library and employee gym.

As Ooyala means ‘cradle’ in Telugu Indian, cradle concepts were incorporated through architectural circles and soft curves, ranging from the lobby’s lighting fixtures to the shape of the collaborative innovation rooms. Minor pops of the company’s signature colors are balanced by various shades of gray.

Employee feedback challenged the design team to create a space that connects all employees with amenities for a “work-play” atmosphere. The result is a 25-foot collaboration tunnel inspired by a camera’s zoom lens to serve as the cornerstone of the design. Also included is a large, all-hands area for employees to break for lunch, as well as an espresso café and a library – all easily accessible via a scooter or skateboard along stretches of concrete hallways.
HGA continues to work with Accenture in implementing Accenture’s workplace standards, “Workplace 2.0”, across the United States and Canada. We have become a trusted partner to Accenture and have a deep understanding of their workplace strategy, design standards and project preferences.

Each project presents the opportunity to create a design and aesthetic that responds to the local region within the framework of Workplace 2.0, achieving the desire for unique environments that function in a familiar and consistent fashion.

Accenture’s projects continue the evolution of the modern workplace with an emphasis on flexibility, technology integration and a variety of spaces that support and encourage interaction and collaboration.

“Our friends at HGA have delivered yet another stellar office project...in my opinion – the best decision we have made where designers are concerned. A true partnership in how we work together.”

- Karen Pelletier, Corporate Operations Executive, Accenture
Adobe's existing space was 15 years old and a labyrinth of enclosed offices that was in need of updating. They were intrigued with our completed Visa project in Palo Alto. Our resourcefulness to balance budget with aesthetics was very appealing to Adobe.

We worked closely with the client to develop design standards for the 4 floors keeping in mind the implementation of these standards to future east tower floor renovations. Although we were brought on to refresh 4 floors of the East Tower, the client recognized the ease of working with our team and hired us to enliven their swing space. Both buildings call for open office, collaboration areas, break areas, labs, phone rooms, and conference rooms.

One of the challenges designers face during the planning and design process, is that diagrams, drawings, floor plans and other 2D media can be difficult to convey and help visualize the design intent. Virtual Reality was able to teleport the client into concepts early and allow them to walk through the virtual space to better understand layouts, adjacencies, workflows, space character and finishes.
COMMERCIAL & HOSPITALITY

The most successful multifamily developments combine environments that serve to live, work, and play, all while enhancing market appeal. The distinctive spaces that we design provide great benefit to investors and developers, while enhancing the community and providing wonderful places to call home.

HGA provides creative unit planning and design, knowledge of all the amenities tenants want in their buildings, efficient parking and connectivity to great outdoor spaces.
HILTON ROCHESTER/MAYO CLINIC
Rochester, Minnesota

HOSPITALITY DESTINATION
Located two blocks from the renowned Mayo Clinic, the Hilton Rochester Mayo Clinic Area building includes a 264-room hotel, conference center, fitness center with pool and wellness terrace, as well as retail and office space, all connected to a seven-level parking structure.

The architecture of Hilton Rochester features a six-story, granite, glass, and metal panel podium housing many of the building’s amenities. This is followed by a vertical tower clad in glass and simulated, variegated limestone metal panels. The aesthetic recalls the quilted pattern of Midwestern agricultural landscapes viewed from above, while also paying homage to the exterior of the Mayo Clinic Building.

Interior planning aesthetically integrates the hotel lobby, conference center, skyway, and wellness floor into a seasonal landscape concept while distinguishing the identity of each space. For instance, the terrace is subdivided into activity zones while the pool deck extends onto the terrace through unified wood and tiled surfaces, linking interior and exterior.

The building is part of a major investment in downtown Rochester and will continue to diversify the dining, hospitality, and recreational options downtown.
Minneapolis’s Prospect Park, Surly Brewery links the public to the beer-production process. The building features streamlined massing, flat roof and corrugated metal siding that reflect the industrial character of the neighborhood and the Surly brand. Working hand in hand with Surly’s creative director, the building and its infrastructure are created to highlight the brewery process and the story of Surly. Throughout the building and site, strategic connections were created to link people to one another and the brewery. Through a carefully choreographed tour route and carefully curated graphics, visitors are immersed in the Surly Destination Brewery Experience—a brand in and of itself.

Initial development calls for a brewery expansion that will help Surly increase annual production of its signature brews — Furious, Bender, Coffee Bender, Cynic and Hell — and seasonal selections by almost four times to 100,000 gallons.
SOCIAL & ECONOMIC RETURNS

SCHERMAN PHOENIX | MILWAUKEE, WISCONSIN

This public market provides spaces for more than 29 tenants offering diverse food, health and wellness services and local retail. The project aims to support entrepreneurship and generate positive economic and social returns in the Sherman Park neighborhood by transforming vacant property into space where a diverse mix of small, local businesses can thrive.

Through community meetings, the project team worked with neighbors to determine not only the look and feel of the building, but also what types of tenants would be the best fit, and what types of events and activities they’d like to have in the space. Through this engagement process, the community is given ownership of the project as the key stakeholders.

The project converts a historic bank building from 1928. The tenant spaces are clustered around a central commons area with community tables for dining, gathering. This community space will also serve as a place for a variety of cultural events including classes, film screenings and live music. Local artists will be featured throughout the building in both permanent and rotating exhibits.

The design embraces the raw character of the existing structure, leaving exposed the large steel beams, wood joist and vibrant red terra cotta walls. Covered decades ago, the large skylight above the main commons will be restored to flood the space with natural light.

Central to the success of the community gathering space is abundance of fresh food. The shared commercial kitchen supports numerous vendors with small kiosks. Five vendors have dedicated kitchens to produce food including fresh juice, gourmet popcorn, pizza and vegan specialties.
Innovative spaces can themselves be catalysts for scientific and technological advancement. Expertly designed environments for these applications require envisioning the future while meeting current needs for capacity, technology, sustainability, and cost-effectiveness.

For almost six decades we have designed research and development laboratories, pilot plants, discovery districts, health and STEM education facilities, containment and clean room environments, animal holding, and other advanced technology facilities for academic, corporate, government, and healthcare clients. Our projects range from 600 square-foot laboratory fit-outs to multi-million square-foot technology campuses.
MIT.nano is one of the most energy efficient academic cleanrooms in the country. Located steps from the Infinite Corridor and the Great Dome, the facility combines the Institute’s nanotechnology, materials, and engineering systems research with the most advanced fabrication tools and materials processing capabilities.

MIT.nano is LEED Platinum Certified.

**SCOPE**
New Building and New Landscape Courtyard

**PROGRAM**
Laboratory – Research Cleanroom and Chemistry Teaching

**SIZE**
216,000 GSF

**COMPLETION**
2018

**SUSTAINABILITY**
LEED Platinum certified

**AWARDS**
R&D Magazine Lab of the Year 2019; AIA Education Facility Design Award of Merit 2019; ACEC Grand Award for Engineering Excellence 2019; ACEC/MA Gold Award for Engineering Excellence 2019; I2SL Go Beyond Award 2019
The Engineering and Science building is part of an effort to further strengthen Vanderbilt University’s growing reputation as a major producer of intellectual leaders, entrepreneurs, and innovators.

The 230,000 GSF Engineering & Science Building supports the school’s goals to increase interdisciplinary research in biomedical engineering, recruit nanotechnology and environmental engineering faculty, and create a new undergrad research-focused culture. The facility remaps science and engineering into technical neighborhoods, as opposed to traditional departments, bringing together disciplines from a variety of academic units and supporting convergent research at the granularity of the research team.

The ESB is connected via a double-height atrium to Olin Hall, the University’s 40-year old landmark engineering building. This physical connection provides a highly interactive environment while unifying engineering departments between the old and new facility. The facility includes interdisciplinary research laboratories, undergraduate commons, a campus-wide innovation center known as The Wond’ry, a 10,000 NSF nanofab cleanroom and imaging suite, classrooms, offices, and high-performance core laboratories.

**SCOPE**

New Building

**PROGRAM**

Research Labs, Innovation Fabrication Center, Classrooms, Meeting Spaces, Cleanroom, Imaging Suite, Motion and Gait Analysis Lab, Undergraduate Student Commons

**SIZE**

235,000 SF

7,000 SF Nanofab Cleanroom & Imaging Suite

**COMPLETION**

2016

**SUSTAINABILITY**

LEED Gold certified

**AWARDS**

International S-Lab Award, Engineering Building Category 2019

ENR Southeast Best Projects Award of Merit 2017
A RESEARCH ENGINE FOR APPLIED LIFE SCIENCES

UNIVERSITY OF MASSACHUSETTS, AMHERST | LIFE SCIENCE LABORATORIES | AMHERST, MA

The Life Science Laboratories expands the University’s life sciences precinct, shortening the gap between scientific innovation and technological advancement.

The Life Science Laboratories (LSL) was conceived from a comprehensive study aimed at revitalizing science and engineering facilities on the UMass Amherst campus. The 310,000 GSF building is sustainably designed to provide flexible and robust labs to enable groundbreaking discoveries. With research themes rather than departments, the design team created highly flexible wet, damp, and dry labs that allow for seamless collaboration amongst the varying sciences including Physics, Engineering, Biology, Environmental Science, Chemical Engineering, and Chemistry.

The goal was to encourage a culture of transdisciplinary work amongst diverse disciplines working together in the same lab. When fully fitout, the LSL accommodates 64 faculty positions, 512 student researchers, and 37 staff positions.

SCOPE
New Building

PROGRAM
Flexible Lab Space, Shared Research Core Platforms, Conference, Office, Café

SIZE
310,000 GSF

COMPLETION
2013

SUSTAINABILITY
LEED Gold certified

AWARDS
Brick Industry Association’s Brick in Architecture Award, Higher Education Silver Winner 2014
HEALTHCARE

Healthcare organizations are being challenged to think differently about how they deliver care and create a competitive advantage.

Our process has been developed over years of continuous learning and refinement. Based on principles of design thinking, we use ethnographic and evidence-based research, data science, lean methodologies, and rapid prototyping to develop unique insight to not just deliver, but transform the state-of-the-art in healthcare planning and design. The application of this unique set of inputs sets HGA apart: we collaborate with clients to translate discovery into knowledge, and transform ideas into beautiful, highly functional places that facilitate productive work, promote healthy lifestyles, provide better patient and staff comfort, and reflect their organizational promise.
We began working with Children’s National Hospital (CNH) in 2008. Once the masterplan was complete, the phasing and cost of the plan needed realignment with the overall CNH capital expenditures. Consequently, the plan was broken down into multiple smaller projects that continue to this day.

The fourth phase, a 5,251 SF pediatric molecular imaging center, is located deep within the main hospital, just beyond the ultrasound section. We renovated the space to include a new nuclear medicine gamma camera and two SPECT / CT imaging rooms. Inspired by the multiple layers of the long preparation period and the procedure, bioluminescence is as a meaningful theme for this space.

Designed to appeal to children of all ages and sensitivities, the lighting design creates a calming environment to offset the discomfort of a lengthy technical procedure, which is also reassuring and promotes confidence in the patients.
Owensboro Health set a vision with the new replacement hospital: deliver the ideal patient experience, optimize operations, respond to the needs of staff, physicians, and the community, all while delivering the project in the most-effective manner possible.

The multi-phased, multi-campus project includes a new 477-bed, 780,000 SF replacement hospital and medical campus located on a new 162-acre site. Its nine-story bed tower and three-story diagnostic and treatment building are linked by a nine-story spine for inpatient support and administration services. The existing campus underwent extensive demolition and adaptive reuse to create a 60,000sf outpatient Cancer Center.

Component teams for major elements of the work were interdisciplinary and met continuously to develop the design. Component team leaders
met regularly on-site with the owner, Construction Manager, and Project Manager to coordinate and manage the effort. The result was the project never varied more than 2% from the original budget estimate. This reliability of information and team commitments allowed the owner to add an additional 60,000 square feet of program planned to be maintained at the old campus during the early design phases, improving the effectiveness of the overall campus. In addition, even with the added scope, the project was delivered 2 months ahead of schedule.

As a testimony to our long-term client relationship, HGA is currently leading an effort to complete major renovations to the Mitchell Cancer Center on the existing campus to complete the overall two campus masterplan.

**AWARDS**

- 2015 MediStar Facility Design Award Honoree
- 2015 Minnesota Chapter American Society of Landscape Architects, Award of Excellence
- 2014 Modern Healthcare, Honorable Mention (national)
- 2014 AIA Kentucky Citation Award
- 2014 IIDA Wisconsin First Place Award
- 2014 AIA Wisconsin Merit Award
HGA performed a rapid master planning exercise for UPMC to align strategic vision across the system. The result includes a new cardiac and transplant hospital that combines the bleeding edge of technology with nature to transform the experience of healthcare.

UPMC is an Academic Medical Center renowned for cardiac and transplant at Presbyterian Hospital on the Oakland Campus, and Cancer research and treatment at Hillman Cancer Center on the Shadyside Campus. To respond to their strategic vision of aligning their services across multiple campuses, UPMC first engaged HGA to develop prototypical private patient rooms and inpatient units that meet critical to quality criteria on both campuses, and assess options for renovating Presbyterian Hospital. Based on benchmarking of peer institutions, and an inability for UPMC to meet specific critical to quality criteria in a renovated environment, the original idea of renovating the early 1900’s building was discounted, and the board approved the construction of a new bed tower.

UPMC and HGA’s transformative approach to hospital-based care includes using digital technology to simplify treatment and enhance person-to-person connections; providing natural spaces in concert with beautiful architecture to boost the healing power of a serene environment; and creating radically clear patient pathways and planning enhanced by nature and dramatic design.

HGA and UPMC’s Enterprise Group are engaging with patients, families, staff, residents, providers, and administrators in an interactive design process to determine service and experiential needs. This process, called Experience Design Research, uses social research techniques to understand real needs across many groups and design hospitals that will work for generations to come.

The design invites patients, staff, families and neighbors to gather, mingle and celebrate at a dynamic urban crossroads overlooking 5th Avenue. The organization and design of patient rooms, work spaces for caregivers, public areas and amenities will draw from the energy of everyday life and the beauty
of nature to create a dramatically inviting environment of care. Visitors will experience a natural refuge that offers amenities from retail to dining to wellness classes and more.

The project features a park within the hospital that includes a series of terraced gardens that both honor the site’s historic legacy as a place of “healing on a hill” and conceal important services and functional components. The entire entry experience, public circulation, clinical waiting areas, staff/visitor services and patient floors will enjoy park views and the healing power of nature.

In several places, both public and private, nearly invisible digital technology will be used to benefit patients and staff by creating more time and space to nurture person-to-person connections, and to enhance patient and family understanding of the myriad of healthcare choices.

Private patient rooms will include a continuous direct digital device that spans across walls and ceiling. Through this, rooms can be customized, individualizing the healing experience with scenery or personal photos; opting in to interactive rehabilitation classes; interacting with family from home and including visitors in a virtual physician consultation. Staff will use this interactive interface to access patient vitals, input information and consult doctor orders. This technology frees up floor space, improving the patient experience and staff efficiency.

The hospital will train the first generation of physicians and staff to harness the transformative powers of artificial intelligence. This group will interact with the HGA-designed “holodeck,” a nimble integrated technology space that supports diagnosis, treatment planning, team collaboration, teaching and information retrieval and delivery.

Advanced technology and sophisticated design will help further position Pittsburgh as a global center for medical science and to promote UMPC’s visionary approach and world-class healthcare services. It’s a project that brings the art of architecture, the science of engineering and the advances of medicine under one exciting roof. A project that will transform the healthcare experience for patients and families for generations to come.
GOVERNMENTAL & SECURE ENVIRONMENTS

Civic and federal facilities provide a bridge between government and the public. Our approach is driven by a passion to create built environments that respond to the unique needs of our client, the region, and the specific site. We seek fresh insight to create inspirational, technology-forward work environments and secure office structures for such clients as the FBI and the General Services Administration.
HGA is providing multiple services to the Peterson Companies, in response to a Government SFO, to design the over two million SF campus for use by a Government agency.

HGA began working with the Peterson Companies in 2004 to develop this 55-acre secure complex to allow for the consolidation and collocation of key elements of a Government agency. This keystone project was critical to improving the overall efficiency of our nation’s intelligence community. A wide range of security countermeasures customized for the project specific design basis threats (DBTs) defined by the tenant agency were used.

**PHASE I**
Phase I included a five-story, 375,000 SF office building that anchors the two subsequent buildings in Phases II and III. This first building’s footprint is “T” shaped with five floors of approximately 75,000 SF each. The “T” shape creates three wings of 25,000 SF surrounding a central vertical transportation core. During the course of initial design and construction, the Government determined a need for 180,000 SF of data center space within the campus requiring electrical and HVAC loads at 100 watts per square foot. However, the client was unsure where this heavy load would occur; therefore, HGA accommodated this requirement by removing the mechanical and electrical equipment from the buildings and performed an additional Design-Build project for a separate central plant. The 26,000 SF facility earned the first LEED-Gold certification for a central plant facility.

**PHASE II**
This project demonstrates a successful $204M collaboration that resulted in a satisfied client and repeat projects. It is a sustainable,
Technology-enhanced 425,000 SF office building with complex spaces. HGA was responsible for both the base building (core and shell) and the tenant improvements. Phase II required intense power and cooling infrastructure to support the tenants that were assigned to the facility.

**Phase III**

Phase III demonstrates a successful $200M collaboration that resulted in a complex, with sustainable and technology-enhanced 437,153 SF office building, a separate 45,243 SF secure loading dock and a 42,885 SF underground annex. The facility consolidated over 1,800 government employees from offices across the Washington DC Metro Area. The building program includes a fitness center, auditorium, training rooms with movable partitions, cafeteria and restaurants such as Moe’s Southwest Grill and Starbucks.

**Phase IV**

HGA recently completed construction for the Base Building and the Tenant Interior design of the 4th building on the campus. This building consists of a combined training facility and administrative office building. The interior is primarily designed with multiple class room spaces, special teaching studios, and three fully functioning video studios. The facility includes a 400-seat auditorium that is connected on the first floor to a 16,000 square foot cafeteria.

Access to the space is directly off the connecting corridor linking between building 3 and the 557,356 SF building 4 educational facility. The Campus is designed for future phased development, including one additional office building, two parking structures and a material inspection facility.

**Phase V**

HGA serves as the lead architect for the design and construction of this new 516,247 SF new government office building. It is a sustainable, technology-enhanced facility with a separate secure loading dock, parking facilities, underground operations annex, and café/kitchen. HGA is responsible for both the base building (core and shell) and the Tenant Improvements. We have completed design for the first of 4 garages on two campuses which will set the tone for the garages to follow. All garages will be centrally located on the two campuses and our client was concerned that all four sides of each garage represent the striking upscale nature of the campuses.
The FBI streamlines the worldwide records management system with this state-of-the-art Central Records Complex (CRC). The facility features a building that consolidates official records from 265 FBI locations worldwide to enable the storage, retrieval, and management of mission-critical FBI assets.

The CRC also includes a secure, state-of-the-art Class A office space for 450 employees, visitor screening center, and operation support and secure service areas. The CRC provides the technology to digitize records on demand to provide timely responses and all aspects of the facility are capable of operating 24/7. A significant feature of the complex, the storage facility required 100,000 SF for documents to be stored. HGA coordinated an innovative, collaborative solution for record collection. The use of an automated storage and retrieval system (ASRS) and fire-rated shutter doors for the storage retrieval robots while maintaining compliance with fire-rated partitions ensures records remain safe.

In addition, files stored in the facility can be delivered to any one of 15 workstations allowing for timely responses. The building complies with Anti-Terrorism / Force Protection regulations and physical security mitigation in accordance with DoD Minimum Anti-Terrorism Standards for Buildings. The project was also designed to meet the requirements of the GSA's stringent Design Excellence Program.
The Boston Public Office Building (BPOB) is a new, eight floor facility intended to represent a synergistic approach to work, environment and lifestyle while capturing intelligence and strength. The 234,547 SF, Class A building houses typical office and service functions, as well as specialized functions specific to the federal government tenant. With a 5.5 acre site there are facilities for 120 enclosed parking spaces and a sequence of courtyards that surround the entry experience.

There are eight levels of workplace, secured office environment and evidence storage. This facility is part of a broader urban renewal initiative along the new Silver Line and Mass Transit Corridor serving the communities north of Boston.

LEED® Silver certified, BPOB is a facility that reinforces the FBI’s mission and identity. The building is served by robust mechanical and electrical systems that not only provide cutting edge resources for the agency, but will remain functional during crisis situations.
This renovation of an existing 91,000 SF office building has a commanding view overlooking Lake Michigan. Project design and documentation was led by HGA’s Minneapolis office with HGA’s Milwaukee based professionals providing lighting design and systems commissioning services. HGA’s Milwaukee’s office has successfully served as a team meeting hub for developer, tenant and GSA webex and video conference meetings.

Key Considerations include:

- Demonstrates capacity to design secure federal office buildings for GSA and federal agency tenants.
- Carried out by HGA personnel with required security clearances.
- HGA design for a total of eight projects and 1.4 million SF.
- Design for blast resistance, progressive collapse with secure perimeters.
- Demonstrates capacity to respond to rigorous criteria and high federal tenant standards for secure and technologically-sophisticated government campuses.
- Full range of required design services: architecture, interior design, landscape architecture, mechanical, electrical, civil and structural engineering; lighting and telecommunications design.
MIXED-USE & RESIDENTIAL DEVELOPMENT

QUALIFICATIONS AND EXPERIENCE

Technical Excellence  Practical Experience  Client Responsiveness
INTEGRATED SOLUTIONS. MEASURABLE VALUE.

Langan provides an integrated mix of engineering and environmental consulting services in support of facilities for land development, infrastructure and energy industry. Our clients include developers, property owners, public agencies, corporations, institutions and energy companies.

Founded in 1970, Langan employs over 1,200 professionals in its Parsippany, NJ headquarters and among regional offices in:

- New Haven, CT
- Boston, MA
- New York, NY
- White Plains, NY
- Lawrenceville, NJ
- Philadelphia, PA
- Bethlehem, PA
- Doylestown, PA
- Pittsburgh, PA
- Bridgeport, WV
- Cleveland, OH
- Arlington, VA
- San Francisco, CA
- Oakland, CA
- Sacramento, CA
- San Jose, CA
- Santa Barbara, CA
- Los Angeles, CA
- Irvine, CA
- Denver, CO
- Seattle, W
- Houston, TX
- Phoenix, AZ
- Miami, FL
- Fort Lauderdale, FL
- Tampa, FL
- Orlando, FL
- West Palm Beach, FL

Langan Services:

- Site/Civil Engineering
- Geotechnical Engineering
- Environmental Engineering
- Land Use Planning
- Earthquake/Ground Motion Services
- Transportation Engineering
- Transportation Planning/Modeling
- Parking Analysis & Design
- Hazardous Materials
- Natural Resources/Permitting
- Surveying/Mapping
- High Definition 3D Laser Scanning
- Landscape Architecture + Planning
- GIS/Data Management
- Sustainable Design
- Waterfront/Marine Engineering
- Infrastructure
- Lenders Technical Advisory
- Unmanned Aerial System (UAS)
- Demolition Engineering
RESPONSIVENESS THAT DELIVERS RESULTS

Langan’s site/civil engineers work closely with the design and development teams to develop final designs that balance development needs with regulations, sustainability, stakeholders and cost. Our quality submittals lead to rapid permit approvals and comprehensive construction bids. Langan staff observes construction to ensure adherence to our design criteria and simplify the permit termination process.

SITE/CIVIL SERVICES:

- Site Feasibility Studies
- Conceptual Plans
- Grading & Drainage Design
- Erosion & Sediment Control Plans/Permits/Inspection
- Earthwork Analysis
- Site Restoration Plans & Analysis
- Construction Observation
- Utility Infrastructure Designs
- Landscape Plans
- Hydrologic & Hydraulic Studies
- Property Acquisition Support
- Construction Phasing Design
- Regulatory Coordination/Compliance
- CADD/GIS/Computer Animations

SUBSURFACE SOLUTIONS

Langan was founded as a geotechnical consulting company in 1970, and geotechnical engineering remains a core discipline at Langan today. We work closely with our clients and the permitting, design, and construction teams to engineer practical, cost-effective geotechnical solutions appropriate for proposed infrastructure by considering permitting constraints and site conditions.

GEOTECHNICAL SERVICES:

- Subsurface Investigations
- Slope Stability Analysis
- Crossing Design Using Trenchless Techniques
- Subsurface Utility Engineering
- Earthquake/Seismic
- Materials Analysis
- Foundation Design
- Retaining Structures
- Soil Improvement/Ground Modification
- Dewatering Design & Permitting
- Excavation Support & Underpinning Design
- Geological Mapping of Rock Slopes
- Mine Investigations
- Earth & Rock Fill Dams
- Tunnels/Microtunneling
- Seawalls, Piers, & Bulkheads
- Pre-Construction Conditions Surveys
- Construction Observation
- Forensic Engineering/Expert Testimony
- Geotechnical Hazard Assessment Tool
TECHNICAL AND REGULATORY ADVOCACY

Langan works with project teams to provide leading-edge, focused, streamlined investigations and risk-based remediation. We excel in promoting and gaining regulatory acceptance of risk based strategies to obtain cost effective site closures. Langan possesses expertise in a wide variety of projects including state voluntary programs, brownfields, RCRA, hazardous building materials, state and federal superfund, manufactured gas plants (MGP) and storage tank programs.

ENVIRONMENTAL SERVICES:

- Risk-Based Corrective Action
- Brownfields
- Storage Tank Management
- Due Diligence Support
- Environmental Assessments
- Site Characterization
- Permitting/Regulatory Approvals
- Remediation Design/Oversight
- Water Resources/Supply
- Hydrological Investigations
- Wastewater and Stormwater Permitting
- Air Modeling
- GIS/Database Management
- Environmental Impact Statements (EIS)
- Manufactured Gas Plant Remediation
- Asbestos/Lead-Based Paint Abatement
- Management of PCB-Containing Materials
- Indoor Air Quality/Mold
- Demolition
- Waste Management
- Compliance Auditing
- Ecological Risk Assessment
- Human Health Risk Assessment
- Site Feasibility Studies
- Remediation by Natural Attenuation
- Expert Witness
- Exposure Assessments

CUTTING-EDGE TECHNOLOGY & EFFICIENCY

Our field crews utilize state-of-the-art surveying equipment including a Pegasus mobile mapping system, 3D laser scanning, global positioning systems (GPS), robotic and prismless total stations, single and multi-beam echo sounders, drones, and side-scan sonar. Langan’s mobile mapping and 3D scanning programs are integral for asset management, as-built information, and preliminary development for all aspects of the industry. Use of the most recent technology in the field allows our crews to be more productive and achieve greater accuracy. Field crews have mobile internet capabilities through field laptops and our advanced equipment to accommodate data analysis and design changes in real time, which is crucial in oil and gas field operations.

SURVEYING SERVICES:

- Topographic Surveys
- Boundary, Right-of-Way, & Corridor Surveys
- ALTA/ACSM Land Title Surveys
- Utility Surveys
- GPS Surveys
- Hydrographic/Bathymetric Surveys
- Highway/Route Surveys
- Construction Stake-Out
- As-Built Surveys
- Photogrammetric Control
- GIS/LIS Data Acquisition
- Geographical Information Systems
- Deformation/Monitoring Surveys
- Utility/Thermal Scanning
SENSE OF PLACE

Langan’s landscape architects and planners understand what makes places work. We shape effective design solutions that range from regional or city scale down to the most intimate courtyards and garden spaces. In every project we strive to identify and enhance the “sense of place,” which makes every site unique and memorable. This places us at the forefront of the rebirth of our cities and aging downtowns, guiding their revitalization as destinations where people live, work, shop and play.

LANDSCAPE ARCHITECTURE SERVICES:

- Site Feasibility and Yield Studies
- High Performance Site Planning
- Land Development Approvals
- Brownfield Redevelopment
- Waterfront Design
- Park and Playground Design
- Complete Streets and Streetscape

Design
- Traffic Calming
- Landscape Planting and Irrigation Design
- Landscape Restoration Design
- Contract Documents
- Rooftop Garden Design

- Site Lighting Design
- Water Feature Design
- Construction Administration and Inspection
- Expert Testimony and Zoning Reviews
- Community Outreach

SAFE. EFFICIENT. INNOVATIVE.

Langan has been instrumental in understanding complex transportation and traffic impacts of land development and developing mitigation solutions to obtain the necessary permits, approvals, and clearances from various agencies. Langan assists clients through the mered of state and local permits, to help maintain project schedules.

TRANSPORTATION SERVICES:

- Transportation Planning
- Vehicular Traffic Studies
- Traffic Impact Studies/Assessment
- Traffic Modeling & Simulation

- Station Planning
- Site Access/Site Engineering
- Multi-modal Studies
CUTTING-EDGE DATA VISUALIZATION
Langan utilizes the latest CADD, GIS, and Data Management software applications to analyze and design cost-effective solutions to our clients’ problems. Our CADD-GIS group provides custom training, programming, and technical support to both our staff and to our clients in Autodesk’s Map, Land Desktop and Civil 3D, as well as ESRI’s ArcGIS suite of applications including ArcMap, ArcEditor, and ArcInfo and their assorted extensions. Langan utilizes SITEOPS software for value engineering and to provide design optimization of land development projects. We use Earthsoft’s EQuIS Chemistry and Geology products to manage large datasets for our environmental and geotechnical clients, and use GIS, Rockworks, GMS and EVS to visualize the data. Langan also uses 3D Studio and various post production products to generate computer generated animations of our clients’ projects, allowing them to see the virtual design before construction.

GIS/DATA MANAGEMENT SERVICES:
- Software Integration and Technical Support
- Custom Programming
- Software Training
- Web Design
- CADD Conversions
- GIS Mapping
- 3D Animations
- Data Entry
- GIS Interface Modeling

LEADING EDGE AT THE WATER’S EDGE
Langan works with property owners and their design teams to assess and rejuvenate waterfront sites. We evaluate shorelines and waterfront structures to determine the best approach for reuse, replacement, or new construction. Our waterfront engineers and marine specialists develop tailored design solutions. With offices strategically located near major bodies of water, Langan is able to serve clients in coastal regions around the world.

WATERFRONT ENGINEERING SERVICES:
- Bulkhead, wharf, and pier/platform design
- Structural inspection
- Repair and remediation design
- Shoreline revetment and slope/embankment stabilization
- Flood protection studies and design
- Dredging design and oversight
- Stream restoration and bioengineering
- Permitting
- Wetland delineation and mitigation
- Wildlife habitat assessments and surveys
Qualifications
Langan’s local presence in New Haven and direct experience in the project’s vicinity is important to the development team. Beyond our significant project experience in New Haven, we have forged strong relationships that have been the result of those successes. We are very familiar with the City agencies, processes, and staff, which will help facilitate the permitting process. Langan was the prime consultant for the City, leading a team of architects and engineers on the Boathouse at Canal Dock project in New Haven Harbor, adjacent to our office. As a developer’s consultant, Langan brings significant value to your redevelopment and entitlement process.

“...the City had the pleasure of working with Langan as the prime consultant for both the Boathouse at Canal Dock project and the Long Wharf Park Improvement project. On both projects, Langan is leading multi-discipline design teams through a complex design and permitting process involving local, state and federal regulatory agencies. Langan has provided exceptional design, engineering and environmental permitting services, and have done an excellent job navigating an extremely difficult approval process... I have found Langan’s staff to be exceptional, both technically and personally. They are a pleasure to work with, and I can recommend them without reservation.”

Karyn Gilvarg, A.I.A
Previous Executive Director
City Plan
New Haven Experience & Local Presence

For over 20 years, our office in New Haven has worked with the City and many of the local owners, builders, architects, and other consultants on numerous projects including Yale University, New Haven Public Schools, New Haven Water Pollution Control Authority and many others. We are also active partners in our community with involvement in the local chapters of Habitat for Humanity, the ACE Mentor Program, Annual Dragon Boat Regatta, the Greater New Haven Chamber of Commerce and other programs.

Sampling of our experience in New Haven includes:

- Cornell Scott Hill Health Center - Recovery & Wellness Center
- Hurricane Damage Assessment for the City of New Haven – Various Locations
- Long Wharf Park
- Long Wharf Responsible Growth Plan
- Madison Towers
- New Haven IT Department - Hazardous Building Materials Survey
- Premiere Inn & Suites
- River Street Municipal Development Plan
- Ronald McDonald House of CT
- Route 34 Corridor
- Southern Connecticut State University Wayfinding
- Stop & Shop Fueling Facility
- The Boathouse at Canal Dock
- Tower One/ Tower East
- UHaul (1175 State Street/83 Water Street)
- Yale University, multiple projects including:
  » Schwarzman Center
  » Peabody Museum Renovation
  » Tsai Center for Innovative Thinking
  » Wall & High Street Pedestrian Improvements
  » Sachem Woods Landscape Project
  » Science Hill GIS Mapping

- 45 Church Street - Former Bank
- 85 Elm Street Residential Development
- 87 Union Street Mixed-Use Development
- 191 Foster Street - Former Lehman Brothers Site
- 1439 State Street Residential Development
- 1455 State Street Residential Development
- ACES Little Theatre
- Alling Memorial Golf Club
- American Red Cross South Central CT Chapter
- Chapel Haven
- Church Street South Mixed-Use Development
- Connecticut Tennis Center at Yale
- Continuum New Haven
- Dixwell Avenue Mixed-Use Development
- Dr. Reginald Mayo Early Childhood School
- Engineering and Science University Magnet School
- Graduate Hotel
- Greater New Haven Water Pollution Control Authority – On-Call GIS Services
- Heights on the River Mixed-Use Development
- The Blake Hotel
- Hill Central Housing Redevelopment
- Hill to Downtown Mixed Use Development
  » 9 Tower Lane
  » 49 Prince Street
  » 22 Gold Street
  » 216 Congress Street
  » 222 Lafayette Street
Mixed-Use Projects

Since our founding in 1970, Langan’s reputation has been forged by providing practical engineering services, from concept through completion, for sites confronted by technical and regulatory challenges and difficult subsurface conditions, in urban environments. Our firm grew with projects similar to yours; our integrated approach is well-suited for the challenges of redevelopment.

This type of project is what Langan is at our core – mixed-use redevelopment, requiring multi-discipline services. We have been part of projects dating back to our work early in the revitalization of the Jersey City Waterfront to the award-winning work on Blue Back Square in West Hartford, Connecticut. We understand how these projects work, what the challenges are, and what our role is in making the project a success.

From sprawling suburban mixed-use developments to urban high-rise developments to town center developments, Langan has worked on many of mixed-use projects throughout the US and abroad. The Langan team helps developers understand the land development and environmental obstacles of the site and our team works tirelessly to ensure the most cost effective and efficient solution to each of the challenges presented.

Below is a regionally specific listing of Langan’s work on mixed-use/lifestyle developments:

- 87 Union Mixed-Use Development, New Haven, CT
- American Dream Meadowlands, East Rutherford, NJ
- Bedford Square, Westport, CT
- Bishop’s Corner Redevelopment, West Hartford, CT
- Blue Back Square, West Hartford, CT
- Brass Mill Mall/Scovill Brass, Waterbury, CT
- Bronx Terminal Market, Bronx, NY
- Celadon Redevelopment, Elizabeth, NJ
- Cherry Street Lofts, Bridgeport, CT
- Crossroads Mixed-Use Development, Mahwah, NJ
- Downtown Derby Redevelopment, Derby, CT
- Eleven Times Square, New York, NY
- Flushing Town Center, Queens, NY
- Gateway Center, Brooklyn, NY
- Grove Street Station, Jersey City, NJ
- Harbor Point and Yale & Towne, Stamford, CT
- Hill-to-Downtown Mixed-Use Development, New Haven, CT
- Hearst Tower, New York, NY
- Hudson Yards Redevelopment, New York, NY
- Javits Convention Center Expansion, New York, NY
- North Brunswick Transit Village, North Brunswick, NJ
- North Haven Town Center Mixed-Use Development, North Haven, CT
- Northside Piers, 164 Kent Ave., Brooklyn, NY
- Quarry Walk, Oxford, CT
- Princeton Junction Transit-Oriented Development, West Windsor, NJ
- River Place II, New York, NY
- Riverview Mixed-Use Redevelopment, Yonkers, NY
- Shoppes at Hamilton, Hamilton Township, NJ
- Shoppes at North Brunswick, North Brunswick, NJ
- Shoppes at Old Bridge, Old Bridge, NJ
- SkyMark Center, Village of Ridgefield Park, NJ
- SkyView Parc, Queens, NY
- South Street Seaport, New York, NY
- Southwest Community Health Center and Albion Street Development, Bridgeport, CT
- Storrs Center, Mansfield, CT
- Swift Factory, Hartford, CT
- The Shops at Atlas Park, Glendale, Queens, NY
- The SoNo Collection, Norwalk, CT
- Time Warner Center, New York, NY
- Tuxedo Reserve Master Plan, Tuxedo, NY
- Victoria Theater Redevelopment, New York, NY
- Voorhees Town Center, Voorhees Township, NJ
- Waypoint, Norwalk, CT
Highlighted Projects

Hill-to-Downtown Mixed Use Development
New Haven, CT

The Hill-to-Downtown development area is located between the Hill, Yale New Haven Hospital, Downtown and the train station. This unique area of New Haven has been underutilized and underdeveloped as a result of the construction of the Route 34/Downtown connector during the urban renewal era. The goal of the development plan is to create a vibrant, walkable mixed-use district. Langan worked on five parcels within the Hill-to-Downtown development area. Four of the parcels will contain a four-to-six story residential tower with parking and commercial spaces on the first floor. The fourth parcel is a renovation of a former school building into new housing. Upon completion of construction of the five parcels, 557 new units ranging in size from one to three bedroom will be online. Langan provided site/civil, landscape architecture, survey, traffic and geotechnical engineering services for each of the five parcels.

87 Union Mixed-Use Development
New Haven, CT

Langan provided landscape architecture, site/civil, survey, and traffic engineering services for a 2.6-acre site that will be home to a six-story building with approximately 300 residential units, retail, two rooftop courtyards, and parking at street level. Connecting two major downtown neighborhoods in New Haven, CT, 87 Union will offer an enticing and safe neighborhood geared toward the urban pedestrian.

The streetscape design draws on the rigid structure of the building, incorporating linear banding to fold the vertical building lines horizontally onto the pavement. The large planting pockets have the potential to serve as rain gardens, incorporating green infrastructure into the fabric of the design and large enough to capture, treat and infiltrate stormwater from the sidewalks.

1439 State Street
New Haven, CT

Langan provided landscape architecture and site/civil engineering services for the redevelopment of the former New Haven Railroad YMCA and housing building located at 1439 State Street in New Haven, CT. The project involved the renovation and repurposing of the existing 3 to 4 story masonry building as well as the redesign of the existing site parking area and walkways to accommodate 21, one and two-bedroom apartments. Langan’s landscape architect and site/civil team collaborated with the architect on blending the architectural and site designs in order to create one unified vision. Due to the site not being located in an ideal downtown location, ‘green’ site amenities were key to attracting the 25-40 year-old tenant demographic anticipated. At the rear of the site, the building transitions to a residential patio space utilizing an industrial awning and railings while decorative light fixtures. The patio includes bistro style tables and chairs to encourage outdoor study / dining for residents.
Cherry Street Lofts is a multi-phased, adaptive-reuse, mixed-use development in the “smile” of Bridgeport. The site is designated as a severely distressed Census Tract, is in a locally-identified Enterprise Zone and is on CHFA’s priority targeted development area. The project consists of eight historic warehouse buildings, two of which will be demolished due to significant structural deterioration and the inability to reuse. The remaining six buildings will be renovated to meet the needs of the proposed program. The first phase of the project consisted of 156 residential units, a 60,000 square-foot Charter School and 40,000 SF of recreational space. Langan provided Site/Civil and Geotechnical Engineering, Landscape Architecture, Permitting and Surveying for the project. The interior of the site is transformed into a network of pedestrian streets anchored by three main public spaces: “the park” - an urban sun room; “the bosque” a tree-shaded, quiet outdoor study; and “the square”, a space for local events.

Hill Central Housing Redevelopment
New Haven, CT

The proposed project includes the phased demolition of the existing Hill Central Community Cooperative and the construction of new townhouses and community amenity spaces across four separated parcels in the Hill neighborhood of New Haven. The project is to be completed in phases to allow current residents to continue living on site during construction. Langan’s civil and landscape teams worked closely with Newman Architects and Westmount to develop site layouts to accommodate the new buildings and required amenity spaces. Each parcel was designed to comply with either the City of New Haven and/or the Greater New Haven Water Pollution Control Authority’s stormwater requirements, and landscape and lighting plans were designed to provide a welcoming and safe residential community.

Swift Factory
Hartford, CT

The Swift Factory complex served as the economic engine of the Northeast Hartford community for more than 100 years before its closure in 2005. The historic, industrial brownfield site contains the former M. Swift and Sons factory, the historical manufacturers of gold leaf and other pressed metals, as well as two homes on a site totaling 2.6 acres. Community Solutions is re-purposing the facility into a multi-purpose community hub to improve health and create jobs for the neighborhood residents. Programming at the hub will include urban farming, food manufacturing businesses, a health care clinic, office spaces and cultural spaces that will provide opportunities for job training and entrepreneurial activity.
Highlighted Projects

The Residences at Fort Trumbull
New London, CT

The proposed development consists of 200 residential units in one, multi-story building with parking and associated amenity space. The project will have amenities that include an all-seasons pool, outdoor theater, rooftop gathering area, gym, climbing wall and pub.

Langan is performing landscape architecture, site/civil, geotechnical and traffic engineering for this development. The Residences at Fort Trumbull is one of two developments planned along the downtown street that will take advantage of the growing number of employees at the nearby General Dynamics Electric Boat facility.

The Mill at Killingly Apartments
Killingly, CT

The Mill at Killingly Apartments is a 32-unit residential, mixed-income, apartment building located on the banks of the 5-Mile River which includes the adaptive reuse of portions of the 1869 Powdrell & Alexander Textile Mill. The new structure reuses portions of the existing mill building for site landscape amenities and incorporates the iconic stair tower into the new building’s footprint.

Langan provided a number of services for the project including landscape architecture, site/civil, traffic, and geotechnical engineering design services. We assisted in the “fast tracking” of municipal permits which allowed the development team to secure variances and site plan approval in a single calendar month.

Some features included rain gardens and streetscape design along Maple Street and interconnection to Quinebaug River Trail park located to the south of the property.

11 Crown Street
Meriden, CT

This new 81-unit mixed-income and mixed-use housing project built in the recently established Transit-Oriented Development district of Meriden, CT comes after the City of Meriden requested proposals for the development of several city owned properties, including the former headquarters of the Record-Journal newspaper. The former headquarters building has been demolished and is currently being replaced with a 4-story apartment building including a covered parking garage and conference room areas. Two additional buildings comprised of two-story town home units, a surface parking lot, and an outdoor playground area are also proposed. Of the 81 total dwellings, 80% will be affordable and 20% market rate.
Blue Back Square
West Hartford, CT

Blue Back Square is an extension of the pedestrian heart of downtown West Hartford, Connecticut. This urban mixed-use redevelopment is the centerpiece of two large city blocks, providing retail, office, residential and municipal space within the existing town center. This one million square foot project includes the regeneration of a brownfield site, expansion of civic facilities, public open-spaces, a mix of large and small retail shops, municipal parking garages, restaurants, professional and medical offices, a health club, and residential condominiums and apartments. Langan provided full landscape design, site/civil, traffic consulting, environmental and geotechnical engineering services to facilitate the new development.

One Park
West Hartford, CT

A property accommodating the existing Motherhouse for the Sisters of Joseph convent will be transformed into One Park Road, a 294-unit multi-family housing complex. The Sisters will continue to occupy apartments in a segregated area of the existing building, but the remainder of the existing building will be renovated into mix of studio, one-, two- and three-bedroom apartments. Certain portions of the century-old and 22-acre campus building will be demolished to allow for additional apartment units and amenity spaces. The existing chapel will be renovated for amenity use for the apartments. The project also includes a four-story addition over a one-story parking deck. Langan provided survey, site/civil, landscape architecture, and geotechnical engineering services for this complex project.

Bedford Square
Norwalk, CT

Langan has been providing site development consulting services for the redevelopment of the existing Westport YMCA in downtown Westport. The project includes demolition of portions of the existing building, rehabilitation/resuse of the historical components of the building and the creation of additional retail and residential space. As the architect planned to maintain portions of the historic building, Langan’s utilized laser scanning techniques to document the historical façade and produce a 3D model. Langan also performed a boundary and topographic survey of the project site. Langan has performed environmental and geotechnical investigation on the site to confirm design approaches. The mixed-use project included residential use above the floodplain.
Highlighted Projects

Storrs Center
Mansfield, CT
Langan provided consulting services for the Storrs Center development, a mixed-use, public-private development adjacent to the University of Connecticut in Mansfield, Connecticut. The development is a partnership between UConn, the Town of Mansfield and private developer – Leyland Alliance. The development creates a “college” main street with ground floor retail, much needed residential space, an intermodal transportation center, new streetscapes, and public open spaces.

Quarry Walk
Oxford, CT
Quarry Walk is a life and leisure experience; where vision, economic development and community come together to create a uniquely special place. As Oxford’s Towne Center, Quarry Walk is anchored by the first “ground up” Market 32 by Price Chopper grocery store. It also includes a pharmacy, bank, mixed retail, variety of restaurants, community green, post office, 1.5 miles of walking trails, 150 residential units and so much more.

The new 32-acre development was previously a functioning rock quarry prior to construction. The blasted rock was reused to build the retaining walls around the perimeter of the site and design elements throughout. Langan provided site/civil, geotechnical, and traffic engineering, landscape architecture, land surveying and construction drawing preparation for the entire project. Langan also provided permitting services for both local and CTDOT approvals.

Harbor Point Y & T
Stamford, CT
The combined Harbor Point and Yale & Towne (Y & T) projects involved the redevelopment of over 80 acres within the South End of Stamford along the waterfront. The redevelopment of a third of the South End’s area, including the Admiral’s Wharf, Pitney Bowes, Yale & Towne, and Brewer’s Yacht Haven sites, offers substantial revitalization to areas that are abandoned former industrial uses. The project connects the City of Stamford to its waterfront that was previously separated by I-95 and the railway. The proposed development includes approximately 6 million SF of mixed-use development including residential (4,000 units), office, retail, and restaurant uses as well as over 10 acres of public green and park areas. Langan lead the utility infrastructure roadway designs.
Langan has worked on dozens of green roof and urban design projects. Below please find a selected list of these projects:

- 85 Elm Street, New Haven, CT
- Crown Court Mixed-Use Development, New Haven, CT
- Bedford Square, Westport, CT
- Blue Back Square, West Hartford, CT
- Westchester Financial Center, White Plains, NY
- 139-143 East Houston, New York, NY
- 42-11 9th Street, New York, NY
- 110 First Street, Jersey City, NJ
- 111 Murray Street, New York, NY
- 170 Amsterdam Avenue, New York, NY
- 225 East 39th Street, New York, NY
- 421 Kent Avenue, Brooklyn, NY
- 555 5th Avenue, New York, NY
- Centro Verde, Montclair, NJ
- Fair Lawn Promenade, Fair Lawn, NJ
- Griffin Court, New York, NY
- Haswell Green Roof, New York, NY
- Irish Arts Center, New York, NY
- Kimpton Monaco, Philadelphia, PA
- Lafayette College, Easton, PA
- Lehman College Pedestrian Bridge, Bronx, NY
- MD Anderson At Cooper, Voorhees Township, NJ
- Moynihan Station, New York, NY
- Newark Ironside (Warehouse), Newark, NJ
- Octagon Apartments, Roosevelt Island, NY
- Panasonic Headquarters, Newark, NJ
When Blue Back Square was a mere vision and some attractive drawings, Langan was by our side from the on-set and it has made all the difference in the world.

-Richard Heapes, Street-Works

The Bronx Terminal Market project stayed on schedule due to Langan’s ability to handle in-house all of the brownfield components along with complex permitting issues on the state and local level.

-Glenn Goldstein, Related Retail

The Shops at Atlas Park benefited greatly from Langan’s one-stop-shop model, which facilitated our ability to stay on schedule. Their knowledge of the regulatory processes, technical expertise, and responsiveness had an enormous positive impact on this project.

-Damon Hemmerdinger, Atlas Park LLC

We knew it could be done, because Langan showed us the way.

-Jonathan C. Rothstein, Senior Project Manager The Four Seasons: the tallest mixed-use tower in Florida Millennium Partners
Our Mixed-Use Team

**Chris Cardany, PE, LEED-AP**

Christopher Cardany, PE, LEED-AP, Principal, specializes in site/civil and geotechnical engineering. In the last twenty-six years, Chris has been involved in large, mixed-use projects such as Harbor Point and Waypointe and has served as Langan’s multi-discipline project manager for both projects as well as the New Haven Boathouse. The Harbor Point project included 6 million square feet of mixed-use including 4,000 units of residential and over 10 acres of public green and park areas. Langan was involved with the entitlement process for Stamford’s Master Plan revision, Re-Zoning, and General Zoning approvals along with infrastructure studies and roadway design. His New Haven experience also includes the recent Long Wharf Responsible Growth Plan where Langan provided traffic and stormwater/utility infrastructure consulting.

**Tim Onderko, PE, LEED-AP, CPSWQ**

Tim Onderko has over seventeen years of experience with Langan working on a variety of land development projects in Connecticut, specifically New Haven, and New York. These projects have involved site feasibility studies, site layout, grading and drainage design, stormwater management analysis and design, utility design, regulatory permitting, development of technical specifications for construction documents, construction inspection, project management and coordination. Within the last five years, Tim has designed and permitted nearly 2000 residential units in New Haven and has nearly one dozen active projects at Yale University.

**Katy Gagnon, PE**

Katy Gagnon is a Senior Project Manager with over fifteen years of experience at Langan working on a variety of land development projects across Connecticut, and has over 20 active and completed projects in New Haven. Some of these projects include: the Dr. Reginald Mayo Early Childhood School; the Boathouse at Canal Dock; the Connecticut Tennis Center; several residential and hotel projects within the downtown area; a variety of projects on the Yale Campus. Katy’s role on these projects includes project management and coordination for site development plans, stormwater management analysis, utility design, local and state permitting and the development of technical specifications.
Michael Szura has more than thirty years of experience in landscape architecture and planning and has orchestrated the design, management and construction of numerous complex projects in the CT region. As the director of Landscape Architecture for the firm, Michael has handled all aspects of project development as the lead landscape designer on numerous mixed-use developments including Blue Back Square and Bedford Square. He is also an expert on community planning and regeneration work, urban and sustainable design issues, and waterfront and Brownfield redevelopment projects.

Clay Patterson has over nineteen years of experience with Langan. Specializing in geotechnical consulting, Mr. Patterson’s experience includes geotechnical design phase and construction phase support for a wide range of developments, including both private and public projects around the globe. Mr. Patterson has extensive experience with geotechnical feasibility studies, site explorations and report preparation, foundation design recommendations, liquefaction and seismic analysis, design of temporary structures including support of excavation systems and underpinning, floodwall design, waterproofing design for below grade foundation systems, and instrumentation and monitoring during foundation construction.

Michael Hunton leads our New England Landscape Architecture and Planning Studio, and has over fifteen years of experience in the industry. He has been instrumental in the design of various projects throughout CT, MA, NJ, NY, PA, TX and abroad. His experience includes streetscape design, rooftop garden and courtyard design, lifestyle retail centers, waterfront and shoreline resiliency projects, multi-use trails, university campus planning, elementary and high schools, senior living, playgrounds, office parks, industrial warehouse campuses, urban residential design, and brownfield redevelopment sites. He is involved in the details of site design including tree inventories, planting plans, lighting plans, site architecture design, grading, and stormwater plans.
Jamie Barr, LEP

Jamie Barr has over nineteen years of diversified experience that includes environmental regulatory compliance, remedial system design, permitting, feasibility studies, environmental site assessments, construction management, geotechnical investigations, site/civil design, stormwater management, mining exploration, and aquatic toxicology. Jamie has extensive experience with projects in the Connecticut Property Transfer Program, as well as the USEPA Superfund Program. He served as a co-chair on a committee formed by the CTDEEP for the transformation of the Connecticut regulations and currently sits on the advisory board for Connecticut Brownfield Cleanup initiative at the University of Connecticut.

Andy Ives, LS

Andrew Ives has twenty years of surveying experience on projects throughout the northeast including Connecticut, New York, and Massachusetts. Providing land surveying and mapping in both the public and private sectors, he is responsible for project coordination, research, field location, mapping, and boundary determination. Andrew has completed numerous projects in New Haven and has completed various resubdivision, easement and condominium documents that support property transactions.

John Plante, PE

John Plante has over thirty four years of civil engineering consulting experience specializing in site development, permitting, transportation, traffic analysis and value engineering. He has been responsible for the engineering design and preparation of contract documents for a wide variety of projects. He has served as both project engineer and project manager for site development and transportation infrastructure projects for public and private clients. He specializes in urban, mixed-use development and the complex engineering and regulatory challenges they present. He is the executive responsible for the management of and operations of the firm’s New Haven, CT & Boston, MA office. He is also a member of the steering committee for the Urban Land Institute (ULI) in Connecticut and the UConn Department of Civil & Environmental Engineering Advisory Board.
Vision and Mission Statement:

JAG Management Company is committed to creating and managing communities that are high quality, innovative, and environmentally responsible. Our team is continuously searching for better ways to achieve our goals while upholding basic principles of service, respect, integrity, management by fact, and servant leadership.

Company History, Experience and Expertise:

Jefferson Apartment Group, founded in 2009 by Jim Butz, Greg Lamb, James Duncan and Bob Timmins, (“JAG”) is a full-service real estate firm specializing in multi-family and mixed-use real estate investments through acquisition, development, construction and property management services. Messrs. Butz, Lamb, Duncan and Timmins began investing together as JPI Partners in 2000 and the team completed the buyout of JPI East in 2009, the East Coast division of Dallas-based JPI Multifamily, Inc. Together they have been responsible for the acquisition or development of over 18,000 units with a value of more than $3 billion in 10 states along the East Coast.

JAG Management Company operates the property management division. The JAG management team has over 80 years of combined experience leading nationally recognized multi-family organizations. Committed to management by fact, integrity, respect for people and continuous improvement. We arm our teams with information – market research, proven business process, and timely and relevant facts – to ensure that every decision is strategic and focused, creating value and maximizing returns for our owners, investors, partners and clients. We are committed to every investment and to remaining innovative in our processes by continuously searching for ways to improve and never being satisfied with the status quo. We bring passion and purpose to our work, and are dedicated to providing the highest level of service to our residents, owners, investors, partners, and employees.

JAG takes its relationships and responsibilities with its customers very seriously. Our founders encourage an environment of professionalism where deeply felt principles and values guide everything we do. Achieving our goals is dependent upon our intellectual capital, as such we are heavily focused on attracting talented people, recognizing and rewarding excellence, and, most importantly, providing the opportunity for our people to grow through significant investment in their career and their personal development.

Today, JAG Management currently manages over 5,000 apartments in various stages of design and development. Our senior management team has been directly responsible for the lease up and management of over 80 communities totaling over 19,000 units (including JPI legacy assets). This extensive lease up experience touches all product types and all market cycles across multiple east coast markets. We recently completed successful lease ups in Alexandria, VA; Arlington, VA; Washington DC; Baltimore, MD; Arlington, MA; New Haven, CT; Orlando, Tampa, Pompano, Palm Beach and Ft. Lauderdale, FL.

Our property management expertise has been proven in programming and operating new luxury products, including High Rise, Mid Rise, Mixed Use, Garden Style and the re-positioning of assets. We
have demonstrated a track record of building and growing teams in all major markets on the East Coast. Simply put, we know how to program, lease up, operate and manage innovative apartment communities.

We are proud of the work that we have accomplished for Jefferson Apartment Group as well as for our institutional relationships with clients such as General Electric, Starwood, Rockpoint, USAA, Invesco, AEW, AIG, Prudential, TA Associates and Bentall Kennedy.
Organization and Structure

JAG’s headquarters are located in McLean, VA with Regional Offices in Orlando, FL; Philadelphia, PA; and Boston, MA.

Corporate Leadership

**Jim Butz, CEO & President - JAG:** Mr. Butz is the President and CEO of Jefferson Apartment Group. He is responsible for strategic planning and growth of the Company and is involved in all operational and investment decisions. Mr. Butz has over 30 years' experience in the real estate development industry focusing primarily on for-rent and for-sale multifamily communities, and has been responsible for the acquisition or development of over 20,000 units. He was previously with Bozzuto and JPI.

**Greg Lamb, COO & Executive Vice President - JAG:** Mr. Lamb is the COO and Executive Vice President of Jefferson Apartment Group. He manages all development activity for the Company across five offices located in Orlando, Boston, Philadelphia, New York and McLean. Mr. Lamb has 26 years of industry experience specializing in luxury garden, mid-rise and high-rise product. His responsibilities include management of all aspects of site acquisition, market research and development. He was previously with Kettler and JPI.

**James Duncan, CFO & Partner - JAG:** Mr. Duncan is the CFO and Executive Vice President of Jefferson Apartment Group. In addition to overseeing JAG Management, he is also involved in all of the equity, debt, disposition, and asset management functions of the company. Mr. Duncan has over 20 years of experience in real estate. He was previously with Insignia and JPI.

**Bob Timmins, Senior Vice President - JAG:** Mr. Timmins is a Senior Vice President and Construction Partner of Jefferson Apartment Group. He has over 21 years of industry experience and responsible for providing the vision and organizational structure for the Construction company. This includes personnel and leadership development, as well as pre-construction, coordination, scheduling, quality, and risk management of company projects from feasibility to project completion and close-out. He was previously with Pulte and JPI.

JAG Management Leadership

**Patty Holt – Sr. Vice President, Property Management**
Patty Holt is the Senior Vice President of Property Management for JAG Management Company and oversees the entire property management portfolio for JAG. Patty has 20+ years of successful experience in the multi-family industry and has held various positions throughout her career to include Community Manager, Regional Trainer, Recruiter, Regional Manager and Director. She has had direct oversight of the lease up, acquisition, and disposition of numerous properties (40+) in Washington DC, Virginia, Maryland, Pennsylvania, Florida, Massachusetts, Ohio, Illinois, Minnesota and North Carolina. She also serves as a valuable resource in many of the pre-development decisions regarding programming, design and functionality of new construction buildings.
Prior to joining Jefferson Apartment Group, Mrs. Holt was the Director of Real Estate for the Mid-Atlantic region for Greystar Management Services. In this capacity, she was directly responsible for a portfolio of 26 properties totaling over 10,000 units.

Prior to joining Greystar, she served as the Assistant Vice President of Property Management for JPI’s Mid-Atlantic region. During her 9 year career with JPI, she played an instrumental role in all facets of property management operations. Her proven track record and commitment to excellence is visible in her varied portfolio of high end luxury communities, mid-rises, garden style, mixed use assets and the repositioning of value added acquisition communities. She is a graduate of Augustana College, in Rock Island, Illinois where she received her Bachelor’s of Arts in Business Administration. She is a member of the Property Management Association and the Apartment and Office Building Association of Metropolitan Washington (AOBA). Patty is married and has two children.

Chris Grizzard – AVP, Property Management & Research
Chris Grizzard is an Assistant Vice President for JAG Management Company. He is primarily responsible for supporting day to day property management operations, including, software implementation and support, market research, rent and expense analysis, budgeting, marketing and vendor compliance.

Prior to joining Jefferson Apartment Group, Chris was a Market Analyst for Greystar Management Services. He transitioned to the Greystar team upon the Greystar/JPI Management Services merger in January 2009. While with Greystar, Chris was primarily responsible for market research and operational analysis for the DC/Northeast properties and clients. His territory included Massachusetts, Connecticut, Pennsylvania, Maryland, Washington, DC and Virginia and consisted of 35 properties totaling 13,957 units and 14 owners. He played an integral role in maintaining current and potential client relationships while also assisting in business development.

Prior to Greystar, Chris began his career in 1999 with JPI. During his ten years with the company, he held a variety of property management and market research positions. His property management experience includes the opening and initial lease up of nine communities totaling over 3,000 units in Metro DC, Charlotte, NC and Raleigh, NC. In March of 2005, he transitioned into the role of Director of Market Research for JPI Mid-Atlantic. His market research experience includes providing detail market feasibility studies for 7,495 units in Metro DC, Baltimore and Philadelphia. His wide range of property management expertise was also instrumental in the success of his role as a Regional Manager with JPI as well. His regional management experience consisted of managing day to day operations of four communities totaling 1,770 units located in Metro DC, Baltimore and Philadelphia. Honors with JPI include recipient for Mid-Atlantic Property Management Associate of the Year - 2001, Ring of Honor 2003, Mid-Atlantic Development/Market Research Associate of the Year – 2005. Chris is a graduate of Virginia Tech in Blacksburg, VA where he earned a Bachelor’s of Science Degree in Residential Property Management. Chris is married and has one child.

Julie Contos – Director of Marketing
Julie Contos is the Director of Marketing for Jefferson Apartment Group. Julie has 20+ years of experience creating and executing top notch marketing campaigns for multi-family, commercial, and retail real estate developments. Her professional achievements include recognition by the National Association of Home Builders (NAHB) as the Marketing Manager of the Year in the 2015 Multifamily Pillars of the Industry Awards.
Prior to joining Jefferson Apartment Group in 2017, she worked for JBG SMITH, Lincoln Property Company, and A.J. Dwoskin and Associates. She has a B.B.A. in Marketing from James Madison University and an M.B.A. in both Strategy and Marketing from the Yale School of Management.

Sandy Becker – AVP, Director of Property Operations
Sandy Becker is an Assistant Vice President, Director of Property Operations for JAG Management Company. Mrs. Becker has 25 years of successful multi-family industry experience and has held various positions ranging from Community Manager, Regional Manager, Asset Manager to Director of Operations. She has had direct oversight of acquisitions as well as new development construction and lease up properties. She has been involved in many asset re-positioning projects that included significant rehab ranging from in unit and common area renovations to major electrical and mechanical upgrades. During her career, she has been responsible for over 55 properties in 32 states. Primarily in markets such as Minneapolis/St. Paul, St. Louis, Kansas City, Orlando, Tampa, Washington, D.C, Charlotte, and Atlanta.

Prior to joining Jefferson Apartment Group, Mrs. Becker was Director of Operations at CAPREIT. In this capacity, she was directly responsible for the management of over 12,000 units working directly with many large investment groups such as Merrill Lynch, Prudential, and Blackstone. She has also worked as a Regional Manager in the Dallas, Houston and San Antonio markets.

She is a graduate of Bowling Green State University in Bowling Green, OH, where she received her Bachelor’s of Arts Degree in Business Administration and Communications. She also holds her Certified Property Manager designation from the Institute of Real Estate Management. Sandy is married and has three children.

Maureen Haberern – Regional Manager, Mid-Atlantic
Maureen Haberern is a Regional Manager for JAG Management, currently overseeing assets in Virginia, Maryland and New Jersey. She has over 20 years of multifamily experience, holding positions over the course of her career as Property Manager, General Manager, Regional Manager, Senior Regional Manager and Director. Maureen has diverse product experience to include new construction/lease-up, mixed use, stabilized and renovation assets, as well as wide ranging experience with owner-operated, fee managed, REIT and joint venture ownership structures. She has successfully managed operations for nearly 3,000 units and participated in executing large scale capital improvement programs.

Prior to joining JAG, Maureen’s experience with other industry leaders includes Bozzuto Management Company, Gables Residential and Equity Residential. She is recognized for her solid reputation for maintaining tenured and trusted client relationships, leading the successful acquisition and disposition of assets, and possessing strong financial skills.

Maureen is a graduate of the University of Maryland in College Park, Maryland where she received her Bachelor’s of Art degree. She resides in Howard County, Maryland with her 2 children and is active in multiple youth sports organizations and community volunteer service.

Trisha Endaz – Regional Manager, Northeast
Trisha Endaz is the Regional Manager for JAG Management Company’s Northeast portfolio. Prior to joining JAG, Trisha was owner and founder of Devinity Business Solutions. She created this firm to extend her services,
and leadership know-how, to the industries of real estate development and operations, advertising, transformation leadership, and business innovation. This firm was established in 2013 following Trisha’s decade-long commitment of service to Lincoln Property Company’s North East and Mid-Atlantic Residential divisions.

Trisha has worked and lived in Massachusetts for fifteen years. Before moving to MA in 2003, Trisha helped to shape the multifamily industry in both the Northern Virginia/DC, and New York/New Jersey markets with Lincoln Property Company. Trisha studied Journalism and Psychology at West Virginia University.

**Relevant Experience**

The project team brings a wide breadth of market experience in various product types. Each team member has touched projects that are surface parked with walk up garden apartments, high density wood frame wrap garage apartments, high-rise apartments, mixed-use high density wood frame wrap garage apartments and mixed-use high-rise apartments. In addition to managing stabilized and lease up assets, the team has also been involved in numerous acquisitions as well.

**Project Cut Sheets:**

Samples of projects managed can be found in Appendix A. For a full listing of properties, please visit our website at [www.jeffersonapartmentgroup.com](http://www.jeffersonapartmentgroup.com).
Location: Located in the heart of downtown New Haven. Walking distance to entertainment, restaurants, retail and Yale University.

Total Net SF: 125,636 SF - Residential
20,000 SF – Retail

Apartments: 160 units

Parking: Underground Parking

Amenities: Resident Lounge with Billiards Table, HDTVs, Fireplace and Shuffleboard
Outdoor terraces with grilling areas, dog walk area, and fire pit
Cyber café
State-of-the-art fitness center and yoga room
Front door concierge
Scope of Work:

Pre-Development
- Pro-forma rental rate and operating analysis
- Review and comment on floor plans and common area layouts
- Attend interior design meetings
- Consult on building programming related to controlled access, parking, signage, trash, etc.
- Initiate teaser website and additional marketing

Start-Up Stage
- Walk units and common areas with development and construction
- Prepare complete marketing schedule and business plan
- Prepare initial operating budget
- Order and install complete IT solution for office and common areas
- Consult on low voltage solutions and marketing agreements

Lease-Up Stage
- Hire and train on-site staff
- Execute on approved business plan and marketing schedule
- Negotiate and execute maintenance contracts
- Initiate fully integrated property software system
- Establish policies and procedures relating to common areas and move ins

Stabilized Operations
- Resident services and retention
- Customized monthly Owner’s reporting package
- Regular Owner’s meeting and calls
- Revenue optimization
- Expense Controls

Clients:
Center Plan Development Company
Yves-Georges A. Joseph II
Vice President, Development
708-288-9183
Location: Located in the vibrant Shaw neighborhood of NW DC. Walking distance to Shaw & Mt Vernon Square - 7th Street Convention Center metro stations.

Total Net SF: 214,561 SF - Residential
13,295 SF – Retail

Retail tenants: Unleashed by Petco (4,830 SF)
Beau Thai (3,135 SF)
Shaw Yoga (2,200 SF)
La Jambe (1,620 SF)
Grand Cata (1,510 SF)

Apartments: 281 Units (54 Affordable)

Parking: Underground Parking

Amenities: Resort Style rooftop pool with sundeck
7th Floor terrace with fire pit
Resident lounge with patio
Cyber café & fitness center
Kids play room
24 hour concierge
Scope of Work:

Pre-Development
- Pro-forma rental rate and operating analysis
- Review and comment on floor plans and common area layouts
- Attend interior design meetings
- Consult on building programming related to controlled access, parking, signage, trash, etc.
- Initiate teaser website and additional marketing

Start-Up Stage
- Walk units and common areas with development and construction
- Prepare complete marketing schedule and business plan
- Prepare initial operating budget
- Order and install complete IT solution for office and common areas
- Consult on low voltage solutions and marketing agreements

Lease-Up Stage
- Hire and train on-site staff
- Execute on approved business plan and marketing schedule
- Negotiate and execute maintenance contracts
- Initiate fully integrated property software system
- Establish policies and procedures relating to common areas and move ins

Stabilized Operations
- Resident services and retention
- Customized monthly Owner's reporting package
- Regular Owner's meeting and calls
- Revenue optimization
- Expense Controls

Clients:

Development/Lease Up
Starwood Capital Group
James E. Kane, Asset Management, Vice President
P: (770) 541.9406

Asset sold (12/2015) and retained management, stabilized operations
Invesco
Perry Chudnoff, Director – Asset Management
P: (212) 278-9685
Jefferson Square at Washington Hill
101 N Wolfe St, Baltimore, MD 21231
www.jeffersonsquareapartments.com

Location: Adjacent to Johns Hopkins Hospital in Baltimore, MD

Total Net SF: 258,529 SF - Residential
21,301 SF - Retail (10K SF CVS)

Apartments: 304 Units

Parking Spaces: 320 Residential, 80 Retail

Amenities: Conference Room with media
Clubroom with lounge seating and bar
Game room including billiards, shuffleboard and latest gaming stations
State-of-the-art fitness and yoga rooms
Pool courtyard with grilling area and water fountains
Serenity courtyard with outdoor fireplace and lush vegetation.
Scope of Work:

Pre-Development
- Pro-forma rental rate and operating analysis
- Review and comment on floor plans and common area layouts
- Attend interior design meetings
- Consult on building programming related to controlled access, parking, signage, trash, etc.
- Initiate teaser website and additional marketing

Start-Up Stage
- Walk units and common areas with development and construction
- Prepare complete marketing schedule and business plan
- Prepare initial operating budget
- Order and install complete IT solution for office and common areas
- Consult on low voltage solutions and marketing agreements

Lease-Up Stage
- Hire and train on-site staff
- Execute on approved business plan and marketing schedule
- Negotiate and execute maintenance contracts
- Initiate fully integrated property software system
- Establish policies and procedures relating to common areas and move ins

Stabilized Operations
- Resident services and retention
- Customized monthly Owner’s reporting package
- Regular Owner’s meeting and calls
- Revenue optimization
- Expense Controls

Clients:

Development/Lease Up
USAA
Kyle Dill, Asset Management
P: (210) 641-8540

Asset sold (06/2018) and retained management, stabilized operations
Lowe Enterprises
Serge Fanning – Asset Management
P: (215) 620-5213
Location: Located 2 blocks from Courthouse Metro in Arlington, VA

Total Net SF: 239,871 SF – Residential
7,837 SF – Office
4,050 SF – Retail

Office tenants: Erkiletian Real Estate
Arlington Chamber of Commerce

Apartments: 254 Units

Parking Spaces: 254 Residential, 19 Commercial

Amenities: Landscaped Courtyard with fire pit and seating
Rooftop Pool & Overlook Deck,
Fitness Center
Cyber Café
Party Room
24 Hour Concierge
LEED Gold Certification
Scope of Work:

Pre-Development
• Pro-forma rental rate and operating analysis
• Review and comment on floor plans and common area layouts
• Attend interior design meetings
• Consult on building programming related to controlled access, parking, signage, trash, etc.
• Initiate teaser website and additional marketing

Start-Up Stage
• Walk units and common areas with development and construction
• Prepare complete marketing schedule and business plan
• Prepare initial operating budget
• Order and install complete IT solution for office and common areas
• Consult on low voltage solutions and marketing agreements

Lease-Up Stage
• Hire and train on-site staff
• Execute on approved business plan and marketing schedule
• Negotiate and execute maintenance contracts
• Initiate fully integrated property software system
• Establish policies and procedures relating to common areas and move ins

Stabilized Operations
• Resident services and retention
• Customized monthly Owner’s reporting package
• Regular Owner’s meeting and calls
• Revenue optimization
• Expense Controls

Client:

Harvest Real Estate
Mark W. Hamer
P: (516) 997-6100
The Residences at Congressional Village
198 Halpine Road, Rockville, MD 20852
www.residencesatcongressionalvillage.com

Location: Located off the heavily travelled Rockville Pike and one block from the Halpine Metro

Total Net SF:
- 392,126 - Residential
- 7,000 - Retail

Apartments: 404 Apartments (54 MPDU)

Parking Spaces: Two Five Story Structured Parking Garages with shared retail & hotel parking

Amenities:
- Clubhouse with Pub
- Fitness Center
- Resort style Pool with Sundeck and Hot Tub
- Outdoor Lounge with grilling area
- Business Center with Conference Room
- Library
- Lushly landscaped courtyards
Scope of Work:

Stabilized Operations
- Resident services and retention
- Customized monthly Owner’s reporting package
- Regular Owner’s meeting and calls
- Revenue optimization
- Expense Controls
- Physical Asset Preservation

Renovations
- Design and construction for all common area amenities
  - Leasing Office
  - Pub Room
  - Fitness center
  - Movie Theater
  - Business Center
  - Library
  - Lobby
  - Interior corridors carpet & paint refresh
- Design and construction for apartment renovations
  - Evaluate market to recommend upgrades
  - Select finish levels and pricing for upgrades
  - Manage turnover/make ready process for renovations

Client:
Bentall Kennedy
Kelli Dickerson, VP Asset Management
P: (301) 634-2205
With the proliferation of retail & hospitality throughout the country, CANAdev believes it is increasingly important for retail developments to create unique, cohesive and high-quality destinations of attractions & amenities, while adding value to the overall property.

WE DELIVER
DISTINCTIVE PLACES & MEMORABLE EXPERIENCES
that our clients and their guests have always imagined and will never forget. Our places evoke a one-of-a-kind emotional experience.

OUR TEAM
SPEAKS THE LANGUAGE OF REAL ESTATE
We have collectively developed more than 42 million square feet of commercial real estate – including hotels, corporate headquarters, live music and sports arenas / stadiums – all with a particular focus on guest experience.

WE ARE
FOOD & RETAIL ASSET MANAGEMENT EXPERTS
From our first food hall development in 2010, we have proven ourselves time and time again to deliver results in the planning, development and placemaking for similar food hall, marketplace and entertainment projects all around the United States.

CANAdev defines, develops and activates places with a relentless approach to quality retail development, leasing and operations.
Founded in 2008, CANAdev is a full-service commercial real estate firm that specializes in retail placemaking.

While leveraging our relationships, unique backgrounds and passion for food, hospitality, retail and real estate, we create places that people want to spend time in.
Our team is well-versed in all things real estate, with particular focus on food and retail asset management. We specialize in the planning, development and leasing of large-scale high-profile retail experiences in marketplace and mixed-use developments.

Our team works with clients in all aspects of Food Hall, Marketplace and Retail Development, Leasing and Operations.

**MARKETPLACES & FOOD HALLS**

Our team specializes in food hall and marketplace projects that involve tenant relations, marketing and operations management.

**RETAIL**

We passionately follow current retail trends and connect with vendors that are authentic, unique and local to your project.

**ENTERTAINMENT DISTRICTS**

We bring vibrancy to entertainment and stadium districts that have a diverse food, beverage and retail plan.
In 2015, Mount Vernon Marketplace opened, following a revitalization by CANAdev, The Time Group and WPM Real Estate Management. The former warehouse for the department store chain Hochschild Kohn (est. 1897) now houses nearly 20 eclectic vendors, most with roots in Baltimore.

Located in historic Mount Vernon, the Marketplace is just a mile north of the Inner Harbor, and within blocks of Mercy Medical Center, University of Maryland Medical Center and the Walters Art Museum. The project also included the first Baltimore café for Annapolis-based roastery Ceremony Coffee, as well as the construction of 171 apartments. The neighborhood destination is now central to an area that previously saw very little foot traffic.
In 2017, adjacent to the Marketplace building, 500 Park Avenue opened with 153 apartment units and 3,200 square feet of ground floor retail space.

THE TEAM

>>DEVELOPERS: CANAdev
The Time Group
WPM Real Estate

>>ARCHITECT: Moseley

>>DESIGN: Marks Thomas

>>CONTRACTOR: Southway Builders
Built in 1895 as the country’s first commodities exchange, The Bourse now features a culinary marketplace that appeals to both locals and visitors. In 1979 the building was transformed into a high-end shopping mall. The concept failed, with just its food court remaining and turning The Bourse Building into a tourist trap. In 2016 MRP Realty acquired The Independence Collection, which included The Bourse and four adjacent buildings. The ensuing renovation established The Bourse as a local and regional destination for world-class food & beverage and unique retail. The food hall also serves as an amenity space to the above nine floors of offices. Located centrally in Old City, The Bourse sits on Independence Mall, which sees 4.6 million visitors annually.

@thebournephilly
In 2016, MRP Realty acquired The Independence Collection for $110M. The properties exceed 702K square feet and include The Bourse, The Bourse Garage, The Ritz Theatre, 400 Market, 325 Chestnut.

THE TEAM

>>DEVELOPERS: CANAdev
MRP Realty

>>ARCHITECT: BLT Architects

>>DESIGN: Groundswell Design Group

>>CONTRACTOR: Keating
Originally built in 1846 to serve the growing population of South Baltimore, Cross Street Market is one of the oldest Public Markets in the country. After a year-long renovation, the Market re-opened in May 2019, and by spring 2020 will be home to 22 independently-owned and –operated businesses. The Market combines legacy vendors with new ones, representing grocery retail alongside fast casual and bar concepts. Occupying a full city block in historic Federal Hill, Cross Street Market has seen many makeovers to its façade, but the re-design pays tribute to its 1950s look. The Market is within walking distance to multiple Baltimore landmarks, including the Inner Harbor, M&T Bank Stadium and Oriole Park.

@crossstmarket
In addition to quick service and bar concepts, Cross Street Market is home to multiple grocery retailers, including Rooster + Hen, Fenwick’s Choice Meats and Atlas Fish Market.

THE TEAM

>>DEVELOPERS: CANAdev Caves Valley Partners

>>ARCHITECT: BCT

>>DESIGN: Groundswell Design Group

>>CONTRACTOR: MacKenzie Contracting
A state of the art food hall in the heart of the Financial District, High Street Place will open in 2020. The modern marketplace will feature James Beard Award-nominated chefs, local cocktail experts and other innovators in food & beverage. In 1930, a road called High Street Place ran between 100 High Street and 160 Federal Street (Boston’s first skyscraper), right where the atrium space now is. On the ground floor of 100 High Street, a 28-story Class-A office building, High Street Place is located just a block from South Station, Boston’s busiest transit hub, which sees 75,000 people each day.

@highstreetplace
As part of Elliott Sidewalk Communities’ “The Outfields,” Stock + Grain Assembly is a 12,000-square-foot food hall under construction in High Point, NC. The 10-vendor marketplace will occupy the first floor of the lead-off building at 275 North Elm, a new hub of connectivity for downtown High Point. The building will feature 20,000 square feet of office space on its second and third floors, as well as an outdoor terrace with seating positioned adjacent to BB&T Point Stadium. In later phases, a hotel, apartments and condominiums will join The Outfields, further restoring vitality and walkability to the area.

@stockandgrain
A NEW HISTORY IN OUR NATION’S CAPITAL

2000 Penn stands across from the site of the original Western Market, built in 1802 as one of the three marketplaces in Pierre L’Enfant’s plan for Washington, DC. The Market eventually moved to 21st & K Streets, until it closed in 1961.

The revitalization will bring more than a dozen locally-based food & beverage vendors into a 12.3K-square-foot modern marketplace.

Adjacent to George Washington University, Western Market is in a dynamic and historic part of our nation's capital - an amenity for students, faculty & staff, office workers, and the city as a whole.

@westernmarketdc
HAMILTON GREEN
White Plains, NY
2021

THE BEVY
Washington, DC
2021

ST. JOHN’S MARKET
New York, NY
2021

will&co.
Allentown, PA
2020

HAMILTON GREEN
White Plains, NY
2021

THE BEVY
Washington, DC
2021

BRiC
Boca Raton, FL
2021

A LOOK AHEAD...
Part of our expertise in placemaking comes from our partnerships with trusted tenants over the years.

In addition to creating a well-curated tenant mix within larger scale marketplace projects, we also work one-on-one with a select group of local vendors to aid in their expansion in and around the Baltimore area.

Our team has experience in all aspects of the food service, hospitality and retail industries, preparing us for success in tenant relations & consultation, title representation, tenant representation and landlord representation.

Our passion for customer experience, concept & branding – and of course, great food & beverage – drive our leasing team to identify ideal tenants, build relationships and help to grow independent businesses.
TENANTS

AL VOLO

LOCATIONS: DMV

HANDMADE FROM SCRATCH

YEAR FOUNDED

5

100%

2015
TENANTS

BLUE MOON CAFE

+ 24
HOURS OPEN ON THE WEEKEND

+ 2
LOCATIONS: BALTIMORE, MD

+ 1996
YEAR FOUNDED
TENANTS

BUN’D UP

9 FARMERS MARKETS

2 LOCATIONS: DC & VIRGINIA

2016 YEAR FOUNDED
CAVA MEZZE

5
LOCATIONS: DMV

97
GRILL LOCATIONS IN THE US

2006
YEAR OPENED IN ROCKVILLE, MD
TENANTS

CEREMONY COFFEE

6 COUNTRY ORIGINS FOR THE BREWS
5 LOCATIONS: MARYLAND & DC
2002 YEAR OPENED IN ANNAPOLIS, MD
TENANTS

IRON ROOSTER

8+ SPECIALTY POPTART FLAVORS

4 LOCATIONS: MARYLAND

2014 YEAR OPENED IN ANNAPOLIS, MD
KINKA FAMILY

+ 6 CONCEPTS
+ 4 COUNTRIES
+ 2009 YEAR FOUNDED
TENANTS

THE LOCAL FRY

+ 9 SIGNATURE FRIES
+ 1 LOCATION: BALTIMORE, MD
+ 2015 YEAR FOUNDED
canadev

OUR TEAM
Michael Morris
Principal

Kelly Duffy
Regional Manager

Nick Alevrogiannis
Retail Leasing

Katie Zulty
Retail Leasing
Andy Weaver
Brand Manager

Emil Moldoveanu
Digital Producer

Hannah Magan
Marketing & Events
Matt Holman
Project Manager

Erin Chalkley
Project Manager

Alison Goss
Project Manager
Candice Coolahan  
Marketplace Manager

Lauren Johnson  
Marketplace Manager

Arthur Etchells  
Marketplace Manager