

bae urban economics

Phase I Assured Housing Feasibility Analysis for the City of Moab and Grand County, Utah

March 2018



bae urban economics

March 2, 2018

Zacharia Levine
Community Development Director
Grand County
125 East Center Street
Moab, UT 84532

Amy Weiser
Community Services Director
City of Moab
217 East Center Street
Moab, UT 84532

Dear Mr. Levine and Ms. Weiser:

We are pleased to submit this draft of the Moab Area Assured Housing Feasibility Analysis.

We enjoyed completing this work, and it has been a pleasure working with you. We look forward to your comments on this draft. In the meantime, please let us know if you have any questions.

Sincerely,



Matt Kowta, MCP
Managing Principal



Jessica Hitchcock, MCP
Vice President

San Francisco

2600 10th St., Suite 300
Berkeley, CA 94710
510.547.9380

Sacramento

803 2nd St., Suite A
Davis, CA 95616
530.750.2195

Los Angeles

448 South Hill St., Suite 701
Los Angeles, CA 90013
213.471.2666

Washington DC

1400 I St. NW, Suite 350
Washington, DC 20005
202.588.8945

New York City

49 West 27th St., Suite 10W
New York, NY 10001
212.683.4486

Table of Contents

TABLE OF TABLES	ii
TABLE OF FIGURES	iv
EXECUTIVE SUMMARY	v
INTRODUCTION.....	1
Report Organization	1
Methodology	1
DEMOGRAPHIC AND ECONOMIC TRENDS	3
Population and Household Trends and Projections.....	5
Economic Conditions	14
RESIDENTIAL REAL ESTATE MARKET CONDITIONS	19
Housing Stock Characteristics	19
For-Sale Residential	20
Rental Residential	25
WORKFORCE HOUSING NEEDS	31
Housing Cost Burden	31
Workforce Housing Affordability	32
COMMERCIAL REAL ESTATE MARKET CONDITIONS	42
Hotels.....	42
Retail	46
Office	47
FINANCIAL FEASIBILITY ASSESSMENT	51
Development Prototypes	51
Assumptions	52
Commercial Financial Feasibility.....	55
Residential Financial Feasibility.....	56
REVENUE ESTIMATE.....	61
Step 1: Compile Building Permit Data by Use	61
Step 2: Estimate Annual Average Net New Construction	62
Step 3: Convert Annual Average Square Feet to Revenue	62
Step 4: Compare Inclusionary Policy to Fee Structure	64
Considerations for Implementation	66
APPENDIX A	69
APPENDIX B: PROFORMA ANALYSIS.....	70
APPENDIX C: INCLUSIONARY HOUSING PROFORMAS	77
APPENDIX D: DENSITY BONUS ANALYSIS	79
Purpose.....	79
Assumptions	80
Proforma Analysis and Findings.....	80

Table of Tables

Table 1: Population Trends, 2010-2017.....	5
Table 2: Population Projections, 2017-2022	5
Table 3: Age Distribution Trends, 2010-2017	7
Table 4: Household Trends, 2010-2017.....	8
Table 5: Household Projections, 2017-2022	8
Table 6: Household Composition Trends, 2010-2017.....	9
Table 7: Household Composition Projections, 2017-2022	9
Table 8: Housing Units, 2010-2017	10
Table 9: Housing Units by Tenure, 2010-2017	11
Table 10: Housing Units by Occupancy, 2010-2017	12
Table 11: Vacancy Status, 2011-2015	13
Table 12: Household Income Characteristics, 2017.....	14
Table 13: Employment Trends by Major Industry, 2011-2016	15
Table 14: Tourism Tax Revenue, 2016-2017.....	18
Table 15: Single-Family Sales Comparables for Homes Built Since 2000	22
Table 16: Townhome Sales Comparables for Homes Built Since 2000	24
Table 17: Comparable Market Rate Apartment Properties, Grand County	26
Table 18: Unfurnished Rental Properties, Grand County.....	28
Table 19: Furnished Rental Properties, Grand County.....	29
Table 20: Nightly Rental Properties, Grand County	30
Table 21: Cost Burdened Households by Tenure and Income, Grand County	32
Table 22: HUD Defined Income Limits, Grand County, Utah, 2017	33
Table 23: Workforce Household Profile.....	34
Table 24: Affordable For-Sale Housing Prices, Grand County, 2017	35
Table 25: Housing Affordability for Selected Households in Grand County, Utah	36
Table 26: Sale Price Distribution for Homes Sales in 2017, By Number of Bedrooms	37
Table 27: Who Can Afford to Buy a Manufactured Home in Grand County?	38
Table 28: Sale Price Distribution for Mobile Home Sales in 2017, by Number of Bedrooms... ..	39
Table 29: Who Can Afford to Rent an Apartment in Grand County?	40
Table 30: Hotels that Changed Affiliation, 2005-2017.....	43
Table 31: Hotel Market Overview, Moab Area, 2011 – September 2017	45
Table 32: Retail Inventory, Grand County, Q1 2018	46
Table 33: Active Retail Listings, Grand County, Q4 2017	47
Table 34: Office Inventory, Grand County, Q1 2018	48
Table 35: Office Inventory, Leased and Currently Listed Properties, Grand County, Q4 2017 ..	49
Table 36: Feasibility Thresholds by Land Use.....	54
Table 37: Summary of Proforma Analysis for Commercial Land Uses.....	55
Table 38: Summary of Proforma Analysis for Residential Land Uses	57
Table 39: Single Family Homes Permitted, Moab and Grand County, 2010-2017	59
Table 40: Single-Family Impact Fee Matrix as Percent of Total Development Cost.....	60

Table 41: Estimated Annual Average Residential Construction, City of Moab and Grand County, 2010-2017.....	61
Table 42: Total Square Feet of New Construction, Residential and Commercial Projects, City of Moab and Grand County, 2010-2017.....	62
Table 43: Annual Estimated Fee Revenue from Residential and Commercial Construction	63
Table 44: Estimated Fee Revenue, Weak Market, 2010.....	64
Table 45: Estimated Fee Revenue, Strong Market, 2016	64
Table 46: Annual Estimated Inclusionary Units and Revenue from Residential and Commercial Construction.....	65
Appendix A-1: STR Selected Hotels	69
Appendix B-1: Office Development Pro Forma.....	70
Appendix B-2: Retail Development Pro Forma.....	71
Appendix B-3: Hotel Development Pro Forma.....	72
Appendix B-4: Apartment Development Pro Forma.....	73
Appendix B-5: Condominium Development Pro Forma	74
Appendix B-6: Townhouse Development Pro Forma	75
Appendix B-7: Single-Family Home Development Pro Forma	76
Appendix C-1: Inclusionary Housing Townhouse Development in Grand County.....	77
Appendix C-2: Inclusionary Housing Condominium Development in Grand County.....	78
Appendix D-1: Multi-Family Rental Density Bonus Analysis, City of Moab	83
Appendix D-2: Multi-Family Rental Density Bonus Analysis, Grand County	84
Appendix D-3: Condominiums with Density Bonus, Grand County.....	85

Table of Figures

Figure 1: Study Area	4
Figure 2: Arches and Canyonlands National Park Visitor Spending, 2016.....	16
Figure 3: Housing Stock Characteristics, 2011-2015.....	20
Figure 4: Median Single-Family Sale Price Trend, Grand County, 2014-2017	20
Figure 5: Median Townhome Sale Price Trends, Grand County, 2014-2017.....	23
Figure 6: Condominium Sale Price Trends, Grand County, 2014-2017	25
Figure 7: Annual Visitation to Arches and Canyonlands National Park, 2005-2016	42
Figure 8: Hotels and Rooms Tracked by STR, Grand County, 2005-2017	43
Figure 9: Hotels by Class, Grand County, 2005 and 2017	44

Executive Summary

The City of Moab and Grand County, Utah commissioned BAE Urban Economics to prepare an Economic Study for an Assured Housing Policy to encourage the development of affordable housing through inclusionary housing/in-lieu fee ordinances in their respective jurisdictions.

Moab is a prominent outdoor recreational destination with a strong tourism sector that generates important local economic activity, but which also drives real estate prices beyond the reach of the local workforce, making it difficult for businesses to attract workers. Inclusionary housing is a way to increase the affordable housing supply by requiring residential and commercial market rate developers to set-aside units for affordable housing or pay an in-lieu fee, with the set-aside or in-lieu fee percentages varying depending on the strength of the real estate market.

In Moab and Grand County, assured housing refers to housing policies that require market rate developments to also provide affordable housing, either in the form of affordable units constructed within the larger project (i.e., “inclusionary housing units”) or through payment of assured housing “in-lieu” fees. The permitting jurisdiction would collect the latter from projects that otherwise would be required to provide affordable housing units, and then utilize the proceeds to financially assist the development of affordable housing in other projects developed by affordable housing developers. The terms “assured housing” and “inclusionary housing” will be used interchangeably in this report.

This analysis constitutes Phase I of a two-phase study. The purpose of this study is to evaluate the workforce housing issue, and to conduct a feasibility analysis that describes the economics for new residential and commercial development. The goal is to determine whether commercial and residential development are financially feasible under current market conditions (“baseline”), and if they are, how much room there is in the development budget to contribute towards an affordable housing requirement, while still maintaining development feasibility. Based on findings from Phase I, BAE, in consultation with the City and County, will complete a nexus analysis for the financially feasible prototypes as part of Phase II.

Recommendations for Structuring an Assured Housing Policy

- The City of Moab and Grand County should consider establishing assured housing requirements for the types of real estate products which are financially capable of incorporating assured housing units and/or payment of assured housing in-lieu/impact fees. This includes hotels, overnight rentals, and condominiums. It may also include luxury single-family homes.

- The City and County can structure a program whereby projects are charged a fee based on total square footage. For residential developments with more than twelve units, developers can elect to either pay the fee or build the inclusionary units on-site. In the case of projects requiring a fraction of an inclusionary unit, the program should provide for payment of a pro-rated in-lieu fee. A program that incorporates a combination of inclusionary requirements and in-lieu fees that are applicable to all projects will maximize the resources generated for assured housing. Other options can be made available, such as dedicating land for affordable housing, so long as the appraised value of the land is equivalent to or higher than the required fee. Some land dedication activity could benefit workforce housing organizations active in the area, as they report scarcity of buildable sites as a primary constraint to affordable housing production.

- The ordinance can also exempt certain uses, including affordable housing developments, projects built by non-profit, public-purpose, or government agencies. Examples are churches, schools, child-care facilities or publicly-owned buildings. This report also recommends creating a waiver for economic hardships, and mechanisms that require the policy to be analyzed periodically, and/or triggers to waive fees during economic down cycles.

- Although charging a fee increases the cost to build (an inclusionary policy reduces developer revenue), if the fee or inclusionary requirement is set at a reasonable level, it is possible to achieve the dual goals of generating revenue to support development of affordable units, without completely dampening the market for new construction. The fee levels discussed herein for specific land use types would still enable developers to achieve their minimum return on cost and yield on cost thresholds needed to undertake projects.

Considerations for Implementation

Should the City and/or County decide to proceed with adopting an assured housing policy that requires residential projects and non-residential projects to participate in provision of below market rate housing, either through in-kind provision of affordable units or through payment of in-lieu fees, the main body of this report discusses a number policy issues that should be considered, including:

- Some types of projects could or should be exempted from assured housing requirements - For example, if the objective is to encourage production of market rate housing types that are relatively affordable, such as rental apartments, or modest single-family starter homes, assured housing requirements could be reduced or removed for projects that provide these types of units. Exemptions could also be provided for non-residential projects that provide valuable public benefits, such as educational facilities, healthcare facilities, or childcare.

- Compliance options other than in-kind unit production or payment of fees, such as partnering with developers to build affordable units off-site, and/or allowing land donation at an equivalent value. Because the Moab Area is land constrained and local affordable housing developers face challenges in securing sites for projects, the option to dedicate land instead of paying a fee, should be further explored.
- Hardship waivers - It is recommended that an assured housing program provide for hardship waivers or reductions in requirements, in the case of projects that cannot feasibly comply with the requirements, to avoid economic takings claims; however, specific standards must be adopted for how to demonstrate hardship or qualify for a reduction, to limit administrative burden on staff.
- Timing of Fee Calculation and Payment – Timing for payment of in-lieu fees can have a significant effect on project economics, with developers preferring to defer payment as long as possible, while the administering jurisdiction wants assurance that fees will be paid as early as possible, so that those resources can be made available to affordable housing developers.
- Phase-In of Requirements – Consideration should be given to a phase-in of assured housing requirements, with advance notice to the development community, to mitigate a “shock” to the economic system. A phase-in allows developers to adjust their bidding for development site purchases with knowledge of how the applicable requirements affect the residual land value that they can afford to pay for a site and achieve financial feasibility.
- Relationship Between Unit Requirements Versus Fee Requirements - The City and County should also be aware that the structure of the requirements themselves can also create incentives for builders subject to the requirements. If the program provides options for payment of fees versus in-kind provision of below market rate units, the City and County will want to be sensitive to the fact that unless the economic cost to the developer is comparable under either option, the program will create an incentive for developers to choose the one that is most financially advantageous. Many jurisdictions under-price their in-lieu fees, which results in little to no in-kind production of affordable units. Another consideration is that setting fees on a per market rate unit basis encourages construction of units that are as large as possible, while setting fees on a per square foot basis can make it relatively more attractive to build smaller market rate units.
- Policy Revisions – Fluctuations in prevailing economic conditions can affect the viability of assured housing programs over time. Program administration should be flexible to accommodate changes in economic cycles.

The following summarizes the major Phase I findings leading to the preceding recommendations:

Demographic and Economic Conditions

- Population in the City of Moab and Grand County has increased rapidly, reflecting overall trends in the State of Utah. Between 2000 and 2017, the population in Grand County rose from 9,225 to 10,292, equivalent to a 11.6 percent increase, and similar to the Utah growth rate of 12.6 percent.¹ This rapid population increase is expected to continue, driving demand for housing. The fastest growing demographic is the population over the age of 65, followed by young adults between the ages of 18 to 24. This may be indicative of a younger workforce attracted by new opportunities in the growing tourism economy.
- More homeownership and rental housing will be needed to accommodate future growth. Between 2010 and 2017, the number of family and non-family households expanded, although non-family households experienced a somewhat higher rate of increase. This pace is expected to continue, which means more homeownership and rental housing will be needed.
- Tourism-related industries are the fastest growing employment sector in Grand County. Employment in accommodation and food services accounted for one out of every three jobs in Grand County. The next largest industries were retail and arts, entertainment, and recreation.
- Jobs in tourism-related industries tend to be relatively low-paying, with some positions offering only seasonal or part-time employment with limited wage growth. The 2017 median household income in Grand County (\$46,070) was lower than the statewide median of \$62,902.²

Residential Market Analysis

- Real estate prices have escalated across all residential product types. In 2017, the median sales price for a single-family home was \$325,000, \$352,000 for a townhouse, and \$275,000 for a condominium. Between 2014 and 2017, the median price increased by 30 percent for townhomes, and 42 percent for single-family homes and condominiums
- According to local real estate professionals, demand for housing is driven by strong competition among second homeowners, retirees, and local residents. Moab's proximity to rapidly growing urban centers like Salt Lake City and Denver, as well as other more

¹ Based on US Census data for 2010 and ESRI for 2017. For full disclosure on data sources, please refer to the Methodology section in this report.

² The 2017 median household income data is taken from ESRI. This is different from the HUD Area Median Family Income (HAMFI), which is based on a four-person family household and was \$56,700 in 2017. The median household income described here accounts for all households of all different sizes, including non-family households.

saturated tourist markets such as Telluride, Aspen and Park City, has contributed to the area's growing popularity as a vacation and retirement destination. As Moab's tourism economy grows, the addition of new workers required to construct and staff the area's expanding tourism economy places further pressure on an already tight housing market, with the injection of buyers from wealthier urban centers driving home prices beyond the reach of Moab's workforce.

Figure ES-1: Single-Family Median Sales Price Trend, Grand County, 2014-2017

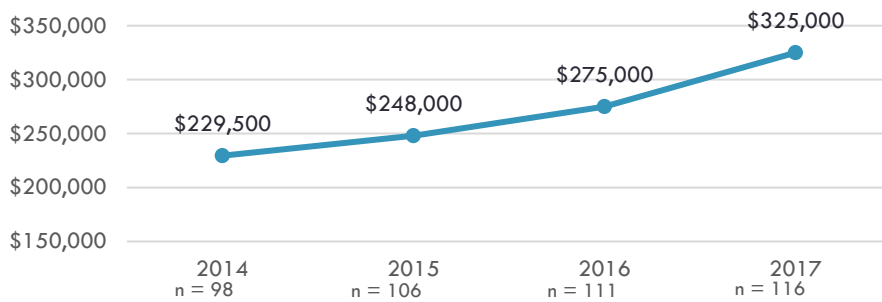


Figure ES-2: Townhome Median Sales Price Trend, Grand County, 2014-2017

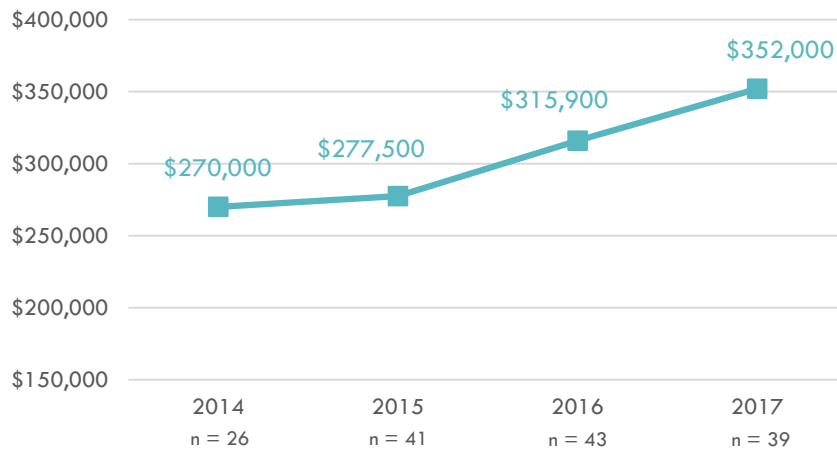
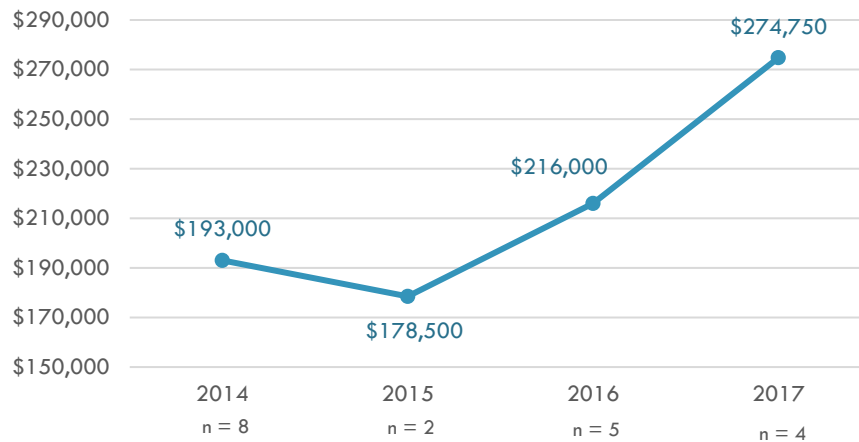


Figure ES-3: Condominium Sales Price Trend, Grand County, 2014-2017













Sources: UtahRealEstate.com, 2017; BAE, 2018.

- Despite a high proportion of renter households (35 percent in Grand County), there is a limited inventory of multifamily apartments. Higher density workforce housing products that could be more affordable to the workforce, such as apartments and condominiums, must compete with visitor accommodations, such as hotels and nightly rental units, for land. The economics of visitor accommodations allow them to pay more for land, making it difficult to build housing affordable to the workforce.

Workforce Housing Shortage

- The area's rapidly appreciating home prices has made housing out-of-reach for many working families. Housing costs have increased rapidly, substantially outpacing increases in household incomes. The table on the next page profiles different households in the Moab Area, shows how much they can afford to pay for housing, and compares this to the inventory of homes sold in 2017. In general, no homes sold in 2017 were affordable to households earning up to 80 percent of Area Median Income, which is equivalent to a family of four earning \$54,150 annually. Households at 100 percent of median income (\$67,700 for a family of four) had limited homeownership options, with only seven homes that sold in 2017 affordable to this group, and eight mobile homes sold at an affordable price. This highlights the severe shortage of homeownership units available for sale in the current market.

Figure ES-4: Housing Affordability for Selected Households in Grand County

Who? This shows an example of a prototypical household in the Moab Area, its household size	What is Their Income? What is the household's combined annual income, and what is the income as a percentage of the Area Median Income?	What Is Affordable? What home price is affordable, and how much can this household afford to pay monthly? (b)	Homes Available? Based on homes sold in Grand County in 2017
 <p>Senior couple living on social security HH Size: 2 persons</p>	<p>Income: \$21,000 50% AMI</p>	<p>Affordable Home Price \$76,839 Affordable Monthly Payment \$525</p>	 <p>0% affordable</p>
 <p>River rafting guide HH Size: 1 person</p>	<p>Income: \$23,450 50% AMI</p>	<p>Affordable Home Price \$85,767 Affordable Monthly Payment \$586</p>	 <p>0% affordable</p>
 <p>Hotel desk clerk and waiter w/ two children HH Size: 4 persons</p>	<p>Income: \$39,370 60% AMI</p>	<p>Affordable Home Price \$144,018 Affordable Monthly Payment \$984</p>	 <p>0% affordable</p>
 <p>Part-time retail and construction worker with one child HH Size: 3 persons</p>	<p>Income: \$45,025 80% AMI</p>	<p>Affordable Home Price \$164,802 Affordable Monthly Payment \$1,126</p>	 <p>0% affordable</p>
 <p>Firefighter and elementary school teacher with two children HH Size: 4 persons</p>	<p>Income: \$64,670 100% AMI</p>	<p>Affordable Home Price \$236,664 Affordable Monthly Payment \$1,617</p>	 <p>7 units (6.6%) affordable</p>

Notes:

- (a) Represents the median sale price for single-family, twin, condo, and townhomes sales in 2017.
- (b) This assumes households pay 30 percent of their gross income for housing.

Sources: Grand County, 2017; Utah Department of Workforce Services, 2017; Insurance.com, 2017; Bankrate.com, 2017; UtahRealEstate.com, 2018; BAE, 2018.

- Rental housing is priced more reasonably, although there is a shortage of units available for rent. Very-low income households (50 percent of AMI) cannot afford market-rate units in newly built apartments. Moderate-income households (80 percent of AMI, equivalent to an individual earning \$37,950 annually) can afford market-rate housing, but there is limited inventory. The Moab Area needs more housing for extremely low-, very low-, low- and moderate-income households, especially for workers that serve the area's tourism economy.

Commercial Market Analysis

- For this report, BAE analyzed three distinct commercial real estate products: hotels, office, and retail. Lodging is the strongest commercial product type in the Moab Area. According to STR, hotel room inventory increased by 23 percent between 2005 and 2017, with rooms shifting away from economy hotels towards mid-scale and upscale establishments. Among 11 mid-scale properties selected for analysis, average daily room rental rates improved by 32 percent from \$123 per night in 2011 to \$162 per night in 2016, even as room inventory increased substantially. At the same time, occupancy rates also rose from 66.5 percent in 2011 to 72.9 percent in 2016. Data from the City and County show there are four more visitor accommodation projects totaling 400 rooms either under construction or in the development pipeline.
- Hotel development has driven up prices for commercially zoned land and is crowding out other commercial uses, such as restaurants, who cannot afford to pay the same prices given their economic fundamentals. Also, hotel projects are directly affecting the ability of local workforce housing developers to undertake projects, due to competition for a limited pool of local construction labor.
- There is some limited demand for new office product, particularly from existing businesses looking to expand and from healthcare professionals. Rents for new office buildings range from \$1.66 to \$2.00 per square foot. Between 2010 and 2017, six new office buildings were constructed, many of which were built by end-users unable to find Class A space to lease. New office developments tended to be smaller buildings, no larger than 10,000 square feet, and some included additional space available for rent to other users.
- Retail rents are somewhat stronger than office, ranging from \$2.00 to \$2.50 per square foot for spaces in Downtown Moab. Despite strong rents in certain locations, there has been limited retail development. Local real estate professionals agree on the need for more restaurants and pent-up demand for space to accommodate tourist-related businesses; however, retail must compete with hotel projects for land, but cannot afford to pay the same prices, particularly in commercially zoned districts.

Feasibility Analysis: Purpose and Assumptions

- The purpose of this analysis is to establish which real estate product types are feasible under existing market conditions. A “feasible” project is one in which a developer is earning a reasonable profit commensurate with the risk related to its development. If projects are feasible and generate profit, there may be room in the development budget to support paying an in-lieu fee or incorporating an inclusionary housing requirement. In contrast, projects that not feasible do not meet the minimum profitability thresholds, which means that few projects are actually built and cannot support workforce requirements.

This analysis shows which commercial and residential product types are profitable, and how much of a fee or inclusionary housing requirement is supportable.

- The development prototypes model historic patterns of where projects have been built. For each land use, a typical project was identified from actual projects permitted by the City of Moab or Grand County between 2010 and 2017. For example, hotel developments have clustered within the City of Moab in commercially zoned districts, while the County has permitted multiple overnight rental projects in areas zoned Highway Commercial.
- Four residential uses were analyzed for feasibility: apartments, single-family homes, townhomes, and condominiums. Single-family homes are stand-alone, detached houses that are custom-built and often constructed one-at-a-time. Townhouses are a form of multi-unit housing built as a series of homes connected to other houses by common sidewalls. Apartments contain multiple dwelling units leased for rent. Condominiums can appear like apartments, but units are owned by individuals rather than a landlord. Condominium owners own the interior space of their unit and an undivided interest in communal areas.
- This analysis considers development feasibility of product types through the lens of developers and makes assumptions about whether products are rented or sold, but does not distinguish how products are occupied by the end-user (e.g. primary residence, secondary home, vacation rental, etc.). In crafting an assured housing policy, the City and County can make policy decisions related to use, but this distinction is not analyzed in this report. In general, apartments, office, retail, and hotels were analyzed as rental-income generating properties, while the remaining products were assumed for-sale.
- Residential development assumed single-family homes built in Grand County's Rural-Residential Zone, townhomes and condominiums in Grand County's Highway Commercial Zone, and apartments in the City of Moab's R-3 zone. Hotel, office, and retail projects were modeled assuming the City of Moab's C-3 zone. Each development program was created in conformance with regulations related to the underlying zoning (lot coverage, parking ratios, setbacks, building heights, etc.)
- BAE conducted extensive research on inputs for the financial feasibility analysis, including construction costs, acquisition costs, sales prices, and rents. For each prototype, BAE estimated per square foot hard costs based on a review of R.S. Means, a construction cost manual commonly used in the construction industry for cost estimation purposes. BAE also conducted ten interviews with local contractors, developers, and real estate brokers to further corroborate costs and feasibility thresholds (see table below).
- Real estate markets are cyclical, and the development costs, sales prices, and rents can vary across the business cycle. BAE ran a sensitivity analysis to test feasibility and level of supportable inclusionary and in-lieu fees under moderate and strong market scenarios. This allows the City and County to understand how feasibility may change when markets

fluctuate. For the moderate market, data for land, construction costs, rents, and sales prices were taken from 2014, which represented a mid-point in the recovery after the recession. Inputs for the strong market were taken from 2017.

- Two metrics were used to define development feasibility: yield on cost and return on cost. Yield on cost (YOC) measures Net Operating Income (NOI) compared to the total development cost, and highlights returns associated with rent generating properties. Return on total development cost (ROC) divides profit by total development cost and shows overall project profitability.

Real estate products require varying returns, depending on the risk related to development in each localized market. Table ES-1 highlights the minimum YOC and ROC metrics that were used to define feasibility, based on interviews with six local developers.

Table ES-1: Feasibility Thresholds by Land Use

Minimum Feasibility Metrics (a)		
	Return on Cost (b)	Yield on Cost (c)
<u>Residential</u>		
Single-Family Homes	15%	N/A
Townhomes	20%	N/A
Condominiums	20%	N/A
Apartments	15%	5%
<u>Commercial</u>		
Office	15%	7%
Retail	15%	7%
Hotel	15%	8%

Notes:

(a) These feasibility metrics were established based on interviews with local developers active in the Moab market.

(b) Return on cost is profit divided by total development cost.

(c) Yield on cost is NOI divided by total development cost. This is only relevant for rent-producing properties. Projects have to meet both ROC and YOC metrics to be deemed feasible.




Source: BAE, 2018.

- For commercial projects that returned a “Yes” answer in the baseline evaluation, BAE tested what fee would be acceptable for the project to still meet the minimum return on cost and yield on cost metrics. The fee serves to reduce the developer’s excess profit, while still enabling the developer to earn a reasonable return to compensate for the risk inherent in development. The in-lieu fee is represented as a cost per square foot.
- For residential properties feasible in the baseline scenarios, BAE ran two analyses. The first is the assessment described above, which highlights what fee level the projects can support, represented as a cost per square foot. A secondary analysis provides a policy option for developers to construct affordable units on-site (inclusionary housing), and evaluates what percentage set-aside developers could support, assuming homes were affordable to 80 percent AMI households.

Commercial Feasibility Analysis

- The table below summarizes the pro forma analyses for three commercial uses: office, retail, and hotels. The summary table highlights each prototypical project and key assumptions, including the project size, site area, number of stories, and FAR. Important financial metrics are displayed, including development costs, rent or sales assumptions, and feasibility indicators. For feasible projects, the lower half of the table shows what level of in-lieu fees were supportable while still maintaining sufficient profitability for developers.
- Under current market conditions, only hotels were feasible and could support paying a fee for workforce housing. The analysis shows hotels could pay a fee between \$5 and \$15 per square foot, depending on the market strength. In the revenue estimate, BAE estimates the potential revenue if hotels were charged an in-lieu fee of \$8 per square foot.

Table ES-2: Summary of Proforma Analysis for Commercial Land Uses

	Office		Retail		Hotel	
	Moderate	Strong	Moderate	Strong	Moderate	Strong
						
Assumptions for Baseline (a)						
Location, Zoning	City of Moab, C-3		City of Moab, C-3		City of Moab, C-3	
Prototypical Building Size	10,000	10,000	10,000	10,000	60,000	60,000
Site Size (sf)	15,500	15,500	20,500	20,500	48,000	48,000
Total Number of Stories (Bldg)	2	2	1	1	3	3
Parking Type	Surface	Surface	Surface	Surface	Surface	Surface
FAR	0.65	0.65	0.49	0.49	1.25	1.25
Total Dev Cost/SF (inc. land)	\$ 213	\$ 253	\$ 233	\$ 286	\$ 246	\$ 263
Rent (psf or per hotel REVPAR)	\$ 18.00	\$ 24.00	\$ 24.00	\$ 30.00	\$ 105.00	\$ 122.50
Return On Cost - Baseline	-8.4%	12.0%	11.7%	24.0%	39.9%	63.4%
Yield on Cost - Baseline	5.5%	6.2%	6.7%	6.8%	9.1%	9.8%
Baseline Feasible? (b)	No	No	No	No	Yes	Yes
New Fee/Sq. Ft. (a)	\$ -	\$ -	\$ -	\$ -	\$ 5.00	\$ 15.00
New Fee for Prototype Project					\$ 300,000	\$ 900,000
Return On Cost with Fees					36.9%	54.1%
Yield on Cost with Fees					8.9%	9.2%
Feasible with Fee? (b)					Yes	Yes
New Res Fee, as % of Total Dev Costs					2.0%	5.4%

Notes:

a) See Appendix for detailed assumptions and proformas for each land use type.

b) Financial feasibility evaluated on 2 metrics

ROC =

15.0%

YOC :

Retail:

Office:

Hotel:

7.0%

7.0%

8.0%





Source: BAE, 2018.

- Office could not support paying a fee, in either moderate or strong markets, due to weak rents. Retail could not support a fee in moderate markets, although the product came close to achieving feasibility in the strong market. However, given the limited amount of retail permit activity observed between 2010 and 2017, and the need for more visitor-serving retail, BAE does not recommend charging a fee on retail or office development.

Residential Feasibility Analysis

- Of the four residential prototypes, townhomes and condominiums were the strongest residential product. Townhouses could support paying an in-lieu fee between \$4 to \$8 per square foot or an inclusionary requirement between six to eight percent. Condominiums could not support paying a fee in the moderate market, but could support an in-lieu fee of \$5 in the strong market, which was equivalent to an inclusionary requirement of 8 percent.

Table ES-3: Summary of Proforma Analysis for Residential Land Uses

	Apartments		Condominiums Overnight Rentals		Townhomes Overnight Rentals		Single-Family Detached	
								
	Moderate	Strong	Moderate	Strong	Moderate	Strong	Moderate	Strong
Assumptions for Baseline	City of Moab, R-4		Grand County, HC		Grand County, HC		Grand County, RR	
Location, Zoning	City of Moab, R-4		Grand County, HC		Grand County, HC		Grand County, RR	
Site Size (sf)	80,000	80,000	43,560	43,560	240,000	240,000	43,560	43,560
Total Number of Units	40	40	25	25	48	48	1	1
Average Unit Size	1,000	1,000	1,350	1,350	1,650	1,650	2,250	3,000
Number of Residential Floors	1	1	3	3	2	2	1	1
FAR	0.6	0.6	0.9	0.9	0.3	0.3	0.1	0.1
Parking Type	Surface		Surface		In Unit		In Unit	
Land Costs per Acre	\$ 76,230	\$ 119,790	\$ 82,500	\$ 119,790	\$ 82,764	\$ 130,680	\$ 80,000	\$ 120,000
Total Dev Cost/Unit (inc. land)	\$ 171,403	\$ 173,504	\$ 231,757	\$ 253,308	\$ 253,129	\$ 311,202	\$ 388,761	\$ 690,780
Total Dev Cost/SF (inc. land)	\$ 149	\$ 151	\$ 149	\$ 163	\$ 153	\$ 189	\$ 173	\$ 230
Sale Price/Sq. Ft.	N/A	N/A	\$ 185	\$ 245	\$ 200	\$ 250	\$ 200	\$ 267
Sale Price or Rent Per Unit	\$ 1,200	\$ 1,350	\$ 249,750	\$ 330,750	\$ 330,000	\$ 412,500	\$ 450,000	\$ 800,000
Return On Cost - Baseline	-13.2%	14.0%	2.4%	24.0%	23.9%	25.9%	15.8%	15.8%
Yield on Cost - Baseline	4.8%	5.7%	NA	NA	NA	NA	NA	NA
Baseline Feasible? (a)	No	No	No	Yes	Yes	Yes	Yes	Yes
New Fee/Sq. Ft. (a)	\$ -	\$ -	\$ -	\$ 5.00	\$ 4.00	\$ 8.00	\$ 1.00	\$ 1.50
New Fee per Unit	\$ -	\$ -	\$ -	\$ 6,750	\$ 6,600	\$ 13,200	\$ 2,250	\$ 4,500
Return On Cost with Fees				20.1%	20.5%	20.5%	15.1%	15.1%
Yield on Cost with Fees				N/A	N/A	N/A	N/A	N/A
Feasible with Fee? (a)				Yes	Yes	Yes	Yes	Yes
<i>New Res Fee, as % of Total Dev Costs</i>				3.0%	2.5%	4.1%	0.6%	0.6%

Note:

a) Feasibility is measured as follows:

- Project must achieve at least: 20.0% Return on Cost for Condominiums and Townhomes
- 15.0% Return on Cost for Single-Family Homes
- Project must achieve at least: 5.0% Yield on Cost for Apartments

Source: BAE, 2018.

- Apartments were not feasible under the baseline in either the moderate or strong market conditions, largely because rents were not high enough to offset the cost of land acquisition and new development. This suggests that despite the large and growing demand for rental housing, the market will likely under-deliver this product type due to low profit margins. In Appendix D of this report, BAE analyzed the impact of removing zoning regulations that limit density, and found that these measures improved baseline profitability and led to feasible apartment projects. The City and County may want to consider zoning changes allowing for higher densities for apartments, or provide other ways to incentivize the production of rental housing to keep pace with the current unmet and future demand.
- BAE modeled two types of single-family developments: one in which a contractor builds a custom home for a specific end-user who self-finances the construction. The second option assumes a speculatively built single-family house that is sold to a third-party via a real estate broker. The return on cost is higher for custom-built homes for end-users.

Building permit data show robust construction of single-family homes between 2010 and 2017, which accounted for 52.4 percent of all housing units permitted (excluding accessory dwelling units). This suggests single-family may be able to support a nominal fee, considering many of these units are constructed for owner-users, for whom a Moab house satisfies lifestyle preferences rather than real estate investment objectives. The report tested the impact of charging fees ranging from \$1 to \$5 per square foot. Assuming a 2,250-square foot home, fees between \$1 to \$5 per square foot translated into 0.6 percent to 2.9 percent of total project costs. Depending on the structure of a future assured housing program, the City and County may wish to consider distinguishing treatment of single-family homes that are used as primary residences versus those that are used as second homes and/or vacation rental units. This would reflect the fact that use of homes as second homes and/or vacation rentals has different impacts on availability of, and demand for workforce housing and affordable housing as compared to homes used as primary residences.

In summary, real estate products that were feasible under baseline conditions and can support paying fees were those reliant on “outside” money, either related to tourism (e.g., hotels, overnight rental townhomes and condominiums) or from retirees and second-homeowners from urban parts of Utah or nearby states who can afford to pay more for housing (e.g., newly built single-family homes). In the revenue estimate, BAE estimates the potential impact if townhouses, condominiums, and single-family homes were asked to contribute either in-lieu fees or build inclusionary units on-site.

Revenue Estimate

- For projects that were feasible under the baseline scenario, potentially feasible fee levels were applied to historic building permit data to estimate revenue that could be generated from an in-lieu fee program. Given the variation in feasibility due to fluctuations in economic conditions over time, the assumed fees were purposely set lower than the maximum supportable levels. A \$1 per square foot fee was applied to single-family homes, \$3 per square foot for condominiums, \$6 per square foot for townhomes, and \$8 per square foot for hotels. At these rates, development is still profitable, and meet the minimum profit and yield on cost metrics.
- This assumed fee structure could generate an estimated average annual revenue of \$892,518 if applied in both the City of Moab and Grand County, based on projects that were permitted between 2010 and 2017. The City could be expected to generate more revenue from commercial development, while Grand County’s revenue would come mostly from residential projects. The City’s annual projected share is \$502,651, and the County’s share is estimated at \$389,867.

Table ES-4: Annual Estimated Fee Revenue Based on Historic Permit Activity

	<u>Proposed Fee</u>	<u>City of Moab</u>	<u>Grand County</u>	<u>Est. Annual Revenue</u>
<u>Residential Projects</u>				
Single - family Detached	\$ 1.00	\$ 31,898	\$ 44,796	76,694
Townhomes / SFR Nightly Rentals	\$ 6.00	\$ 97,144	\$ 124,336	221,480
Condominiums	\$ 3.00	\$ 3,095	\$ 90,063	93,158
Apartments	\$ -	\$ -	\$ -	\$ -
Annual Revenue, Residential Projects (a)		\$ 132,137	\$ 259,195	\$ 391,332
<u>Commercial Projects</u>				
Retail	\$ -	\$ -	\$ -	\$ -
Office (b)	\$ -	\$ -	\$ -	\$ -
Hotel	\$ 8.00	\$ 370,514	\$ 130,672	\$ 501,186
Annual Revenue, Commercial Projects (a)		\$ 370,514	\$ 130,672	\$ 501,186
Annual Revenue by Place		\$ 502,651	\$ 389,867	\$ 892,518

Notes:

- (a) The annual revenue is based the average annual square feet permitted between 2010 and 2017 in the City of Moab and Grand County. Revenue will vary year to year based on actual development activity.
- (b) The building permit data did not contain square footage data was for newly constructed office projects. Each office project was estimated at 8,000 square feet based on the recently built office buildings profiled in this study.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

- This \$892,518 average annual revenue may under- or overestimate actual revenue, depending on the point in the economic cycle of any given year. A sensitivity analysis was completed to show “low” and “high” estimate, using building permit data from 2010 and 2017. Given the variation in development activity, substantial revenue fluctuations are possible. The City and County together could generate as little as \$100,000 in annual fees during an economic downturn, or as much as \$1.7 million during a strong economy.

- BAE also analyzed the number of inclusionary units that would have been built, assuming a six to eight percent requirement, which is equivalent to the proposed in-lieu fees specified above. This conversion is explained in the main body of this report. Assuming a minimum project size of twelve units (eight percent is equivalent to one unit in a 12-unit project), there were 13 projects permitted between 2010 and 2017 that met this criterion, covering 317 housing units. Applying a six percent inclusionary requirement would have created 23 units of affordable housing, or approximately three affordable units per year.
- This low production rate highlights one of the limitations of implementing a “pure” inclusionary policy in Moab. A six to eight percent affordable housing set-aside only works for projects with at least 12 units. While there are some projects in the Moab area that would be big enough to accommodate on-site affordable units under an eight percent inclusionary requirement, the majority built are smaller in size. Unlike a fee, which can be applied to all projects regardless of size, an inclusionary policy works only for projects that meet a minimum unit threshold. To maximize the potential revenue and units created, the City and County should consider a combined in-lieu fee and inclusionary policy.

-

Introduction

The City of Moab and Grand County, Utah commissioned BAE Urban Economics to prepare an economic study for an Assured Housing Policy to encourage the development of affordable housing through inclusionary housing/in-lieu fee ordinances in their respective jurisdictions. This analysis constitutes Phase I of a two-phase study. The first phase is a market and feasibility analysis to determine how much excess profit new commercial and residential projects generate, what level of an inclusionary requirement or in-lieu fee could be supported, and how many units and/or the quantity of in-lieu fee revenues an Assured Housing Policy could generate. Based on findings from Phase I, BAE, in consultation with the City and County, will complete a nexus analysis for the financially feasible prototypes as part of Phase II.

Report Organization

BAE begins Phase I with a market analysis, which assesses the demographic and economic conditions in the City of Moab and Grand County¹, and reviews existing real estate market conditions for various land use types within the City and County. Based on the market study findings, BAE then selected seven land use types as candidates for an Assured Housing Policy, in consultation with the City and County. The land use types analyzed include: hotels, retail, office, apartments, townhouses and condominiums zoned for overnight rentals, single-family residential. Utilizing data from the market analysis, proforma analysis is used to determine the baseline performance of these uses under moderate and strong market conditions. For feasible projects, the impacts of an inclusionary housing/in-lieu fee ordinance is analyzed to determine the supportable fee or inclusionary requirement. BAE also analyzes the potential impacts of a separate policy whereby inclusionary requirements would be applied to multifamily residential projects that receive a density bonus. The analysis concludes by applying the preliminary inclusionary requirements to residential projects, and the feasible fee calculated for commercial uses to estimate the potential inclusionary units and/or revenue that could be generated. Additional information is provided for other considerations related to structuring and implementing an inclusionary or impact fee for affordable housing.

Methodology

Data for the demographic analysis are taken from the U.S. Census Bureau's 2010 Decennial Census, the American Community Survey (ACS) 2011-2015 five-year estimates,³ and ESRI, a private data vendor, for 2017 data and 2022 projections. Census, ACS and ESRI data presented throughout this section are based on the U.S. Census Bureau's county level geography for Grand County, and place level data for the City of Moab.

³ Note that the American Community Survey includes multi-year data sets, such as the 2011-2015 data set, which presents data as an average of the survey results conducted over the year's included in the time period. By conducting sampling over a multi-year period, the American Community Survey can provide better statistical accuracy; however, the comprise is that the data do not represent a single point in time.

Data for the economic conditions section draw on many sources including the Bureau of Labor Statistics (BLS), National Parks Service (NPS), Utah Department of Workforce Services, and the Utah State Tax Commission.

The residential and commercial real estate market analyses are based on interviews with local real estate brokers, developers, property managers, and other supplemental data sources. These include the U.S. Census Bureau, and sales records from UtahRealEstate.com and other real estate listing websites such as Zillow.com, Moab Advertiser, Airbnb.com, and Vacasa.com. Other commercial resources include CoStar, a private data vendor that collects data on office and retail properties, and STR, which tracks hotel inventory and performance metrics.

The workforce housing needs section summarizes data from the 2009-2013 Comprehensive Housing Affordability Strategy (CHAS) dataset as reported in the *Moab Area Affordable Housing Plan* and expands on the area's workforce housing needs by using the findings from the demographic and economic trends section to profile five household compositions that represent typical Moab area households. BAE then used Grand County's 2017 HUD Defined Income Limits by household size to identify the housing income category to which each household belong used occupation, and wage data for Eastern Utah from the Utah Department of Workforce Services to calculate each household's annual income and compared these households' incomes to available for-sale and rental housing option presented in the residential real estate market section.

Inputs for the pro forma analysis draw from R.S. Means, a construction cost manual commonly used in the construction industry for cost estimation purposes, with a location factor applied to adjust for costs in the Moab area.⁴ BAE conducted interviews with local contractors and developers to further corroborate costs and minimum required feasibility thresholds. The City and County also provided historic building permit data, which was used to estimate the number of inclusionary units and/or fees generated from an assured housing policy.

⁴ The 2017 location factors for Utah areas with ZIP Codes beginning with 845 were 0.78 for residential construction and 0.85 for commercial construction. These adjustment factors for the Moab area are slightly lower than for other Utah locations, including areas near Salt Lake City, Ogden, Logan, and Provo, where the residential location adjustment factors range between 0.80 and 0.82, and the commercial adjustment factors range between 0.86 and .89.

Demographic and Economic Trends

This section describes existing conditions and changes in the number and characteristics of Grand County and City of Moab residents and households, as well as economic characteristics of the County and City, which will be used as background material to inform the financial feasibility analysis. This section updates and builds upon data presented in the *Moab Area Affordable Housing Plan's* Demographic and Housing Overview section, which was updated in 2016. As noted in the *Affordable Housing Plan*, data indicating full-time population and employment may underestimate true conditions within the City and County due to many factors including the area's seasonal resident population, seasonal employment, spikes in temporary visitors who fuel the tourism economy, and small sample sizes for intercensal counts.

The study area primarily consists of Grand County and the City of Moab, focusing on the urbanized areas in and around Moab. Recognizing that that residential units built in the Spanish Valley area south of Moab in San Juan County are effectively part of the Moab Area housing market, the study area includes Spanish Valley when analyzing housing market data. Figure 1 displays the Study Area boundaries.

Figure 1: Study Area



Sources: U.S. Census Bureau, TIGER/Line, 2017; ESRI, 2017; BAE, 2018.

Population and Household Trends and Projections

Following are trend and projection data that illustrate changes in the number and characteristics of Grand County and City of Moab residents and households. It should be noted that the City of Moab annexed approximately 484 acres during the seven-year study period, which contributes to some of the City's observed population and household growth.

Population

According to data presented in Table 1, the City of Moab is Grand County's main urban center. The City of Moab has a population of 5,584 persons, while 4,708 persons reside in the unincorporated County. Since 2010, the populations of the City of Moab and Grand County increased 10.7 and 12.7 percent, respectively, for annual average changes of 1.5 percent and 1.7 percent. While both jurisdictions' population increased rather rapidly, population growth is occurring in unincorporated Grand County at a slightly faster rate. Projections compiled by ESRI, shown in Table 2, estimate future growth will continue at a similar rate. The City of Moab's growth rate is expected to increase by an average annual rate of 1.2 percent between 2017 and 2022, which is slightly below the historic average. Grand County's annual population growth rate is expected to remain at 1.7 percent per year.

Table 1: Population Trends, 2010-2017

Population	2010	2017	% Change 2010-2017	Annual Avg. % Change
City of Moab	5,046	5,584	10.7%	1.5%
Grand County (a)	4,179	4,708	12.7%	1.7%
Utah	2,763,885	3,113,215	12.6%	1.7%

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, Summary File 1 DP-1, 2010; ESRI, 2017; BAE, 2018.

Table 2: Population Projections, 2017-2022

Population	2017	2022	% Change 2017-2022	Annual Avg. % Change
City of Moab	5,584	5,919	6.0%	1.2%
Grand County (a)	4,708	5,113	8.6%	1.7%
Utah	3,113,215	3,372,451	8.3%	1.6%

(a) Excludes the City of Moab.

Sources: ESRI, 2017; BAE, 2018.

Age

Data presented in Table 3 show that Moab's resident population is notably younger than that of unincorporated Grand County, but that the populations of both jurisdictions are aging. Between 2010 and 2017, Moab's median age increased from 37.3 years to 38.7 years, while the median age in unincorporated Grand County increased from 43.6 years to 45.5 years. Supporting this aging trend, both jurisdictions saw the number of residents in the upper age

brackets increase significantly, relative to the other age cohorts. This is particularly true in the City of Moab, where the proportion of residents between the ages of 55 and 64 years of age increased 23.2 percent, and the number of residents age 65 years and over increased 30.6 percent. In unincorporated Grand County, the population age 65 years and older saw the greatest increase, at seven percent. While this may seem like a minimal increase compared to the increase experienced for this age cohort by the City of Moab, it represents a dramatic proportional change. Residents age 65 years and over represented 14.2 percent of the unincorporated County's population in 2010, which increased to 20.2 percent by 2017. The aging of the area's population could generate increased demand for senior housing options, such as active adult communities, assisted living centers, or elder friendly housing near services such as public transportation, medical services, and retail amenities. In fact, the Housing Authority of Southeastern Utah (HASU) successfully applied for \$5 million in federal Low-Income Housing Tax Credits to support construction of a 36-unit senior independent living complex adjacent to the Moab Regional Hospital and Canyonlands Care Center.

Table 3 shows that while residents between 18 and 24 years of age have historically represented a relatively small cohort in both the County and the City, this was the most rapidly growing age group other than the seniors 55 and over. This may be indicative of a younger workforce attracted by new opportunities in the growing tourism economy.

Table 3: Age Distribution Trends, 2010-2017

	2010		2017		% Change 2010-2017
	Number	Percent	Number	Percent	
City of Moab					
Age Distribution					
Under 18	1,213	24.0%	1,261	22.6%	4.0%
18-24	407	8.1%	502	9.0%	23.3%
25-34	733	14.5%	753	13.5%	2.7%
35-44	669	13.3%	726	13.0%	8.5%
45-54	730	14.5%	699	12.5%	-4.2%
55-64	637	12.6%	785	14.1%	23.2%
65 years and over	657	13.0%	858	15.4%	30.6%
Total	5,046	100.0%	5,584	100.0%	10.7%
Median Age	37.3		38.7		
Grand County (a)					
Age Distribution					
Under 18	905	21.7%	944	20.1%	0.6%
18-24	248	5.9%	321	6.8%	3.8%
25-34	493	11.8%	497	10.6%	0.1%
35-44	509	12.2%	573	12.2%	1.7%
45-54	681	16.3%	604	12.8%	-1.7%
55-64	749	17.9%	817	17.4%	1.2%
65 years and over	594	14.2%	952	20.2%	7.0%
Total	4,179	100.0%	4,708	100.0%	12.7%
Median Age	43.6		45.3		

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, 2010 Summary File 1 DP-1, 2010; ESRI, 2017; BAE, 2018.

Households

Like the overall population trends experienced in the City of Moab and Grand County since 2010, data presented in Table 4 show that most Grand County households are located in Moab, although the total number of households in unincorporated Grand County is increasing faster than in the City. A primary reason for this is the greater availability of land for development in the County versus within the City limits. According to ESRI, the City of Moab had 2,308 households in 2017, compared to 1,989 households in Grand County. The number of households in both the City and County expanded rapidly between 2000 and 2017, and is expected to continue in the future, as shown in Table 5. The data point to strong housing demand throughout the area.

Table 4: Household Trends, 2010-2017

Area	2010	2017	% Change 2010-2017	Annual Avg. % Change
City of Moab				
Number of Households	2,109	2,308	9.4%	1.3%
Average Household Size	2.36	2.39		
Grand County (a)				
Number of Households	1,780	1,989	11.7%	1.6%
Avg. Household Size	2.31	2.33		

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, Summary File 1 DP-1, 2010; ESRI, 2017; BAE, 2018

Table 5: Household Projections, 2017-2022

Area	2017	2022	% Change 2017-2022	Annual Avg. % Change
City of Moab				
Number of Households	2,308	2,433	5.4%	1.1%
Average Household Size	2.39	2.40		
Grand County (a)				
Number of Households	1,989	2,154	8.3%	1.6%
Avg. Household Size	2.33	2.31		

(a) Excludes the City of Moab.

Sources: ESRI, 2017; BAE, 2018.

Average Household Size

Moab households are marginally larger than unincorporated Grand County households, with an average household size of 2.39 in the City of Moab, and an average household size of 2.33 in unincorporated Grand County. As shown in Table 5, ESRI projects average household sizes in the City and unincorporated County to remain relatively stable through 2022.

Household Composition

Table 6 shows family households⁵ are the dominant household type in Moab and unincorporated Grand County; however, non-family households⁶ are increasing at a faster rate than that of family households. ESRI reports that 57 percent of Moab households are families, and 43 percent of households are non-families, which includes single persons living alone and unrelated persons living together. The number of non-family households in both Moab and Grand County increased at a faster rate than family households.

⁵ Family households consist of at least two members related by birth, marriage, or adoption.

⁶ Non-family households may contain a single person living alone, or multiple unrelated persons who share a dwelling.

Table 7 shows that ESRI anticipates the future growth in non-family households will continue to outpace family households. Given the strong historic growth in this community, these trends indicate demand for an array of housing options to meet various household needs, including housing for families as well as non-family households.

Table 6: Household Composition Trends, 2010-2017

City of Moab	2010		2017		% Change 2010-2017	Annual Avg. % Change
	Number	Percent	Number	Percent		
Families	1,211	57.4%	1,316	57.0%	8.7%	1.2%
Non-Families	898	42.6%	992	43.0%	10.5%	1.4%
Grand County (a)						
Families	1,113	62.5%	1,216	61.1%	9.3%	1.3%
Non-Families	667	37.5%	773	38.9%	15.9%	2.1%

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, Summary File 1 DP-1, 2010; ESRI, 2017; BAE, 2018.

Table 7: Household Composition Projections, 2017-2022

City of Moab	2017		2022		% Change 2017-2022	Annual Avg. % Change
	Number	Percent	Total	Percent		
Families	1,316	57.0%	1,377	56.6%	4.6%	0.9%
Non-Families	992	43.0%	1,056	43.4%	6.5%	1.3%
Grand County (a)						
Families	1,216	61.1%	1,307	60.7%	7.5%	1.5%
Non-Families	773	38.9%	847	39.3%	9.6%	1.8%

(a) Excludes the City of Moab.

Sources: ESRI, 2017; BAE, 2018.

Number of Housing Units

Data presented in Table 8 show that there are approximately 2,619 housing units in the City of Moab as of 2017, which is a 4.1 percent increase over the 2,517 units in Moab in 2010. Housing construction occurred at a faster pace in unincorporated Grand County, increasing by 25.7 percent from 2,206 units in 2010, to 2,773 units as of 2017. This information highlights a major factor contributing to the Moab area's housing challenges. The growth in the number of housing units fell substantially behind the roughly ten percent growth in population and households over the same period, which can only be expected to increase competition for available housing units and increase rental and purchase prices. Additional information regarding housing construction is discussed further in the Residential Market Conditions section.

Table 8: Housing Units, 2010-2017

Area	2010	2017	% Change 2010-2017
City of Moab	2,517	2,619	4.1%
Grand County (a)	2,206	2,773	25.7%
Total	4,723	5,392	14.2%

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, 2010 Census; ESRI, 2017; BAE, 2018

Households by Tenure

Moab and unincorporated Grand County households are notably more likely to be owners than renters; although, the proportions of renter households are increasing faster than owners. One contributor to the relatively low proportion of renters is that the area has a relatively small supply of rental apartments. Table 9 shows that 58.8 percent of Moab households are owners, which is 0.8 percentage points lower than in 2010 when owners accounted for 59.6 percent of all occupied housing units. This decrease in the proportion of owner households was offset by an increasing proportion of renter-occupied units, rising from 40.4 percent in 2010 to 41.2 percent in 2017. The increase in the proportion of renter households, and subsequent decrease in the proportion of owner households, is more pronounced in unincorporated Grand County, where the proportion of renter households increased by 3.8 percentage points, to 27.6 percent of households in 2017.

The growing trend towards renter households is likely influenced by several factors, including the area's expanding tourism economy and seasonal nature of employment, as well as housing sale prices above what many in the local workforce can afford. This indicates demand for rental housing for families and non-family households, as well as more affordable purchase options.

Table 9: Housing Units by Tenure, 2010-2017

	2010		2017		% Change 2010-2017
	Number	Percent	Number	Percent	
City of Moab					
Household Tenure					
Owner-occupied	1,256	59.6%	1,356	58.8%	1.1%
Renter-occupied	853	40.4%	952	41.2%	1.6%
Total, Occupied Units	2,109	100.0%	2,308	100.0%	1.3%
Grand County (a)					
Household Tenure					
Owner-occupied	1,357	76.2%	1,440	72.4%	0.9%
Renter-occupied	423	23.8%	549	27.6%	3.8%
Total, Occupied Units	1,780	100.0%	1,989	100.0%	1.6%

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, 2010 Census, Summary File 1, Table DP-1 Qt_H1; ESRI, 2017; BAE, 2018.

Housing Unit Occupancy Status

According to data presented in Table 10, ESRI estimates the City of Moab has a residential vacancy rate of nearly 12 percent, while Grand County’s vacancy rate is 28.3 percent. Even with the strong population and household growth, coupled with only a slight increase in the Moab and Grand County housing supply, these vacancy rates represent increases from 2010. As will be discussed in the sub-section that follows, only a small portion of each jurisdiction’s vacant units are available for occupancy by full-time residents, which effectively pushes the vacancy rates much lower than the data initially suggest.

Table 10: Housing Units by Occupancy, 2010-2017

	2010		2017		% Change 2010-2017
	Number	Percent	Number	Percent	
City of Moab					
Occupancy Status					
Occupied	2,109	89.1%	2,308	88.1%	1.3%
Vacant	257	10.9%	311	11.9%	2.8%
Total, All Units	2,366	100.0%	2,619	100.0%	1.5%
Grand County (a)					
Occupancy Status					
Occupied	1,780	72.7%	1,989	71.7%	1.6%
Vacant	670	27.3%	784	28.3%	2.3%
Total, All Units	2,450	100.0%	2,773	100.0%	1.8%

(a) Excludes the City of Moab.

Sources: U.S. Census Bureau, 2010 Census, Summary File 1, Table DP-1 Qt_H1; ESRI, 2017 BAE, 2018.

Vacancy Detail

Table 11 presents average vacancy status data from the ACS for the period between 2011 and 2015. Although this data set represents a multi-year average of sample data between 2011 and 2015, and is not directly comparable to data presented in Table 10, it is representative of conditions within the City of Moab and unincorporated Grand County.

Table 11 shows that only an average of 14.2 percent of Moab's vacant housing units (51 units) and 18.5 percent of unincorporated Grand County's vacant housing units (157 units) were available to rent between 2011 and 2015. Smaller numbers and proportions of vacant units were available for-sale. Considering only units available for-rent or for sale, the effective housing vacancy rates in Moab and Grand County were 3.1 percent and 10.1 percent, respectively. Meanwhile, over 53 percent of Moab's vacant units were held for seasonal/vacation use, while about 45 percent of Grand County's units were used similarly.

These data likely reflect the effect of the tourist economy on the local housing market, and the resulting scarcity of housing available for locals, particularly the local workforce, to rent or purchase.

Table 11; Vacancy Status, 2011-2015

	City of Moab		Grand County (a)	
	Number	Percent	Number	Percent
Total Units	2,374		2,621	
Vacancy Status				
For Rent	51	14.2%	157	18.5%
Rented - Not Occupied	0	0.0%	50	5.9%
For Sale Only	22	6.1%	59	7.0%
Sold - Not Occupied	0	0.0%	0	0.0%
Seasonal/Recreational Use	191	53.2%	381	45.0%
For Migrant Workers	0	0.0%	25	3.0%
Other Vacant	95	26.5%	175	20.7%
Total, All Vacant Units	359	100%	847	100.0%
Vacancy Rate (b)		3.1%		10.1%

Notes:

American Community Survey data represents an estimated five year average.

(a) Excludes the City of Moab.

(b) Represents the vacancy rate based on units actually available for rent.

Sources: U.S. Census Bureau, 2011-2015 American Community Survey, Tables B25004 and B25002, 2017; BAE, 2018.

Household Income

Table 12 reports median household income and income distribution in the City of Moab and Grand County, based on ESRI estimates for 2017. Both the City of Moab and Grand County have household incomes that are significantly below the \$62,902 statewide median household income. Unincorporated Grand County households have an annual median income of \$46,070, which is 73.2 percent of the statewide median, while City of Moab households have an annual median income of \$42,200, which is 67.1 percent of the statewide median.

Table 12: Household Income Characteristics, 2017

Annual Household Income	City of Moab		Grand County (a)	
	Number	Percent	Number	Percent
Less than \$15,000	314	13.6%	287	14.4%
\$15,000 to \$24,999	287	12.4%	220	11.1%
\$25,000 to \$34,999	333	14.4%	226	11.4%
\$35,000 to \$49,999	388	16.8%	355	17.8%
\$50,000 to \$74,999	483	20.9%	389	19.6%
\$75,000 to \$99,999	235	10.2%	203	10.2%
\$100,000 to \$149,999	164	7.1%	221	11.1%
\$150,000 and above	103	4.5%	89	4.5%
Total Households	2,308	100%	1,989	100%
Median Household Income	\$42,200		\$46,070	
% of Statewide (\$62,902)	67.1%		73.2%	

Note:

(a) Excludes the City of Moab.

Sources: ESRI, 2017; BAE, 2018.

Corresponding to the below average household incomes, Table 12 shows that more than half of Moab (57 percent) and Grand County (55 percent) households have incomes less than \$50,000 annually. Approximately 30 percent of Moab and Grand County households have annual incomes between \$50,000 and \$99,999, while the remaining households have income of \$100,000 or more. Grand County tends to have more households with annual incomes of \$100,000 or more compared to the City of Moab (almost 16 percent versus about 12 percent of households); however, neither area has very large concentrations of upper income households, which is common in many other tourist-destination communities.

The resident income distribution indicates a primary need for low to moderately priced housing, especially for local residents. Additional analysis of housing affordability is provided later in this report.

Economic Conditions

The following section summarizes key economic conditions in Moab and Grand County.

Employment by Industry

Table 13 reports jobs by major industry sector for Grand County, based on Quarterly Census of Employment and Wage (QCEW) data provided by the Utah Department of Workforce Services and the U.S. Bureau of Labor Statistics (BLS). Data presented in the table show that industries commonly associated with the tourism industry dominate local employment. For example, Accommodation and Food Services jobs account for the largest proportion of countywide employment, at 33.3 percent (1,718 jobs), while Retail Trade accounts for the second largest category of job at 15.5 percent, or 798 jobs. In absolute terms, the Accommodation and Food Service industry generated more new jobs than any other area industry, adding 341 new

employees between 2011 and 2016, followed by the Arts, Entertainment and Recreation industry with 108 new jobs during the same period. It should be noted that most positions within these tourism-related industries tend to be relatively low-paying, part-time and/or seasonal positions with limited opportunity for wage growth. Other notable Grand County employment sectors include Local Government and Healthcare and Social Assistance, which account for 7.9 percent (408 jobs) and 7.0 percent (361 jobs) of countywide employment, respectively.

Although not to the same extent as the difference between growth in the number of households and growth in the number of local housing units, these data show that the Grand County housing stock is also failing to keep pace with the increase in local employment. If they persist over the long-term, situations such as this create the related problems of increasing housing costs, because demand does not keep up with supply, and employers facing difficulty in expanding their operations, due to insufficient housing to accommodate a growing workforce.

Table 13: Employment Trends by Major Industry, 2011-2016

Grand County (a)	2011		2016		% Change 2011-2016
	Jobs	% of Total	Jobs	% of Total	
Mining	115	2.6%	91	1.8%	-4.6%
Utilities	27	0.6%	26	0.5%	-0.8%
Construction	217	4.9%	281	5.5%	5.3%
Manufacturing (b)	25	0.6%	46	0.9%	13.0%
Wholesale Trade	69	1.6%	78	1.5%	2.5%
Retail Trade (c)	738	16.6%	798	15.5%	1.6%
Transportation and Warehousing (d)	52	1.2%	94	1.8%	12.6%
Information	31	0.7%	45	0.9%	7.7%
Finance and Insurance	67	1.5%	59	1.1%	-2.5%
Real Estate and Rental and Leasing	84	1.9%	128	2.5%	8.8%
Professional Scientific & Technical Services	129	2.9%	110	2.1%	-3.1%
Admin., Support, Waste Mgmt, Remediation	86	1.9%	117	2.3%	6.3%
Education Services	45	1.0%	68	1.3%	8.6%
Healthcare and Social Assistance	265	6.0%	361	7.0%	6.4%
Arts, Entertainment, and Recreation	236	5.3%	344	6.7%	7.8%
Accommodation and Food Services	1,377	31.1%	1,718	33.3%	4.5%
Other Services (except Public Admin.)	82	1.8%	72	1.4%	-2.6%
Local Government	404	9.1%	408	7.9%	0.2%
State Government	136	3.1%	77	1.5%	-10.8%
Federal Government	249	5.6%	232	4.5%	-1.4%
Total, All Industries (a)	4,434	100%	5,153	100%	3.1%

Note:

Represents non-farm employment.

(a) Represents entirety of Grand County, including the City of Moab.

(b) Includes NAICS codes 31-33.

(c) Includes NAICS codes 44 & 45.

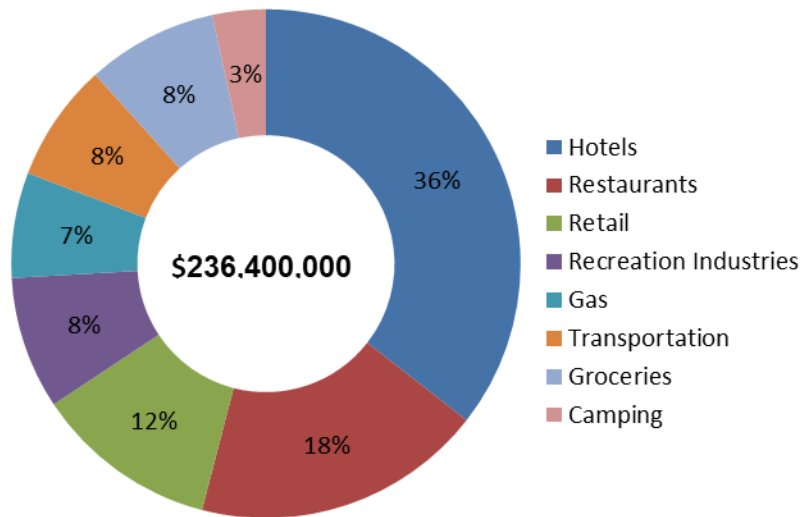
(d) Includes NAICS codes 48 & 49.

Sources: Utah Department of Workforce Services, 2017; BAE, 2018.

National Parks Visitor Spending

The Moab area tourism industry is driven by outdoor recreation opportunities provided by the area's proximity to recreational areas such as Arches and Canyonlands National Parks, Dead Horse Point State Park, and the Manti-La Sal National Forest. As one of the only gateway communities to these parks, the Moab area benefits from the influx of direct visitor spending on goods such as hotels, recreational opportunities, groceries, and gasoline. According to the National Park Service, visitors to Arches and Canyonlands National Parks spent a total of \$236.4 million in gateway communities in 2016. Figure 2 shows that hotel spending accounted for the largest proportion of visitor spending, at 36 percent (\$84 million), followed by restaurant spending (18 percent; \$43.7 million), and retail spending (12 percent; \$27.5 percent). Unsurprisingly, the prominence of visitor spending in these categories corresponds with the County's employment in the Accommodation and Food Service and Retail sectors discussed previously. National Park visitor trends and impacts are further discussed in the Hotel subsection of the Commercial Real Estate Market Conditions section.

Figure 2: Arches and Canyonlands National Park Visitor Spending, 2016



Note:

(a) Represents visitor spending in gateway communities. Gateway communities are the areas directly surrounding National Parks Service sites where visitors typically stay and spend money while visiting national park sites.

Sources: National Park Service, 2016 NPS Visitor Spending Effects Report, 2017; BAE. 2018.

Tourism Tax Revenue

Table 14 further highlights the growing role tourism plays in supporting the local economy, by summarizing the various tourism-related tax revenues the City of Moab and Grand County collect. In total, the City of Moab collected \$5.3 million in tourism-related tax revenue, which represents a 13 percent increase over the previous years' collection of nearly \$4.7 million. Grand County collected a total of \$5.7 million in tourism-related tax revenue, which represents

a 15 percent increase over the previous years' collection of \$5 million. The strong growth in tourism-related tax revenue further underscores the importance of tourist activity to the local economy.

The City of Moab and Grand County collect a Transient Room Tax (TRT), of 4.25 percent of nightly room revenues for lodging stays of less than 30 days at hotels, motels, inns, trailer courts, campgrounds, tourist homes, and similar nightly accommodations. According to the Utah State Tax Commission, the City of Moab received \$1.2 million in TRT revenue in 2017, which is an 18 percent increase over 2016. Grand County received \$5 million in TRT revenue in 2017, which is a 16 percent increase over 2016.

The City of Moab's Resort Communities tax is a 1.1 percent sales tax assessed on retail, services for the repair, or lease/rental of tangible personal property, sums paid to common carriers or telecommunications providers for transportation services and intrastate telecommunications, meals sold, admission fees (e.g., movie tickets, golf, swimming pools), laundry and dry cleaning, transient public accommodations, and everything else subject to sales and use tax. The City of Moab received \$4.05 million in Resort Community Tax revenues in 2017, which is an 11 percent increase over 2016.

Grand County's Short-Term Leasing Tax refers to a three percent tax on short-term leases or rental of motor vehicles for 30 days or less. Grand County collected \$145,162 in Short-Term Leasing Tax revenue in 2017, which is a 20 percent increase over 2016.

Utah counties may adopt a Restaurant Tax on the sale of food prepared for immediate consumption to support tourism, recreation, cultural, convention, or airport facilities within their jurisdiction. Grand County's adopted Restaurant Tax rate is one percent. Grand County collected \$576,901 in Restaurant Tax Revenue in 2017, a six percent increase over 2016.

Table 14: Tourism Tax Revenue, 2016-2017

	<u>Tax Rate</u>	<u>2016</u>	<u>2017</u>	<u>% Change</u>
City of Moab				
Transient Room Tax (a)	5.75%	\$1,051,795	\$1,237,864	18%
Resort Communities Tax	1.60%	\$3,637,991	\$4,054,287	11%
Total Tourism Tax Revenue		\$4,689,787	\$5,292,151	13%
Grand County				
Transient Room Tax	4.25%	\$4,316,850	\$5,019,806	16%
Short-Term Leasing Tax	3.00%	\$120,710	\$145,162	20%
Restaurant Tax	1.00%	\$546,798	\$576,901	6%
Total Tourism Tax Revenue		\$4,984,358	\$5,741,868	15%

Note:

(a) Includes the following TRT rates:

Countywide TRT	4.25%
Municipal TRT	1.00%
<u>Additional TRT</u>	<u>0.50%</u>
Total TRT Rate	5.75%

Sources: Utah State Tax Commission, 2017; BAE, 2018.

Residential Real Estate Market Conditions

The following section summarizes current residential real estate market conditions within the City of Moab and Grand County. The analysis draws on data from several sources, including interviews with local real estate brokers, developers, and property managers, as well as other supplemental data sources. These include data regarding the existing housing stock published by the U.S. Census Bureau, home sales records from UtahRealEstate.com, and other real estate listing websites such as Zillow.com, Moab Advertiser, Airbnb.com, and Vacasa.com.

Housing Stock Characteristics

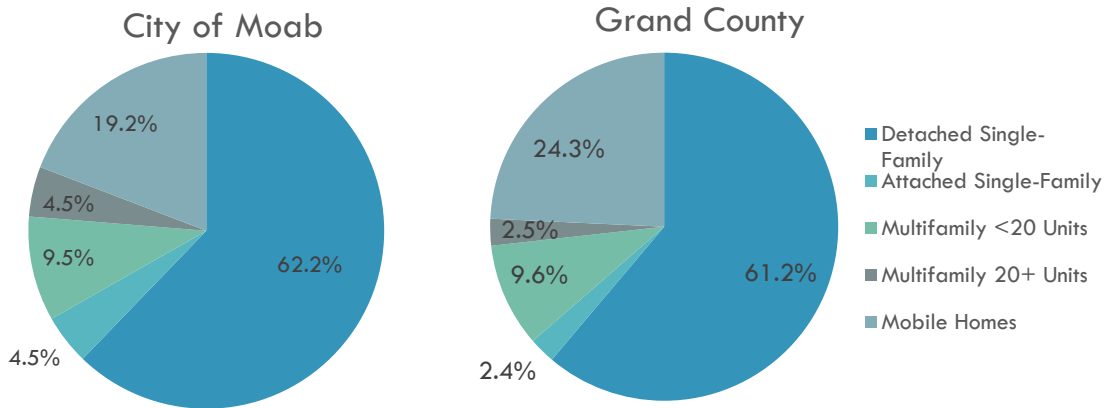
Grand County and the City of Moab's housing stock is heavily weighted towards detached single-family units. As shown in Figure 3, ACS data indicate that detached single-family units constituted an average of 62.2 percent of the City of Moab's housing stock between 2011 and 2015, and 61.2 percent of Grand County's housing stock during the same time period. Attached single-family units⁷ account for a relatively small proportion of the City and County's housing stock, at 4.5 percent and 2.4 percent respectively.

Mobile homes represented the second largest product type, accounting for 19.2 percent of Moab's, and 24.3 percent of Grand County's housing stock. According to local real estate professionals, much of the areas' mobile home stock constitutes remnants from the uranium boom when mobile homes were used as temporary housing for miners. While these units represent slightly more affordable housing opportunities, the quality of much of the areas' mobile homes has deteriorated with age.

Multifamily units account for 14.1 percent of housing in the City of Moab, and 21.1 percent in Grand County. In both the City and the County, the majority of multifamily housing is located in smaller complexes with fewer than 20 units.

⁷ Attached single-family units include semi-detaches (semi-attached, side-by-side), row houses, duplexes, quadruplexes and townhomes that are separated from other units by a ground-to roof wall, have a separate heating system, have individual meters for public utilities, and have no other units located above or below.

Figure 3: Housing Stock Characteristics, 2011-2015



Sources: U.S. Census Bureau, 2011-2015 America Community Survey, Table B25024, 2016; BAE, 2018.

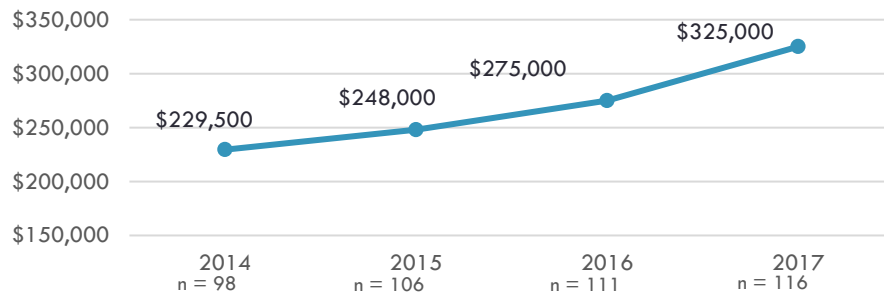
For-Sale Residential

This section summarizes existing market conditions within single-family, townhome, and condominium market segments, and will be used to inform the financial feasibility analysis.

Single-Family Homes

Single-family homes accounted for approximately 73 percent of Grand County home sales in 2017. The median price for a single-family home in Grand County increased dramatically since 2014 when the area’s housing market began its recovery from the lows of the recession. Data provided by UtahRealEstate.com show that between 2014 and 2017, the median sale price for a single-family home in Grand County increased 42 percent, not accounting for inflation, from \$229,500 in 2014, to \$325,000 in 2017. The most dramatic annual sale price increase occurred between 2016 and 2017, when the median single-family sale price increased 18 percent. This indicates that single-family home sale prices are accelerating at a faster rate than previously experienced.

Figure 4: Median Single-Family Sale Price Trend, Grand County, 2014-2017











Sources: UtahRealEstate.com, 2017; BAE, 2018.

According to local real estate professionals, demand for single-family units is driven by strong competition among local residents, second homeowners, and retirees. Moab's proximity to rapidly growing urban centers like Salt Lake City and Denver, as well as other more saturated tourist markets such as Telluride, Aspen and Park City, has contributed to the area's growing popularity as a vacation and retirement destination. Whereas some out-of-town buyers purchase homes in the Moab area for personal vacation use, others purchase single-family homes as investment properties to be used as nightly rentals. For more information on nightly rentals, refer to the Nightly Rental subsection of the Rental section. As Moab's tourism economy grows, the addition of new workers required to construct and staff the area's expanding tourist accommodations and services places further pressure on an already tight housing market, with the injection of buyers from wealthier urban centers driving home prices beyond the reach of Moab's workforce. One real estate broker noted that, whereas, between 2009 and 2013, many single-family home loans were financed through the United States Department of Agriculture (USDA) Rural Development Guaranteed Housing Loan Program, only two single-family homes sold in 2017 were within the maximum loan limit applicable to the USDA loan program.

Table 15 summarizes examples of single-family homes constructed since the year 2000 and sold between 2015 and 2017, which will inform the prototypes and assumptions used in the financial feasibility section of this study. Overall, newer Moab area single-family homes tend to range from three to four bedrooms, with at least two bathrooms. Homes selling for under \$300,000 tend to have under 2,000 square feet, with larger luxury units, such as the 2,480-square foot home at 2245 S. Salida Del Sol, selling for much more, at \$489,900. Real estate brokers indicate that the most competitive market segment is \$300,000 and under, and that units that sell for more than \$300,000 are usually investment purchases for use as nightly rentals.

Table 15: Single-Family Sales Comparables for Homes Built Since 2000

Image	Address	Unit Type	Size (sf)	Sale Price	\$/sf	Year Sold
	285 N. Riversands Drive	3 BR / 2 BTH	1,067	\$220,000	\$206	n.a.
	4503 Pueblo Verde Drive	3 BR / 2 BTH	1,325	\$227,000	\$171	2015
	476 Doc Allen Drive	3 BR / 2 BTH	1,451	\$230,000	\$159	2016
	1023 Pack Creek Drive	3 BR / 2 BTH	1,286	\$201,000	\$156	2015
	3407 Tierra Norte Drive	4 BR / 2 BTH	1,437	\$270,000	\$188	2015
	792 Blue Heron Court	3 BR / 2 BTH	1,702	\$299,000	\$176	n.a.
	531 Winesap Circle	3 BR / 2 BTH	1,928	\$280,101	\$145	2015
	2245 S. Salida Del Sol	3 BR / 3 BTH	2,480	\$489,900	\$198	2017

Note:

Represents sales in and around Moab and Spanish Valley between 2015 and 2017.

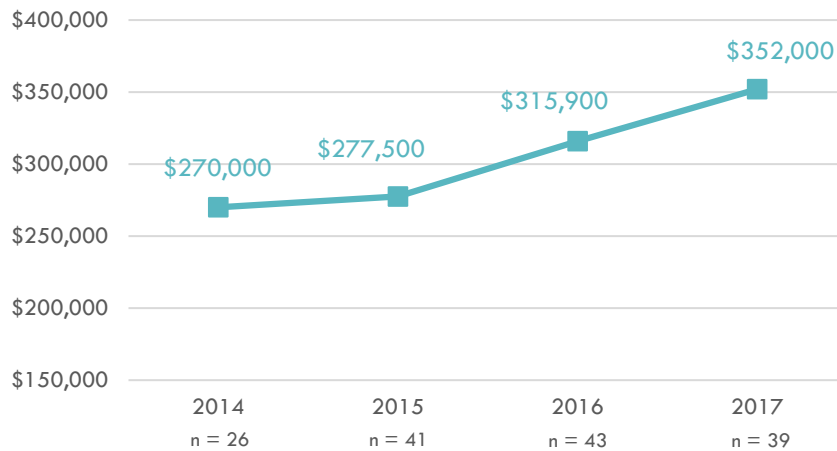
Sources: Zillow, 2017; Moab Realty, 2017; BAE, 2017.

Townhomes

According to UtahRealEstate.com, townhomes accounted for 25 percent of Grand County home sales in 2017. There were 39 townhome sales in Grand County in 2017, which was

down slightly from 43 sales in 2016, and 41 sales in 2015, but above the reported 26 sales in 2014. As shown in Figure 5, the median sale price for a townhome increased \$82,000, or 30 percent, from the 2014 median price of \$270,000. Similar to single-family homes, sale prices for townhomes increased rapidly in recent years, increasing 14 percent between 2015 and 2016, and 11 percent between 2016 and 2017.

Figure 5: Median Townhome Sale Price Trends, Grand County, 2014-2017



Sources: UtahRealEstate.com, 2017; BAE, 2018.

Local real estate professionals indicate that approximately 80 percent of Moab area townhomes are bought by second homeowners. These second homeowners tend to be young professionals and retirees from elsewhere in Utah and Colorado, with one real estate broker reporting that the majority of second homeowners utilize their home as vacation homes, rather than nightly rentals. Although the underlying zoning allows townhome complexes to be used as nightly rentals, two complexes, Mill Creek Pueblos and Orchard Villas, prohibit nightly rentals. As a result, units in these two complexes tend to sell for around \$100,000 less than units in complexes where nightly rentals are allowed, indicating that the ability to generate a return by engaging in nightly rentals commands a premium in the Moab area market.

Table 16 summarizes examples of townhome sales between 2015 and 2017 for units constructed since the year 2000, which will inform the prototypes and assumptions used in the financial feasibility section of this report. As noted in the table, information was not available regarding the specific year individual units sold within the 2015-2017 time frame. While all sales presented in the table are in the Rim Village complex, they are generally representative of townhome sales countywide.

Townhomes in the Moab area tend to be around 1,500 square foot, one- to two-story attached units, above a one- or two-car garage. Local real estate brokers indicate having garage space is particularly desirable as storage for Jeeps, trailers, off-road vehicles, and other outdoor

equipment. Generally, townhomes are marketed as vacation and income properties rather than housing options for the local workforce, with resales often sold fully furnished.

Table 16: Townhome Sales Comparables for Homes Built Since 2000

Image	Address	Unit Type	Size (sf)	Sale Price	\$/sf	Year Sold
	3686 S. Spanish Valley Drive, J-4 (a)	3 BR / 2 BTH	1,573	\$275,000	\$175	n.a.
	3764 Prickly Pear Circle, 2A-1 (a)	3 BR / 2.5 BTH	1,562	\$279,000	\$179	n.a.
	3686 S. Spanish Valley Drive, X-4 (a)	3 BR / 1.5 BTH	1,551	\$293,900	\$189	n.a.
	3764 S. Prickly Pear, 5A-8	3 BR / 2.5 BTH	1,478	\$309,000	\$209	n.a.
	3686 S. Spanish Valley Drive, X-4 (a)	3 BR / 2 BTH	1,551	\$315,000	\$203	n.a.

Notes:

Represents sales in and around Moab between 2015 and 2017.

(a) Sale price includes unit furnishings.

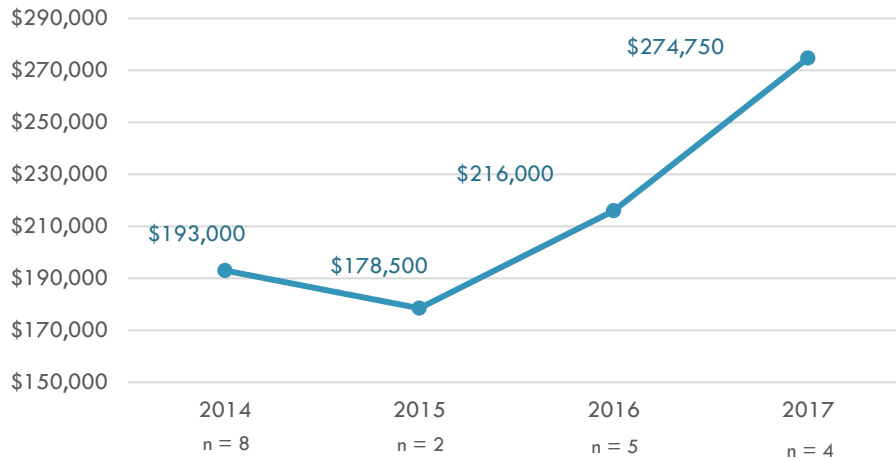
Sources: Moab Realty, 2017; BAE, 2017.

Condominiums

With few condominium complexes (e.g., Red Cliff Condominiums) in the County, condominiums comprise a relatively small portion of Grand County residential sales. There were only 19 sales in the four years between 2014 and 2017, with a total of four condominium sales accounting for three percent of all homes sold in Grand County in 2017. Despite a small dip between 2014 and 2015, the median sale price for condominiums increased 42 percent, from \$193,000 in 2014, to \$274,750 in 2017. The greatest increases occurred between 2015

and 2016, when the median price rose 21 percent, and between 2016 and 2017 when the median price rose an additional 27 percent.

Figure 6: Condominium Sale Price Trends, Grand County, 2014-2017



Sources: UtahRealEstate.com, 2017; BAE, 2018.

According to local experts, the demographic of condominium buyers is similar to that of townhome buyers, with the market driven by second homeowners. The Red Cliff Condominium complex is configured more like a traditional multifamily complex, with each three-story building consisting on 12 one-story units. Generally, the units have three-bedrooms and two-bathrooms, range from around 1,200 to 1,400 square feet, and have at least one dedicated uncovered parking space. Local real estate professionals indicate that condominium units are more likely than townhomes to be used as nightly rentals, though they generally command a lower sale price than townhomes, as indicated in Figure 6. Completion of the new Sage Creek condominium complex is anticipated to further drive condominium prices, with one broker reporting listing prices around \$435,000. According to the project's marketing material, the roughly 1,600 square foot units will feature 3 bedrooms, 2.5 bathrooms, and high-end finishes.

Rental Residential

This section summarizes the existing market rate rental market, and is used to inform the financial feasibility analysis. Generally, the Moab area rental markets consist of four product types: apartments, long-term rentals of apartments and single-family homes, long-term vacation rentals, and nightly rentals. Apartments and long-term rentals are generally rented to the local workforce, while long-term vacation rentals and nightly rentals are geared towards tourists.



Apartment Rentals

As shown in Figure 3, multifamily units, such as apartment complexes, make up a relatively small portion of the Moab area housing stock, with most units located in older complexes with less than 20 units. Table 17 summarizes unit characteristics and asking rents for the area’s oldest market rate apartment complex, the Grand Hotel Apartments, and newest complex, Hoodoo Village apartments, to illustrate the area’s apartment market.

As shown in the table, a studio apartment can range from 425 to 450 square feet, with asking rents around \$675 per month. A one-bedroom, one-bathroom apartment unit can range from 430 to 600 square feet, with asking rents ranging from \$625 to \$700 per month. A two-bedroom, one-bathroom unit can range from 750 to 950 square feet, with older units renting for around \$825 per month, and newer units renting for around \$1,300 per month.

Complexes located closer to downtown Moab, such as the Grand Hotel Apartments, usually lack amenities and dedicated parking, and must rely on on-street parking, while newer complexes have uncovered onsite parking and limited amenities, such as laundry.

Table 17: Comparable Market Rate Apartment Properties, Grand County

Name/Address	Unit Type	Num.	Size (sf)		Rent		\$/sf		Parking	Amenities
			Low	High	Low	High	Low	High		
Grand Hotel Apartments 5 and 7 North Main Street Moab, UT 84530 	Studio	2	425	450	n.a.	\$675	\$1.50	\$1.59	On-Street	
	1 BD / 1 BTH	5	430	600	\$625	\$700	\$1.17	\$1.46	Parking	
	2 BD / 1 BTH	1	n.a.	750	n.a.	\$825	n.a.	\$1.10		
	Total/Avg. (a)	8	526	\$700	\$1.36					
	Occupancy rate	99%								
Year Built	1907									
Hoodoo Village Apartments 261 Walnut Moab, UT 84530 	Studio	12	450	500	\$800	\$850	\$1.70	\$1.78	Onsite	Laundry
	2 BD / 1 BTH	6	n.a.	950	n.a.	\$1,300	n.a.	\$1.37	Parking	
	Total/Avg. (a)	18	633	\$983	\$1.62					
	Occupancy rate	99%								
	Year Built	2017								

Sources: Resolutions Property Management, 2017; BAE, 2017.

Both of the example complexes report extremely high occupancy rates of 99 percent, with property managers and real estate professionals reporting strong demand for apartment rental housing coming from the local workforce under 30 years of age. Most renters tend to work seasonally in the recreation or hospitality industry, though some are also emergency medical service (EMS) workers or young professionals or families saving to buy a home. Tenants prefer flexible month-to-month leases in order to accommodate seasonal work, and most units are rented by couples or multiple singles living as one household. Although many renters are employed seasonally, most try to remain in their units during the off-season between November and February because of the tight rental market. In fact, property managers report that many local employers now require proof of housing before they will hire

new employees; which has, in turn, limited their ability to hire staff and thereby grow their businesses. Some employers have started to address this issue by renting units for their staff, or providing other housing opportunities. While this practice is the exception rather than the rule, it illustrates the extent to which employers recognize workforce housing availability as critical to their business success.






Despite the seemingly high demand for rental housing, very few market rate apartment complexes have been constructed or are planned, even though apartments are allowed in all commercially-zoned areas and many residential zones within the City and the County. Real estate professionals interviewed for this analysis cite competition from product types with higher returns, such as hotels and overnight rentals, as one reason for the lack of new apartment construction. Strong demand for these uses drives land costs beyond what is supportable by local apartment rents, which are limited by the area's below average incomes.

Unfurnished Rentals

For this analysis, unfurnished rentals refer to unfurnished single-family or mobile/manufactured homes rented to the local workforce as their primary dwelling units. Given the dearth of apartment rentals, local property managers indicate unfurnished rentals comprise the majority of rental housing in the Moab area. Table 18 summarizes unit characteristics and asking rents for a sampling of unfurnished rentals available in the Moab area in November of 2017. As shown in the table, most unfurnished rental units have characteristics of the typical single-family unit discussed in the Single-Family Home subsection of the For-Sale Residential section. Rents tend to range from \$875 per month for a 2-bedroom, 1-bathroom unit, to \$1,500 for a 3-bedroom, 2-bathroom unit. Typically, rental rates include most utilities, such as water, sewer, trash, and gas.

Renter demographics range widely, from young couples, to families, to single individuals living together as roommates. Property managers noted that in the absence of adequate rental supply, unsanctioned sub-leasing, whereby a leased tenant rents individual rooms to unleased tenants, has become common place. Anecdotally, these rooms can rent for between \$400 and \$500 per month. As mentioned previously, businesses also rent unfurnished properties for employees. This is particularly common among the construction and trade industries, which have a difficult time recruiting workers due to the lack of available housing.

Table 18: Unfurnished Rental Properties, Grand County





<u>Image</u>	<u>Name/Address</u>	<u>Unit Type</u>	<u>Size (sf)</u>	<u>Rent</u>	<u>\$/sf</u>	<u>Rent Includes</u>
	1220 Van Buren Court Moab, Utah	4 BR / 2 BTH	1,510	\$1,400	\$0.93	Water, Sewer, Trash
	398 Loveridge Drive Moab, Utah	3 BR / 2 BTH	1,140	\$1,500	\$1.32	None
	147 N. 100 W. Moab, Utah	3 BR / 1 BTH	1,100	\$800	\$0.73	All utilities
	226 E. 100 N. Moab, Utah	2 BR / 1 BTH	1,000	\$875	\$0.88	Water, Sewer, Gas
	198 Walnut Lane Moab, Utah	3 BR / 2 BTH	1,800	\$1,500	\$0.83	Water, Sewer, Gas

Sources: Zillow, 2017; Moab Property Management, 2017; Moab Ad-Vertiser, 2017; Grand County, BAE, 2017.

Furnished Rentals

Furnished rental refers to fully stocked, single-family homes rented to tourists for an extended vacation, usually monthly. Table 19 summarizes unit characteristics and asking rents for a sampling of furnished rentals available in the Moab area in November of 2017. Rental rates typically range depending on the length of stay. Smaller two-bedroom 1.5 to-2-bathroom units can rent anywhere from \$1,250 to \$1,400 per month, while larger 3-bedroom, 2-bathroom units can rent between \$1,500 and \$2,700 per month. This generally includes all utilities such as water, sewer, gas, electricity and trash collection. Furnished rentals tend to be better maintained than unfurnished rentals, and often have been updated. Renters of fully furnished units are typically those who can take extended vacations, such as retirees, or out-of-town families with children.

Table 19: Furnished Rental Properties, Grand County








Image	Name/Address	Unit Type	Size (sf)	Rent		\$/sf		Rent Includes
				Low	High	Low	High	
	542 W Hale Moab, Utah	2 BR / 2 BTH	n.a.	\$1,250 -	\$1,400	n.a.	n.a.	Fully Furnished Water, Sewer, Gas, Electric, Trash
	125 Birch Moab, Utah	2 BR / 1.5 BTH	1,050		\$1,250		\$1.19	Fully Furnished Water, Sewer, Gas, Electric, Trash
	496 Doc Allen Drive Moab, Utah	3 BR / 2 BTH	1,450	\$1,750 -	\$2,700	\$1.21 -	\$1.86	Fully Furnished Water, Sewer, Gas, Electric, Trash
	48 Wildflower Spanish Valley, Utah	3 BR / 2 BTH	n.a.	\$1,500 -	\$2,300	n.a.	n.a.	Fully Furnished Water, Sewer, Gas, Electric, Trash

Sources: Zillow, 2017; Moab Property Management, 2017; Moab Ad-Vertiser, 2017; BAE, 2017.

Nightly Rentals

Nightly rentals are residential units that are available to rent on a nightly basis, much like a hotel room. These units are targeted towards tourists, and not Moab area residents. Table 19 summarizes unit characteristics and asking rents for a sampling of nightly rentals available in the Moab area in November of 2017. As displayed in the table, nightly rentals come in a variety of housing types, including condominiums, townhome, single-family homes, and accessory dwelling units. Nightly rental rates can vary widely depending on the time of year, number of renters, and length of stay. With example prices ranging from \$86 to \$618 per night, nightly rentals can offer competitive lodging prices compared to local hotels, particularly when the cost is split among multiple people. A survey of nightly rentals listed on Airbnb.com and Vacasa.com showed that most nightly rentals are located in townhome complexes. Nightly rentals are typically managed either by individual property owners or a property management company. Due to the presence of many different independent operators in the Moab market, comprehensive occupancy statistics for nightly rental units are not available. As discussed later in the hotel market conditions section of this report, data from STR, a lodging industry data provider, indicate that in 2016, the average annual occupancy rate for conventional visitor lodging (i.e., hotels and motels) was 72.9 percent. This is indicative of strong demand for available overnight accommodations.

Table 20: Nightly Rental Properties, Grand County

Image	Name/Address	Unit Type	Rent	
			Low	High
	La Dolce Vita Villa's	2 BR / 2 BTH	\$86 -	\$446
	Rim Village	3 BR / 2 BTH	\$89 -	\$394
	Red Cliff	3 BR / 2 BTH	\$89 -	\$409
	Moab Spring Ranch	2 BR / 2.5 BTH	\$137	\$598
	Coyote Run	3+ BR / 3.5 BT	\$132 -	\$618
	Downtown Bungalow	3 BR / 3 BTH		\$145
	Moab Digs	1 BR / 1 BTH		\$110

Sources: AirBnB.com, 2017; Vacasa.com, 2017; BAE, 2017.

Workforce Housing Needs

The combination of low household incomes and strong competition among locals and external market demand for housing, combined with limited increases in the supply of housing, contributes to high housing costs that make living in the Moab area difficult or out of reach for much of the local workforce. According to the *Moab Area Affordable Housing Plan*, employers across all industries struggle to attract workers, especially for essential positions, such as teachers, nurses, law enforcement officers, public officials, and others, with candidates citing the large gap between wages and housing costs as the primary impediment. Additionally, local employers struggle to retain existing employees, as many leave the area to seek jobs in other, more affordable communities. With approximately 43 percent of Grand County employment concentrated in relatively low paying tourism-related industries, and more than 437 new hotel rooms planned across five development projects as of January 2017, attainable housing for the local workforce will be key to growing the local economy. This section summarizes key data points highlighting the area's workforce housing needs.

Housing Cost Burden

Table 21 presents data on housing cost burdens for Grand County owner and renter households, as reported in the *Moab Area Affordable Housing Plan*. The data are from the 2009-2013 Comprehensive Housing Affordability Strategy (CHAS) data set, which is a special tabulation of the 2009-2013 ACS 5-Year Estimates. The CHAS data set uses U.S. Department of Housing and Urban Development (HUD) defined income categories to classify households by income level, after adjusting for household size. These categories are based on the HUD Adjusted Median Family Income (HAMFI), which is calculated using 2009-2015 5-Year median family income estimates,⁸ supplemented with 2013 1-year estimates. The HUD income categories are calculated as a percentage of the HAMFI. The extremely low-income category includes households with incomes less than, or equal to, 30 percent of the HAMFI, while the very low-income category includes households with incomes greater than 30 percent, and up to 50 percent, of the HAMFI. The low-income category includes households with incomes greater than 50 percent, and up to 80 percent of the HAMFI, while the moderate-income category includes households with incomes greater than 80 percent, and up to 120 percent of the HAMFI. The above moderate category subsequently includes households with incomes greater than 120 percent of the HAMFI. HUD estimates monthly housing cost burdens as a share of a household's monthly income. Households are considered to have an excessive housing cost burden when housing costs exceed 30 percent of the monthly gross household income. Households are considered to have a severe housing cost burden when monthly housing costs exceed 50 percent of monthly gross household income. For renter households, housing costs include rental payments, plus utility charges. For owner households, cost

⁸ Excludes one-person households and multi-person households comprised of unrelated individuals, based on the Census definition of a family, which includes a householder with one or more persons living in the same household who are unrelated to the householder by birth, marriage, or adoption.

burden calculations include principle, interest, property taxes, and insurance (PITI), but do not include utility charges.

According to the *Moab Area Affordable Housing Plan*, 1,000 Grand County households earning less than 80 percent of AMI were cost excessively burdened between 2009 and 2013. At least 400 of these households were severely cost burdened. CHAS data presented in Table 21 show that renter households were disproportionately cost burdened, compared to owner households. Across all income categories, larger proportions of renter households had excessive or extreme cost burdens as compared to owner households in the same income category.

Table 21: Cost Burdened Households by Tenure and Income, Grand County

	Renter	Owner
Households Spending 30% or More of Monthly Income on Housing (by Income Level)		
>50% to <=80% AMI	43.6%	41.2%
>30% to <=50% AMI	78.1%	45.5%
<=30% AMI	73.3%	64.4%
Households Spending 50% or More of Monthly Income on Housing (by Income Level)		
>50% to <=80% AMI	5.5%	0.8%
>30% to <=50% AMI	37.5%	22.7%
<=30% AMI	61.7%	44.4%

Sources: Moab Area Affordable Housing Plan, 2016; U.S. Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy, 2009-2013; BAE, 2018.

Workforce Housing Affordability

To put the data presented in Table 21 into perspective, BAE used the findings from the Demographic and Economic Trends section to profile five household compositions that represent typical Moab area households, and compared these households' incomes to available for-sale and rental housing options.

The first household profiled consists of a senior couple living on social security payments. The second household consists of a single person under the age of 30 working as a river rafting guide. The third household consists of a young couple, with one person employed as a hotel desk clerk, and the other as a local waiter or waitress with two children. The fourth household consists of a construction worker and part-time retail sales person with one child. The final household consists of a firefighter and elementary school teacher with two children. Using occupation and wage data for Eastern Utah from the Utah Department of Workforce Services, BAE calculated the average household income for each of the five households. BAE then used

Grand County's 2017 HUD Defined Income Limits by household size, presented in Table 22, to identify the housing income category to which each household belongs.

Table 22: HUD Defined Income Limits, Grand County, Utah, 2017

Income Category	Income Limits/Household Size				
	1 Person	2 Person	3 Person	4 Person	5 Person
Extremely Low-Income (30%)	\$14,250	\$16,250	\$20,420	\$24,600	\$28,780
Very Low-Income (50%)	\$23,700	\$27,100	\$30,500	\$33,850	\$39,300
Low-Income (60%) (a)	\$28,440	\$32,520	\$36,600	\$40,620	\$47,160
Moderate (80%)	\$37,950	\$43,350	\$48,750	\$54,150	\$58,500
Median-Income (100%) (a)	\$47,400	\$54,200	\$61,000	\$67,700	\$78,600
Above Median (120%) (a)	\$56,880	\$65,040	\$73,200	\$81,240	\$94,320

Note:






(a) Calculated by BAE by applying a multiplier to the very low-income limits (50%). Note this calculation does not account for adjustments made by HUD.

Sources: Housing Authority of South Eastern Utah, 2017; BAE, 2018.

As shown in Table 23, a senior couple living on social security has an annual household income around \$21,000, which is considered a very low-income (50 percent of AMI) household in Grand County. A single river rafting guide living alone has an annual household income of around \$23,450, which is also considered a very low-income household. A hotel desk clerk and waiter with two children have an annual household income of around \$39,370, which is considered a low-income household (60 percent of AMI). A part time retail sales person and construction worker with one child have an annual household income around \$45,025, which is considered a moderate-income household (80 percent of AMI). A firefighter and elementary school teacher with two children have an annual household income around \$64,670, which is considered a median-income household (100 percent of AMI).

It should be noted that these households were selected in part to represent an increasing gradation of incomes, so that other households that are not represented can generally compare their incomes to these profiles and identify what percentage of the housing units sold in 2017 would have been accessible to them. For example, a single teacher living in Moab earned an average of \$46,000 per year (100 percent of AMI) in 2016, and this is comparable to the retail/construction household, whose income was \$45,025. A single teacher could trace the affordable sales prices and rents of this household profile to approximate what he/she could afford to pay to purchase or rent a home.

Table 23: Workforce Household Profile

Who		Annual Income	Income Category
This shows an example of a prototypical household in the Moab Area, its household size			
	Senior couple living on social security HH Size: 2 persons	\$21,000	Very Low Income 50% AMI
	River rafting guide HH Size: 1 person	\$23,450	Very Low Income 50% AMI
	Hotel desk clerk, waiter, and two children HH Size: 4 persons	\$39,370	Low Income 60% AMI
	Part-time retail sales clerk, construction worker, and one child HH Size: 3 persons	\$45,025	Moderate Income 80% AMI
	Firefighter and elementary school teacher with two children HH Size: 4 persons	\$64,670	Median 100% AMI

Sources: Grand County, 2017; Utah Department of Workforce Services, 2017; BAE, 2018.

For-Sale Housing Affordability

BAE calculated the amount of money each household could spend each month on housing related costs, assuming these five households can comfortably spend up to 30 percent of their gross household incomes on housing-related costs without incurring excess housing cost burden. BAE then used 2017 home sales data from UtahRealEstate.com and mortgage assumptions based on standard industry loan terms for first-time home buyers obtaining a low-down payment conventional loan, to determine the proportion of a typical Moab area home these prototypical households could afford, and the number of homes available within their price range in 2017. The results, presented in Table 24, show that the maximum affordable home price for the senior couple is \$76,839, while the maximum affordable home price for the river rafting guide is \$85,767. The maximum affordable home price for the hotel desk clerk and waiter is \$144,018, and the maximum affordable home price for the

construction worker and part-time retail sales person with one child is \$164,655. The maximum affordable sale price for the firefighter and teacher with one child is \$236,664.

Table 24: Affordable For-Sale Housing Prices, Grand County, 2017

Household Profile	Annual House-Hold Income							
Senior Couple	\$21,000							
River Rafting Guide	\$23,450							
Hotel Desk Clerk and Waiter w/ 2 Children	\$39,370							
Construction & Part-Time Sales Clerk w/ 1 Child	\$45,025							
Firefighter and Teacher w/ 2 Children	\$64,670							
	Amount Avail. for Housing (a)	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Senior Couple	\$525	\$365	\$22	\$86	\$53	\$525	\$2,689	\$76,839
River Rafting Guide	\$586	\$407	\$24	\$96	\$59	\$586	\$3,002	\$85,767
Hotel Desk Clerk and Waiter	\$984	\$684	\$41	\$161	\$98	\$984	\$5,041	\$144,018
Construction & Part-Time Sales Clerk w/ 1 Child	\$1,126	\$782	\$47	\$184	\$113	\$1,126	\$5,768	\$164,802
Firefighter and Teacher w/ 1 Child	\$1,617	\$1,123	\$67	\$265	\$162	\$1,617	\$8,283	\$236,664
Ownership Cost Assumptions (b)								
% of Income for Housing Costs	30% of gross annual income							
Down payment	3.50% of home value							
Annual interest rate	4.25% fixed							
Loan term	30 years							
Upfront mortgage insurance	0.00% of home value							
Annual mortgage insurance	0.85% of mortgage							
Annual property tax rate	1.34% of home value							
Annual hazard insurance	0.34% of home value							











Notes:

- (a) Represents 30 percent of monthly household income.
- (b) Based on a low downpayment conventional loan.

Sources: Grand County, 2017; Insurance.com, 2017; Bankrate.com, 2017; BAE, 2018.

As shown in Table 25, none of the units sold were affordable to the senior couple, river rafting guide, the hotel clerk / waiter family, and the construction worker / retail clerk family. The firefighter and elementary school teacher with one child had a finite selection of housing to choose from, with seven units, or 6.6 percent of home sold within their affordability range.

Table 25: Housing Affordability for Selected Households in Grand County, Utah

Who? This shows an example of a prototypical household in the Moab Area, its household size	What is Their Income? What is the household's combined annual income, and what is the income as a percentage of the Area Median Income?	What Is Affordable? What home price is affordable, and how much can this household afford to pay monthly? (b)	Homes Available? Based on homes sold in Grand County in 2017
 Senior couple living on social security HH Size: 2 persons	Income: \$21,000 50% AMI	Affordable Home Price \$76,839 Affordable Monthly Payment \$525	 0% affordable
 River rafting guide HH Size: 1 person	Income: \$23,450 50% AMI	Affordable Home Price \$85,767 Affordable Monthly Payment \$586	 0% affordable
 Hotel desk clerk and waiter w/ two children HH Size: 4 persons	Income: \$39,370 60% AMI	Affordable Home Price \$144,018 Affordable Monthly Payment \$984	 0% affordable
 Part-time retail and construction worker with one child HH Size: 3 persons	Income: \$45,025 80% AMI	Affordable Home Price \$164,802 Affordable Monthly Payment \$1,126	 0% affordable
 Firefighter and elementary school teacher with two children HH Size: 4 persons	Income: \$64,670 100% AMI	Affordable Home Price \$236,664 Affordable Monthly Payment \$1,617	 7 units (6.6%) affordable

Notes:

(a) Represents the median sale price for single-family, twin, condo, and townhomes sales in 2017.

(b) This assumes households pay 30 percent of their gross income for housing.

Sources: Grand County, 2017; Utah Department of Workforce Services, 2017; Insurance.com, 2017; Bankrate.com, 2017; UtahRealEstate.com, 2018; BAE, 2018.

Table 26: Sale Price Distribution for Homes Sales in 2017, By Number of Bedrooms

List Price Range	Number of Units Sold				Total	% Total
	1 BRs	2 BRs	3 BRs	4+ BRs		
Single-Family Residences (a)						
Less than \$200,000	0	0	2	0	2	1.9%
\$200,000-\$249,999	0	2	8	0	10	9.4%
\$250,000-\$299,999	0	2	26	8	36	34.0%
\$300,000-\$349,999	0	0	23	4	27	25.5%
\$400,000-\$499,999	0	3	5	7	15	14.2%
\$500,000-\$599,999	0	0	5	5	10	9.4%
\$600,000-\$699,999	0	1	1	1	3	2.8%
\$700,000-\$799,999	0	0	1	0	1	0.9%
\$800,000-\$899,999	0	0	0	0	0	0.0%
\$900,000-\$999,999	0	0	0	0	0	0.0%
\$1,000,000+	0	0	0	2	2	1.9%
Total	0	8	71	27	106	100%
% Total	0.0%	7.5%	67.0%	25.5%	100.0%	
Median Sale Price	n.a.	\$373,200	\$339,100	\$373,500	\$349,000	











Note:

(a) Represents 2017 single-family, twin, condo, and townhome sales in Grand County (excluding Castle Valley).

Sources: UtahRealEstate.com, 2018; BAE, 2018.

Mobile homes present another opportunity for the local workforce to purchase homes in the Moab area; however, as shown in Table 27, most of the area's work force cannot even afford to purchase those more affordable units. Based on 2017 mobile home sale data provided by UtahRealEstate.com, summarized in Table 28, none of the mobile homes sold were affordable to the senior couple, river rafting guide, or the hotel clerk / waiter household. Only one unit sold was affordable to the construction worker / retail clerk household. The firefighter and elementary school teacher could afford eight of the 17 mobile homes sold.

Table 27: Who Can Afford to Buy a Manufactured Home in Grand County?

Who? This shows an example of a prototypical household in the Moab Area and its annual household income	What Is Affordable? What home price is affordable, and how much can this household afford to pay monthly? (b)	How Much Home? What percent of a typical home can they afford? (b) 2017 Median Sale Price \$240,000(a)	Homes Available? Based on homes sold in Grand County in 2017
 Senior couple living on social security Income: \$21,000	Affordable Home Price: \$76,839 Affordable Monthly Payment \$525	32%	 0% affordable
 River rafting guide Income: \$23,450	Affordable Home Price: \$85,767 Affordable Monthly Payment \$586	36%	 0% affordable
 Hotel desk clerk and waiter w/ two children Income: \$39,370	Affordable Home Price: \$144,018 Affordable Monthly Payment \$984	60%	 0% affordable
 Part-time retail and construction worker with one child Income: \$45,025	Affordable Home Price: \$164,802 Affordable Monthly Payment \$1,126	69%	 1 unit (5.9%) affordable
 Firefighter and elementary school teacher with two children Income: \$64,670	Affordable Home Price: \$236,664 Affordable Monthly Payment \$1,617	99%	 8 units (47.0%) affordable

Note:
 (a) Represents the median sale price for mobile home sales, including land, in 2017.
 (b) This assumes households pay 30 percent of their gross income for housing.

Sources: Grand County, 2017; Utah Department of Workforce Services, 2017; Insurance.com, 2017; Bankrate.com, 2017; UtahRealEstate.com, 2018; BAE, 2018.

Table 28: Sale Price Distribution for Mobile Home Sales in 2017, by Number of Bedrooms

List Price Range	Number of Units Sold				Total	% Total
	1 BRs	2 BRs	3 BRs	4+ BRs		
Mobile Homes						
Less than \$150,000	0	1	0	0	1	5.9%
\$150,000-\$174,999	0	0	0	0	0	0.0%
\$175,000-\$199,999	0	0	2	0	2	11.8%
\$200,000-\$224,999	0	0	3	1	4	23.5%
\$225,000-\$249,999	0	0	2	2	4	23.5%
\$250,000-\$274,999	0	0	0	1	1	5.9%
\$275,000-\$299,999	0	0	0	1	1	5.9%
\$300,000-\$324,999	0	0	1	0	1	5.9%
\$325,000-\$349,999	0	0	2	0	2	11.8%
\$350,000-\$375,000	0	0	1	0	1	5.9%
Total	0	1	11	5	17	100%
% Total	0.0%	5.9%	64.7%	29.4%	100.0%	
Median Sale Price	n.a.	\$149,000	\$235,200	\$240,000	\$240,000	

Note:

(a) Represents 2017 mobile home sales in Grand County (excluding Castle Valley).

Sources: UtahRealEstate.com, 2018; BAE, 2018.

Rental Housing Affordability

Using the rental data presented in Table 17, in the Residential Real Estate section, as a representation of the general range of Moab area apartment rental rates, BAE calculated the most affordable apartment housing option for each of the prototypical households, excluding utility costs. In instances where none of the area’s apartment units are affordable, BAE presents the proportion of the most affordable unit(s) available to the subject household.

Rental housing is priced more reasonably, although there is a shortage of units available for rent. The results presented in Table 29 show that none of the available apartment units are affordable to the senior couple living on social security. At best, this household could afford 67 percent of a studio apartment rent, and 65 to 72 percent of a 1-bedroom apartment rent in an older apartment complex like the Grand Hotel. The river rafting guide fares slightly better, being able to afford 76 percent of a studio rent and 73 to 82 percent of a one-bedroom apartment rent in the Grand Hotel. Very-low income households (50 percent of AMI) cannot afford any market-rate studios at the Hoodoo Village, a newly built apartment complex. Households that were above-moderate income (80 percent of AMI) can afford market-rate housing, but there is limited inventory available. The Moab Area needs more housing for extremely low-, very low-, and low-income households, especially for workers that serve the area’s tourism economy.

Table 29: Who Can Afford to Rent an Apartment in Grand County?

<p>Who? This shows an example of a prototypical household in the Moab Area and its annual household income</p>	<p>What Is Affordable? How much can this household afford to pay for housing costs monthly?</p>	<p>How Much Apartment? What percent of a market rate apartment can they afford (See Table 17) (a)</p>
 <p>Senior couple living on social security Income: \$21,000</p>	<p>Affordable Monthly Rent \$525</p>	<p>67% of a Studio in the Grand Hotel (b) 65%-72% of a 1-Bedroom in the Grand Hotel (b)</p>
 <p>River rafting guide Income: \$23,450</p>	<p>Affordable Monthly Rent \$586</p>	<p>76% of a Studio in the Grand Hotel (b) 73%-82% of a 1-Bedroom in the Grand Hotel (b)</p>
 <p>Hotel desk clerk and waiter Income: \$39,370</p>	<p>Affordable Monthly Rent \$984</p>	<p>100% of apartment units in the Grand Hotel, and a studio in Hoodoo Village</p>
 <p>Part-time retail and construction worker with one child Income: \$45,025</p>	<p>Affordable Monthly Rent \$1,126</p>	<p>100% of apartment units in the Grand Hotel, and a studio in Hoodoo Village</p>
 <p>Firefighter and elementary school teacher with two children Income: \$64,670</p>	<p>Affordable Monthly Rent \$1,617</p>	<p>100% All apartment units in the Grand Hotel and Hoodoo Village</p>

Notes:

- (a) Represents the proportion on an apartment unit the household could afford, excluding utility costs. The utility allowance is based on 2017 figures provided by the Housing Authority of South Eastern Utah for apartment units.
- (b) The Grand Hotel is an older apartment complex within the City of Moab that represents one of the more affordable apartment options in the area. Please refer to Table 17 for more details.

Sources: Grand County, 2017; Utah Department of Workforce Services, 2017; Housing Authority of Southeastern Utah, 2017; BAE, 2018.

Visually comparing the prototypical households' monthly housing allowances to the sample of available unfurnished single-family rental properties listed in Table 18 reveals that these households would have similar difficulty affording single-family rental properties. As with the apartments, the senior couple and river rafting guide would only be able to afford to rent a

single-family home if they shared the cost with at least one housemate. The hotel desk clerk and waiter, a single-teacher, and the part-time retail clerk and construction worker could afford two of the sample units, while the firefighter and elementary school teacher could afford four of the five sample units.

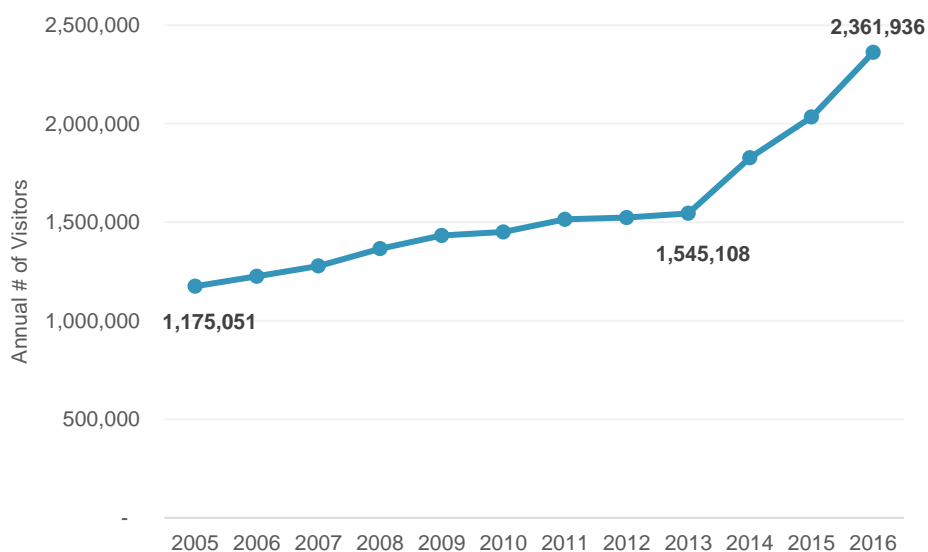
Initial takeaways from this analysis are that the Moab area needs more housing opportunities for smaller extremely low-, very-, and low-income households, such as seniors, and hospitality and recreation workers that service the area's tourism economy. Providing appropriate housing for these households, such as apartments and smaller for-sale products such as condominiums reserved for area residents rather than second homeowners, could free up single-family rental properties currently serving this demographic, and make more single-family rentals available for very low- to moderate-income family households. In light of competition for single-family homes from outside markets (e.g., second homebuyers and visitors seeking nightly rentals), efforts should also focus on maintaining and preserving the existing single-family rental stock available to the area's workforce.

Commercial Real Estate Market Conditions

Hotels

The Moab Area is known for its iconic landscapes and abundant outdoor recreational opportunities that support a vibrant tourism economy. The area is home to Arches and Canyonlands National Parks, Dead Horse Point State Park, and the Manti-La Sal National Forest. According to the National Park Service, visitation to Arches and Canyonlands soared in the last decade. Between 2005 and 2016, visitation doubled, from 1.18 million in 2005 to 2.36 million in 2016, which translates into an average annual increase of 6.6 percent per year. It is worth noting that visitation continued to increase through the Great Recession, even as tourism fell in other parts of the country. Since 2013, visitation has increased at a rapid pace, highlighting the area’s attraction as an “Adventure Capital”.

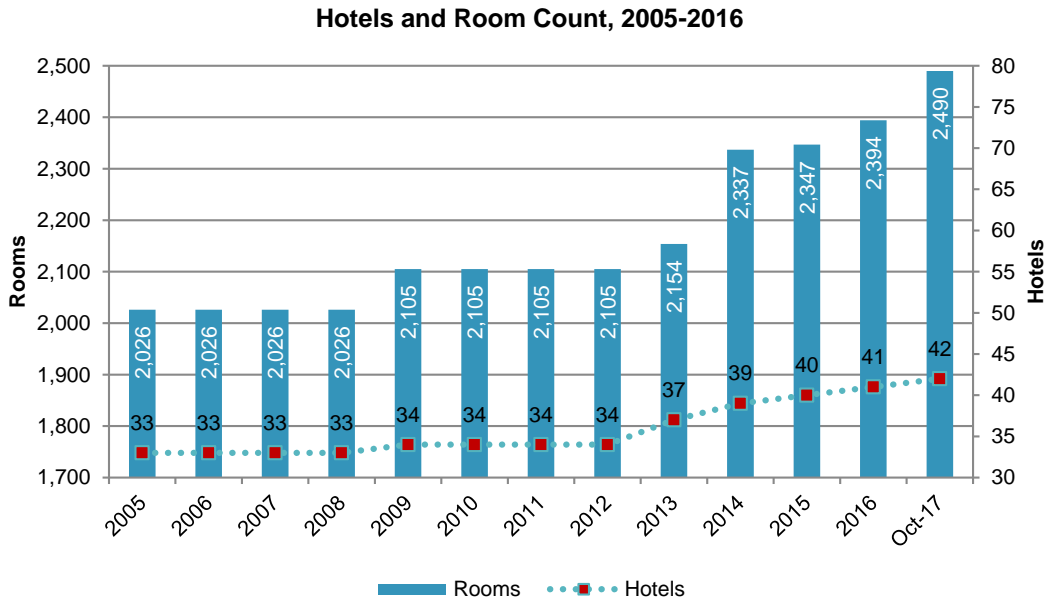
Figure 7: Annual Visitation to Arches and Canyonlands National Park, 2005-2016



Sources: National Park Service, Summary of Visitor Use By Month and Year (1979-Last Calendar Year), 2018; BAE, 2018.

The increase in visitation has fueled rapid growth in the hotel and lodging sector. According to STR, a private data vendor that tracks hotel performance, there were 42 lodging establishments totaling 2,490 rooms in Grand County as of October 2017, with most located within the City of Moab. Between 2005 and 2017, the number of rooms increased from 2,026 to 2,490, representing a 22.9 percent increase in room inventory. As shown in the table on the following page, the increase in hotel supply mirrors the steady climb in visitation to the area.

Figure 8: Hotels and Rooms Tracked by STR, Grand County, 2005-2017



Sources: STR, 2017; Grand County, 2017; City of Moab, 2017; BAE, 2018.

In addition to the expansion in room supply, there was a notable level of transaction activity involving Moab Area hotel properties. Table 30 shows the year that hotels became affiliated with their current brand or chain. This captures instances in which the hotel was sold to a new operator or when hotels switched brands. Since 2010, an average of one hotel per year changed its affiliation, with most new operators being national brands such as Best Western or Quality Suites. This suggests in response to rising visitation, national brands were not only entering the market by building new hotels, but also by acquiring existing facilities.

Table 30: Hotels that Changed Affiliation, 2005-2017

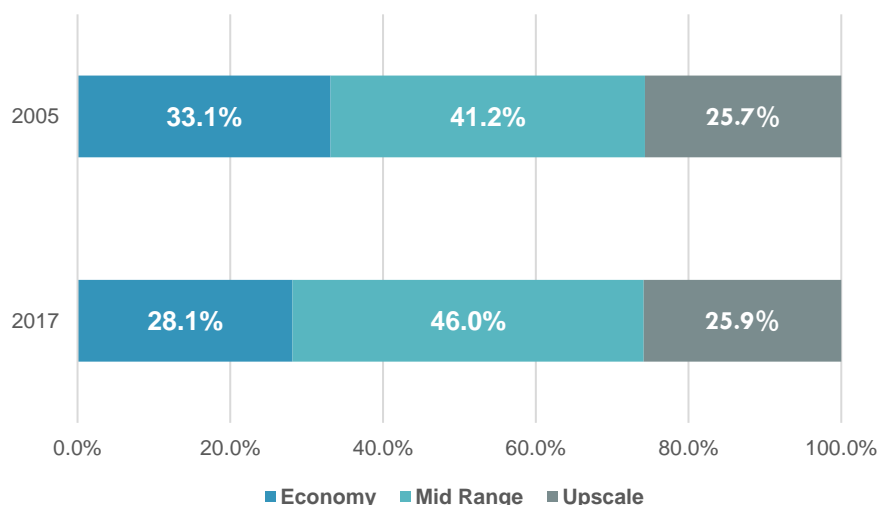
Year	Number		Share of Total	
	Rooms	Hotels	Rooms	Hotels
2005	50	1	2.5%	3.0%
2006	0	0	0.0%	0.0%
2007	0	0	0.0%	0.0%
2008	0	0	0.0%	0.0%
2009	0	0	0.0%	0.0%
2010	80	1	3.8%	2.9%
2011	75	1	3.6%	2.9%
2012	75	1	3.6%	2.9%
2013	66	1	3.1%	2.9%
2014	81	1	3.5%	2.8%
2015	0	0	0.0%	0.0%
2016	0	0	0.0%	0.0%
2017	97	2	27.1%	50.0%
Total Change	524	8	22.0%	21.6%

Note:

This table shows the year in which properties changed affiliations and became associated with their current brand or chain.

Sources: STR, 2017; BAE, 2018.

Figure 9: Hotels by Class, Grand County, 2005 and 2017



Sources: STR, 2017; BAE, 2018.

Between 2005 and 2017, inventory in the Moab area has shifted away from economy hotels to midscale and upscale establishments. In 2005, one-third of hotel rooms were in economy hotels, which includes brands such as Super 8, Days Inn, and Motel 6. In 2017, the share of rooms in economy hotels had dropped, with a greater proportion concentrated in mid-range and upscale establishments, which typically have more amenities and charge higher rates.

Analysis of Selected Midscale and Upper Midscale Hotels

BAE reviewed aggregated data for 11 selected hotels representing mid-range properties, most of which were newly constructed or renovated after 2000. This class reflects brands that expanded the most in recent years, and chains likely to enter the Moab area. Examples include Homewood Suites and the Holiday Inn Express. Appendix A shows a participation list of the hotels selected for this analysis.

As shown in Table 31, between 2011 and 2016, inventory among this selected group of mid-range hotels increased from 234,153 to 328,897 room nights per year, equivalent to a 40.5 percent increase, which was a significant expansion in supply. This was owing to a combination of new hotels in this category that opened (Comfort Suites, the Fairfield Inn, and Homewood Suites), and hotels that added rooms (Best Western).

Between 2011 and 2016, room demand, which refers to the number of rooms sold, outpaced the increase in supply. Room demand rose from 155,806 to 239,838, equal to a 53.9 percent increase, which was faster than the supply growth of 40.5 percent. This is notable because when room demand outpaces supply growth, this can indicate pent-up demand for mid-scale product, a robust tourism economy with strong annual growth that expands the

demand pool, or a combination. New hotels that entered the market did not have trouble filling rooms, and there was sufficient market demand to absorb the new inventory.

Table 31: Hotel Market Overview, Moab Area, 2011 – September 2017

Historic Overview (2011-2016)

<u>Year</u>	<u>Occupancy Rate</u>	<u>Average Daily Rate</u>	<u>RevPAR (a)</u>	<u>Room Demand (b)</u>	<u>Room Supply</u>
2011	66.5%	\$123	\$82	155,806	234,153
2012	69.1%	\$128	\$89	161,891	234,330
2013	68.0%	\$134	\$91	164,246	241,690
2014	69.2%	\$144	\$99	192,294	278,059
2015	69.9%	\$153	\$107	221,786	317,154
2016	72.9%	\$162	\$118	239,838	328,897

Current Market Overview (October 2016 - September 2017)

<u>Month</u>	<u>Occupancy Rate</u>	<u>Average Daily Rate</u>	<u>RevPAR (a)</u>	<u>Room Demand (b)</u>	<u>Room Supply</u>
Oct-16	84.9%	\$179	\$152	25,409	29,915
Nov-17	65.1%	\$102	\$66	18,845	28,950
Dec-16	37.6%	\$79	\$30	11,249	29,915
Jan-17	25.2%	\$76	\$19	7,532	29,915
Feb-17	45.1%	\$86	\$39	12,175	27,020
Mar-17	72.9%	\$156	\$114	21,801	29,915
Apr-17	85.5%	\$204	\$174	24,765	28,950
May-17	92.0%	\$209	\$192	27,533	29,915
Jun-17	92.0%	\$197	\$181	26,631	28,950
Jul-17	87.6%	\$186	\$162	26,196	29,915
Aug-17	86.9%	\$181	\$158	25,994	29,915
Sep-17	93.9%	\$209	\$196	27,192	28,950

Daily Averages (c)

<u>Day of Week</u>	<u>Occupancy Rate</u>	<u>Average Daily Rate</u>	<u>RevPAR (a)</u>
Sunday	66.2%	\$160	\$106
Monday	67.4%	\$159	\$107
Tuesday	68.2%	\$159	\$109
Wednesday	69.0%	\$159	\$110
Thursday	70.2%	\$162	\$114
Friday	77.8%	\$167	\$130
Saturday	78.7%	\$167	\$131
Total	71.1%	\$162	\$115

Notes:

(a) RevPAR, or Revenue per Available Room, is calculated by dividing total room revenue by the total room supply for a given period. Occupancy Rate multiplied by the Average Daily Rate (ADR) will closely approximate RevPAR.

(b) Room Demand represents the number of rooms sold over the course of a given time period, excluding complimentary rooms.

(c) Daily Averages calculated over the last three years, from October 2014 to September 2017.

Sources: STR, 2017; BAE, 2018.

Remarkably, average nightly rates and occupancy also improved between 2011 and 2016, which is noteworthy given the sizeable increase in room supply. Between 2011 and 2016, mid-range hotels increased their rates from an average of \$123 per night in 2011 to \$162 per night in 2017, equivalent to a 31.8 percent increase. At the same time, occupancy rates

improved, rising from 66.5 percent in 2011 to 72.9 percent in 2016. In general, hotel occupancy rates exceeding 70 percent is an indicator of a strong lodging market. This suggests that the Moab Area could continue to attract and absorb more midscale hotels. In fact, a review of building permit data shows that there are seven more hotels either under construction (Hyatt Place, the Hilton Hoodoo, and Mainstay Suites) or in the development pipeline.

Lodging Outlook

Based on interviews with brokers active in the market, lodging is the strongest commercial product type in the Moab Area. Brokers frequently receive calls from national hotel chains seeking available sites. Many operators are willing to pay a premium for land, with the current going price at \$30 to \$40 per square foot for land in properly zoned commercial areas within the Moab city limits. In fact, speculative hotel developments are driving up land costs and crowding out other commercial uses, such as restaurants, which cannot afford to pay the same prices given their economic fundamentals. Based on the current economic trajectory, brokers expect local hotel demand to remain strong, buoyed by a strong tourism economy driven by overall growth in Utah and Colorado.

Retail

Retail activity within Grand County is concentrated within Downtown Moab and along the Highway 191 commercial corridor. Downtown Moab, clustered around Main and Center Streets, represents the area’s historic shopping district and offers an array of shops in single- and two-story attached structures. Moving away from the downtown core, retail consists of single-story, free-standing buildings or shopping centers accessible by surface parking lots.

Costar, a private data vendor, tracks 58 retail properties in the Moab area, which contained 380,000 square feet of retail, with almost all located within the City of Moab. An overwhelming majority (87.9 percent) of retail spaces were small, free-standing buildings of less than 10,000 square feet. The City also has a few shopping centers anchored by grocery and discount stores (e.g., City Market, Walker Drug Company, Shopko).

Table 32: Retail Inventory, Grand County, Q1 2018

Year	Number of Buildings		Total Square Feet	
	#	%	#	%
0 to 4,999 square feet	31	53.4%	77,138	20.3%
5,000 to 9,999 square feet	20	34.5%	137,360	36.2%
10,000 to 19,999 square feet	3	5.2%	38,858	10.2%
20,000 square feet or more	4	6.9%	126,337	33.3%
Total	58	100.0%	379,693	100.0%


Sources: Costar; BAE, 2018.

Retail Rents

There was limited inventory available for lease in the Moab Area as of Q4 2017. According to brokers interviewed for this study, rents in Downtown Moab and area strip retail centers with

strong anchors commanded the highest rents, ranging between \$2.00 and \$2.50 per square foot, modified gross. There is one active listing north of downtown near a cluster of hotels for a new, 18,000 square-foot retail development. The current asking rent is \$2.00 per square foot, triple-net, and the spaces will be divisible as small as 1,225 square feet.

Table 33: Active Retail Listings, Grand County, Q4 2017

Image	Address	Property Type	GFA (sf)	Rent/SF/Month		Lease Type	Year Built
				Low	High		
	1863 N. 191 Hwy	Retail	18,000		\$2.00	NNN	Under construction

Sources: ListSource, 2017; CoStar, 2017; BAE, 2018.

Retail Outlook

Despite the strong rents within certain areas, Grand County has seen limited retail development. Building permit data provided by Grand County and the City of Moab show that between 2010 and 2017, there were only four building permits issued for retail or restaurant projects in the Moab area, of which three were additions to existing restaurants.

Brokers indicate that the reason newer retail space has not been built is because of high land costs and limited available land. There was agreement among those interviewed that the Moab Area needs more eating and drinking establishments to accommodate the influx of tourists. As one broker noted, the significant increase in hotel development has not been accompanied by a commensurate increase in restaurants, which has resulted in long wait times at existing establishments. Unfortunately, older retail spaces do not have the infrastructure for restaurants, and with limited vacant land, retail must compete with hotels for developable land. Despite these challenges, interviews suggested pent-up demand for additional retail product, especially for businesses built around tourism.

Office

Office buildings in the Moab area are scattered, and consist mostly of small, older, single-user buildings. Costar tracks 12 office properties in the Moab area totaling 50,205 square feet. Eleven of the 12 office buildings contain less than 10,000 square feet. BAE supplemented the Costar data with additional research, drawing on the local commercial brokers with knowledge of newer office buildings.

Table 34: Office Inventory, Grand County, Q1 2018





Year	Number of Buildings		Total Square Feet	
	#	%	#	%
0 to 4,999 square feet	9	75.0%	23,496	46.8%
5,000 to 9,999 square feet	2	16.7%	14,709	29.3%
10,000 to 19,999 square feet	1	8.3%	12,000	23.9%
20,000 square feet or more	0	0.0%	0	0.0%
Total	12	100.0%	50,205	100.0%

Sources: Costar; BAE, 2018.

Office Rents

Table 35 below highlights two office buildings built after 2016. Both are Class A, two-story properties built by owner occupants who were unable to identify suitable leasable space and decided to build their own building for owner occupancy. In addition, given the limited office inventory, speculative office space was built on separate floors, which are leased to other businesses. These are shared workspaces, where freelancers or businesses rent private offices but share common facilities like conference rooms and reception areas.

Table 35: Office Inventory, Leased and Currently Listed Properties, Grand County, Q4 2017

Name/Address Stories/Year Built	Total Size (sf) Space for Lease (sf) Occupancy Rate # Available	Asking Rent (\$/sf/mo) Lease Type	Details
Newly Constructed Leased Office Properties			
Moab Realty Office Building 301 S. 400 E / Built 2017 	9,000 total sf 6,000 sf owner occupied 3,000 sf first floor co-working space with individual offices rented on a monthly basis 90% occupied	\$1.66/sf/mo Full service	Newly constructed Class A office. Second floor is owner occupied by the building owner. The first floor contains 8 offices, rented on a monthly basis. Leased area includes eight offices, conference room, and reception area.
Larson & Company Building 285 S. 400 East / Built 2016 	8,000 total sf (estimate) 4,000 sf owner occupied 4,000 sf second floor co-working space with individual offices rented on a monthly basis 2 co-working offices available 78% occupied	\$750/mo - 200 sf office \$500/mo - 140 sf office Full service	Newly constructed Class A office. First floor is owner occupied. Second floor contains 9 offices, rented on a monthly basis. Rent includes wifi, ability to use conference room and shared facilities and equipment.
Currently Listed Office Properties for Lease			
1030 Bowling Alley Lane 	550 sf available	\$1.00/sf/mo NNN	
420 Kane Creek Blvd. 	3,000 sf available	\$0.57-\$1.43/sf/mo	Office/flex space

Sources: ListSource, 2017; CoStar, 2017; Moab Ad-Viser, 2017; BAE, 2018.

The rent for the Class A office space ranges from \$1.66 to \$2.00 per square foot in the highlighted buildings. This was consistent with assessments from local brokers, who estimated rents for Class A office within Downtown Moab range from \$1.50 to \$2.00 per square foot, full service. These co-working spaces are leased to management companies, engineering firms, and lenders, many of whom cannot find Class A product elsewhere in the market. The occupancy rates were 78 percent and 90 percent for each building.

Office Outlook

Professional services, such as finance, insurance, and real estate (FIRE), along with scientific and technical services, traditionally lead demand for office space. According to employment data presented earlier in this report (see Table 13), these sectors supported 297 jobs in Grand County in 2016 (5.8 percent of total jobs). Still, FIRE and other technical jobs increased moderately since 2011 (280 jobs), which suggests that there may be potential for a limited amount of new office development.

Brokers confirmed this assessment, stating that although there is not substantial demand for new office space, some pent-up demand exists, particularly among existing businesses looking to expand, and from healthcare professionals. Building permit data show there were six newly constructed offices built between 2010 and 2017, averaging about one new building per year. The majority were built by existing businesses, echoing the finding that businesses seeking to expand often cannot find Class A space to lease and opt instead to build their own spaces.

Moreover, brokers cited the same challenge faced in the retail market, in that office developers must compete with hotels for developable land. Moab Realty and the Larson Building, (two relatively newly built office buildings) were built because the businesses already controlled the land. Brokers cited difficulty finding Class A office space for clients, many of whom are healthcare professionals or directly involved in management or sale of real estate. One broker estimated that the current market could likely absorb a limited amount of new office development (approximately 15,000 square feet).

Financial Feasibility Assessment

The feasibility assessment uses static pro forma financial feasibility models to provide a snapshot the economics of developing seven development prototypes, including office, retail, hotels, overnight rentals (townhomes and condominiums), apartments, and single-family homes. The purpose is to determine whether these products are financially feasible under current market conditions (“baseline”) and if they are, how much room there is in the development budget to contribute towards an affordable housing requirement, while still maintaining development feasibility.

Development Prototypes

The development prototypes model patterns of where projects have historically been built. BAE reviewed building department data for projects permitted within the City of Moab and Grand County between 2010 and 2017 and selected a “prototypical project” for each land use based on projects that were most frequently built. For example, hotel developments have clustered within the City of Moab in commercially zoned districts, with many averaging between 80 to 100 rooms. Also, the County has permitted multiple overnight rental projects in areas zoned Highway Commercial, so these prototypes were modeled in the feasibility analysis.

Four residential uses were analyzed: apartments, single-family homes, and townhomes and condominiums permitted for overnight rentals.⁹ Single-family homes are stand-alone, detached houses that are custom-built and often constructed one-at-a-time. Townhouses are a form of multi-unit housing built as a series of homes connected to other houses by common sidewalls. Apartments contain multiple dwelling units leased for rent. Condominiums can appear like apartments, but units are owned by individuals rather than a landlord. Condominium owners own the interior space of their unit and an undivided interest in communal areas.

This analysis considers development feasibility of product types through the lens of developers and makes assumptions about whether products are rented or sold, but does not distinguish how products are occupied by the end-user (e.g. primary residence, secondary home, vacation rental, long-term lease, etc.). In crafting an assured housing policy, the City and County can make policy decisions related to use, but this distinction is not analyzed in this report. In

⁹ It should be noted that each residential prototype may be eligible for overnight rental, with eligibility defined by the regulations in the underlying zoning district. There is a difference between prototype (e.g. condominium, apartment) and use (e.g. short-term rental or secondary residence), and this analysis does not take a position on use. Rather, the feasibility analysis models historic building permit patterns, and identifies in which zones high levels of permit activity are observed. In reviewing the building permit, there was a notable level of permit activity related to townhouses and condominiums built in Grand County’s Highway Commercial Zone, which permits overnight rentals. Therefore, this prototype was modeled for the feasibility analysis. At the same time, the apartments were modeled assuming development within the City of Moab’s R-3 zone, where overnight rentals are prohibited.

general, apartments, office, retail, and hotels were analyzed as rental-income generating properties, while the remaining products were assumed for-sale.

The residential prototypes assumed single-family homes built in Grand County's Rural-Residential Zone, townhomes and condominiums in Grand County's Highway Commercial Zone, and apartments in the City of Moab's R-3 zone. Hotel, office, and retail projects were modeled assuming the City of Moab's C-3 zone.

To develop the footprint for each prototype, BAE reviewed the zoning code for each district and identified key regulations that affect the development footprint, including lot coverage, maximum dwelling units per acre, parking ratios, setbacks, open space requirements, building heights, etc. A basic schematic design was developed for each prototype, assuming adherence to the regulations in the underlying zoning district. An important assumption was made to retain surface parking because this is significantly more cost effective than structured or underground parking. Surface parking also reflects the predominant development pattern observed in most projects.

Assumptions

BAE conducted extensive research on inputs for the financial feasibility analysis, including acquisition and construction costs, sales prices, and rents. A summary of the research informing each key assumption is described below.

- **Land Costs** – For each land use, BAE reviewed available list prices for vacant land that sold between 2015 and 2017, and interviewed brokers and developers of commercial and residential projects currently active in the Moab area.
- **Construction Costs (hard costs, soft costs, and financing costs)** – For each prototype, BAE estimated per square foot hard costs based on a review of R.S. Means, a construction cost manual commonly used in the construction industry for cost estimation purposes, with a location factor applied to adjust for costs in the Moab area. BAE also conducted ten interviews with local contractors, developers, and real estate brokers to further corroborate costs. Soft costs and financing costs were estimated based on industry standards and current interest rates.
- **Residential Sales Prices** – BAE set residential sales price assumptions based on review of prices for single-family homes, condominiums, and townhomes built after 2000. Newer homes tend to sell for a premium compared to older houses, providing a better indicator of the prices that can be achieved for new construction that would be subject to assured housing requirements.
- **Residential and Commercial Rents** – BAE used rents for comparable new residential, office, and retail developments built recently in the Moab area.
- **Hotel Rates** – Average daily rates were set based on STR's performance report for select mid- to upper-scale hotels.
- **Cap Rates** – BAE compiled national and regional cap rates and researched variations by market area through developer interviews.

Sensitivity Analysis

Real estate markets are cyclical, and the development costs, sales prices, and rents can vary across the business cycle. For each prototype, BAE conducted a sensitivity analysis to capture conditions under moderate and strong market scenarios. This allows the City and County to understand how feasibility may change when market conditions fluctuate. For the moderate market, data for land prices, construction costs, rents, and sales prices were taken from 2014, which represented a mid-point in the recovery after the recession. Inputs for the strong market were taken from 2017.

Feasibility Thresholds

The following two metrics were used to define development feasibility:

- **Return on Total Development Cost (ROC)** – This metric divides profit by total development cost, to judge overall project feasibility. It can be considered as a simple profit margin, irrespective of how a project is financed between debt and equity. In other words, ROC is useful because it allows comparison across all real estate project types (whether income-producing or for-sale units), irrespective of individual choices to leverage equity through use of debt. It is also useful because, as a simple project margin calculation, it can be easily compared to other non-leveraged non-real estate short-term investments such as one-year corporate bonds (which are generally paying 6 to 10 percent at present). Real estate development has higher risk inherent to the investment activity, so the ROC on real estate projects should be higher than these other investment options.
- **Yield on Cost (YOC)** – This metric evaluates the annual stabilized Net Operating Income (NOI) compared to total development costs for rental projects only (not relevant in for-sale unit projects because these do not generate ongoing operating investment income). For the feasibility testing, each product type was assigned a minimum YOC threshold. As applicable, a project would need to meet both ROC and YOC thresholds to be considered feasible.

Real estate products require varying returns, depending on the risk of the product in each localized market. The table below highlights the minimum YOC and ROC metrics that define feasibility, based on industry standards and interviews with six local developers. It should be noted that the return and yield metrics varied from one developer to the next, and the thresholds identified for this analysis take into account the range of responses received. It is possible for developers to accept a lower return; however, the thresholds highlighted below represent somewhat conservative estimates for determining feasibility.

Table 36: Feasibility Thresholds by Land Use

Minimum Feasibility Metrics (a)		
	Return on Cost (b)	Yield on Cost (c)
Residential		
Single-Family Homes	15%	N/A
Townhomes	20%	N/A
Condominiums	20%	N/A
Apartments	15%	5%
Commercial		
Office	15%	7%
Retail	15%	7%
Hotel	15%	8%

Notes:

(a) These feasibility metrics were established based on interviews with local developers active in the Moab market.

(b) Return on cost is profit divided by total development cost.

(c) Yield on cost is NOI divided by total development cost. This is only relevant for rent-producing properties. Projects have to meet both ROC and YOC metrics to be deemed feasible.

Source: BAE, 2018.

Relationship Between In-Lieu Fee and Inclusionary Housing Requirement

For commercial projects that returned a “Yes” answer in the baseline evaluation, BAE tested what fee would be acceptable for the project to still meet the minimum return on cost and yield on cost metrics. The in-lieu fee is represented as a cost per square foot. The fee serves to reduce the developer’s excess profit, while still enabling him or her a reasonable return to compensate for the risk inherent in development. In other words, the fees that were tested still enable developers to achieve the profit thresholds in the above table.




For residential properties feasible in the baseline scenarios, BAE ran two analyses. The first is the assessment described above, which highlights what fee level the projects can support, represented on a cost per square foot basis. A secondary analysis provides a policy option for developers to construct affordable units on-site (inclusionary housing), and evaluates what percentage set-aside developers could support, assuming homes were affordable to 80 percent AMI households. For detailed pro formas showing the in-lieu and inclusionary housing analyses, please refer to Appendix B and C, respectively.

It should be noted that the projects modeled in this analysis represent speculative developments. There is a universe of projects with outlier conditions, such as instances where owners acquired properties and have held them for a long time. These projects may be feasible due to significantly lower land costs. Built-to-suit projects with end users are another example, and are difficult to model because feasibility is based on the underlying performance of a company and its access to capital, which varies by sector and by firm. Therefore, while these projects may be feasible, these situations are not reflected in the following pro formas, which capture speculative projects introduced by developers seeking to earn a profit or return on investment.

Commercial Financial Feasibility

The table below summarizes the pro forma analysis for three commercial uses: office, retail, and hotels. Under current market conditions, only hotels can support paying a fee for workforce housing. Hotels were feasible under both moderate and strong market conditions, which correspond to average daily room rental rates of \$150 to \$175 per night. The pro forma analysis shows that hotels can support a fee of between \$5 and \$15 per square foot, depending on the strength of the market. For a prototypical 80-room hotel (60,000 square feet), this translates into a per-project supportable fee of \$300,000 to \$900,000. This is equivalent to between two to five percent of total development costs.

Table 37: Summary of Proforma Analysis for Commercial Land Uses

	Office		Retail		Hotel	
						
	Moderate	Strong	Moderate	Strong	Moderate	Strong
Assumptions for Baseline (a)						
Location, Zoning	City of Moab, C-3		City of Moab, C-3		City of Moab, C-3	
Prototypical Building Size	10,000	10,000	10,000	10,000	60,000	60,000
Site Size (sf)	15,500	15,500	20,500	20,500	48,000	48,000
Total Number of Stories (Bldg)	2	2	1	1	3	3
Parking Type	Surface	Surface	Surface	Surface	Surface	Surface
FAR	0.65	0.65	0.49	0.49	1.25	1.25
Total Dev Cost/SF (inc. land)	\$ 213	\$ 253	\$ 233	\$ 286	\$ 246	\$ 263
Rent (psf or per hotel REVPAR)	\$ 18.00	\$ 24.00	\$ 24.00	\$ 30.00	\$ 105.00	\$ 122.50
Return On Cost - Baseline	-8.4%	12.0%	11.7%	24.0%	39.9%	63.4%
Yield on Cost - Baseline	5.5%	6.2%	6.7%	6.8%	9.1%	9.8%
Baseline Feasible? (b)	No	No	No	No	Yes	Yes
New Fee/Sq. Ft. (a)	\$ -	\$ -	\$ -	\$ -	\$ 5.00	\$ 15.00
New Fee for Prototype Project					\$ 300,000	\$ 900,000
Return On Cost with Fees					36.9%	54.1%
Yield on Cost with Fees					8.9%	9.2%
Feasible with Fee? (b)					Yes	Yes
<i>New Res Fee, as % of Total Dev Costs</i>					2.0%	5.4%

Notes:

a) See Appendix for detailed assumptions and proformas for each land use type.

b) Financial feasibility evaluated on 2 metrics

ROC =

15.0%

YOC :

Retail:

Office:

Hotel:

7.0%

7.0%

8.0%

Source: BAE, 2018.

Rents for office and retail space were not high enough to offset the cost of new construction. Retail in strong markets, like those in downtown Moab, came close to achieving baseline feasibility, but fell short of meeting the minimum seven percent yield on cost established for this product type. Retail properties in prime downtown corridors with higher rents could theoretically reach baseline feasibility. However, given the limited office and retail

development in recent years in both the City of Moab and Grand County (see Table 41 on building permit trends), charging a fee for these uses may discourage projects and make designing financially feasible projects even more difficult. BAE does not recommend charging a fee on retail or office development.





Residential Financial Feasibility

The table below summarizes the proforma analysis for the four residential uses. The development programs assumed single-family homes built in Grand County's Rural-Residential Zone, townhomes and condominiums in Grand County's Highway Commercial Zone, and apartments in the City of Moab's R-3 zone.

Of the four residential prototypes, here is a summary of the findings:

- **Townhomes and condominiums were the strongest residential product.** Townhouses could support paying an in-lieu fee between \$4 to \$8 per square foot or an inclusionary requirement between six to eight percent in the moderate and strong markets.
- **Condominiums could not support paying a fee in the moderate market but were feasible in the strong market,** where an in-lieu fee of \$5 was acceptable. This was equivalent to an inclusionary requirement of 8 percent.
- **Apartments were not feasible under the baseline in either the moderate or strong market conditions,** largely because rents were not high enough to offset the cost of land acquisition and new development. This suggests that despite the large and growing demand for rental housing, the market will likely under-deliver this product type, unless incentives are provided to entice development. Appendix D provides a supplemental analysis that shows rental apartments could be feasible if the City or County allowed greater density for apartment projects.
- **Single-family homes could support paying a small fee.** BAE tested the impact of charging fees ranging from \$1 to \$5 per square foot. Assuming a 2,250-square foot home, fees between \$1 to \$5 per square foot translated into 0.6 percent to 2.9 percent of total project costs.
- **In summary, real estate products that were feasible under baseline conditions and can support paying fees were those reliant on "outside" money,** either related to tourism (e.g., hotels, overnight rental townhomes and condominiums) or from retirees and second-homeowners from urban parts of Utah or nearby states who can afford to pay more for housing (e.g., newly built single-family homes).

Table 38: Summary of Proforma Analysis for Residential Land Uses

	Apartments		Condominiums Overnight Rentals		Townhomes Overnight Rentals		Single-Family Detached	
								
	Moderate	Strong	Moderate	Strong	Moderate	Strong	Moderate	Strong
Assumptions for Baseline								
Location, Zoning	City of Moab, R-4		Grand County, HC		Grand County, HC		Grand County, RR	
Site Size (sf)	80,000	80,000	43,560	43,560	240,000	240,000	43,560	43,560
Total Number of Units	40	40	25	25	48	48	1	1
Average Unit Size	1,000	1,000	1,350	1,350	1,650	1,650	2,250	3,000
Number of Residential Floors	1	1	3	3	2	2	1	1
FAR	0.6	0.6	0.9	0.9	0.3	0.3	0.1	0.1
Parking Type	Surface		Surface		In Unit		In Unit	
Land Costs per Acre	\$ 76,230	\$ 119,790	\$ 82,500	\$ 119,790	\$ 82,764	\$ 130,680	\$ 80,000	\$ 120,000
Total Dev Cost/Unit (inc. land)	\$ 171,403	\$ 173,504	\$ 231,757	\$ 253,308	\$ 253,129	\$ 311,202	\$ 388,761	\$ 690,780
Total Dev Cost/SF (inc. land)	\$ 149	\$ 151	\$ 149	\$ 163	\$ 153	\$ 189	\$ 173	\$ 230
Sale Price/Sq. Ft.	N/A	N/A	\$ 185	\$ 245	\$ 200	\$ 250	\$ 200	\$ 267
Sale Price or Rent Per Unit	\$ 1,200	\$ 1,350	\$ 249,750	\$ 330,750	\$ 330,000	\$ 412,500	\$ 450,000	\$ 800,000
Return On Cost - Baseline	-13.2%	14.0%	2.4%	24.0%	23.9%	25.9%	15.8%	15.8%
Yield on Cost - Baseline	4.8%	5.7%	NA	NA	NA	NA	NA	NA
Baseline Feasible? (a)	No	No	No	Yes	Yes	Yes	Yes	Yes
New Fee/Sq. Ft. (a)	\$ -	\$ -	\$ -	\$ 5.00	\$ 4.00	\$ 8.00	\$ 1.00	\$ 1.50
New Fee per Unit	\$ -	\$ -	\$ -	\$ 6,750	\$ 6,600	\$ 13,200	\$ 2,250	\$ 4,500
Return On Cost with Fees				20.1%	20.5%	20.5%	15.1%	15.1%
Yield on Cost with Fees				N/A	N/A	N/A	N/A	N/A
Feasible with Fee? (a)				Yes	Yes	Yes	Yes	Yes
<i>New Res Fee, as % of Total Dev Costs</i>				3.0%	2.5%	4.1%	0.6%	0.6%

Note:

a) Feasibility is measured as follows:

Project must achieve at least: 20.0% Return on Cost for Condominiums and Townhomes
15.0% Return on Cost for Single-Family Homes
Project must achieve at least: 5.0% Yield on Cost for Apartments

Source: BAE, 2018.

Overnight Rental Townhouse Feasibility

Townhouses eligible for overnight rentals were feasible in both the moderate and strong market scenarios, generating returns between 23 and 25 percent in the baseline scenarios. Strong demand for overnight rentals has led to rising sales prices in recent years, with demand driven by out-of-town households seeking second homes that can also be rented for investment income. According to brokers interviewed, the price for a prototypical three-bedroom townhouse has risen from approximately \$200 per square foot in 2014 (mid \$300,000s) to \$250 per square foot in 2017, with new townhouses currently selling in the low \$400,000 range.

Brokers estimate that 80 percent of overnight rentals are sold to households outside of the Moab area as second homes. This product is attractive because they can be rented when not in use, generating revenue to pay the mortgage. Purchasers have been willing to pay a premium for this product, especially since overnight rentals are prohibited by zoning in other parts of the County. The pro forma analysis shows that townhouses eligible for overnight rentals can afford to pay between \$4 and \$8 per square foot in assured housing fees and still earn a 20 percent return on cost, which was deemed necessary for this product type.

Rather than charging a fee on new development, the City and County are also considering an inclusionary housing policy whereby developers would be required to build workforce units on-site. A separate pro forma analysis was completed to “translate” the in-lieu fee into an inclusionary requirement, assuming homes were affordable to households earning up to 80% of Area Median Income, based on a family of four. As shown in the pro forma analysis in Appendix C, a six percent inclusionary housing requirement approximates the impact of a \$4 to \$8 residential assured housing fee.

Overnight Rental Condominium Feasibility

Condominiums eligible for overnight rentals were feasible in the strong market scenario, but not in the moderate market. Although condominiums have a smaller footprint than townhomes, feasibility is largely driven by price. In 2014, two-bedroom condominiums were selling for between \$200,000 and \$250,000. At this price, the return on cost was six percent, below the 20 percent needed for feasibility for this product type. The price for a two-bedroom condominium has risen since 2014, to \$325,000 in 2017. At this level, condominiums were feasible and could afford to pay up to \$7 per square foot in assured housing fees. This equates to an eight percent inclusionary housing requirement in the strong market scenario.¹⁰

Single-Family Home Feasibility

Single-family detached homes are a unique product because they can be built speculatively by developers or by households for personal use. There are two prototypes usually constructed: “starter homes” targeted to first-time homebuyers with lower grade finishes, and custom homes with higher-end finishes, selling at higher prices.

The pro forma analysis models two different types of single-family construction. The first is a speculatively-built house that a contractor/developer builds and sells through a real estate broker, who charges a commission on the sale. The second is a custom home built for an end user, where the customer self-finances the construction, and there is no broker intermediary. Both assume development within Grand County’s Rural Residential Zone, which has a minimum one-acre lot size. Unlike townhouses, which benefit from economies of scale during construction, the range of costs can vary significantly for single-family homes depending on the level of custom finishes. Contractors quoted costs between \$135 and \$400 per square foot,

¹⁰ Condominiums can support a higher inclusionary requirement than the townhomes because the spread between the market sales price and affordable sales price is significantly smaller than for townhomes.

depending on the level of finishes and size of the home. Based on current market prices, a new single-family home could cost between \$400,000 and \$700,000 to develop.

The pro forma analysis suggests that the profit margins are slimmer for speculatively built single-family homes sold to third parties by real estate brokers, because the profit is distributed between the builder and broker, reducing the builder’s margin. However, when a contractor builds a house for a specific end-user, there is no broker intermediary; the builder keeps the profit, and this model leads to returns on cost exceeding the minimum threshold of 15 percent.

As shown in Appendix B-7, a contractor can build a 2,250 square foot home for \$390,000, all-in including land acquisition. If a contractor charges his customer \$450,000 for the home, this is equivalent to a 15.8 percent return on cost. This profit margin holds for a more expensive, custom-built home as well. Selling the same home via a real estate broker would result in a somewhat lower return on cost of 12.0 percent. Still, some builders who were interviewed were willing to accept a 12.0 percent ROC.

The building permit data show a substantial level of single-family, new construction activity. The summary table below highlights that between 2010 and November 2017, there were 449 new construction permits issued for single family homes in the City of Moab and Grand County, which accounted for 52.4 percent of all housing units permitted.

Table 39: Single Family Homes Permitted, Moab and Grand County, 2010-2017

Residential Building Permits Issued (2010 - 2017) (a)				
	City of Moab	Grand County	Total Units	% of Total
Single-Family Homes	165	182	347	40.5%
Single-Family Nightly Rentals	4	98	102	11.9%
Townhomes	66	8	74	8.6%
Condominiums	15	160	175	20.4%
Apartments	72	87	159	18.6%
Total	322	535	857	100.0%

Notes:

(a) Does not include accessory dwelling units, affordable housing units, additions, or manufactured homes.

(b) Includes new single-family homes identified as use for short-term rentals.

Sources: Grand County, 2017; City of Moab, 2017; BAE, 2018.

The robust activity in single-family home construction suggests that this product may be able to support a nominal fee. Another way to analyze feasibility is to consider the impact of potential fees on total development costs. The table below highlights the impact of charging assured housing fees between \$1 and \$5 per square foot, as a percent of total development costs. Assuming a 2,250-square foot home, this translates into costs equivalent to 0.6 to 2.9 percent of total project costs.

Table 40: Single-Family Impact Fee Matrix as Percent of Total Development Cost

	Total Project Cost (\$/SF)	Average Size (SF)	Fee Per SF, as % of Total Costs				
			\$ 1.00	\$ 2.00	\$ 3.00	\$ 4.00	\$ 5.00
Starter Home	\$ 179	2,250	0.6%	1.2%	1.7%	2.3%	2.9%
Custom Home	\$ 238	3,000	0.4%	0.9%	1.3%	1.7%	2.2%

Source: BAE, 2018.

Although charging a fee on single-family homes increases the cost to build, if the fee is set at a reasonable level, this can be akin to rising costs related to other factors, such as an increase in the price for lumber or rising labor costs. Over time, projects can “absorb” these costs, so long as they do not create an undue burden on development and render projects infeasible. If fees are set at a supportable level, it is possible to achieve the dual goals of generating some revenue for workforce housing, without completely dampening the market for single-family home construction.

Apartments

Apartment rental projects are not feasible in the baseline scenario, in either the moderate or strong market conditions. Like condominiums, apartments in the moderate market (with average asking rents of \$1,200 per unit) do not generate sufficient revenue or net operating income to achieve a positive return on cost. In the strong market scenario, with average rents at \$1,350, projects are close to achieving baseline feasibility, but fall short of the minimum 15 percent return on cost established for this product type, although the yield on cost meets the minimum five percent threshold.

The pro forma analysis suggests this product type would not be able to support any assured housing fees. Moreover, given the shortage of new construction activity for apartments (see Building Permit analysis in the following chapter), and the large demand for workforce housing, it is inadvisable to charge a new fee on residential product types targeted to workforce households, such as apartments intended for long-term rental, which the City and County aim to encourage.

Revenue Estimate

This chapter steps through the analysis of historic building permit trends for residential and commercial construction within the City of Moab and Grand County, which forms the basis for the revenue estimate related to potential residential and commercial assured housing fees. In addition, this chapter explores how to structure an inclusionary housing policy, pursuant to which affordable housing units would be set-aside on-site for households earning up to 80 percent of Area Median Income.

Step 1: Compile Building Permit Data by Use

Building department data was provided for residential and commercial projects permitted in the City of Moab and Grand County between 2010 and November 2017.¹¹ This period represents an economic span encompassing relatively slow construction (as affected by the Great Recession), followed by a recovery and a "boom" period in recent years. This span across low, moderate, and high construction levels provides a representative time frame across an entire business cycle. However, it should be noted that this average may under- or overestimate actual construction in future years, depending on the point in the economic cycle.

Table 41: Estimated Annual Average Residential Construction, City of Moab and Grand County, 2010-2017

	<u>City of Moab</u>	<u>Grand County</u>	<u>Total</u>	<u>Annual Average Units</u>
<u>Residential Units (a)</u>				
Single - family Detached	165	182	347	43
Townhomes / SFR Nightly Rentals	70	106	176	22
Condominiums	15	160	175	22
Apartments	72	87	159	20
Total Units (2010-2017)	322	535	857	1,714
<u>Commercial Projects (a)</u>				
Retail	-	-	-	-
Office	4	3	7	14
Hotel	12	5	17	34
Total Projects (2010-2017)	16	8	24	48

Notes:

(a) This analysis captures new construction permitted in the City of Moab and Grand County between 2010 and November 2017.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

¹¹ Adjustments were made to the original data set to account for inconsistencies between project descriptions and other fields. The County also provided additional clarification for projects permitted for short-term rentals.

Step 2: Estimate Annual Average Net New Construction

For this step, the total new square footage permitted between 2010 and 2017 was divided by eight, to estimate annual average new construction. Between 2010 and 2017, the City of Moab and Grand County each added over 100,000 square feet of residential and commercial development, with Grand County slightly outpacing the City of Moab. While the City's development was split fairly evenly between residential and commercial projects, development in Grand County was skewed mostly towards residential projects, which accounted for 83.5 percent of total square feet permitted.

Table 42: Total Square Feet of New Construction, Residential and Commercial Projects, City of Moab and Grand County, 2010-2017

	Total Square Feet		Annual Average SF	
	City of Moab	Grand County	City of Moab	Grand County
Residential Projects (a)				
Single - family Detached	31,898	44,796	3,987	5,599
Townhomes / SFR Nightly Rentals	16,191	20,723	2,024	2,590
Condominiums	1,032	30,021	129	3,753
Apartments	2,567	2,325	321	291
Total Residential	51,687	97,865	6,461	12,233
Commercial Projects				
Retail	-	-	-	-
Office (b)	4,000	3,000	500	375
Hotel	46,314	16,334	5,789	2,042
Total Commercial	50,314	19,334	6,289	2,417
Total by Jurisdiction	102,001	117,199	12,750	14,650
% Residential	50.7%	83.5%		
% Commercial	49.3%	16.5%		

Notes:

(a) This analysis captures new construction permitted in the City of Moab and Grand County between 2010 and November 2017.

(b) The building permit data did not contain square footage data for new office projects. Each office development was estimated at 8,000 square feet based on new buildings profiled in this study.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

Step 3: Convert Annual Average Square Feet to Revenue

The supportable fees shown in the pro forma analyses were applied to the average annual residential and commercial development area to arrive at an estimate for annual revenue. Given the variation in feasible fees between moderate and strong markets, the proposed fees were purposely set lower than the maximum potentially feasible under strong market conditions. In many cases, the selected fees represented a midpoint between the moderate and strong market scenarios. A nominal fee, representing 0.5 percent of total development costs, was applied to single-family homes. As shown on the table on the following page, a \$1 fee was applied to single-family home development, \$3 for condominiums, \$6 for townhomes, and \$8 for hotels.

Application of these fees to the historic average annual square feet generates the revenue estimates shown below, in Table 42. Based on the stated assumptions, charging fees for residential uses could generate approximately \$900,000 annually for the City and County. Revenue from hotel development would produce average annual revenue of \$500,000. The City of Moab is would collect an average of \$500,000 annually, driven mostly by fees collected from hotel development. Grand County would collect an average of \$400,000 annually, with a somewhat more even split between revenue from residential and commercial projects.

Table 43: Annual Estimated Fee Revenue from Residential and Commercial Construction

	<u>Proposed Fee</u>	<u>City of Moab</u>	<u>Grand County</u>	<u>Est. Annual Revenue</u>
Residential Projects				
Single - family Detached	\$ 1.00	\$ 31,898	\$ 44,796	76,694
Townhomes / SFR Nightly Rentals	\$ 6.00	\$ 97,144	\$ 124,336	221,480
Condominiums	\$ 3.00	\$ 3,095	\$ 90,063	93,158
Apartments	\$ -	\$ -	\$ -	\$ -
Annual Revenue, Residential Projects (a)		\$ 132,137	\$ 259,195	\$ 391,332
Commercial Projects				
Retail	\$ -	\$ -	\$ -	\$ -
Office (b)	\$ -	\$ -	\$ -	\$ -
Hotel	\$ 8.00	\$ 370,514	\$ 130,672	\$ 501,186
Annual Revenue, Commercial Projects (a)		\$ 370,514	\$ 130,672	\$ 501,186
Annual Revenue by Place		\$ 502,651	\$ 389,867	\$ 892,518

Notes:

(a) The annual revenue is based the average annual square feet permitted between 2010 and 2017 in the City of Moab and Grand County. Revenue will vary year to year based on actual development activity.

(b) The building permit data did not contain square footage data was for newly constructed office projects. Each office project was estimated at 8,000 square feet based on the recently built office buildings profiled in this study.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

Sensitivity Analysis for Business Cycle

The following tables model revenue in a weak market (2010) and a strong market (2016) to highlight changes in potential revenue during the peaks and troughs of an economic cycle.

While the above estimate shows an annualized income of approximately \$900,000, the following tables show the potential for substantial fluctuations depending on the market cycle. Assuming a weak market mirrors the development activity from 2010, the City and County would generate only \$100,000 in fees during an economic downturn. In contrast, if the economy is strong, with development activity at 2016 levels, the City and County could collect up to \$1.7 million during a peak year.

Table 44: Estimated Fee Revenue, Weak Market, 2010

	<u>Proposed Fee</u>	<u>City of Moab</u>	<u>Grand County</u>	<u>Est. Annual Revenue</u>
<u>Residential Projects</u>				
Single - family Detached	\$ 1.00	\$ 1,250	\$ 17,835	19,085
Townhomes / SFR Nightly Rentals	\$ 6.00	\$ -	\$ 84,702	84,702
Condominiums	\$ 3.00	\$ -	\$ -	-
Apartments	\$ -	\$ -	\$ -	\$ -
Annual Revenue, Residential Projects (a)		\$ 1,250	\$ 102,537	\$ 103,787
<u>Commercial Projects</u>				
Retail	\$ -	\$ -	\$ -	\$ -
Office	\$ -	\$ -	\$ -	\$ -
Hotel	\$ 8.00	\$ -	\$ -	\$ -
Annual Revenue, Commercial Projects (a)		\$ -	\$ -	\$ -
Annual Revenue by Place		\$ 1,250	\$ 102,537	\$ 103,787

Note:

(a) The annual revenue is based the annual square feet permitted in 2010.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

Table 45: Estimated Fee Revenue, Strong Market, 2016

	<u>Proposed Fee</u>	<u>City of Moab</u>	<u>Grand County</u>	<u>Est. Annual Revenue</u>
<u>Residential Projects</u>				
Single - family Detached	\$ 1.00	\$ 51,358	\$ 63,926	115,284
Townhomes / SFR Nightly Rentals	\$ 6.00	\$ 165,978	\$ 232,656	398,634
Condominiums	\$ 3.00	\$ -	\$ 237,378	237,378
Apartments	\$ -	\$ -	\$ -	\$ -
Annual Revenue, Residential Projects (a)		\$ 217,336	\$ 533,960	\$ 751,296
<u>Commercial Projects</u>				
Retail	\$ -	\$ -	\$ -	\$ -
Office	\$ -	\$ -	\$ -	\$ -
Hotel	\$ 8.00	\$ 407,368	\$ 532,560	\$ 939,928
Annual Revenue, Commercial Projects (a)		\$ 407,368	\$ 532,560	\$ 939,928
Annual Revenue by Place		\$ 624,704	\$ 1,066,520	\$ 1,691,224

Note:

(a) The annual revenue is based the annual square feet permitted in 2016.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

Step 4: Compare Inclusionary Policy to Fee Structure

The City and County are also considering an inclusionary housing policy, whereby units could be set-aside for affordable housing in lieu of charging fees on new development. This option would only be available for multifamily projects, such as townhomes, condominiums, single-family subdivisions, and other development projects (e.g., mixed-use projects) that include sufficient market rate residential units to trigger the need to provide at least one whole inclusionary housing unit. Otherwise, it is assumed that in-lieu fees would be paid to satisfy assured housing obligations.

The pro forma analysis shows that townhomes and condominium projects could accommodate a six to eight percent inclusionary housing requirement and remain feasible. To craft a policy with a six to eight percent set-aside requires establishing a minimum project threshold. Six percent is equivalent to one unit in a 16-unit development. Eight percent is equivalent to one unit in a 12-unit project.

BAE reviewed building permit data to isolate projects with a minimum project size of at least 12 units. Between 2010 and 2017, only 13 projects met this criterion, spanning a variety of projects that included single-family PUDs, townhomes, and condominiums. In total, there were 317 housing units produced in these larger-scale projects. Applying a six percent inclusionary requirement would have created 23 units of affordable housing, or approximately three affordable units per year.

Table 46: Annual Estimated Inclusionary Units and Revenue from Residential and Commercial Construction

Projects with > 12 Units	City of Moab		
	<i># of Projects</i>	<i>Total Units</i>	<i>Affordable Units (b)</i>
Single-Family PUDs	3	41	3
Townhomes	1	44	3
Condominiums	-	-	-
Subtotal	4	85	6

Projects with > 12 Units	Grand County		
	<i># of Projects</i>	<i>Total Units</i>	<i>Affordable Units (b)</i>
Single-Family PUDs	3	76	6
Townhomes	-	-	-
Condominiums	6	156	11
Subtotal	9	232	17
Total	13	317	23

Note:

(a) This table shows the number of multi-family projects permitted between 2010 and November 2017 with a minimum project size of at least 12 units. Because the pro forma analysis showed that projects could support an inclusionary housing requirement of between six to eight percent, this set a minimum project threshold of twelve units ($100/8 = 12.5$).

(b) This calculates the number of affordable units that would have been required for permits issued between 2010 and November 2017.

Sources: City of Moab, 2017; Grand County, 2017; BAE, 2018.

This low production rate highlights one of the limitations of implementing a “pure” inclusionary policy in Moab. A six to eight percent affordable housing set-aside would only work for projects with at least 12 units. While there are some large-scale projects in the Moab Area, the majority of projects built are smaller in size. For example, it is difficult to apply a six percent inclusionary requirement to a five-unit project, ($0.06 \times 5 = 0.3$) because fractional units cannot be built. And requiring for one unit in a five-unit building is essentially equivalent to a 20 percent affordable set-aside, which results in a negative return on cost and renders the project infeasible. Unlike a fee, which can be applied to all projects regardless of size, an inclusionary

policy works only for projects that meet a minimum unit threshold, which varies depending on the feasibility test.

However, it is possible to combine an in-lieu fee option with an inclusionary policy. The City and County can structure a program whereby projects are charged a fee based on total square footage. For residential developments with more than twelve units, developers can elect to either pay the fee or build the inclusionary units on-site. Other options can be made available, such as dedicating land for affordable housing, so long as the appraised value of the land is equivalent to or higher than the required fee. Some land dedication activity could benefit workforce housing organizations that work in the area, as they report scarcity of buildable sites as a primary constraint to affordable housing production.

This would allow the City or County to charge an in-lieu fee for projects smaller than 12 units (assuming the six to eight percent inclusionary requirement) and for obligations for a fraction of an inclusionary unit for larger projects. Combining in-lieu fee provisions with inclusionary provisions can also help avoid the unintended consequence of developers choosing to undertake projects just below the threshold for inclusionary unit requirements, to avoid having to incur the expense of providing workforce units.

Considerations for Implementation

In addition to the combined fee and inclusionary structure proposed above, this section suggests other considerations related to implementation.

Exemptions for Targeted Project Types

This study assumed that certain categories of land use would be exempted from fees, including apartments, retail, and office, which were not feasible under current market conditions. In addition, other land uses, such as those built and owned primarily by non-profit, or other public-purpose organizations, could also be exempted, when the use of the buildings provides important public benefits that the City and County wish to encourage. These could include institutional uses such as churches, public schools, private schools, and public/private higher educational uses), as well as child care facilities and other social services, and public agency owned buildings (including city, state, and federal).

Many jurisdictions exempt 100 percent affordable housing projects inclusionary requirements and/or in-lieu fees. Some cities also exempt buildings smaller than a certain size threshold. For example, some communities exempt smaller projects (e.g., residential projects fewer than five units, or commercial projects less than 5,000 square feet) from inclusionary housing requirements on the theory that smaller projects lack economies of scale to be able to absorb additional costs to comply. A few jurisdictions earmark other exemptions to achieve policy goals to encourage the development of certain project types (e.g., apartments) that help to increase the supply of market rate, but relatively affordable housing types. If the City and/or County adopt assured housing policies, there will be an opportunity to consider structuring requirements to create incentives to produce certain types of development and/or to make

other types less attractive, depending on the overall policy objectives. For example, if the objective is to encourage production of market rate housing types that are relatively affordable, such as rental apartments, or modest single-family starter homes, assured housing requirements could be reduced or removed for projects that provide these types of units.

Waivers or Reductions of Requirements

Some jurisdictions waive or reduce inclusionary requirements or fees in exchange for other mechanisms to mitigate for affordable housing impacts, including building affordable units on-site, partnering with developers to build affordable units off-site, and/or allowing land donation at an equivalent value. Because the Moab Area is land constrained, and affordable housing developers indicate they face difficulty in securing sites to build their projects, the option to dedicate land instead of paying a fee, should be further explored.

Most jurisdictions also allow for a waiver request if: a) economic hardship can be demonstrated; or b) fewer affordable housing job impacts can be demonstrated, which is related to the nexus analysis in Phase 2. It is recommended that these options be allowed as part of an assured housing program, with specific standards described for how to demonstrate hardship or qualify for a reduction, to minimize administrative burden on staff.

Timing of Fee Calculation and Payment

Many jurisdictions charge in-lieu fees prior to or upon issuance of the building permit. Some cities split up the payments, allowing for partial payment later (at Certificate of Occupancy), while some allow for payments to be spread even farther apart over time, allowing for essentially a payment plan.

Based on best practices from other communities, it is recommended that the payment fee be split, at most, into two equal installments – at the time of building permit issuance and at the time of Certificate of Occupancy. This recommendation is made due to the overarching immediate need to create a permanent source of funding for affordable housing, as well as potential collection challenges if payments were spread beyond the issuance of a Certificate of Occupancy.

Phase-In of Requirements

A key component in adopting a fee or inclusionary policy will be the phase-in schedule. Most notably, many jurisdictions when first adopting a policy like this, set a future date for its implementation, and define how to treat current “pipeline” projects that would have been started without knowledge of this fee. A phase-in structure also helps to mitigate a “shock” to the economic system for some projects with smaller project margins. A phase-in allows developers to adjust their bidding development site purchases with knowledge of how the applicable requirements affect the residual land value that they can afford to pay for a site and achieve financial feasibility.

For these reasons, one recommendation is to consider a phase-in schedule for initial implementation. The fee schedule or inclusionary requirement could be phased in over a two-year period, for example, where the requirement is set at half of the full fee for the first year of applicability, rising to the full 100 percent on projects seeking building permits twelve months later.

Units Versus Fees

The City and County should also be aware that the structure of the requirements themselves can also create incentives for builders subject to the requirements. For example, jurisdictions often set in-lieu fees at levels that are far below the cost to build onsite affordable units, creating a strong incentive for project sponsors to pay fees rather than building affordable units. Additionally, when inclusionary requirements or in-lieu fees are fixed on a “per unit” basis, rather than varying by the size of the market rate units, this creates an incentive for builders to maximize the size of their market rate units, so that they can spread the cost of compliance over a greater quantity of saleable square footage, making market rate housing units less attainable to middle-income households. This report recommends tying the fee to square feet instead of units.

Policy Revisions

During economic downturns, some jurisdictions have either created special deferral programs or lowered fees across the board. Some places have built-in mechanisms that require the fees or inclusionary policy to be re-analyzed at defined time intervals. These approaches demonstrate that the requirements can be customized to adapt to downturns in the economic cycle.

Summary

Although charging a fee increases the cost to build (an inclusionary policy reduces revenue), if the fee or inclusionary requirement is set at a reasonable level, it is possible to achieve the dual goals of generating revenue to support development of affordable units, without completely dampening the market for new construction. The fee levels analyzed for this report would still enable developers to achieve their minimum return on cost and yield on cost thresholds needed to undertake projects.

Appendix A

Appendix 47: STR Selected Hotels

<u>Name of Establishment</u>	<u>City & State</u>	<u>Zip Code</u>	<u>Class</u>	<u>Open Date</u>	<u>Rooms</u>
Quality Inn Moab Slickrock Area	Moab, UT	84532	Midscale Class	Apr 1997	61
La Quinta Inns & Suites Moab	Moab, UT	84532	Midscale Class	May 2001	100
Quality Suites Moab	Moab, UT	84532	Midscale Class	Apr 1992	75
Holiday Inn Express & Suites Moab	Moab, UT	84532	Upper Midscale Class	Jun 2003	119
Comfort Suites Moab	Moab, UT	84532	Upper Midscale Class	Jun 2014	94
Fairfield Inn & Suites Moab	Moab, UT	84532	Upper Midscale Class	Oct 2014	89
Hampton Inn Moab	Moab, UT	84532	Upper Midscale Class	May 2009	79
Best Western Plus Greenwell Inn	Moab, UT	84532	Upper Midscale Class	Jun 1969	75
Best Western Plus Canyonlands Inn	Moab, UT	84532	Upper Midscale Class	Mar 1992	80
Aarchway Inn	Moab, UT	84532	Upper Upscale Class	Jun 1997	97
Homewood Suites Moab	Moab, UT	84532	Upscale Class	Sep 2016	96
Total				11	965

Sources: STR, 2017; BAE, 2018.

Appendix B: Proforma Analysis

Appendix 48: Office Development Pro Forma

Assumes two-story office development within the City of Moab in C-3 zone

Development Assumptions	Moderate Market Baseline	Strong Market Baseline	Development Costs	Moderate Market Baseline	Strong Market Baseline
Gross Building Area (sf)	10,000	10,000	Land	\$ 310,000	\$ 697,500
Efficiency Ratio	100%	100%	Land per Site sf	\$ 20.00	\$ 45.00
Net Leaseable Area	10,000	10,000	Construction Costs		
Parking Ratio (spaces per square foot)	3 per 1,000	3 per 1,000	Site Work	\$ 77,500	\$ 77,500
Number of Parking Spaces	30	30	Hard Costs	\$ 1,100,000	\$ 1,100,000
Total Surface Spaces	30	30	Hard Costs - Parking	\$ 105,000	\$ 105,000
Total Structured Parking Spaces	-	-	Tenant Improvements	\$ 150,000	\$ 150,000
Total Parking Area (sf)	350	10,500	Soft Costs	\$ 286,500	\$ 286,500
Total Number of Stories (Bldg)	2	2	Water Sewer Impact Fees	\$ 5,909	\$ 5,909
Total Number of Stories (Parking)	1	1	Proposed Commercial Linkage Fee	\$ -	\$ -
Built FAR (ratio to 1.0)	0.65	0.65	Subtotal Costs Before Financing	\$ 1,724,909	\$ 1,724,909
Site Size (sf)	15,500	15,500	Financing Costs		
Site Size (acres)	0.36	0.36	Points	\$ 18,112	\$ 18,112
Rents			Construction Period Interest	\$ 76,920	\$ 91,567
Asking Rent/SF/Year (a)	\$ 18.00	\$ 24.00	Subtotal Financing Costs	\$ 95,031	\$ 109,679
Development Costs			Total Development Costs	\$ 2,129,940	\$ 2,532,088
Site Work	\$ 5	\$ 5	Total Development Cost per SF (excl land)	\$ 182	\$ 183
Hard Costs (b)	\$ 110	\$ 110	Total Development Cost per SF (inc. land)	\$ 213	\$ 253
Tenant Improvements (c)	\$ 15	\$ 15	Commercial Linkage Fee as % of TDC	0.0%	0.0%
Parking Costs (per space surface)	\$ 3,500	\$ 3,500	Valuation		
Parking Costs (per space structured)	\$ 20,000	\$ 20,000	Operations		
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	Gross Income	\$ 180,000	\$ 240,000
Impact Fees			Less: Vacancy	\$ (18,000)	\$ (24,000)
Sewer Impact Fee (d)	\$ 381	\$ 381	Less: Op Expenses	\$ (45,000)	\$ (60,000)
Water Impact Fee (d)	\$ 5,528	\$ 5,528	Net Operating Income (NOI)	\$ 117,000	\$ 156,000
Proposed Commercial Fee per sq. ft.	\$ -	\$ -	Value at Stabilization	\$ 1,950,000	\$ 2,836,364
Financing Costs			Yield on Cost		
Loan to Cost Ratio	70.0%	70.0%	Value at Stabilization	\$ 1,950,000	\$ 2,836,364
Interest Rate	6.0%	6.0%	Less: Total Development Costs	\$ 2,129,940	\$ 2,532,088
Loan Fees	1.5%	1.5%	Profit	\$ (179,940)	\$ 304,276
Construction Period (months)	18	18	Return on Cost	-8.4%	12.0%
Average Outstanding Balance	60.0%	60.0%	Yield on Cost (NOI/TDC)	5.5%	6.2%
Operations			Project Feasible? (f)	No	No
Vacancy	10.0%	10.0%			
Op Ex (% of Gross Rent) (a)	25%	25%			
Cap Rate (e)	6.0%	5.5%			

Notes:

- Assumes full-service lease
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Estimates for tenant improvements were provided by developers active in the Moab Area building this product type.
- Based on Sewer Impact Fees of \$ 381 per project and Water Impact Fee with 1.5" meter \$ 5,528 per project
- Cap rates were estimated based on interviews with brokers for recently sold properties.
- Feasibility assumes a Return on Cost of 15% and a minimum Yield on Cost of 7% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 49: Retail Development Pro Forma

Assumes single-story retail development within the City of Moab in C-3 zone

Development Assumptions	Moderate Market Baseline	Strong Market Baseline
Gross Building Area (sf)	10,000	10,000
Efficiency Ratio	100%	100%
Net Leaseable Area	10,000	10,000
Parking Ratio (spaces per square foot)	3 per 1,000	3 per 1,000
Number of Parking Spaces	30	30
Total Surface Spaces	30	30
Total Structured Parking Spaces	-	-
Total Parking Area (sf)	350	10,500
Total Number of Stories (Bldg)	1	1
Total Number of Stories (Parking)	1	1
Built FAR (ratio to 1.0)	0.49	0.49
Site Size (sf)	20,500	20,500
Site Size (acres)	0.47	0.47
Rents		
Asking Rent/SF/Year (a)	\$ 24.00	\$ 30.00
Development Costs		
Site Work	\$ 5	\$ 5
Hard Costs (b)	\$ 110	\$ 110
Tenant Improvements (c)	\$ 20	\$ 20
Parking Costs (per space surface)	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)	20.0%	20.0%
Impact Fees		
Sewer Impact Fee (d)	\$ 235	\$ 235
Water Impact Fee (d)	\$ 5,528	\$ 5,528
Proposed Commercial Fee per sq. ft.	\$ -	\$ -
Financing Costs		
Loan to Cost Ratio	70.0%	70.0%
Interest Rate	6.0%	6.0%
Loan Fees	1.5%	1.5%
Construction Period (months)	18	18
Average Outstanding Balance	60.0%	60.0%
Operations		
Vacancy	10.0%	10.0%
Op Ex (% of Gross Rent) (a)	25%	25%
Cap Rate (e)	6.0%	5.5%

Development Costs	Moderate Market Baseline	Strong Market Baseline
Land	\$ 410,000	\$ 922,500
Land per Site sf	\$ 20.00	\$ 45.00
Construction Costs		
Site Work	\$ 102,500	\$ 102,500
Hard Costs	\$ 1,100,000	\$ 1,100,000
Hard Costs - Parking	\$ 105,000	\$ 105,000
Tenant Improvements	\$ 200,000	\$ 200,000
Soft Costs	\$ 301,500	\$ 301,500
Water Sewer Impact Fees	\$ 5,763	\$ 5,763
Commercial Linkage Fee	\$ -	\$ -
Subtotal Costs Before Financing	\$ 1,814,763	\$ 1,814,763
Financing Costs		
Points	\$ 19,055	\$ 19,055
Construction Period Interest	\$ 84,096	\$ 103,469
Subtotal Financing Costs	\$ 103,151	\$ 122,524
Total Development Costs	\$ 2,327,914	\$ 2,859,787
Total Development Cost per SF (excl land)	\$ 192	\$ 194
Total Development Cost per SF (inc. land)	\$ 233	\$ 286
Commercial Linkage Fee as % of TDC	0.0%	0.0%
Valuation		
Operations		
Gross Income	\$ 240,000	\$ 300,000
Less: Vacancy	\$ (24,000)	\$ (30,000)
Less: Op Expenses	\$ (60,000)	\$ (75,000)
Net Operating Income (NOI)	\$ 156,000	\$ 195,000
Value at Stabilization	\$ 2,600,000	\$ 3,545,455
Yield on Cost		
Value at Stabilization	\$ 2,600,000	\$ 3,545,455
Less: Total Development Costs	\$ 2,327,914	\$ 2,859,787
Profit	\$ 272,086	\$ 685,668
Return on Cost	11.7%	24.0%
Yield on Cost (NOI/TDC)	6.7%	6.8%
Project Feasible? (f)	No	No

Notes:

- Assumes full-service lease
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Estimates for tenant improvements were provided by developers active in the Moab Area building this product type.
- Based on Sewer Impact Fees of \$ 235 per project and Water Impact Fee with 1.5" meter \$ 5,528 per project
- Cap rates were estimated based on interviews with brokers for recently sold properties.
- Feasibility assumes a Return on Cost of 15% and a minimum Yield on Cost of 7% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 50: Hotel Development Pro Forma

Assumes three-story hotel within the City of Moab in C-3 zone

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Assuptions				
Gross Building Area (sf)	60,000	60,000	60,000	60,000
Number of Hotel Rooms	750	80	80	80
Parking Ratio (a)	See (a)	See (a)	See (a)	See (a)
Number of Parking Spaces	80	80	80	80
Total Surface Spaces	80	80	80	80
Total Structured Parking Spaces	-	-	-	-
Total Parking Area (sf)	350	28,000	28,000	28,000
Total Number of Stories (Bldg)	3	3	3	3
Total Number of Stories (Parking)	1	1	1	1
Built FAR (ratio to 1.0)	1.3	1.3	1.3	1.3
Site Size (sf)	48,000	48,000	48,000	48,000
Site Size (acres)	1.10	1.10	1.10	1.10
Rents				
Average Daily Rate (b)	\$ 150	\$ 150	\$ 175	\$ 175
Occupancy Rate	70%	70%	70%	70%
RevPAR	\$ 105	\$ 105	\$ 123	\$ 123
Other Revenue per Available Room Night	\$ 10	\$ 10	\$ 10	\$ 10
Development Costs				
Site Work	\$ 5.0	\$ 5.0	\$ 5.0	\$ 5.0
Hard Costs (c)	\$ 140	\$ 140	\$ 140	\$ 140
Tenant Improvements/FFEs (per room) (d)	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Parking Costs (per space) (surface)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Parking Costs (per space) (structured)	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	20.0%	20.0%
Impact Fees				
Sewer Impact Fee (e)	\$ 95,520	\$ 95,520	\$ 95,520	\$ 95,520
Water Impact Fee (e)	\$ 18,320	\$ 18,320	\$ 18,320	\$ 18,320
Proposed Commercial Fee per sq. ft.	\$ -	\$ 5.00	\$ -	\$ 15.00
Financing Costs				
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.0%	6.0%	6.0%	6.0%
Loan Fees	1.5%	1.5%	1.5%	1.5%
Construction Period (months)	24	24	24	24
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%
Operations				
Op Ex (% of revenue per available room)	60%	60%	60%	60%
Cap Rate (f)	6.5%	6.5%	6.0%	6.0%

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Costs				
Land	\$ 1,200,000	\$ 1,200,000	\$ 2,160,000	\$ 2,160,000
Land per Site sf	\$ 25.00	\$ 25.00	\$ 45.00	\$ 45.00
Construction Costs				
Site Work	\$ 240,000	\$ 240,000	\$ 240,000	\$ 240,000
Hard Costs	\$ 8,400,000	\$ 8,400,000	\$ 8,400,000	\$ 8,400,000
Hard Costs - Parking	\$ 280,000	\$ 280,000	\$ 280,000	\$ 280,000
Tenant Improvements/FFEs	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000
Soft Costs	\$ 2,104,000	\$ 2,104,000	\$ 2,104,000	\$ 2,104,000
Water Sewer Impact Fees	\$ 113,840	\$ 113,840	\$ 113,840	\$ 113,840
Commercial Linkage Fee	\$ -	\$ 300,000	\$ -	\$ 900,000
Subtotal Costs Before Financing	\$ 12,737,840	\$ 13,037,840	\$ 12,737,840	\$ 13,637,840
Financing Costs				
Points	\$ 133,747	\$ 136,897	\$ 133,747	\$ 143,197
Construction Period Interest	\$ 702,467	\$ 717,587	\$ 750,851	\$ 796,211
Subtotal Financing Costs	\$ 836,214	\$ 854,484	\$ 884,598	\$ 939,408
Total Development Costs	\$ 14,774,054	\$ 15,092,324	\$ 15,782,438	\$ 16,737,248
Total Development Cost per SF (excl land)	\$ 226	\$ 232	\$ 227	\$ 243
Total Development Cost per SF (inc. land)	\$ 246	\$ 252	\$ 263	\$ 279
Commercial Linkage Fee as % of TDC	0.0%	2.0%	0.0%	5.4%
Valuation				
Operations				
Revenue - Hotel Rooms	\$ 3,066,000	\$ 3,066,000	\$ 3,577,000	\$ 3,577,000
Revenue - Other	\$ 292,000	\$ 292,000	\$ 292,000	\$ 292,000
Less: Op Expenses	\$ (2,014,800)	\$ (2,014,800)	\$ (2,321,400)	\$ (2,321,400)
Net Operating Income (NOI)	\$ 1,343,200	\$ 1,343,200	\$ 1,547,600	\$ 1,547,600
Value at Stabilization	\$ 20,664,615	\$ 20,664,615	\$ 25,793,333	\$ 25,793,333
Yield on Cost				
Value at Stabilization	\$ 20,664,615	\$ 20,664,615	\$ 25,793,333	\$ 25,793,333
Less: Total Development Costs	\$ 14,774,054	\$ 15,092,324	\$ 15,782,438	\$ 16,737,248
Profit	\$ 5,890,561	\$ 5,572,291	\$ 10,010,895	\$ 9,056,085
Return on Cost	39.9%	36.9%	63.4%	54.1%
Yield on Cost (NOI/TDC)	9.1%	8.9%	9.8%	9.2%
Project Feasible? (g)	Yes	Yes	Yes	Yes

Notes:

- The parking requirement for a hotel/motel is one parking space per guestroom.
- Average daily rates were derived from STR based on 2016 average rooms rates for mid- and upper-mid range hotels currently operating in Moab, Utah.
- Hard costs were based on interviews with local developers and data from RS Means with a location factor applied to reflect construction costs in Moab.
- Furniture, fixtures, and equipment costs were estimated for mid- and upper-range hotels, which are associated with higher grade finishes.
- Based on Sewer Impact Fees of \$ 1,194 per unit and Water Impact Fees of \$ 229 per room
- Cap rates were estimated based on data provided by brokers.
- Feasibility is based on a Return on Cost of 15% and a minimum Yield on Cost of 8% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 51: Apartment Development Pro Forma

Assumes multifamily rental within the City of Moab in R-3 zone

	Moderate Market Baseline	Strong Market Baseline		Moderate Market Baseline	Strong Market Baseline
Development Assuptions			Development Costs		
Site Size (sf) (a)	80,000	80,000	Land	\$ 140,000	\$ 220,000
Less: Setbacks	(12,722)	(12,722)	Land per Residential Unit	\$ 3,500	\$ 5,500
Less: Additional Open Space (% lot)	25% (7,278)	(7,278)	Land per Acre	\$ 76,230	\$ 119,790
Building Footprint (sf)	60,000	60,000	Construction Costs		
Number of Units	40	40	Site Work	\$ 400,000	\$ 400,000
Average Unit Size (mix of studios, 1s, 2s)	1,000	1,000	Hard Costs - Residential	\$ 4,600,000	\$ 4,600,000
Net Residential Space (sf)	40,000	40,000	Hard Costs - Parking	\$ 210,000	\$ 210,000
Common Area	15.0% 6,000	6,000	Soft Costs	\$ 1,042,000	\$ 1,042,000
Total Residential Space (sf)	46,000	46,000			
Parking Ratio (spaces per unit)	1.5	1.5	Water/Sewer Impact Fees	\$ 71,946	\$ 71,946
Number of Parking Spaces	60	60	Proposed Residential Linkage Fee	\$ -	\$ -
Total Parking Area (sf)	350 21,000	21,000	Subtotal Const Costs Before Financing	\$ 6,323,946	\$ 6,323,946
Number of Residential Floors	1	1	Financing Costs		
Total Number of Stories	1	1	Points	\$ 66,401	\$ 66,401
FAR	0.6	0.6	Construction Period Interest	\$ 325,783	\$ 329,815
Dwelling Units/Acre	21.8	21.8	Subtotal Financing Costs	\$ 392,184	\$ 396,216
Rents					
Average Rent per Unit	\$ 1,200	\$ 1,350	Total Development Costs		
Development Costs			Total Development Costs	\$ 6,856,130	\$ 6,940,162
Site Work	\$ 5.00	\$ 5.00	Total Development Cost per SF (excl land)	\$ 146	\$ 146
Hard Costs - Res (wood frame) (b)	\$ 100	\$ 100	Total Development Cost per SF (inc. land)	\$ 149	\$ 151
Parking Costs (per space)	\$ 3,500	\$ 3,500	Proposed Residential Fee as % of TDC	0.0%	0.0%
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	Valuation		
Impact Fees			Operations		
Sewer Impact Fee per Unit (c)	\$ 1,525	\$ 1,525	Gross Income	\$ 576,000	\$ 648,000
Water Impact Fee per Project (c)	\$ 10,946	\$ 10,946	Less: Vacancy	\$ (28,800)	\$ (32,400)
Proposed Residential Fee per sq. ft.	\$ -	\$ -	Less: Op Expenses	\$ (220,000)	\$ (220,000)
Financing Costs			Net Operating Income (NOI)	\$ 327,200	\$ 395,600
Loan to Cost Ratio	70.0%	70.0%	Value at Stabilization	\$ 5,949,091	\$ 7,912,000
Interest Rate	6.0%	6.0%	Return on Cost		
Loan Fees	1.5%	1.5%	Value at Stabilization	\$ 5,949,091	\$ 7,912,000
Construction Period (months)	24	24	Less: Total Development Costs	\$ 6,856,130	\$ 6,940,162
Avg. Outstanding Balance During Construction	60.0%	60.0%	Profit	\$ (907,039)	\$ 971,838
Operations			% Return on Cost	-13.2%	14.0%
Vacancy	5.0%	5.0%	Yield on Cost (NOI/TDC)	4.8%	5.7%
OpEx per unit	\$ 5,500	\$ 5,500	Feasible? (e)	No	No
Cap Rate (d)	5.5%	5.0%			

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab municipal code.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees for multi-family apartments in Moab are:

\$ 1,525	per unit
\$ 10,946	per project

 and Water Impact Fee with a 2" meter
- Cap rates were estimated based on interviews with brokers.
- Project feasibility assumes a minimum return on cost of 15% and a minimum yield on cost of 5% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 52: Condominium Development Pro Forma

Assumes condominiums permitted for overnight rentals within Grand County's Highway Commercial Zone

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Assumptions				
Site Size (sf) (a)	43,560	43,560	43,560	43,560
Less: Setbacks	(14,240)	(14,240)	(14,240)	(14,240)
Developed Footprint (sf)	14,008	14,008	14,008	14,008
Number of Units	25	25	25	25
Average Unit Size (mix of 1s, 2s, 3s)	1,350	1,350	1,350	1,350
Net Residential Space (sf)	33,750	33,750	33,750	33,750
Common Area	15.0%	5,063	5,063	5,063
Total Residential Space (sf)		38,813	38,813	38,813
Parking Ratio (spaces per unit)		1.75	1.75	1.75
Number of Parking Spaces		44	44	43.75
Total Parking Garage (sf)	350	15,313	15,313	15,313
Number of Residential Floors		3	3	3
Total Number of Stories		1	1	1
FAR		0.9	0.9	0.9
Dwelling Units/Acre		25.0	25.0	25.0
Sales Price				
Average Sales Price PSF		\$ 185	\$ 185	\$ 245
Average Sales Price Per Unit		\$ 249,750	\$ 249,750	\$ 330,750
Development Costs				
Site Work		\$ 5,00	\$ 5,00	\$ 5,00
Hard Costs - Res (wood frame) (b)		\$ 105	\$ 105	\$ 115
Parking Costs (per space)		\$ 3,500	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)		20.0%	20.0%	20.0%
Impact Fees				
Sewer Impact Fee per Unit (c)		\$ 1,329	\$ 1,329	\$ 1,329
Water Impact Fee per Project (c)		\$ 10,946	\$ 10,946	\$ 10,946
Proposed Residential Fee per sq. ft.		\$ -	\$ -	\$ 5.00
Financing Costs				
Loan to Cost Ratio		70.0%	70.0%	70.0%
Interest Rate		6.0%	6.0%	6.0%
Loan Fees		1.5%	1.5%	1.5%
Construction Period (months)		24	24	24
Avg. Outstanding Balance During Construction		60.0%	60.0%	60.0%
Sales Assumptions				
Marketing Costs		5.0%	5.0%	5.0%

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Costs				
Land	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Land per Residential Unit	\$ 3,300	\$ 3,300	\$ 5,000	\$ 5,000
Land per Acre	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Construction Costs				
Site Work	\$ 217,800	\$ 217,800	\$ 217,800	\$ 217,800
Hard Costs - Residential	\$ 4,075,313	\$ 4,075,313	\$ 4,463,438	\$ 4,463,438
Hard Costs - Parking	\$ 153,125	\$ 153,125	\$ 153,125	\$ 153,125
Soft Costs	\$ 889,248	\$ 889,248	\$ 966,873	\$ 966,873
Water/Sewer Impact Fees	\$ 44,171	\$ 44,171	\$ 44,171	\$ 44,171
Proposed Residential Linkage Fee	\$ -	\$ -	\$ -	\$ 194,063
Subtotal Const Costs Before Financing	\$ 5,379,656	\$ 5,379,656	\$ 5,845,406	\$ 6,039,469
Financing Costs				
Points	\$ 56,486	\$ 56,486	\$ 61,377	\$ 63,414
Construction Period Interest	\$ 275,293	\$ 275,293	\$ 300,908	\$ 310,689
Subtotal Financing Costs	\$ 331,779	\$ 331,779	\$ 362,285	\$ 374,104
Total Development Costs	\$ 5,793,935	\$ 5,793,935	\$ 6,332,691	\$ 6,538,572
Total Development Cost per SF (excl land)	\$ 147	\$ 147	\$ 160	\$ 165
Total Development Cost per SF (inc. land)	\$ 149	\$ 149	\$ 163	\$ 168
Proposed Residential Fee as % of TDC	0.0%	0.0%	0.0%	3.0%
Valuation				
Sales				
Sales	\$ 6,243,750	\$ 6,243,750	\$ 8,268,750	\$ 8,268,750
Less: Marketing Costs	\$ (312,188)	\$ (312,188)	\$ (413,438)	\$ (413,438)
Net Sales Revenue	\$ 5,931,563	\$ 5,931,563	\$ 7,855,313	\$ 7,855,313
Return on Cost				
Net Sales Revenue	\$ 5,931,563	\$ 5,931,563	\$ 7,855,313	\$ 7,855,313
Less: Total Development Costs	\$ 5,793,935	\$ 5,793,935	\$ 6,332,691	\$ 6,538,572
Profit	\$ 137,627	\$ 137,627	\$ 1,522,621	\$ 1,316,740
% Return on Cost	2.4%	2.4%	24.0%	20.1%
Feasible? (d)	No	No	Yes	Yes

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab municipal code.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees in Grand County are \$ 1,329 per unit and water impact fees with a 2" meter are \$ 10,946 per project
- Project feasibility assumes a minimum return on cost of 20% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 53: Townhouse Development Pro Forma

Assumes overnight rental project in Grand County in the Highway Commercial zone

Development Assumptions	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Site Size (sf)	240,000	240,000	240,000	240,000
Lot Size per Unit (a)	5,000	5,000	5,000	5,000
Total Units	48	48	48	48
Average Townhouse Size (sf)	1,650	1,650	1,650	1,650
Total Residential Space (sf)	79,200	79,200	79,200	79,200
Number of Residential Floors	2	2	2	2
FAR	0.3	0.3	0.3	0.3
Parking Ratio (spaces per unit) (parking in unit)	2.0	2.0	2.0	2.0
Number of Parking Spaces	96	96	96	96
Sales Price				
Average Sales Price PSF	\$ 200	\$ 200	\$ 250	\$ 250
Average Sales Price Per Unit	\$ 330,000	\$ 330,000	\$ 412,500	\$ 412,500
Development Costs				
Site Work	\$ 5	\$ 5	\$ 5	\$ 5
Hard Costs - Res (wood frame) (b)	\$ 100	\$ 100	\$ 125	\$ 125
Parking Costs (per space)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)	20%	20%	20%	20%
Impact Fees				
Sewer Impact Fee per Unit (c)	\$ 1,329	\$ 1,329	\$ 1,329	\$ 1,329
Water Impact Fee per Unit (c)	\$ 813	\$ 813	\$ 813	\$ 813
Proposed Residential Fee per sq. ft.	\$ -	\$ 4.00	\$ -	\$ 8.00
Proposed Residential Fee per unit	\$ -	\$ 6,600	\$ -	\$ 13,200
Financing Costs				
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.0%	6.0%	6.0%	6.0%
Loan Fees	1.5%	1.5%	1.5%	1.5%
Construction Period (months)	24	24	24	24
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%
Sales Assumptions				
Marketing Costs	5.0%	5.0%	5.0%	5.0%

Development Costs	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Land				
Land	\$ 456,000	\$ 456,000	\$ 720,000	\$ 720,000
Land per Residential Unit	\$ 9,500	\$ 9,500	\$ 15,000	\$ 15,000
Land per Acre	\$ 82,764	\$ 82,764	\$ 130,680	\$ 130,680
Construction Costs				
Site Work	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
Hard Costs - Residential	\$ 7,920,000	\$ 7,920,000	\$ 9,900,000	\$ 9,900,000
Hard Costs - Parking (in unit)	\$ -	\$ -	\$ -	\$ -
Soft Costs	\$ 1,778,400	\$ 1,778,400	\$ 2,164,500	\$ 2,164,500
Water/Sewer Impact Fees	\$ 102,816	\$ 102,816	\$ 102,816	\$ 102,816
Proposed Residential Linkage Fee	\$ -	\$ 316,800	\$ -	\$ 633,600
Subtotal Const Costs Before Financing	\$ 11,001,216	\$ 11,318,016	\$ 13,367,316	\$ 14,000,916
Financing Costs				
Points	\$ 115,513	\$ 118,839	\$ 140,357	\$ 147,010
Construction Period Interest	\$ 577,444	\$ 593,410	\$ 710,001	\$ 741,934
Subtotal Financing Costs	\$ 692,956	\$ 712,250	\$ 850,358	\$ 888,944
Total Development Costs	\$ 12,150,172	\$ 12,486,266	\$ 14,937,674	\$ 15,609,860
Total Development Cost per SF (excl land)	\$ 148	\$ 152	\$ 180	\$ 188
Total Development Cost per SF (inc. land)	\$ 153	\$ 158	\$ 189	\$ 197
Proposed Residential Fee as % of TDC	0.0%	2.5%	0.0%	4.1%
Valuation				
Sales				
Sales	\$ 15,840,000	\$ 15,840,000	\$ 19,800,000	\$ 19,800,000
Less: Marketing Costs	\$ (792,000)	\$ (792,000)	\$ (990,000)	\$ (990,000)
Net Sales Revenue	\$ 15,048,000	\$ 15,048,000	\$ 18,810,000	\$ 18,810,000
Return on Cost				
Net Sales Revenue	\$ 15,048,000	\$ 15,048,000	\$ 18,810,000	\$ 18,810,000
Less: Total Development Costs	\$ 12,150,172	\$ 12,486,266	\$ 14,937,674	\$ 15,609,860
Profit	\$ 2,897,828	\$ 2,561,734	\$ 3,872,326	\$ 3,200,140
% Return on Cost	23.9%	20.5%	25.9%	20.5%
Feasible? (d)	Yes	Yes	Yes	Yes

Notes:

- Highway Commercial does not have a minimum lot size, so this represents an average lot size for townhomes.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area. Interviews were also conducted with local contractors. Hard costs range from \$100 to \$125 per square foot, depending on the level of finishes. For this analysis, the lower end of the range was used to model the moderate scenario, and the high end was applied to the strong market scenario.
- Sewer impact fees are: \$ 1,525 per unit
and Water Impact Fees with a 3/4" meter are: \$ 813 per unit
- Project feasibility assumes a minimum return on cost of 20% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 54: Single-Family Home Development Pro Forma

Assumes single-family residential in Grand County in RR zone

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Assumptions (a)				
Site Size (sf)	43,560	43,560	43,560	43,560
Minimum Lot Size	43,560	43,560	43,560	43,560
Total Lots	1	1	1	1
Average SFR Size (sf)	2,250	2,250	3,000	3,000
Total Residential Space (sf)	2,250	2,250	3,000	3,000
Number of Residential Floors	1	1	1	1
FAR	0.1	0.1	0.1	0.1
Parking Ratio (spaces per unit) (parking in unit)	2.0	2.0	2.0	2.0
Number of Parking Spaces	2	2	2	2
Sales Price				
Average Sales Price PSF	\$ 200	\$ 200	\$ 267	\$ 267
Average Sales Price Per Unit	\$ 450,000	\$ 450,000	\$ 800,000	\$ 800,000
Development Costs				
Site Work	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
Hard Costs (b)	\$ 100	\$ 100	\$ 160	\$ 160
Parking Costs (garage)	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000
Soft Costs exc Fees (as % of hard)	7.0%	7.0%	5.0%	5.0%
Impact Fees				
Sewer Impact Fee per Unit (c)	\$ 1,329	\$ 1,329	\$ 1,329	\$ 1,329
Water Impact Fee per Unit (c)	\$ 813	\$ 813	\$ 813	\$ 813
Proposed Residential Fee per sq. ft.	\$ -	\$ 1.00	\$ -	\$ 1.50
Proposed Residential Fee per unit	\$ -	\$ 2,250	\$ -	\$ 4,500
Financing Costs				
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.0%	6.0%	6.0%	6.0%
Loan Fees	1.5%	1.5%	1.5%	1.5%
Construction Period (months)	12	12	12	12
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%
Sales Assumptions				
Marketing Costs	5.0%	5.0%	5.0%	5.0%

	Moderate Market Baseline	Moderate Market with Fee	Strong Market Baseline	Strong Market with Fee
Development Costs				
Land	\$ 80,000	\$ 80,000	\$ 120,000	\$ 120,000
Land per Residential Unit	\$ 80,000	\$ 80,000	\$ 120,000	\$ 120,000
Land per Acre	\$ 80,000	\$ 80,000.00	\$ 120,000	\$ 120,000
Construction Costs				
Site Work	\$ 43,560	\$ 43,560	\$ 43,560	\$ 43,560
Hard Costs - Residential	\$ 225,000	\$ 225,000	\$ 480,000	\$ 480,000
Hard Costs - Parking (garage)	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000
Soft Costs	\$ 20,059	\$ 20,059	\$ 27,078	\$ 27,078
Water/Sewer Impact Fees	\$ 2,142	\$ 2,142	\$ 2,142	\$ 2,142
Proposed Residential Linkage Fee	\$ -	\$ 2,250	\$ -	\$ 4,500
Subtotal Const Costs Before Financing	\$ 308,761	\$ 311,011	\$ 570,780	\$ 575,280
Financing Costs				
Points	\$ 3,242	\$ 3,266	\$ 5,993	\$ 6,040
Construction Period Interest	\$ 9,797	\$ 9,853	\$ 17,408	\$ 17,521
Subtotal Financing Costs	\$ 13,039	\$ 13,119	\$ 23,401	\$ 23,561
Total Development Costs				
	\$ 401,800	\$ 404,130	\$ 714,181	\$ 718,841
Total Development Cost per SF (excl land)	\$ 143	\$ 144	\$ 198	\$ 200
Total Development Cost per SF (inc. land)	\$ 179	\$ 180	\$ 238	\$ 240
Proposed Residential Fee as % of TDC	0.0%	0.6%	0.0%	0.6%
Valuation For Speculatively Built Home Sold Via Broker				
Sales				
Sales	\$ 450,000	\$ 450,000	\$ 800,000	\$ 800,000
Less: Marketing Costs	\$ (22,500)	\$ (22,500)	\$ (40,000)	\$ (40,000)
Net Sales Revenue	\$ 427,500	\$ 427,500	\$ 760,000	\$ 760,000
Less: Total Development Costs	\$ 401,800	\$ 404,130	\$ 714,181	\$ 718,841
Profit	\$ 48,200	\$ 45,870	\$ 85,819	\$ 81,159
% Return on Cost, Spec w/ Broker Fee (a)	12.0%	11.4%	12.0%	11.3%
Feasible? (d)	No	No	No	No
Valuation For Custom Home Built for End User				
Sales				
Sales	\$ 450,000	\$ 450,000	\$ 800,000	\$ 800,000
Less: Marketing Costs	\$ -	\$ -	\$ -	\$ -
Net Sales Revenue	\$ 450,000	\$ 450,000	\$ 800,000	\$ 800,000
Less: Total Development Costs (e)	\$ 388,761	\$ 391,011	\$ 690,780	\$ 695,280
Profit	\$ 61,239	\$ 58,989	\$ 109,220	\$ 104,720
% Return on Cost, Custom to End User (a)	15.8%	15.1%	15.8%	15.1%
Feasible? (d)	Yes	Yes	Yes	Yes

Notes:

a) This pro forma models two different types of single-family construction. The first is a speculatively built house that a contractor/developer builds and sells through a real estate broker, who charges a commission on the sale. The second is a custom home built for an end user, where the customer self-finances the construction, and there is no broker intermediary.

b) Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area. Interviews were also conducted with local contractors. Hard costs range, depending on the level of finishes. For this analysis, the lower end of the range was used to model the moderate scenario, and the high end was applied to the strong market scenario.

c) Sewer impact fees are: \$ 1,525 per unit
and Water Impact Fees with a 3/4" meter are: \$ 813 per unit

d) Project feasibility assumes a minimum return on cost of 15% based on interviews with developers active in the Moab Area.

e) Total development costs are slightly lower for custom-built homes because the end user is paying directly for construction, so the builder does not need to pay for financing costs.

Source: BAE, 2018.

Appendix C: Inclusionary Housing Proformas

Appendix 55: Inclusionary Housing Townhouse Development in Grand County

Assumes townhouses permitted for overnight rentals in Grand County in the Highway Commercial zone

Development Assumptions	Moderate Market Baseline	Moderate Market w/ Inc. Units	Strong Market Baseline	Strong Market w/ Inc. Units
Site Size (sf)	240,000	240,000	240,000	240,000
Lot Size per Unit (a)	5,000	5,000	5,000	5,000
Total Units	48	48	48	48
Average Townhouse Size (sf)	1,650	1,650	1,650	1,650
Total Residential Space (sf)	79,200	79,200	79,200	79,200
Number of Residential Floors	2	2	2	2
FAR	0.3	0.3	0.3	0.3
Parking Ratio (spaces per unit) (parking in unit)	2.0	2.0	2.0	2.0
Number of Parking Spaces	96	96	96	96
Sales Price				
Average Sales Price PSF	\$ 200	\$ 200	\$ 250	\$ 250
Average Sales Price Per Unit	\$ 330,000	\$ 330,000	\$ 412,500	\$ 412,500
Average Sales Price PSF (80% AMI)	\$ 121	\$ 121	\$ 121	\$ 121
Average Sales Price Per Unit (80% AMI)	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Affordable Units	6%	0	3	0
Development Costs				
Site Work	\$ 5	\$ 5	\$ 5	\$ 5
Hard Costs - Res (wood frame) (b)	\$ 100	\$ 100	\$ 125	\$ 125
Parking Costs (per space)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)	20%	20%	20%	20%
Impact Fees				
Sewer Impact Fee per Unit (c)	\$ 1,329	\$ 1,329	\$ 1,329	\$ 1,329
Water Impact Fee per Unit (c)	\$ 813	\$ 813	\$ 813	\$ 813
Financing Costs				
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.0%	6.0%	6.0%	6.0%
Loan Fees	1.5%	1.5%	1.5%	1.5%
Construction Period (months)	24	24	24	24
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%
Sales Assumptions				
Marketing Costs	5.0%	5.0%	5.0%	5.0%

Development Costs	Moderate Market Baseline	Moderate Market w/ Inc. Units	Strong Market Baseline	Strong Market w/ Inc. Units
Land				
Land	\$ 456,000	\$ 456,000	\$ 720,000	\$ 720,000
Land per Residential Unit	\$ 9,500	\$ 9,500	\$ 15,000	\$ 15,000
Land per Acre	\$ 82,764	\$ 82,764	\$ 130,680	\$ 130,680
Construction Costs				
Site Work	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
Hard Costs - Residential	\$ 7,920,000	\$ 7,920,000	\$ 9,900,000	\$ 9,900,000
Hard Costs - Parking (in unit)	\$ -	\$ -	\$ -	\$ -
Soft Costs	\$ 1,778,400	\$ 1,778,400	\$ 2,164,500	\$ 2,164,500
Water/Sewer Impact Fees	\$ 102,816	\$ 102,816	\$ 102,816	\$ 102,816
Subtotal Const Costs Before Financing	\$ 11,001,216	\$ 11,001,216	\$ 13,367,316	\$ 13,367,316
Financing Costs				
Points	\$ 115,513	\$ 115,513	\$ 140,357	\$ 140,357
Construction Period Interest	\$ 577,444	\$ 577,444	\$ 710,001	\$ 710,001
Subtotal Financing Costs	\$ 692,956	\$ 692,956	\$ 850,358	\$ 850,358
Total Development Costs				
Total Development Cost	\$ 12,150,172	\$ 12,150,172	\$ 14,937,674	\$ 14,937,674
Total Development Cost per SF (excl land)	\$ 148	\$ 148	\$ 180	\$ 180
Total Development Cost per SF (inc. land)	\$ 153	\$ 153	\$ 189	\$ 189
Valuation				
Sales				
Sales (Market Rate Units)	\$ 15,840,000	\$ 14,850,000	\$ 19,800,000	\$ 18,562,500
Sales (Affordable Units)	\$ -	\$ 600,000	\$ -	\$ 600,000
Less: Marketing Costs	\$ (792,000)	\$ (772,500)	\$ (990,000)	\$ (958,125)
Net Sales Revenue	\$ 15,048,000	\$ 14,677,500	\$ 18,810,000	\$ 18,204,375
Return on Cost				
Net Sales Revenue	\$ 15,048,000	\$ 14,677,500	\$ 18,810,000	\$ 18,204,375
Less: Total Development Costs	\$ 12,150,172	\$ 12,150,172	\$ 14,937,674	\$ 14,937,674
Profit	\$ 2,897,828	\$ 2,527,328	\$ 3,872,326	\$ 3,266,701
% Return on Cost	23.9%	20.8%	25.9%	21.9%
Feasible? (d)	Yes	Yes	Yes	Yes

Notes:

a) Highway Commercial does not have a minimum lot size, so this represents an average lot size for townhomes.

b) Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area. Interviews were also conducted with local contractors. Hard costs range from \$100 to \$125 per square foot, depending on the level of finishes. For this analysis, the lower end of the range was used to model the moderate scenario, and the high end was applied to the strong market scenario.

c) Sewer impact fees are: \$ 1,525 per unit
and Water Impact Fees with a 3/4" meter are: \$ 813 per unit

d) Project feasibility assumes a minimum return on cost of 20% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 56: Inclusionary Housing Condominium Development in Grand County

Assumes condominiums permitted for overnight rentals within Grand County's Highway Commercial Zone

Development Assumptions	Moderate Market Baseline	Moderate Market w/ Inc. Units	Strong Market Baseline	Strong Market w/ Inc. Units	Development Costs	Moderate Market Baseline	Moderate Market w/ Inc. Units	Strong Market Baseline	Strong Market w/ Inc. Units
Site Size (sf) (a)	43,560	43,560	43,560	43,560	Land	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Less: Setbacks	(14,240)	(14,240)	(14,240)	(14,240)	Land per Residential Unit	\$ 3,300	\$ 3,300	\$ 5,000	\$ 5,000
Developed Footprint (sf)	14,008	14,008	14,008	14,008	Land per Acre	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Number of Units	25	25	25	25	Construction Costs				
Average Unit Size (mix of 1s, 2s, 3s)	1,350	1,350	1,350	1,350	Site Work	\$ 217,800	\$ 217,800	\$ 217,800	\$ 217,800
Net Residential Space (sf)	33,750	33,750	33,750	33,750	Hard Costs - Residential	\$ 4,075,313	\$ 4,075,313	\$ 4,463,438	\$ 4,463,438
Common Area	15.0%	5,063	5,063	5,063	Hard Costs - Parking	\$ 153,125	\$ 153,125	\$ 153,125	\$ 153,125
Total Residential Space (sf)		38,813	38,813	38,813	Soft Costs	\$ 889,248	\$ 889,248	\$ 966,873	\$ 966,873
Parking Ratio (spaces per unit)		1.75	1.75	1.75	Water/Sewer Impact Fees	\$ 44,171	\$ 44,171	\$ 44,171	\$ 44,171
Number of Parking Spaces		44	44	44	Subtotal Const Costs Before Financing	\$ 5,379,656	\$ 5,379,656	\$ 5,845,406	\$ 5,845,406
Total Parking Garage (sf)	350	15,313	15,313	15,313	Financing Costs				
Number of Residential Floors		3	3	3	Points	\$ 56,486	\$ 56,486	\$ 61,377	\$ 61,377
Total Number of Stories		1	1	1	Construction Period Interest	\$ 275,293	\$ 275,293	\$ 300,908	\$ 300,908
FAR		0.9	0.9	0.9	Subtotal Financing Costs	\$ 331,779	\$ 331,779	\$ 362,285	\$ 362,285
Dwelling Units/Acre		25.0	25.0	25.0	Total Development Costs	\$ 5,793,935	\$ 5,793,935	\$ 6,332,691	\$ 6,332,691
Sales Price					Total Development Cost per SF (excl land)	\$ 147	\$ 147	\$ 160	\$ 160
Average Sales Price PSF	\$ 185	\$ 185	\$ 245	\$ 245	Total Development Cost per SF (inc. land)	\$ 149	\$ 149	\$ 163	\$ 163
Average Sales Price Per Unit	\$ 249,750	\$ 249,750	\$ 330,750	\$ 330,750	Valuation				
Average Sales Price PSF (80% AMI)	\$ 148	\$ 148	\$ 148	\$ 148	Sales				
Average Sales Price Per Unit (80% AMI)	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	Sales (Market Rate Units)	\$ 6,243,750	\$ 6,243,750	\$ 8,268,750	\$ 7,607,250
Affordable Units	8%	-	-	2	Sales (Affordable Units)	\$ -	\$ -	\$ -	\$ 400,000
Development Costs					Less: Marketing Costs	\$ (312,188)	\$ (312,188)	\$ (413,438)	\$ (400,363)
Site Work	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	Net Sales Revenue	\$ 5,931,563	\$ 5,931,563	\$ 7,855,313	\$ 7,606,888
Hard Costs - Res (wood frame) (b)	\$ 105	\$ 105	\$ 115	\$ 115	Return on Cost				
Parking Costs (per space)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	Net Sales Revenue	\$ 5,931,563	\$ 5,931,563	\$ 7,855,313	\$ 7,606,888
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	20.0%	20.0%	Less: Total Development Costs	\$ 5,793,935	\$ 5,793,935	\$ 6,332,691	\$ 6,332,691
Impact Fees					Profit	\$ 137,627	\$ 137,627	\$ 1,522,621	\$ 1,274,196
Sewer Impact Fee per Unit (c)	\$ 1,329	\$ 1,329	\$ 1,329	\$ 1,329	% Return on Cost	2.4%	2.4%	24.0%	20.1%
Water Impact Fee per Project (c)	\$ 10,946	\$ 10,946	\$ 10,946	\$ 10,946	Feasible? (d)	No	No	Yes	Yes
Financing Costs									
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%					
Interest Rate	6.0%	6.0%	6.0%	6.0%					
Loan Fees	1.5%	1.5%	1.5%	1.5%					
Construction Period (months)	24	24	24	24					
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%					
Sales Assumptions									
Marketing Costs	5.0%	5.0%	5.0%	5.0%					

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab municipal code.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees in Grand County are \$ 1,329 per unit and water impact fees with a 2" meter are \$ 10,946 per project
- Project feasibility assumes a minimum return on cost of 20% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix D: Density Bonus Analysis

Purpose

The City and County requested a separate policy analysis where inclusionary requirements would only be applied in cases where projects received a density bonus. Recognizing that inclusionary requirements and in-lieu fees translate to increased costs, some jurisdictions couple these requirements with regulatory incentives, in the form of density bonuses, and/or relaxation of development standards (such as parking requirements, open space requirements, and height limits).

This chapter studies the impact of adjusting zoning to increase density for two development types:

- 1. Condominiums:** The purpose of this exercise is to assess whether providing incentives to build denser housing allows condominiums to accommodate more on-site units. The feasibility analysis in the main report showed that condominiums were not feasible in the moderate market, but could accept an eight percent inclusionary requirement in a strong market.¹² This supplemental study tests how much higher the inclusionary set-aside can go if the City and County relaxes development standards to permit greater density.
- 2. Apartments:** Another goal of this supplemental analysis is to show whether increasing density would allow apartments to become financially feasible. Based on the financial analysis, apartments were not feasible in either the moderate or strong market because rents were not strong enough to offset the high cost of new construction and land acquisition. Building permit data confirm that few apartments were constructed between 2010 and 2017, despite a significant increase in demand from non-family households. The market analysis shows a substantial need for workforce rentals, but developers are not building apartments, either because they can make higher returns on other product types (e.g. hotels or townhouses), or because the margins for apartment rentals are too thin.

At the outset of this study, this exercise was commissioned to test if apartments could support an inclusionary housing requirement. However, given the lack of feasibility in the baseline condition, the purpose has evolved to assess whether relaxing development standards and increasing density would allow apartments to become feasible. If apartments are feasible with greater density, this may engender a discussion whether the City and County are willing to increase density for apartments to entice developers to build rental units.

¹² This assumes set-asides affordable to households earning up to 80 percent of Area Median Income.

Assumptions

BAE modeled apartment buildings in both the City of Moab and Grand County, assuming R-3 Multi-Family Residential zoning in the City of Moab and Multi-Family Residential District (MFR) in Grand County. Condominiums were modeled only for Grand County, assuming a Highway Commercial Zone. All projects assumed one-acre lots.

Each jurisdiction's zoning code contained different provisions that limited project density. The following adjustments were made to each zone to simulate a density bonus:

- **Apartments in the City of Moab R-3 Zone** - The R-3 zone has a 2,000-square foot minimum lot size per residential unit. This requirement effectively limits the density to 21 dwelling units per acre (43,560 sf per acre / 2,000 sf). The density bonus analysis removes this minimum lot size requirement.
- **Grand County's Multi-Family Residential District (MFR)** restricts maximum density to eight units per acre, although there are provisions to augment density if developers provide an affordable housing set-aside. The density bonus scenario removes the maximum density provision. In addition, open space requirements were reduced in the density bonus scenarios to maximize the development footprint and project density.
- **Condominiums in Grand County's Highway Commercial:** Grand County's Highway Commercial (HC) Zone has a maximum building height of 35'. This provision does not inhibit feasibility because condominiums were feasible in the strong market. For this analysis, BAE increased the building height to 65' to determine whether increasing density would allow condominiums to be feasible in the moderate market, and to test what inclusionary requirements would be achievable in the strong market.
- This analysis assumes adjustments to increase density allows the project to retain surface parking, which is significantly more affordable than structured or underground parking.

There are many levers within the City and County's zoning code that can be adjusted to increase density. This includes lifting minimum lot size, increasing building heights, and/or reducing open space and setback requirements. The purpose of this study is not to prescribe how density should be increased. Rather, the aim is to show what profit margins could be achieved if greater density were permitted. It is up to the local jurisdictions to determine how to adjust land use regulations to enable higher density development.

Proforma Analysis and Findings

Apartments in Moab

The baseline pro forma showed that apartments were infeasible under the moderate and strong market scenarios, although they were close to feasible in the strong market. As a result, no inclusionary requirement or in-lieu fee was recommended for this product type.

In the density bonus scenario, where the minimum lot size was waived, permitting densities to increase from 21 units per acre to 35 units per acre, apartments were not feasible in the moderate market, but were feasible in the strong market. As shown in Appendix D-1, in the strong market, apartments with the density bonus resulted in a return on cost of 20.7 percent and a yield on cost of 6.0 percent, which met the minimum 15 percent and 5 percent minimum thresholds, respectively. The project was able accommodate a small, two-unit, inclusionary requirement (equivalent to five percent), assuming affordable rents were set at 50 percent of AMI. Therefore, waiving the minimum lot size allowed the project to support a small inclusionary requirement.

Apartments in Grand County

As shown in Appendix D-2, the baseline pro formas showed apartments were infeasible in both the moderate and strong markets, owing largely to the eight-dwelling unit per acre cap. Given the high cost of land, acquisition costs could not be distributed across more units, rendering apartments infeasible under the baseline.

With the removal of the density cap, projects under the density bonus scenarios were able to increase from eight to 32-units per acre, slightly lower than the density achieved for apartments in the City of Moab, because Grand County has higher parking ratios. Similar to apartments in Moab, apartments in Grand County were not feasible in the moderate market, but were feasible in the strong market. The density bonus in the strong market resulted in a 17.3 percent return on cost and 5.9 percent yield on cost, somewhat exceeding the minimum 15 percent and 5 percent minimum thresholds, respectively. However, the project was not able to accommodate any inclusionary provision, given the slim margin. Therefore, waiving the density cap allowed the project to become feasible in the strong market, but did not provide sufficient benefits to allow the project to adopt any inclusionary provision.

Condominiums in Grand County

The baseline proforma showed that condominiums in Grand County were not feasible in the moderate market, but were feasible in the strong market and could accept up to an eight percent inclusionary requirement.

In the density bonus scenario, shown in Appendix D-3, where the maximum height was increased from 35 feet to 65 feet, condominiums were still not feasible in the moderate market, but were feasible in the strong market. With the density bonus, condominiums in a strong market could support an inclusionary requirement up to ten percent, assuming sales prices were affordable to 80 percent of AMI households or \$200,000 per unit. It should be noted that the pro forma is highly sensitive to changes in price. As shown in Appendix D-3, the

market-rate sales price in the moderate market was approximately \$250,000, which was not sufficient to reach the minimum return on cost. However, average sales price of \$330,000 allowed the project to accommodate two affordable units in the baseline and four affordable units in the density-bonus scenario. Given the potential variation in this product type related to market cycles, it is recommended that the County maintain a flexible inclusionary policy, so that it does not discourage development during economic downturns.

Appendix 57: Multi-Family Rental Density Bonus Analysis, City of Moab

Assumes multifamily rental within the City of Moab in R-3 zone

Development Assuptions	Moderate Market Baseline	Moderate w/o Min Lot Size (a)	Strong Market Baseline	Strong Market w/o Min Lot Size (a)
Site Size (sf) (a)	43,560	43,560	43,560	43,560
Less: Setbacks (b)	(8,763)	(8,763)	(8,763)	(8,763)
Less: Additional Open Space (% lot size)	25% (2,127)	(2,127)	(2,127)	(2,127)
Building Footprint (sf)	21,645	14,295	21,645	21,645
Total Parking Area (sf)	350	11,025	18,375	11,025
Number of Units	21	35	21	35
Number of Affordable Units	5%	-	-	2
Average Unit Size (mix of studios, 1s, 2s)	1,000	1,000	1,000	1,000
Net Residential Space (sf)	21,000	35,000	21,000	35,000
Common Area	15.0% 3,150	5,250	3,150	5,250
Total Residential Space (sf)	24,150	40,250	24,150	40,250
Parking Ratio (spaces per unit)	1.5	1.5	1.5	1.5
Number of Parking Spaces	32	53	32	31.50
Number of Residential Floors	2	3	2	2
FAR	0.6	0.9	0.6	0.9
Dwelling Units/Acre	21	35	21	35
Rents				
Average Rent per Unit	\$ 1,200	\$ 1,200	\$ 1,350	\$ 1,350
Affordable Rent per Unit (c)	\$ -	\$ -	\$ -	\$ 700
Development Costs				
Site Work	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Hard Costs - Res (wood frame) (d)	\$ 100	\$ 100	\$ 100	\$ 100
Parking Costs (per space)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	20.0%	20.0%
Impact Fees				
Sewer Impact Fee per Unit (e)	\$ 1,525	\$ 1,525	\$ 1,525	\$ 1,525
Water Impact Fee per Project (e)	\$ 10,946	\$ 10,946	\$ 10,946	\$ 10,946
Proposed Residential Fee per sq. ft.	\$ -	\$ -	\$ -	\$ -
Financing Costs				
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.0%	6.0%	6.0%	6.0%
Loan Fees	1.5%	1.5%	1.5%	1.5%
Construction Period (months)	24	24	24	24
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%
Operations				
Vacancy	5.0%	5.0%	5.0%	5.0%
OpEx per unit	\$ 5,500	\$ 5,500	\$ 5,500	\$ 5,500
Cap Rate (f)	5.5%	5.5%	5.0%	5.0%

Development Costs	Moderate Market Baseline	Moderate w/o Min Lot Size (a)	Strong Market Baseline	Strong Market w/o Min Lot Size (a)
Land	\$ 76,230	\$ 76,230	\$ 119,790	\$ 119,790
Land per Residential Unit	\$ 3,630	\$ 2,178	\$ 5,704	\$ 3,423
Land per Acre	\$ 76,230	\$ 76,230	\$ 119,790	\$ 119,790
Construction Costs				
Site Work	\$ 217,800	\$ 217,800	\$ 217,800	\$ 217,800
Hard Costs - Residential	\$ 2,415,000	\$ 4,025,000	\$ 2,415,000	\$ 4,025,000
Hard Costs - Parking	\$ 110,250	\$ 183,750	\$ 110,250	\$ 110,250
Soft Costs	\$ 548,610	\$ 885,310	\$ 548,610	\$ 870,610
Water/Sewer Impact Fees	\$ 42,971	\$ 64,321	\$ 42,971	\$ 64,321
Proposed Residential Linkage Fee	\$ -	\$ -	\$ -	\$ -
Subtotal Const Costs Before Financing	\$ 3,334,631	\$ 5,376,181	\$ 3,334,631	\$ 5,287,981
Financing Costs				
Points	\$ 35,014	\$ 56,450	\$ 35,014	\$ 55,524
Construction Period Interest	\$ 171,907	\$ 274,802	\$ 174,103	\$ 272,552
Subtotal Financing Costs	\$ 206,921	\$ 331,251	\$ 209,116	\$ 328,075
Total Development Costs	\$ 3,617,782	\$ 5,783,662	\$ 3,663,537	\$ 5,735,846
Total Development Cost per SF (excl land)	\$ 147	\$ 142	\$ 147	\$ 140
Total Development Cost per SF (inc. land)	\$ 150	\$ 144	\$ 152	\$ 143
Proposed Residential Fee as % of TDC	0.0%	0.0%	0.0%	0.0%
Valuation				
Operations				
Gross Income (Market Rate)	\$ 302,400	\$ 504,000	\$ 340,200	\$ 534,600
Gross Income (Affordable)	\$ -	\$ -	\$ -	\$ 16,800
Less: Vacancy	\$ (15,120)	\$ (25,200)	\$ (17,010)	\$ (27,570)
Less: Op Expenses	\$ (115,500)	\$ (192,500)	\$ (115,500)	\$ (192,500)
Net Operating Income (NOI)	\$ 171,780	\$ 286,300	\$ 207,690	\$ 331,330
Value at Stabilization	\$ 3,123,273	\$ 5,205,455	\$ 4,153,800	\$ 6,626,600
Return on Cost				
Value at Stabilization	\$ 3,123,273	\$ 5,205,455	\$ 4,153,800	\$ 6,626,600
Less: Total Development Costs	\$ 3,617,782	\$ 5,783,662	\$ 3,663,537	\$ 5,735,846
Profit	\$ (494,509)	\$ (578,208)	\$ 490,263	\$ 890,754
% Return on Cost	-13.7%	-10.0%	13.4%	15.5%
Yield on Cost (NOI/TDC)	4.7%	5.0%	5.7%	5.8%
Feasible? (g)	No	No	No	Yes

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab municipal code.
- The minimum setbacks are 15' for the front setback, 7' for the side setbacks, and 12' for the rear setback in the R-3 zone.
- Affordable rent assumes 50% AMI rent for a 2-bedroom unit for a household of three.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees for multi-family apartments in Moab are:

\$ 1,525	per unit
\$ 10,946	per project
- Cap rates were estimated based on interviews with brokers.
- Project feasibility assumes a minimum return on cost of 15% and a minimum yield on cost of 5% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 58: Multi-Family Rental Density Bonus Analysis, Grand County

Assumes multifamily rental within the City of Moab in R-3 zone

Development Assumptions		Moderate	Moderate	Strong	Strong
		Market Baseline	w/o Min Lot Size (a)	Market Baseline	Market w/o Min Lot Size (a)
Site Size (sf) (a)		43,560	43,560	43,560	43,560
Less: Setbacks (b)		(8,763)	(8,763)	(8,763)	(8,763)
Less: Additional Open Space (% lot size)	25%	(2,127)	(2,127)	(2,127)	(2,127)
Building Footprint (sf)		21,645	14,295	21,645	21,645
Total Parking Area (sf)	350	11,025	18,375	11,025	11,025
Number of Units		21	35	21	35
Number of Affordable Units	5%	-	-	-	2
Average Unit Size (mix of studios, 1s, 2s)		1,000	1,000	1,000	1,000
Net Residential Space (sf)		21,000	35,000	21,000	35,000
Common Area	15.0%	3,150	5,250	3,150	5,250
Total Residential Space (sf)		24,150	40,250	24,150	40,250
Parking Ratio (spaces per unit)		1.5	1.5	1.5	1.5
Number of Parking Spaces		32	53	32	31.50
Number of Residential Floors		2	3	2	2
FAR		0.6	0.9	0.6	0.9
Dwelling Units/Acre		21	35	21	35
Rents					
Average Rent per Unit		\$ 1,200	\$ 1,200	\$ 1,350	\$ 1,350
Affordable Rent per Unit (c)		\$ -	\$ -	\$ -	\$ 700
Development Costs					
Site Work		\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
Hard Costs - Res (wood frame) (d)		\$ 100	\$ 100	\$ 100	\$ 100
Parking Costs (per space)		\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
Soft Costs exc Fees (as % of hard)		20.0%	20.0%	20.0%	20.0%
Impact Fees					
Sewer Impact Fee per Unit (e)		\$ 1,525	\$ 1,525	\$ 1,525	\$ 1,525
Water Impact Fee per Project (e)		\$ 10,946	\$ 10,946	\$ 10,946	\$ 10,946
Proposed Residential Fee per sq. ft.		\$ -	\$ -	\$ -	\$ -
Financing Costs					
Loan to Cost Ratio		70.0%	70.0%	70.0%	70.0%
Interest Rate		6.0%	6.0%	6.0%	6.0%
Loan Fees		1.5%	1.5%	1.5%	1.5%
Construction Period (months)		24	24	24	24
Avg. Outstanding Balance During Construction		60.0%	60.0%	60.0%	60.0%
Operations					
Vacancy		5.0%	5.0%	5.0%	5.0%
OpEx per unit		\$ 5,500	\$ 5,500	\$ 5,500	\$ 5,500
Cap Rate (f)					
		5.5%	5.5%	5.0%	5.0%

Development Costs		Moderate	Moderate w/o	Strong	Strong Market
		Market Baseline	Min Lot Size (a)	Market Baseline	w/o Min Lot Size (a)
Land					
Land		\$ 76,230	\$ 76,230	\$ 119,790	\$ 119,790
Land per Residential Unit		\$ 3,630	\$ 2,178	\$ 5,704	\$ 3,423
Land per Acre		\$ 76,230	\$ 76,230	\$ 119,790	\$ 119,790
Construction Costs					
Site Work		\$ 217,800	\$ 217,800	\$ 217,800	\$ 217,800
Hard Costs - Residential		\$ 2,415,000	\$ 4,025,000	\$ 2,415,000	\$ 4,025,000
Hard Costs - Parking		\$ 110,250	\$ 183,750	\$ 110,250	\$ 110,250
Soft Costs		\$ 548,610	\$ 885,310	\$ 548,610	\$ 870,610
Water/Sewer Impact Fees		\$ 42,971	\$ 64,321	\$ 42,971	\$ 64,321
Proposed Residential Linkage Fee		\$ -	\$ -	\$ -	\$ -
Subtotal Const Costs Before Financing		\$ 3,334,631	\$ 5,376,181	\$ 3,334,631	\$ 5,287,981
Financing Costs					
Points		\$ 35,014	\$ 56,450	\$ 35,014	\$ 55,524
Construction Period Interest		\$ 171,907	\$ 274,802	\$ 174,103	\$ 272,552
Subtotal Financing Costs		\$ 206,921	\$ 331,251	\$ 209,116	\$ 328,075
Total Development Costs					
Total Development Costs		\$ 3,617,782	\$ 5,783,662	\$ 3,663,537	\$ 5,735,846
Total Development Cost per SF (excl land)		\$ 147	\$ 142	\$ 147	\$ 140
Total Development Cost per SF (inc. land)		\$ 150	\$ 144	\$ 152	\$ 143
Proposed Residential Fee as % of TDC		0.0%	0.0%	0.0%	0.0%
Valuation					
Operations					
Gross Income (Market Rate)		\$ 302,400	\$ 504,000	\$ 340,200	\$ 534,600
Gross Income (Affordable)		\$ -	\$ -	\$ -	\$ 16,800
Less: Vacancy		\$ (15,120)	\$ (25,200)	\$ (17,010)	\$ (27,570)
Less: Op Expenses		\$ (115,500)	\$ (192,500)	\$ (115,500)	\$ (192,500)
Net Operating Income (NOI)		\$ 171,780	\$ 286,300	\$ 207,690	\$ 331,330
Value at Stabilization		\$ 3,123,273	\$ 5,205,455	\$ 4,153,800	\$ 6,626,600
Return on Cost					
Value at Stabilization		\$ 3,123,273	\$ 5,205,455	\$ 4,153,800	\$ 6,626,600
Less: Total Development Costs		\$ 3,617,782	\$ 5,783,662	\$ 3,663,537	\$ 5,735,846
Profit		\$ (494,509)	\$ (578,208)	\$ 490,263	\$ 890,754
% Return on Cost		-13.7%	-10.0%	13.4%	15.5%
Yield on Cost (NOI/TDC)		4.7%	5.0%	5.7%	5.8%
Feasible? (g)		No	No	No	Yes

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab municipal code.
- The minimum setbacks are 15' for the front setback, 7' for the side setbacks, and 12' for the rear setback in the R-3 zone.
- Affordable rent assumes 50% AMI rent for a 2-bedroom unit for a household of three.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees for multi-family apartments in Moab are:
 - \$ 1,525 per unit
 - and Water Impact Fee with a 2" meter \$ 10,946 per project
- Cap rates were estimated based on interviews with brokers.
- Project feasibility assumes a minimum return on cost of 15% and a minimum yield on cost of 5% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.

Appendix 59: Condominiums with Density Bonus, Grand County

Assumes condominiums permitted for overnight rentals within Grand County's Highway Commercial Zone

	Moderate Market Baseline	Moderate Market w/ 65' Height	Strong Market Baseline	Strong Market w/ 65' Height		Moderate Market Baseline	Moderate Market w/ 65' Height	Strong Market Baseline	Strong Market w/ 65' Height
Development Assuptions					Development Costs				
Site Size (sf) (a)	43,560	43,560	43,560	43,560	Land	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Less: Setbacks	(14,240)	(14,240)	(14,240)	(14,240)	Land per Residential Unit	\$ 3,300	\$ 2,500	\$ 5,000	\$ 3,788
Developed Footprint (sf)	14,008	9,108	14,008	9,108	Land per Acre	\$ 82,500	\$ 82,500	\$ 125,000	\$ 125,000
Number of Units (a)	25	33	25	33	Construction Costs				
Number of Affordable Units	-	-	2	4	Site Work	\$ 217,800	\$ 217,800	\$ 217,800	\$ 217,800
Inclusionary Requirement	0%	0%	8%	10%	Hard Costs - Residential	\$ 4,075,313	\$ 5,379,413	\$ 4,463,438	\$ 5,891,738
Average Unit Size (mix of 1s, 2s, 3s)	1,350	1,350	1,350	1,350	Hard Costs - Parking	\$ 153,125	\$ 202,125	\$ 153,125	\$ 202,125
Net Residential Space (sf)	33,750	44,550	33,750	44,550	Soft Costs	\$ 889,248	\$ 1,159,868	\$ 966,873	\$ 1,262,333
Common Area	15.0%	5,063	6,683	5,063	Water/Sewer Impact Fees	\$ 44,171	\$ 54,803	\$ 44,171	\$ 54,803
Total Residential Space (sf)	38,813	51,233	38,813	51,233	Subtotal Const Costs Before Financing	\$ 5,379,656	\$ 7,014,008	\$ 5,845,406	\$ 7,628,798
Parking Ratio (spaces per unit)	1.75	1.75	1.75	1.75	Financing Costs				
Number of Parking Spaces	44	58	44	58	Points	\$ 56,486	\$ 73,647	\$ 61,377	\$ 80,102
Total Parking Garage (sf)	350	15,313	20,213	20,212.50	Construction Period Interest	\$ 275,293	\$ 357,664	\$ 300,908	\$ 390,791
Number of Residential Floors	3	6	3	6	Subtotal Financing Costs	\$ 331,779	\$ 431,311	\$ 362,285	\$ 470,894
Total Number of Stories	1	1	1	1	Total Development Costs				
FAR	0.9	1.2	0.9	1.2	Total Development Costs	\$ 5,793,935	\$ 7,527,819	\$ 6,332,691	\$ 8,224,692
Dwelling Units/Acre	25.0	33.0	25.0	33.0	Total Development Cost per SF (excl land)	\$ 147	\$ 145	\$ 160	\$ 158
Sales Price					Total Development Cost per SF (inc. land)	\$ 149	\$ 147	\$ 163	\$ 161
Average Sales Price PSF	\$ 185	\$ 185	\$ 245	\$ 245	Valuation				
Average Sales Price Per Unit	\$ 249,750	\$ 249,750	\$ 330,750	\$ 330,750	Sales				
Average Sales Price PSF (80% AMI)	\$ 148	\$ 148	\$ 148	\$ 148	Sales (Market Rate Units)	\$ 6,243,750	\$ 8,241,750	\$ 7,607,250	\$ 9,591,750
Average Sales Price Per Unit (80% AMI)	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	Sales (Affordable Units)	\$ -	\$ -	\$ 400,000	\$ 800,000
Development Costs					Less: Marketing Costs	\$ (312,188)	\$ (412,088)	\$ (400,363)	\$ (519,588)
Site Work	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	Net Sales Revenue	\$ 5,931,563	\$ 7,829,663	\$ 7,606,888	\$ 9,872,163
Hard Costs - Res (wood frame) (b)	\$ 105	\$ 105	\$ 115	\$ 115	Return on Cost				
Parking Costs (per space)	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	Net Sales Revenue	\$ 5,931,563	\$ 7,829,663	\$ 7,606,888	\$ 9,872,163
Soft Costs exc Fees (as % of hard)	20.0%	20.0%	20.0%	20.0%	Less: Total Development Costs	\$ 5,793,935	\$ 7,527,819	\$ 6,332,691	\$ 8,224,692
Impact Fees					Profit	\$ 137,627	\$ 301,843	\$ 1,274,196	\$ 1,647,471
Sewer Impact Fee per Unit (c)	\$ 1,329	\$ 1,329	\$ 1,329	\$ 1,329	% Return on Cost				
Water Impact Fee per Project (c)	\$ 10,946	\$ 10,946	\$ 10,946	\$ 10,946	Feasible? (d)	No	No	Yes	Yes
Financing Costs									
Loan to Cost Ratio	70.0%	70.0%	70.0%	70.0%					
Interest Rate	6.0%	6.0%	6.0%	6.0%					
Loan Fees	1.5%	1.5%	1.5%	1.5%					
Construction Period (months)	24	24	24	24					
Avg. Outstanding Balance During Construction	60.0%	60.0%	60.0%	60.0%					
Sales Assumptions									
Marketing Costs	5.0%	5.0%	5.0%	5.0%					

Notes:

- Assumes minimum lot size of 2,000 square foot per dwelling unit, per City of Moab's R-3 zone. The density bonus scenarios removes this requirement.
- Hard costs were based on data from RS Means with a location factor applied to reflect construction costs in the Moab Area.
- Sewer impact fees in Grand County are \$ 1,329 per unit and water impact fees with a 2" meter are \$ 10,946 per project
- Project feasibility assumes a minimum return on cost of 20% based on interviews with developers active in the Moab Area.

Source: BAE, 2018.