

C1.01 AFFORDABLE HOUSING

Rhiannon Moss, Avery Cousins, and Tyler Barr Sponsored by: SATOP & Felipe Gutierrez



PROJECT DESCRIPTION

Hays County residents face housing instability due to rent prices surpassing median incomes. RAT Developments has been tasked to design affordable housing for one-hundred single families of four with a focus on foundation. Our goal is to achieve maximum affordability without violating the integrity of our design.

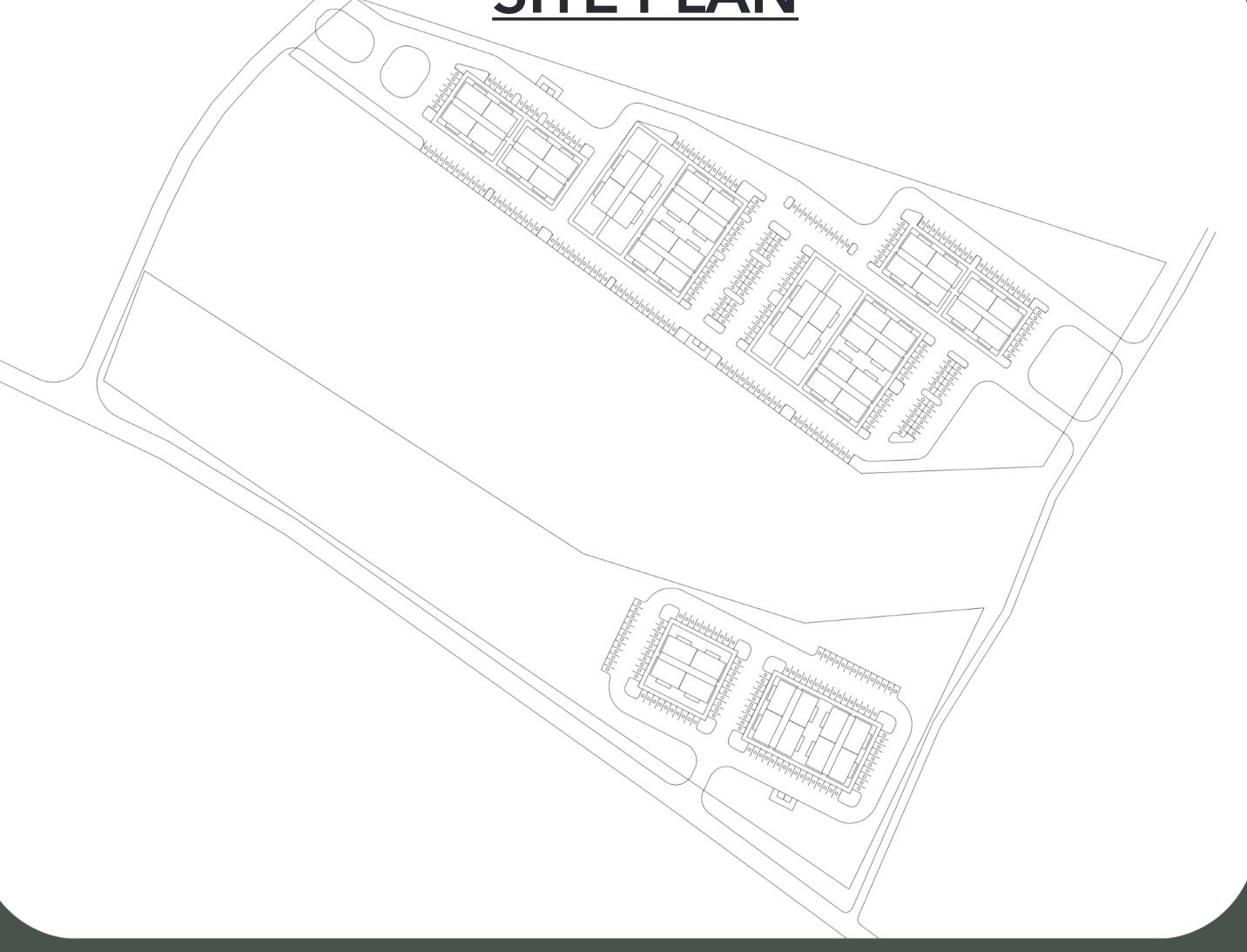
SITE SELECTION



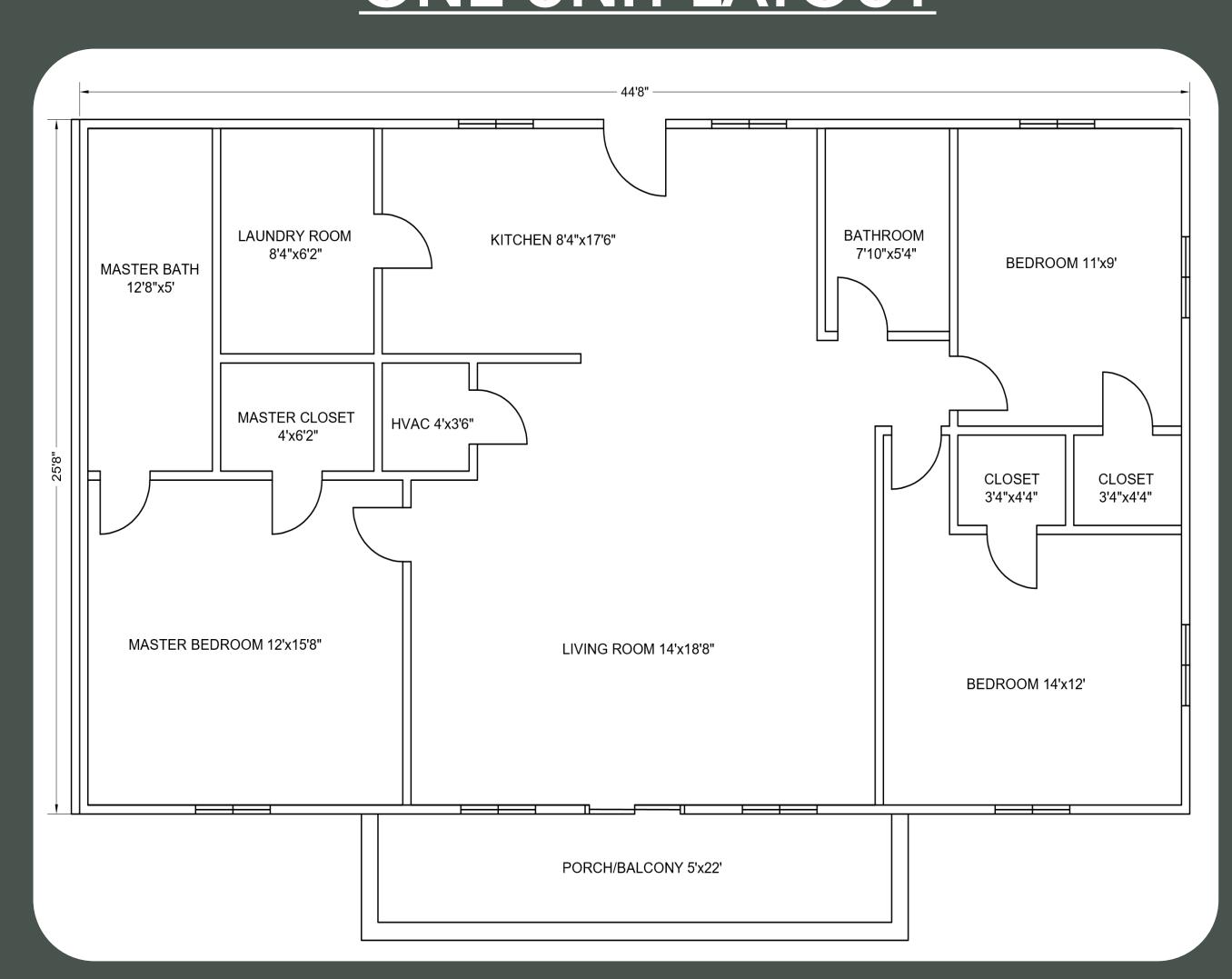
ALTERNATIVES CONSIDERED

Alternative	Cost	Drainage & Impervious Cover	Legal Compliance	Structural Stability	Total Score
SS Waffle	7	9	9	7	32
SS Pier	5	7	5	3	20
MS Waffle	4	3	4	8	19
MS Pier	2	2	2	2	8

SITE PLAN



ONE UNIT LAYOUT



CONSTRAINTS & STANDARDS

- Federal Emergency Management Agency
- Edwards Aquifer Recharge Zone
- United States Soil Conservation Service
- Hays County Development Regulations
- International Fire Code

CAPITAL COSTS

Land Acquisition	\$560,000
Construction Costs	\$4,420,000
Engineering Fees	\$250,000
Total Estimated Capital Cost	\$5,230,000

LIFE CYCLE COSTS

Capital Cost	\$5,230,000
Operating & Maintenance Costs	\$39,650,000
Rehabilitation Cost	\$900,000
Salvage Cost	\$(530,000)
Discount Rate (%)	5
Inflation Rate (%)	2
Net present value	\$45,250,000

LEED EVALUATION

Category	Achieved	Possible	
Integrative Process	1	1	
Location & Transportation	0	16	
Sustainable Sites	9	10	
Water Efficiency	7	11	
Energy & Atmosphere	1	33	
Materials & Resources	8	13	
Indoor Environment			
Quality	12	16	
Innovation	1	6	
Regional Priority	1	4	
Total	40	110	
Level Achieved	Certified		