Actual Loan-to-Cost (LTC) 64% Amount
Actual Loan-to-Value (LTV) 42% Mezzanine Debt
Annual Debt Service $5,058,277 Amortization (Yrs)
Desired DCR 1.2 Eligible for HTC
Cap Rate 4.50%
LTV Method
Implied Loan Size 56,536,788$
Monthly Debt Service 421,523$
Annual Debt Service 5,058,277$
Implied Loan Size 101,165,545$
LTV 75%
Stabilized NOI (Year 1) 6,069,933$
Abatement Done by City
Implied Loan Size 66,043,907$
LTC 75%
Total Development Costs 88,058,543$
LTC Method
Amortization (Yrs) 20 Landmark Status (Yes/No)
Interest Rate 6.50% Year of Sale
Loan Assumptions Feasibility Strategies Dashboard
Acquisition $ 1
Hard Costs $ 71,438,239
Soft Costs $ 16,620,304
TOTAL COSTS $ 88,058,543

The Intersection
Agritecture at the Intersection of Architecture & Agriculture

Yan Ferris Konan
Building operating emissions account for 29% of global greenhouse gas emissions while building components for 11%. To mitigate these effects, we must reduce the carbon footprint of construction activities, building materials, and sequestering carbon dioxide in forests and farmland. Indiscriminate hemp is a solution to all these challenges. Hemp is a carbon-negative crop, absorbing more carbon dioxide than trees, and thus represents a unique sequestration opportunity. By using hemp as a construction material, we can improve the thermal efficiency of our buildings, consequently reducing operational carbon. Finally, by cultivating hempbrick, a mixture of hemp and various binders, we can reduce the embodied carbon of the built environment. The Intersection encompasses each of these ideas and will be integrated into an existing campus in Beltsville, Maryland, encompassing the National Agricultural Library, the USDA Agricultural Research Center, and the Beltsville Agricultural Research Center. This development aims to catalyze Prince George’s County’s sustainability and revitalization by adding a Manufacturing facility with offices and redeveloping agricultural fields with a hemp landscape. Biometric construction materials such as mass-timber, hempbrick, and photovoltaic systems will additionally add carbon sequestration to this development’s built environment and farms. The Intersection will enhance public knowledge about the cultivation of hemp as an agricultural opportunity and demonstrate hemp’s potential as a building insulator, emphasizing its numerous contributions to addressing the climate crisis.