

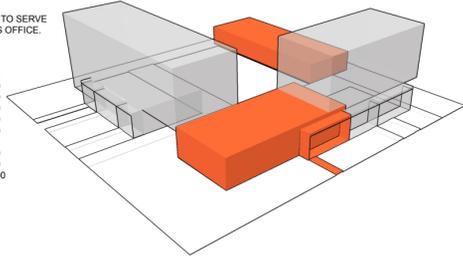
**PHASE ONE**

CONSTRUCTION OF SINGLE LEVEL PLYMOUTH AND SHERIDEN INTERSECTION DWELLING AND ALL GARAGES

UNIT MAY BE STAGED INITIALLY TO SERVE AS THE DEVELOPMENT'S SALES OFFICE.

**CONSTRUCTION COST:**

SITE WORK	\$11,900
FOUNDATIONS	\$31,040
FRAMING	\$20,900
EXTERIOR FINISHES	\$23,700
ENVELOPE	\$45,000
INTERIOR FINISHES	\$14,230
SPECIALTIES	\$6,800
MECH-PLUMB	\$25,400
ELECTRICAL	\$18,000
TOTAL	\$189,000



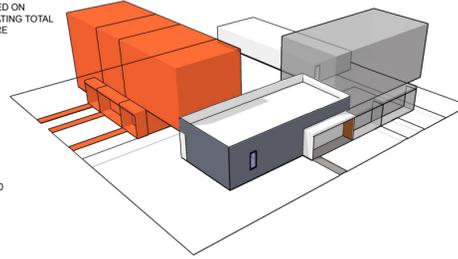
**PHASE TWO**

CONSTRUCTION OF THREE PLYMOUTH AVENUE UNITS AND PUBLIC GATEWAY

PASSIVE SOLAR WALL INSTALLED ON SOUTH FACE TO BEGIN GENERATING TOTAL HEATING LOADS FOR THE ENTIRE BUILDING.

**CONSTRUCTION COST:**

SITE WORK	\$7,700
FOUNDATIONS	\$18,800
FRAMING	\$64,000
EXTERIOR FINISHES	\$50,000
ENVELOPE	\$95,000
INTERIOR FINISHES	\$83,600
SPECIALTIES	\$21,000
MECH-PLUMB	\$78,800
ELECTRICAL	\$52,400
TOTAL	\$449,000



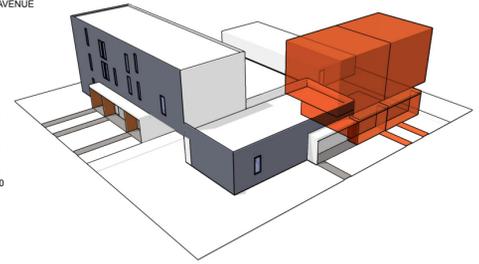
**PHASE THREE**

CONSTRUCTION OF SHERIDEN AVENUE REMAINING UNITS

FRONT YARDS ESTABLISHED

**CONSTRUCTION COST:**

SITE WORK	\$5,200
FOUNDATIONS	\$7,350
FRAMING	\$26,900
EXTERIOR FINISHES	\$20,900
ENVELOPE	\$63,700
INTERIOR FINISHES	\$50,122
SPECIALTIES	\$16,000
MECH-PLUMB	\$52,400
ELECTRICAL	\$23,180
TOTAL	\$255,740



**BEARDEN PLACE**

THE OVERALL DEVELOPMENT IS CONCEIVED AS A BLANK CANVAS, PASSIVE BUILDING AND LANDSCAPE PERFORMANCE AND MATERIAL, SPACE AND ENERGY EFFICIENCY. INDIVIDUAL SPACES AND LANDSCAPES ARE MINIMALLY FINISHED TO SERVE AS ARMATURES FOR THE DYNAMIC AMERICAN FAMILY.

PHASED DEVELOPMENT MAY ALSO PROVIDE OPPORTUNITIES FOR DYNAMISM IN DESIGN AND PURCHASE STRUCTURES. UNITS MAY BE PURCHASED, AT A BASE PRICE, AS OPEN SPACES AND BUILT OUT INCREMENTALLY AS FEASIBLE. FAMILIES MAY SELECT A PREDESIGNED BUILT OUT PLAN, AND HOMEOWNERS MAY WORK DIRECTLY WITH THE DEVELOPMENT'S ARCHITECT, INTERIOR, AND LANDSCAPE DESIGNER TO CUSTOMIZE.

BUILDING AND LANDSCAPE USE A LIMITED PALLET OF LOCAL, FAMILIAR AND NATIVE PLANTS. SPACE, SKIN AND LANDSCAPE ARE CONCEIVED AS INTERLOCKING AND OVERLAPPING LAYERS OF MATERIALS AND SPACES TO PROMOTE FAMILIAL INTERACTION AND CREATIVE COLLABORATION.

6 UNITS  
 AVERAGE DWELLING SIZE: 1,242 SQUARE FEET  
 OVERALL BUILDING SQUARE FOOTAGE: 7,447  
 OVERALL BUILDING CONSTRUCTION COST: \$893,700  
 OVERALL BUILDING PER SQUARE FOOT COST: \$120  
 ANTICIPATED AVERAGE BASE SALE PRICE PER UNIT: \$160,000



**2 PARENT HOUSEHOLD**

- Separated work and living spaces
- Either single bed rooms or shared
- A safe place for play

**1 PARENT HOUSEHOLD**

- Work from home
- Variety of work type options
- Layout promotes family interaction

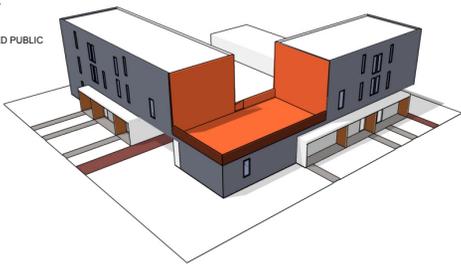
**1 - 2 PERSON HOUSEHOLD**

- Expandable family spaces
- Flexible work / live layouts
- Scalable rough-in options



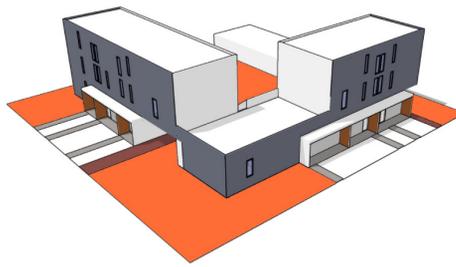
**PHASE FOUR**

CONSTRUCTION OF COMMUNITY SCULPTURE GARDEN  
 INSTALLATION OF COMMISSIONED PUBLIC ART COMPONENT  
 CONSTRUCTION COST:  
 LANDSCAPING \$11,100  
 COMMISSIONED ART \$20,000  
 STAIRS-RAILS \$4,000  
 EXTERIOR FINISHES \$16,000  
 ELECTRICAL \$7,300  
 TOTAL \$58,340



**PHASE FIVE**

CONSTRUCTION OF COMMON LANDSCAPES  
 CONSTRUCTION COST:  
 EARTHWORK \$11,500  
 RAIN GARDENS \$8,000  
 PRAIRIE LANDSCAPES \$7,500  
 BIORETENTION \$24,500  
 ELECTRICAL \$8,600  
 FENCING \$1,700  
 SIDEWALKS \$7,700  
 TOTAL \$75,700



**PHASE SIX**

INSTALLATION OF INCREMENTAL GREEN ROOFS  
 INSTALLATION OF INCREMENTAL RENEWABLES  
 CONSTRUCTION COST:  
 GREEN ROOFS \$6,600  
 SOLAR HOT WATER \$18,900  
 RENEWABLE ELECTRIC \$32,000  
 ENGINEERING \$7,000  
 TOTAL \$64,400



INTERSECTION OF PLYMOUTH AND SHERIDEN



SHERIDEN AVENUE AND THE ALLEY



SECOND LEVEL INTERIOR



INTERIOR COURT AND THE PUBLIC CORRIDOR



MAIN LEVEL INTERIOR



RAINWATER STORAGE GARDEN AND COURTYARD

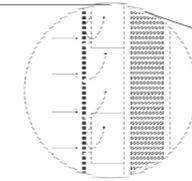
**MN GREENSTAR PRELIMINARY EVALUATION:**  
 AVERAGE UNIT SIZE: 1,245 SQUARE FEET  
 AVERAGE BEDROOMS: 3

	EE	RE	IEQ	WC	SC	TOTAL
PRE-CONSTRUCTION	25	8	3	3	6	45
LOCATION	0	0	0	0	28	28
SITE AND LANDSCAPE	7	16	1	27	46	97
ASSEMBLIES	40	50	4	0	8	102
MECHANICALS	42	6	22	0	0	70
ELECTRICAL	40	6	5	1	8	60
WATER	10	1	4	15	1	31
FINISHES	5	15	25	0	4	49
WASTE MANAGEMENT	0	5	0	0	7	12
EDUCATION	0	0	0	0	0	0
INNOVATION	0	0	0	0	0	0
GRAND TOTAL	169	107	64	46	108	494

PRELIMINARY RATING: SILVER

**ROOF CONSTRUCTION:**  
 SELF-BUILT INCREMENTAL GREEN ROOF  
 ROOT BARRIER  
 TPO REFLECTIVE MEMBRANE  
 SLOPED RIGID INSULATION  
 3/4" FSC PLYWOOD  
 16" FSC WOOD TRUSSES @ 24" O.C.  
 R-60 CLOSED CELL FOAM INSULATION  
 POLY VAPOR BARRIER  
 5/8" GYPSUM BOARD

**PASSIVE SOLAR WALL CONSTRUCTION:**  
 COLD AIR IS DRAWN THROUGH PERFORATED BLACK STEEL AND HEATED BY THE SUN WHICH THEN RISES UP AN 8" AIR SPACE BETWEEN THE STEEL'S CORRUGATIONS AND A BLACK STEEL LINING SHEET IN FRONT OF:  
 1" RIGID INSULATION W/ TAPED SEAMS  
 BUILDING WRAP W/ TAPED SEAMS  
 1/2" FSC PLYWOOD  
 2X6 FSC STUDS @ 24" O.C. ALIGNED WITH TRUSSES  
 R-36 CLOSED CELL FOAM INSULATION  
 1/2" GYPSUM BOARD



**OPAQUE WALL CONSTRUCTION:**  
 RANDOM VERTICAL GROOVE WHITE FIBER CEMENT PANELS  
 1" RIGID INSULATION W/ TAPED SEAMS  
 BUILDING WRAP W/ TAPED SEAMS  
 1/2" FSC PLYWOOD  
 2X6 FSC STUDS @ 24" O.C. ALIGNED WITH TRUSSES  
 R-36 CLOSED CELL FOAM INSULATION  
 1/2" GYPSUM BOARD

**TRANSLUCENT WALL CONSTRUCTION:**  
 16MM 3 WALL WHITE POLYCARBONATE  
 METAL STRAP DIAGONAL BRACING  
 2X6 FSC STUDS @ 24" O.C. ALIGNED WITH TRUSSES  
 R-36 CLOSED CELL FOAM INSULATION (PARTIAL)  
 8MM 3 WALL WHITE POLYCARBONATE

**FLOOR CONSTRUCTION:**  
 RECLAIMED WOOD STRIP FLOORING  
 3/4" FSC PLYWOOD TONGUE AND GROOVE SHEATHING  
 16" FSC WOOD TRUSSES @ 24" O.C.  
 MECHANICAL-ELECTRICAL-PLUMBING HORIZONTALS  
 5/8" GYPSUM BOARD

**INTERIOR WALL CONSTRUCTION:**  
 1/2" GYPSUM BOARD  
 2X4 OR 2X6 FSC STUDS @ 24" O.C.  
 1/2" GYPSUM BOARD

**STAIR CONSTRUCTION:**  
 FSC LVL STRINGERS  
 TREADS FROM WOOD CONSTRUCTION DEBRIS  
 OPEN RISERS  
 RAILS:  
 8MM CLEAR POLYCARBONATE  
 2X2 FSC STUDS @ 24" O.C.  
 8MM CLEAR POLYCARBONATE

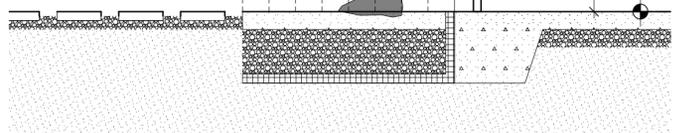
**CABINET CONSTRUCTION:**  
 PREFABRICATED NO VOC BOXES AND FRAMES  
 WHITE LAMINATE FINISH  
 DARK GRAY LAMINATE TOP

**BALCONY CONSTRUCTION:**  
 RECYCLED COMPOSITE DECKING  
 2X12 FSC TREATED JOISTS @ 24" O.C.  
 RAIL:  
 WHITE SHEET METAL CAP  
 8MM WHITE POLYCARBONATE  
 2X4 FSC STUDS @ 24" O.C.  
 8MM WHITE POLYCARBONATE

**PORCH CONSTRUCTION:**  
 ROOF:  
 TPO REFLECTIVE MEMBRANE  
 1/2" FSC PLYWOOD  
 SLOPED 2X12 FSC RAFTERS  
 FIBER CEMENT FACE  
 RECLAIMED BARN WOOD SIDING  
 WALLS:  
 FIBER CEMENT FACE  
 8MM WHITE POLYCARBONATE  
 RECLAIMED BARN WOOD  
 2X4 FSC STUDS @ 24" O.C.  
 FLOOR:  
 ZERO THRESHOLD  
 4" FLY ASH CONCRETE

**MAIN FLOOR CONSTRUCTION:**  
 4" FLY ASH CONCRETE SLAB  
 POLY VAPOR BARRIER  
 4" GRAVEL BASE

**FPSF FOUNDATION CONSTRUCTION:**  
 12" X20" CONCRETE GRADE BEAM  
 2" EXTERIOR RIGID INSULATION:  
 DEPTH 12"  
 2" HORIZONTAL RIGID INSULATION: WIDTH 48"



BUILDING SCIENCE AND ASSEMBLIES