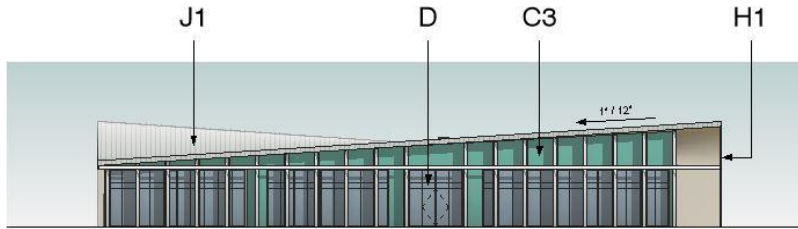


SALAZAR ARCHITECTS | MUTUAL ON THE BOULEVARD

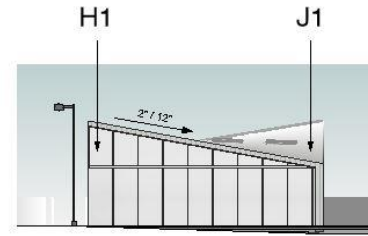


Justin Tuttle & Julia Kramer

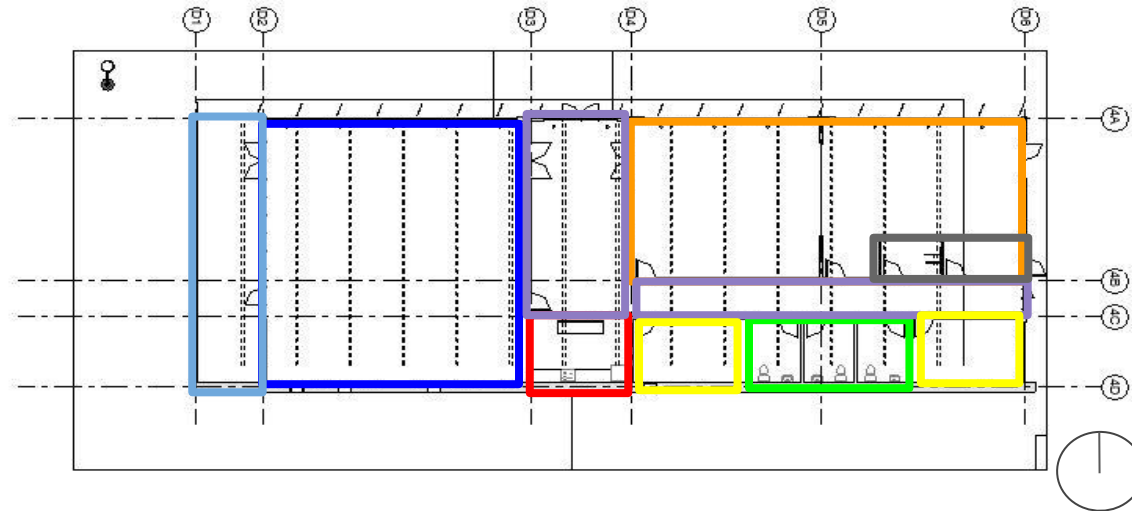
Mutual on the Boulevard | Plans + Elevations



2 FAMILY ARTS CENTER - NORTH ELEVATION
1/16" = 1'-0"

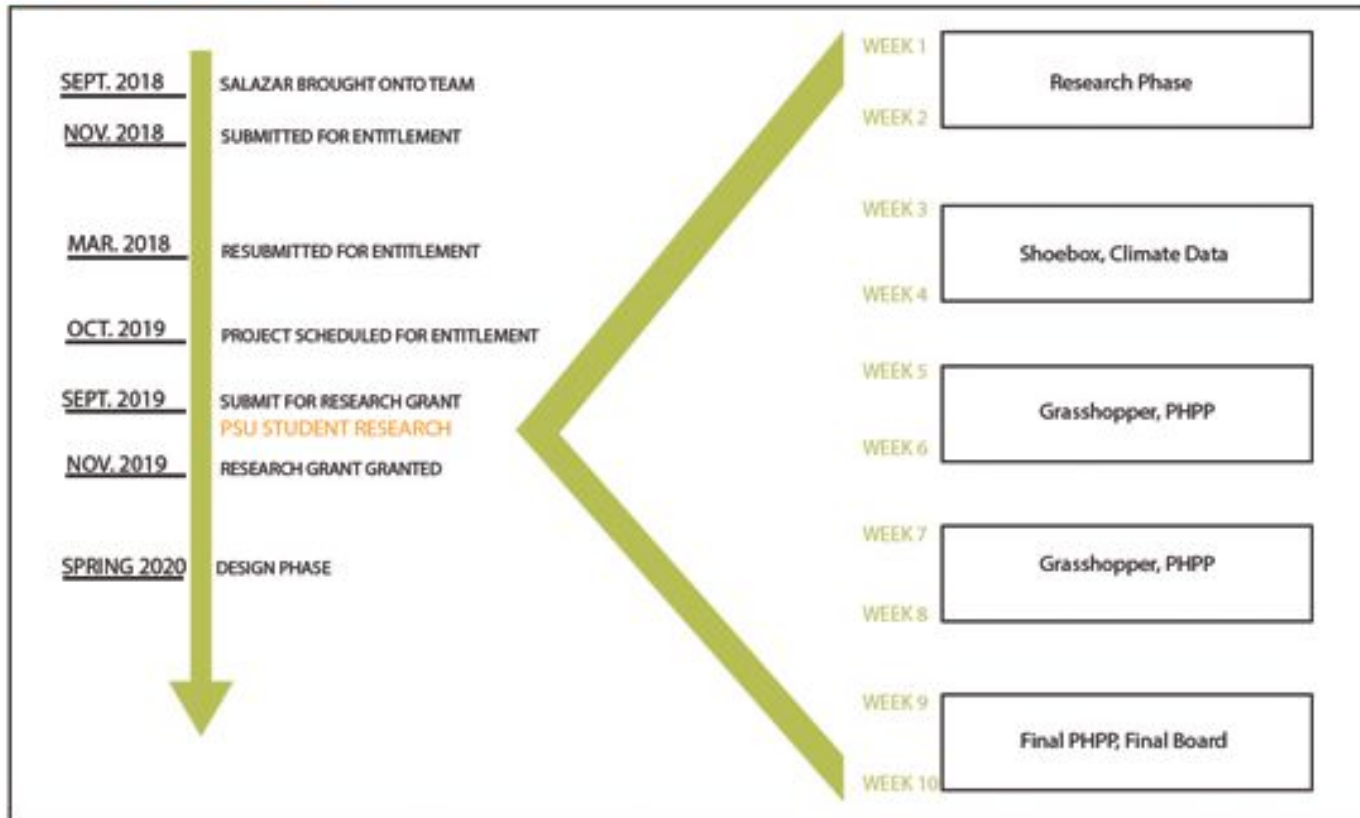


1 FAMILY ARTS CENTER - WEST ELEVATION
1/16" = 1'-0"

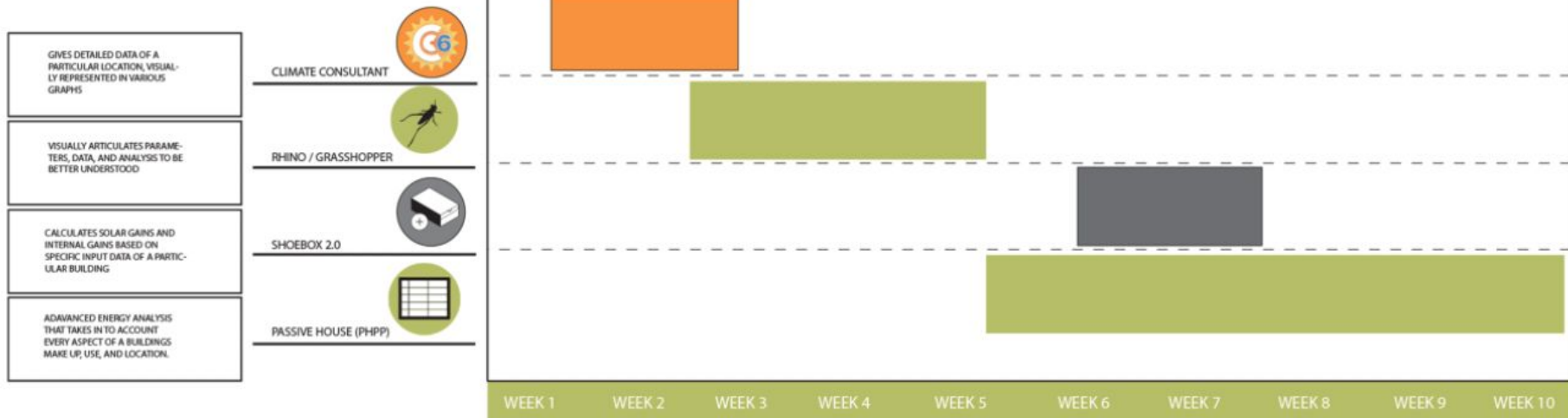


- AUDITORIUM
- RESTROOMS
- KITCHEN
- CLASSROOM
- CORRIDOR
- OFFICES
- BIKE STORAGE
- SUNSCREEN PATIO

Mutual on the Boulevard | Project Timeline



Mutual on the Boulevard | Software Timeline



Mutual on the Boulevard | Climate Takeaways

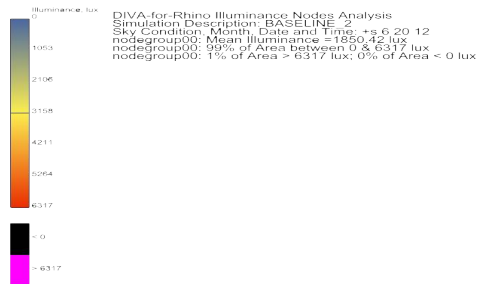
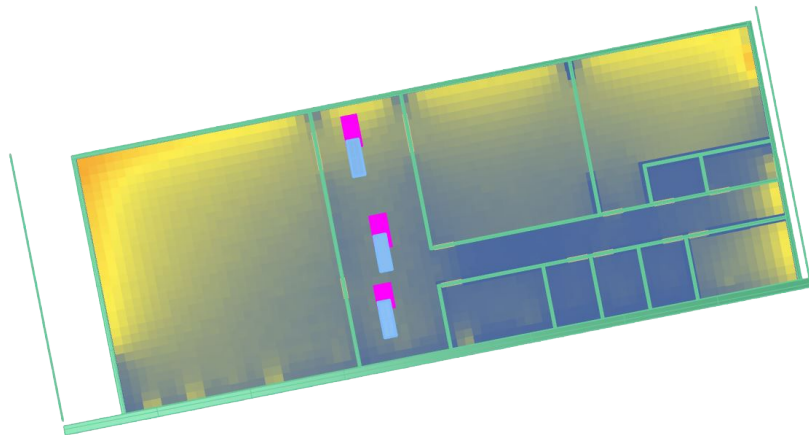
**7 MONTHS ANNUALLY
AVERAGE TEMP. IS
ABOVE THE COMFORT
ZONE TEMP OF 75 °**

**ONE MONTH ANNUALLY
THE AVERAGE TEMP, IS
IN THE COMFORT ZONE-
TEMP BETWEEN 68°-75°**

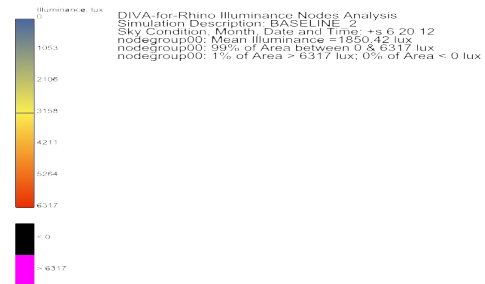
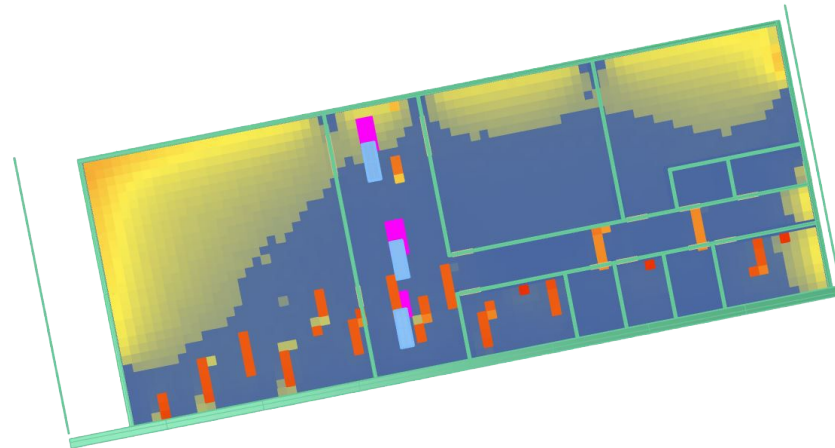
**LOW SKY COVERAGE
ANNUALLY. SUMMER
MONTHS ON RECORD
PARTICULARLY LOW.**

Mutual on the Boulevard | Rhino/Grasshopper: DIVA Daylighting Analysis

Summer Baseline | No Solar Shading

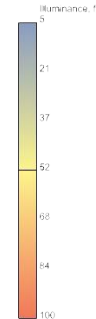
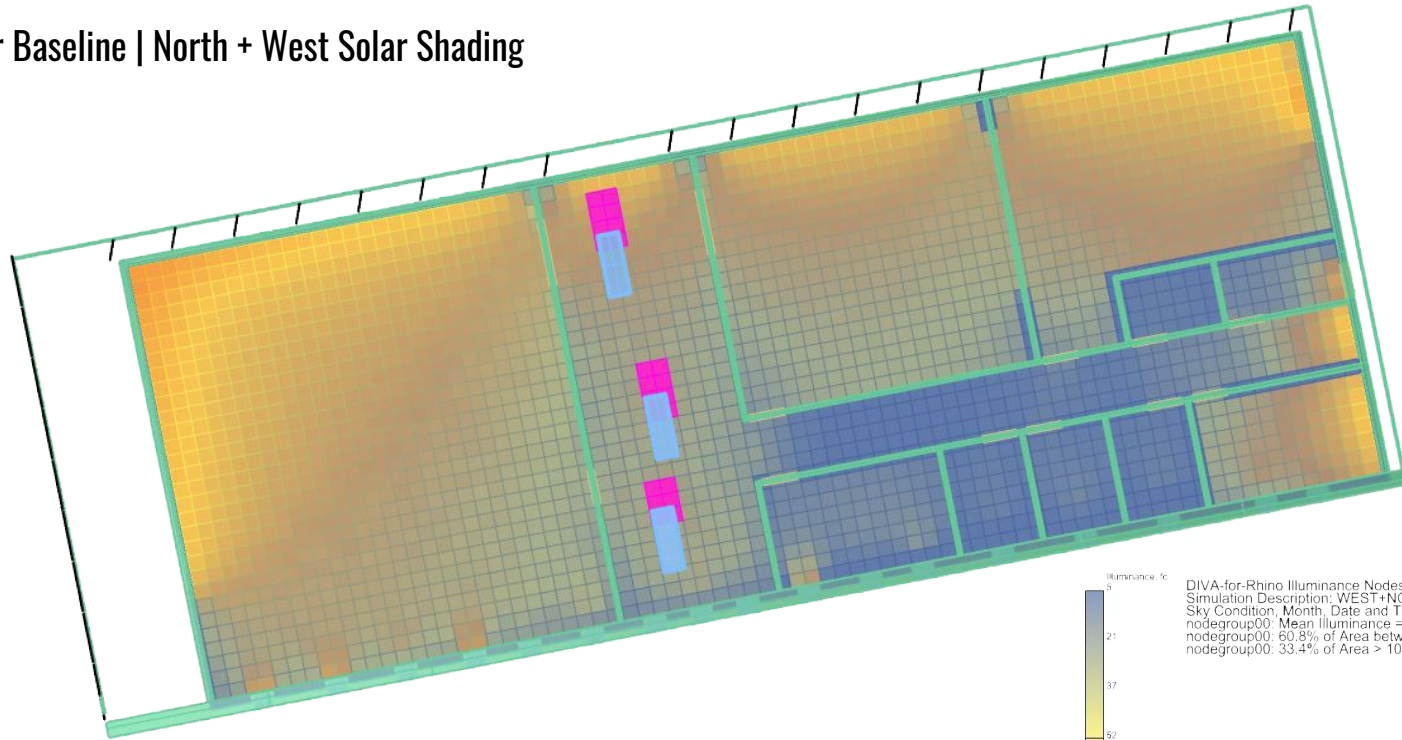


Winter Baseline | No Solar Shading



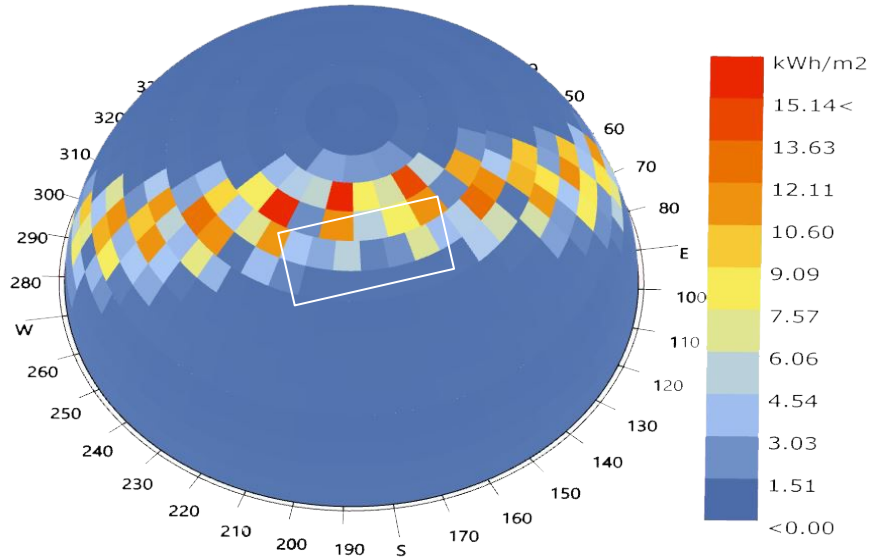
Mutual on the Boulevard | Rhino/Grasshopper: DIVA Daylighting Analysis

Solar Baseline | North + West Solar Shading

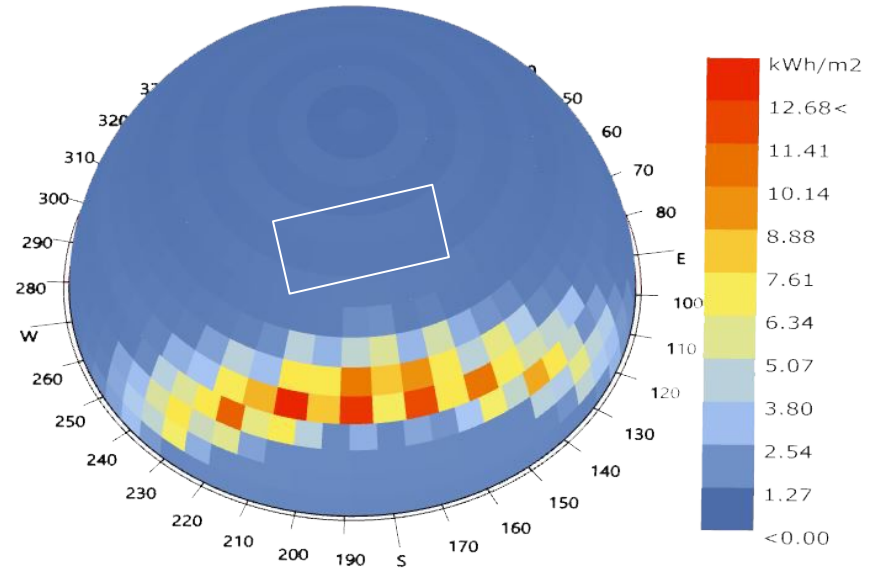


DIVA-for-Rhino Illuminance Nodes Analysis
Simulation Description: WEST-NORTH SUN SHADING_SUMMER_(5-100) FC
Sky Condition: Month: Date and Time: *s 6 20 12
nodegroup00: Mean Illuminance = 134.66 fc
nodegroup00: 60.8% of Area between 5 & 100 fc
nodegroup00: 33.4% of Area > 100 fc; 5.8% of Area < 5 fc

Mutual on the Boulevard | Rhino/Grasshopper: DIVA Daylighting Analysis

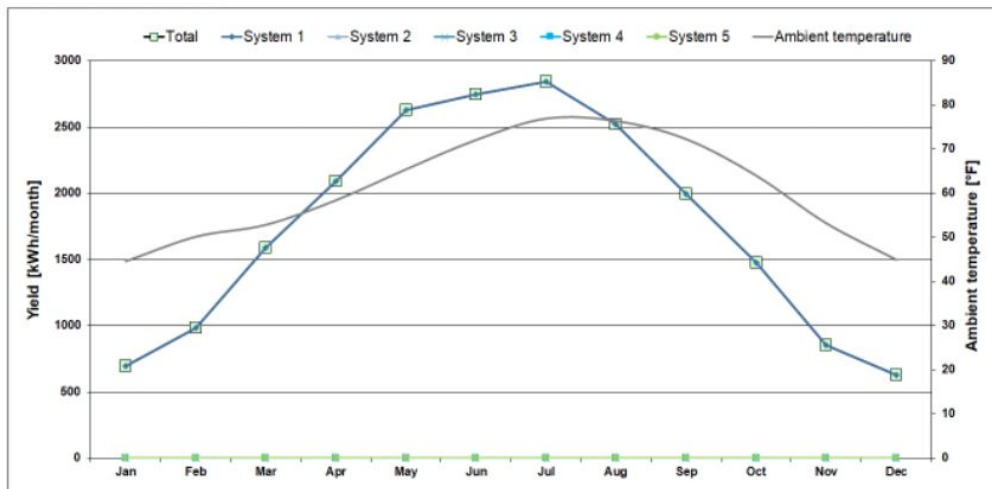


Total Radiation(kWh/m²)
 SACRAMENTO_CA_USA_1986
 1 JUL 1:00 - 31 AUG 24:00



Total Radiation(kWh/m²)
 SACRAMENTO_CA_USA_1986
 1 NOV 1:00 - 28 FEB 24:00

Mutual on the Boulevard | PHPP PV ANALYSIS



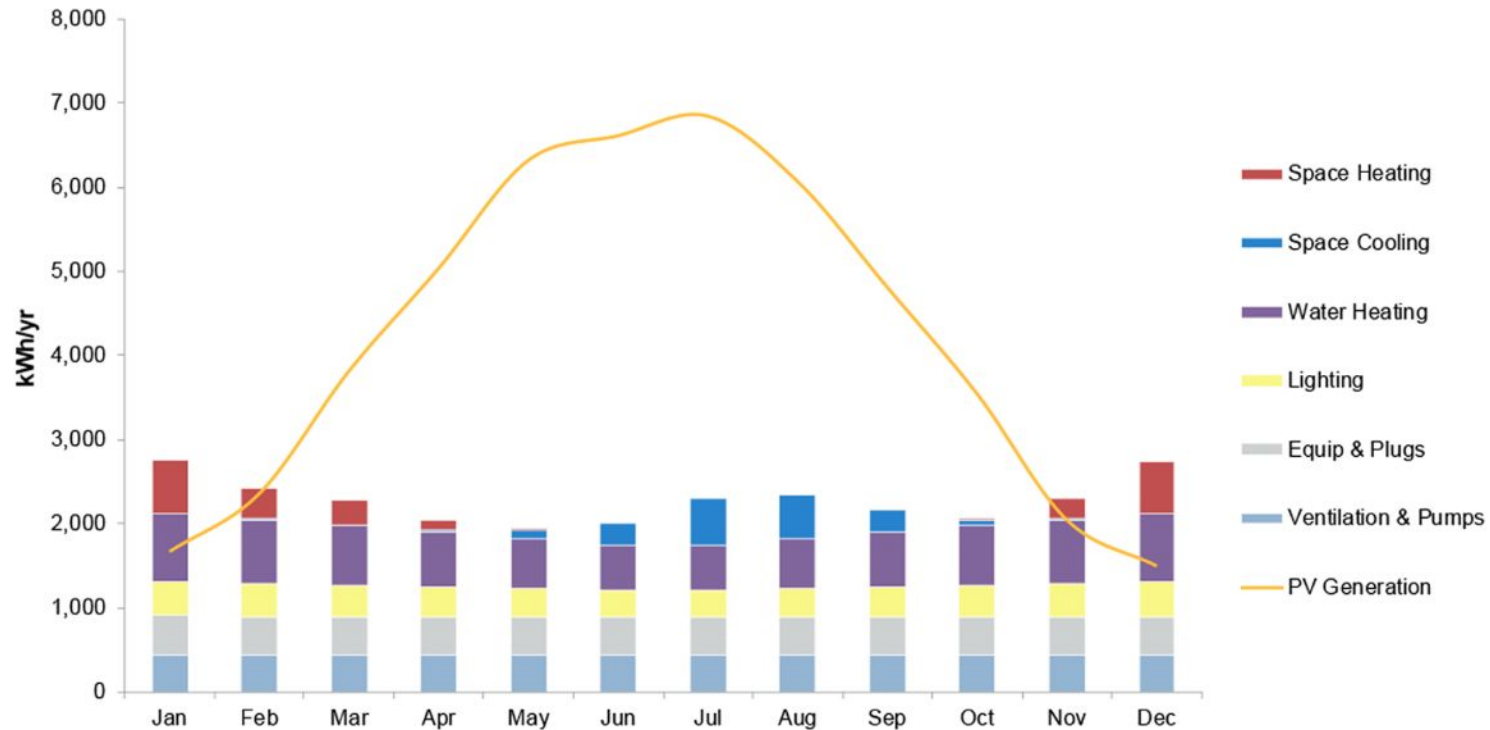
POWER RATING: 43.1 KW-DC

POWER RATING 39.71 KW-AC

SOLAR PV EXPECTED GENERATION: 64,984 KWH

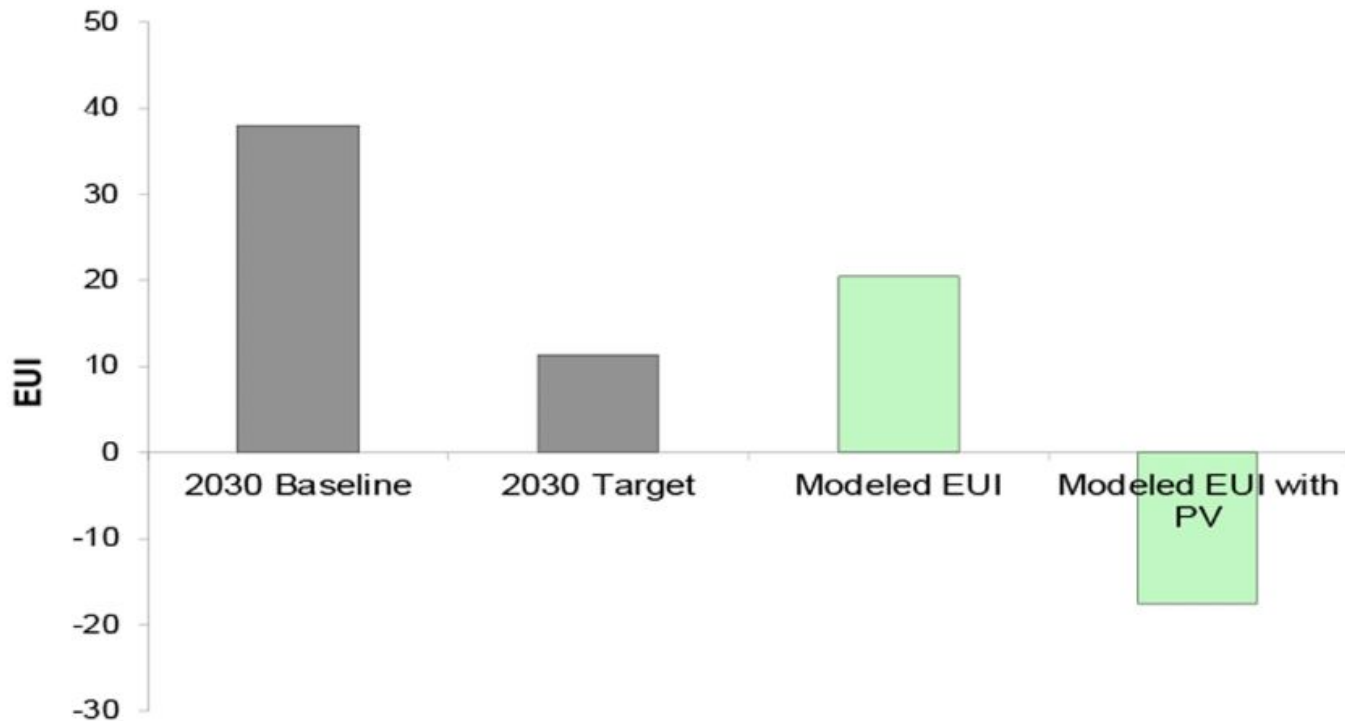
Mutual on the Boulevard | PHPP

MONTHLY ENERGY CONSUMPTION AND PRODUCTION

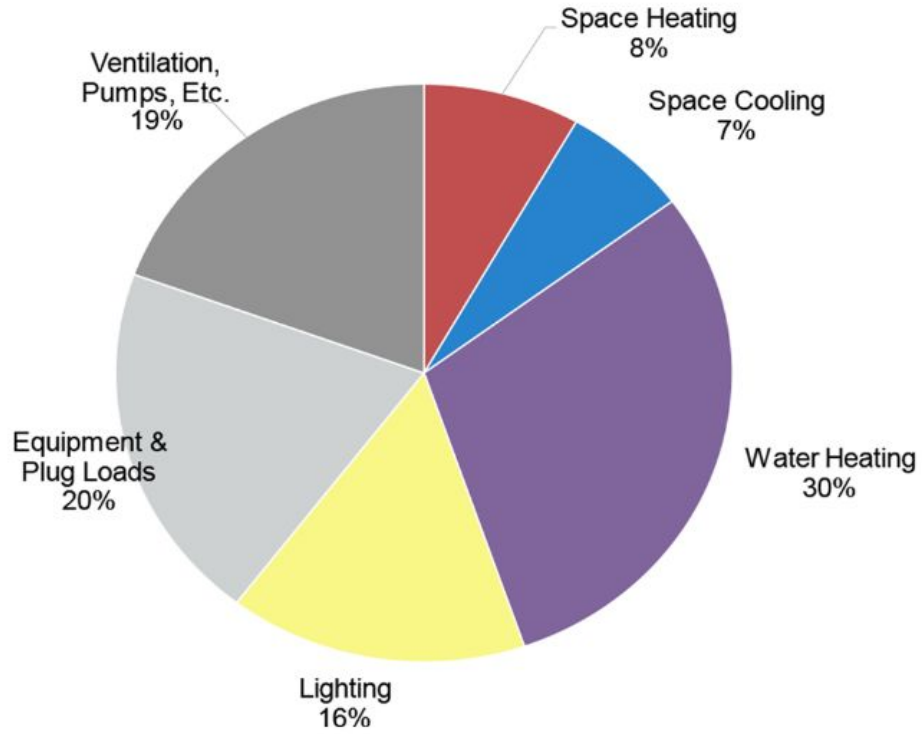


Mutual on the Boulevard | PHPP

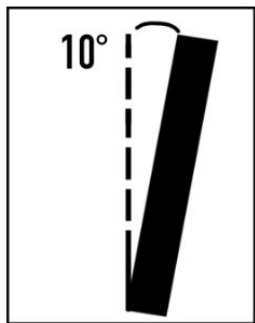
BENCHMARK



SITE ENERGY USE BREAKDOWN

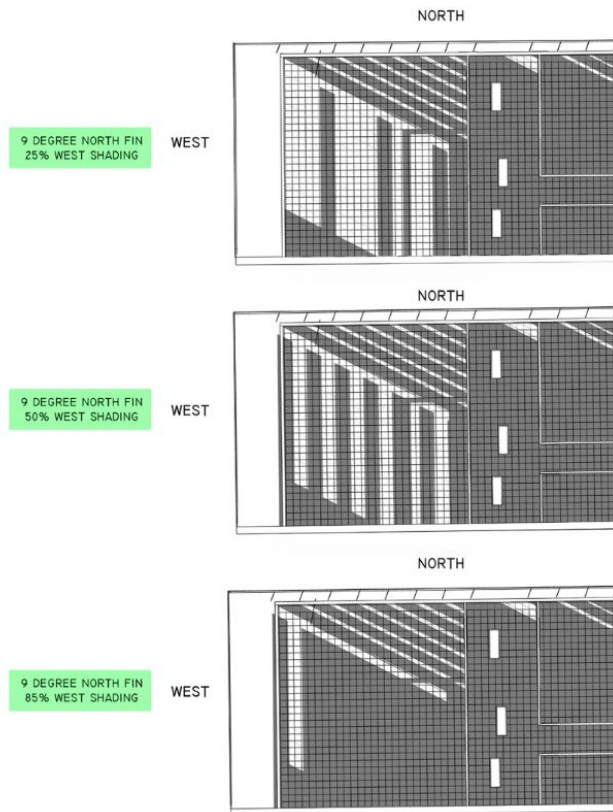


Mutual on the Boulevard | Shading Devices

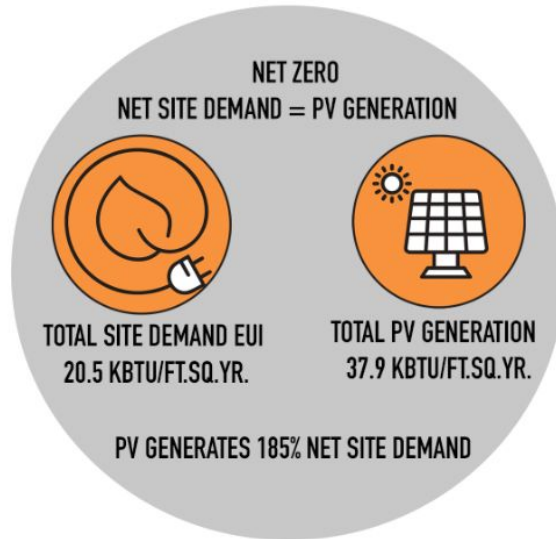


NORTH SHADING FINS PLACED AT VARYING DEGREES DID NOT INDICATE ANY SIGNIFICANT CHANGE IN SOLAR GAINS. CURRENTLY THE FINIS ARE MODELED AT 10° AND ARE SUFFICIENT.

WEST SHADING DEVICE IN THE SUMMER AT 6:00 PM INDICATES IDEAL SHADING PERCENTAGES SHOULD BE BETWEEN 50% AND 85%.



Mutual on the Boulevard | Summary and Future Explorations



FUTURE EXPLORATIONS:

- ANALYZE THE SOLAR HEAT GAINED FROM THE WEST SHADING DEVICE WITH DIFFERENT PERFORATION PERCENTAGES. POSSIBLY WITH RHINO/GRASSHOPPER
- FURTHER DEVELOP PHPP TO ENCOMPASS MORE ASPECTS OF THE BUILDINGS SITE DEMAND. POSSIBLE TABS INCLUDE HEATING, COOLING, R-VALUES..
- FURTHER EXPLORATION AND ANALYSIS IN TO THE BUILDINGS ENVELOPE THROUGH WALL ASSEMBLY STUDIES, SUGGESTED MATERIALS, AND GLAZING OPTIONS.