



Encounter Church: Redirecting the Purpose of A Facility

BEFORE

Previously a Corporate Wellness Center for Steelcase, the equipment was extremely oversized for this house of worship. What once had the capacity to serve racketball courts, rock wall, basketball court, pool, bathrooms, saunas, and steam rooms had to shrink to serve only 4,000 sq ft of sanctuary, kitchen space, classrooms, offices, lounge area. Condensing the zones and bypassing unnecessary transformers saved an instant \$600/month. With \$20,000 annual utility bills, Encounter's search to reduce their consumption brought them to the GR2030 Energy Assistance Program.

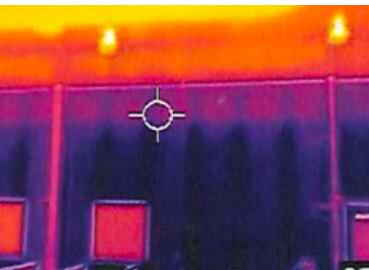
THE AUDIT

Energy Conservation Measures (ECMs) Earmarked for year 1 and 2

ECMs	Annual Cost Savings	Rebates Available	Payback
Space Heater Removal	\$300	NA	Immediate
Door Seals	\$255	NA	1.2 years
Window Seals	\$15 per unit	NA	1.66 years
Smart Thermostats	\$1,600	Donated	Immediate
LED Upgrades	\$2,000	\$1,150	4.4 years
Café Destratification	\$800	NA	6.25 years

The Grand Rapids 2030 District Energy Assistance Program ASHRAE level "1.5" audit conducted by E3M Solutions discovered a retrofit package with a 2.18:1 savings to investment ratio, a simple payback of 4.7 years and a 10 year Net Present Value of \$41,900. They also evaluated their utility bills and rating structure, and created a EnergyStar Portfolio Manager account on their behalf. With an EnergyStar score of 63, a variety of Energy Conservation Measures (ECMs) were recommended that would not only decrease costs and increase occupancy comfort, but also set precedence that Creation Care matters to Encounter.

Quirky no-cost solutions were uncovered - such as unplugging an espresso machine when not in use. This saves 5 Kw every 30 seconds can save \$550/year. Understanding strategic long-term measures, long term investments were included such as sizing a photovoltaic array.



About Encounter

You may have driven past Encounter Church located on Kalamazoo Ave, close to 44th street. You may not know it by looking at it, though both the congregation and the building have stories to tell. After humble beginnings in a living room, the property was purchased within 3 years. Previously owned by Steelcase, the grounds used to be an athletic facility. With two contrasting functions, the GR2030's Energy Assistance Program audit brought to light ways to adapt the building to its new purpose.



AFTER

Being a relational community, the energy audit report was shared with the congregation and the Creation Care committee. This provided tangible starts in their own facility to take steps in the right direction. Immediately, 5 donated Nest thermostats were received, and a volunteer installed them. In just 7 months they've seen 15% energy reductions, saved almost \$1000 and cannot wait to see the winter savings. Beyond this, a cultural shift is happening within the church. Individuals are spearheading passion projects, such as replacing plastics and Styrofoam with compostable containers, and switching trash for receptacles which are 3 divided "landfill", "recycle", and "composting". As they anticipate a building remodel, audit guidelines and wise energy management will be key pins in their decision making.

To Put This into Perspective

In the words of the lead pastor, the audit was like a "shot in the arm" which caused him to think to himself, "Whoa, there's a lot of opportunities right where we stand". This tangible document has enabled them to carry forth their vision in a data-driven manor. Through looking at the electrical fuel source breakdown, they predict to save a ton of coal year over year. This audit contextualizes their interaction with the earth through building management.