



City of Dearborn

Dearborn, Michigan



In 1996, MTI completed an engineered lighting project for the City of Dearborn.

The buildings included within this lighting project were:

City Hall, City Garage, Snow Library, Esper Library, Bryant Library, Fire station #1, Fire station #2, Fire station #3 and Fire station #4.



**Over a Ten Year Period, the Dearborn City Hall will save over \$610,894.00
That's Not Bad, for an Energy Bill.**

CASE STUDY

Dearborn City Hall

Location: Dearborn, Michigan
Average Hours of Operation: 3,744 per year
Average Utility Cost per kWh \$0.09
Total Watt Reduction: 129,339

Efficiency Measures

The indoor lighting at the Dearborn City Hall was a combination of fluorescent and incandescent lighting fixtures. The offices were primarily lit with 1' x 4' and 2' x 4' fluorescent fixtures. MTI Lighting Specialists retrofitted existing 1' x 2', 1' x 3', 1' x 4', 1' x 8', 2' x 2' and 2' x 4' fixtures that contained T-12 lamps with magnetic ballasts and retrofitted them with electronic ballasts and 32 watt, T-8 lamps. Incandescent fixtures were retrofitted with (CFL) compact fluorescent lamps for increased energy savings.

D	Total Number of Retrofits.....	1,320
E	Annual Energy Cost Savings Due to Reduced Lamp Wattage.....	\$43,942.75
T	Annual HVAC Energy Savings Due to Reduced Lamp Heat.....	\$11,627.82
A	Annual Maintenance Cost Savings Due to Reduced Lamp Changes.....	\$5,518.80
I	Total Annual Cost Savings.....	\$61,089.38
L	Monthly Energy Cost Savings Total.....	\$5,090.78
S	Return on Investment.....	19.58 months
	Projected 10 Year Energy Cost Savings.....	\$610,894.00

Cleaning the Environment... Energy-Effective Lighting and Pollution Prevention

The City of Dearborn's City Hall energy-effective retrofit means that they will remove 12.93 cars permanently from the road / plant 26.58 acres of trees.

It will also remove:

- 193,000 pounds of CO₂ prevented per year
- 25,800 ounces of SO₂ prevented per year
- 11,610 ounces of NO_x prevented per year