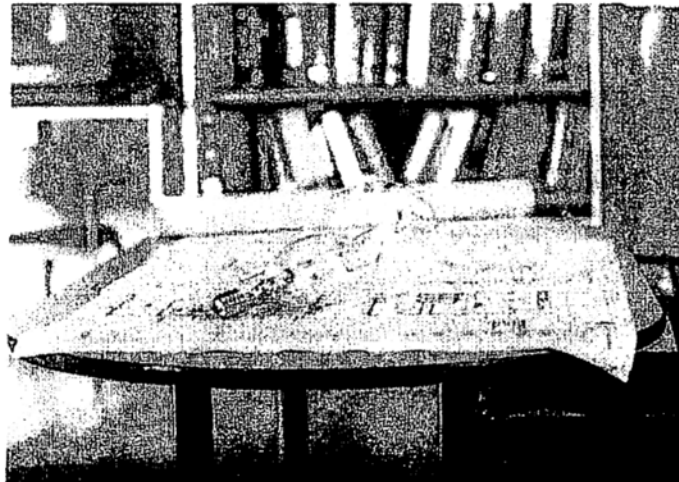


lighting > electrical > energy > technology > signs

FACILITY SOLUTIONS *group*

Preliminary Audit on Existing Lighting for
Williamson County



Legend		
EXIN	=	Exterior & Interior
XT	=	Exterior Only
GYM	=	Lighting Retrofit in Gym Only

All Figures Estimates and Measured Per Annum

Code	#	Address	Name	Quote	Energy Saved	Maint. Saved	KW Reduced
EXIN	1011	107 S Holly St	Lott Building	\$10,598	\$1,901	\$734	5
EXIN	1012	300 S Main St	Health Dept	\$23,923	\$7,317	\$1,657	20
EXIN	1013	303 S Main St	Environmental	\$2,949	\$949	\$204	3
XT	1046	305 W 4th St	Parking Garage	\$63,371	\$31,860	\$4,391	39
EXIN	1058	308 W 7th St	Skinner	\$7,273	\$3,305	\$504	10
EXIN	1024	311 S Main St	Substance Abuse	\$1,079	\$404	\$75	1
EXIN	1030	508 Holly	Building 2	\$3,043	\$467	\$211	1
EXIN	1007	516 Pine St	DPS	\$5,996	\$1,888	\$415	5
EXIN	1017	517 Pine St	ABC/Game Warden	\$927	\$317	\$64	1
EXIN	1051	904 S Main St	Tax Office	\$13,796	\$4,259	\$956	12
GYM	1045	1821 SE Innerloop	Juvenile Justice	\$15,000	\$1,369	\$4,000	3
XT			Exterior Poles	\$35,525	\$4,403	\$2,461	10
EXIN	1001	716 Austin Ave	Museum	\$2,803	\$957	\$194	3
EXIN	1019	305 MLK	EMS HQ	\$1,886	\$374	\$131	1
EXIN	1020	303 MLK	EMS Admin	\$2,328	\$326	\$161	1
XT	1009	405 MLK	Criminal Justice	\$11,158	\$1,137	\$773	2
EXIN	1008	508 S Rock St	Jail	\$63,398	\$25,978	\$4,755	59
EXIN	1043	301 SE Innerloop	Innerloop Annex	\$21,003	\$3,461	\$1,455	9
EXIN	1049	425 E Morrow	Showbarn	\$27,994	\$2,923	\$1,940	11
EXIN	1005	211 Commerce Cov	Annex A	\$17,892	\$5,346	\$1,240	15
EXIN	1006	211 Commerce Cov	Annex B	\$17,434	\$4,772	\$1,208	13
EXIN	1026	3151 SE Innerloop	Road & Bridge	\$22,435	\$5,081	\$1,954	14
XT	1032	350 Discovery Blvd	Cedar Park Annex	\$12,785	\$1,486	\$886	3
EXIN	1044	2501 Mallard Ln	Taylor Constable	\$1,851	\$835	\$128	2
XT	1003	115 W 6th St	Taylor Health	\$3,930	\$295	\$272	1
XT	1048	211 W 6th St	Taylor JP	\$5,747	\$442	\$398	1
EXIN	1015	1427 S Main St	Taylor EMS	\$910	\$437	\$63	1
XT	1033	412 Vance St	Taylor Annex	\$3,849	\$334	\$268	1
XT	1047	210 Carlos Parker	East Side Sp Event	\$31,045	\$3,437	\$5,123	13
EXIN	1042	601 N Alligator	CTTC	\$39,316	\$7,433	\$2,724	20
Total				\$471,242	\$123,493	\$39,345	255

Simple Payback 2.89

Additional Energy Saving Opportunities

Re-lamp existing 32 Watt T8 Lamps with 28 Watt T8 Lamps (100 fixture sample)

Quote 4-lamp	\$3,609	Saves	\$798	16KW
Quote 3-lamp	\$3,232	Saves	\$772	16KW
Quote 2-lamp	\$2,855	Saves	\$574	11KW

Williamson County (Garage)



Lighting • Energy • Technology
Facilities • Services

Chris Haskell
Sales Representative

Executive Summary

kW Reduced:	39	EPAct Deduction:*	Not Included (Extended to 12/31/13)
Avg kWh Rate:	\$0.09750	Estimated Rebate:	\$0 (Utility must verify)
kWh Reduced:	326,770	Net Installed Cost:	\$63,371
Annual Utility Savings:	\$31,860	Total Fixtures:	277
Annual Maintenance Savings:	\$4,391	Est. Days to Complete:	17
Inflation Rate:	2.0%	Simple Payback:	1.75 Yrs
Discount Rate: (Cost of Capital):	8.0%	Return on Investment:	57.2%
FSG's Invoice Amount:	\$63,370.86		
Cost per Day to Wait:	\$166		

(Excluding EPAct Deductions)

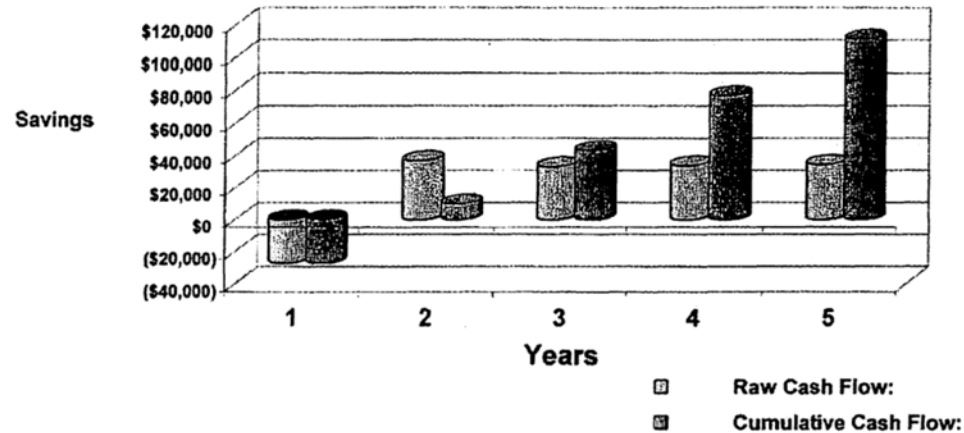
Annual Savings:
Raw Cash Flow:
Cumulative Cash Flow:

Year 1	Year 2	Year 3	Year 4	Year 5
\$36,251	\$36,976	\$33,135	\$33,772	\$34,409
(\$27,120)	\$36,976	\$33,135	\$33,772	\$34,409
(\$27,120)	\$9,856	\$42,990	\$76,762	\$111,171

If Maintenance Savings was included, it will affect the first two years (as additional savings)
If Inflation was entered, it will impact years 2-5

*See your CPA for confirmation

CASH FLOW



FSG Lighting Economic Analysis

Joe Latteo
Williamson County Jail
FSG Representative: Chris Haskell

PRESENT SYSTEM
Watts/Sq Ft Not Included
Total kW: 58.75
Total kWh: 497,267

PROPOSED SYSTEMS
Watts/Sq Ft: Not Included
Total kW: 20.66
Total kWh: 170,497
Total Saved kWh: 326,770

Direct Energy Savings: \$31,860.11
Estimated Maintenance Savings: \$4,390.59
Indirect HVAC Savings: \$0.00
TOTAL ANNUAL SAVINGS: \$36,250.70
Sales Tax Included: \$4,829.65
Total Contract (OUR INVOICE): \$41,080.35
Less Estimated Rebate: \$0.00
NET CUSTOMER COST: \$41,080.35

avg Impact of Lighting on HVAC: 12.5%
avg Loaded kWh Rate: \$0.0975
imple Payback (Yrs): 1.76
Return on Investment: 57.2%

OCEMED HRS: Office 3,760 Retail 4,280 Educational K-12 2,190 Standard
24hr Grocery 8,960 In Patient Care 3,760 Parking Garage 6,900 Offers

Item	EXISTING LIGHTING										PROPOSED LIGHTING									
	Existing Luminaire	Existing Fixture	Fixture Qty	Fixture Location	Fixture Description	Existing Watts / Fixture	Existing kWh / Fixture	Existing Annual Energy / Fixture	Existing AC / Fixture	Existing Cost / Fixture	Proposed Lighting System	New Fixture Type	Prop. Fixture Qty	Reduce Hrs % for Occ. Sen.	Est. per Sensor	Prop. Annual Return Hrs	Prop. Watts / Fixture	Prop. kWh per Fixture	Prop. kWh per Line	Prop. kWh per Line
1	MR16	27"				8,750	715	49.2	431.89	\$43,052	No	1	PAR30			71	16,250	142,429	\$13,067	\$28,159
2	PAR30	20"				8,750	144	4.2	36.884	\$3,687	2	PAR30				71	16,250	142,429	\$13,067	\$28,159
3	MR16	3"				4,506	215	0.6	4.393	\$293	2	PAR30				71	16,250	142,429	\$13,067	\$28,159
4	MR16	12"				4,506	456	6.8	24,732	\$24,732	2	PAR30				71	16,250	142,429	\$13,067	\$28,159
5	MR16	20"				8,750	20	0.2	1,788	\$171	2	PAR30				71	16,250	142,429	\$13,067	\$28,159
6											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
7											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
8											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
9											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
10											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
11											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
12											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
13											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
14											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
15											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
16											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
17											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
18											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
19											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
20											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
21											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
22											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
23											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
24											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
25											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
26											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
27											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
28											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
29											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
30											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
31											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
32											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
33											2	PAR30				71	16,250	142,429	\$13,067	\$28,159
34											2	PAR30				71	16,250	142,429	\$13,067	\$28,159

Prepared For: **Joe Latteo**
Williamson County (Jail)
305 West 4th St

Your KWH Saved: 145,171



According to the EPA, for each KWH saved, approximately 1.8 pounds of Carbon Dioxide (CO₂), .006 pounds of Sulfur Dioxide (SO₂), .003 pounds of Nitrogen Oxides (NO_x), and .043 milligrams of Mercury (Hg) are eliminated from future power plant emissions into our atmosphere annually.

CO₂ is a "Greenhouse Gas" while SO₂ contributes to acid rain formation and NO_x contributes to the tropospheric ozone formation (Smog) and estuarial damage.

The Annual Pollution Reduction Impact of Your Project

Carbon Dioxide (CO ₂)	261.31	Nitrogen Oxides (NO _x)	.435
Sulfur Dioxide (SO ₂)	.087	Mercury (Hg)	.062

For every 10,000 KiloWatt Hours saved the EPA has estimated the savings to be equivalent to planting **2.9** acres of trees annually or equivalent to removing **1.4** cars from our roads annually.

Your Project's Local Impact

Acres of Trees Planted: 95 Cars Removed: 46

The EPA does regulate the disposal of lighting products if they contain hazardous waste. Fluorescent lamps, HID lamps, and some incandescent lamps may be considered hazardous waste. PCB containing ballast are already regulated. If you are already classified as a hazardous waste generator you must follow the disposal and or recycling regulations from the EPA. If you produce more than 100kg of hazardous waste per month, you are considered a hazardous generator.

All Generators of lamp waste products must perform a TCLP (Toxicity Characteristic Leaching Procedure) to identify potential hazards. The lamps cannot exceed 0.2 milligram per liter in order to pass. Your local landfill may or may not accept the lamps that pass. Ballast containing **PCB's** **MUST** also be disposed of through incineration or recycling.

FSG recommends recycling the lamps and incinerating the ballast to provide you with the safest disposal method and sound environmental practices. We can manage the entire project and minimize your potential exposure while achieving the highest savings.



Williamson County (Jail)



Lighting • Electrical • Controls
Mechanical • Piping

Chris Haskell

Sales Representative

Executive Summary

kW Reduced:	59	EPAct Deduction:*	Not Included (Extended to 12/31/13)
Avg kWh Rate:	\$0.09750	Estimated Rebate:	\$0 (Utility must verify)
kWh Reduced:	239,138	Net Installed Cost:	\$68,629
Annual Utility Savings:	\$25,978	Total Fixtures:	1,120
Annual Maintenance Savings:	\$4,755	Est. Days to Complete:	38
Inflation Rate:	2.0%	Simple Payback:	2.23 Yrs
Discount Rate: (Cost of Capital)	8.0%	Return on Investment:	44.8%
FSG's Invoice Amount:	\$68,628.56		
Cost per Day to Wait:	\$140		

(Excluding EPAct Deductions)

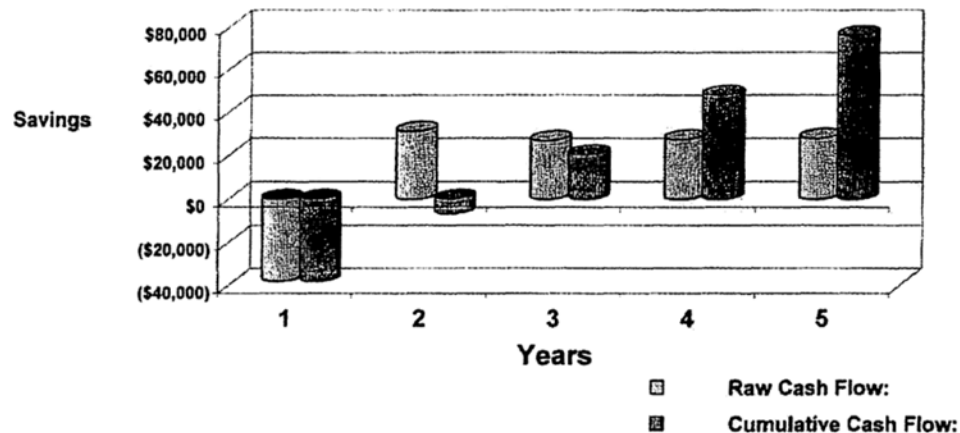
Annual Savings:
Raw Cash Flow:
Cumulative Cash Flow:

Year 1	Year 2	Year 3	Year 4	Year 5
\$30,733	\$31,348	\$27,017	\$27,537	\$28,056
(\$37,896)	\$31,348	\$27,017	\$27,537	\$28,056
(\$37,896)	(\$6,548)	\$20,469	\$48,006	\$76,063

If Maintenance Savings was included, it will affect the first two years (as additional savings)
If Inflation was entered, it will impact years 2-5.

*See your CPA for confirmation

CASH FLOW



Authorization To Proceed:

I hereby agree with the proposal presented to me by FSG and hereby authorize them to proceed with the installation. If there is a utility rebate, I also authorize FSG to file the necessary paperwork to secure such rebate on my behalf.

Name: Joe Latteo

Signature

Facilities Director
Title

Date

FSG Lighting Economic Analysis

Joe Latteo
Williamson County (Jail)
FSG Representative: Chris Haskell

PRESENT SYSTEM
Watts/Sq Ft Not Included
Total KW: 128.57
Total kWh: 829,401

PROPOSED SYSTEMS
Watts/Sq Ft: Not Included
Total KW: 68.02
Total kWh: 261,263
Total Saved kWh: 568,138
Standard Offer

Direct Energy Savings: \$23,315.96
Estimated Maintenance Savings: \$4,754.87
Indirect HVAC Savings: \$2,682.18
TOTAL ANNUAL SAVINGS: \$30,752.99
Sales Tax Included: \$6,230.36
Total Contract (OUR INVOICE): \$66,983.35
Less Estimated Rebate: \$0.00
NET CUSTOMER COST: \$66,983.35



Avg Impact of Lighting on HVAC: 12.5%
Avg Loaded kWh Rate: \$0.0975
Simple Payback (Yrs): 2.23
Return on Investment: 44.6%

DEEMED HRS: Office 3,760 Retail 4,250 Educational K-12 2,150 Standard
24-Hr Grocery 6,990 In Patient Care 3,750 Parking Garage 6,990

EXISTING LIGHTING													PROPOSED LIGHTING										
Item	Existing Lighting System	Existing Fixture Qty	Wattage / Floor #	Fixture Location	Fixt. Descript.	Existing Annual Burn Hrs	Existing Watts / Fixture	Existing kW / Line	Existing kWh / Per Line	Existing Annual Energy Cost	AC Space?	Item	Proposed Lighting System	New Fixt. or Fixture Type	Prop. Fixture Qty	Reduction % for Opt. Sen.	Fixt. per Sensor	Prop. Annual Burn Hrs	Prop. Watts / Fixture	Prop. kW / Line	Prop. kWh / Per Line	Prop. Annual Energy Cost	Proposed Energy Savings
1	F42EE	481		General Lighting		4,000	72	34.6	138,838	\$13,806	Yes	1	F42RLLU-R		481	0%	0	4,000	44	21,104	84,636	\$8,754	\$5,293
2	F43EE	321		General Lighting		4,000	115	36.9	147,840	\$14,287	Yes	2	F42RLLU		321	0%	0	4,000	48	15,408	61,632	\$6,009	\$8,388
3	F44EE	233		General Lighting		4,000	144	33.6	154,368	\$13,068	Yes	3	F42RLLUV		233	0%	0	4,000	65	15,145	60,580	\$5,907	\$7,179
4	E1102	40		Exit Light		8,760	20	0.5	7,068	\$653	Yes	4	ELED2/1		40	0%	0	8,760	6	0.24	2,102	\$205	\$478
5	HP5400H	8		Countertop		4,500	465	3.7	16,740	\$1,832	No	5	MH320/1		8	0%	0	4,500	357	2,856	12,852	\$1,753	\$379
6	MH400/1	32		Fluorescent		4,500	458	14.7	65,981	\$6,438	No	6	MH320/1		32	0%	0	4,500	357	11,424	51,408	\$5,012	\$1,418
7	MH400H	5		Fluorescent		4,500	458	2.3	10,304	\$1,008	No	7	MH320/1		5	0%	0	4,500	357	1,785	8,033	\$783	\$222
8	7	0				0	0				?	8	?		0	0%	0	0	0	0	0	\$0	\$0
9	7	0				0	0				?	9	?		0	0%	0	0	0	0	0	\$0	\$0
10	7	0				0	0				?	10	?		0	0%	0	0	0	0	0	\$0	\$0
11	7	0				0	0				?	11	?		0	0%	0	0	0	0	0	\$0	\$0
12	7	0				0	0				?	12	?		0	0%	0	0	0	0	0	\$0	\$0
13	7	0				0	0				?	13	?		0	0%	0	0	0	0	0	\$0	\$0
14	7	0				0	0				?	14	?		0	0%	0	0	0	0	0	\$0	\$0
15	7	0				0	0				?	15	?		0	0%	0	0	0	0	0	\$0	\$0
16	7	0				0	0				?	16	?		0	0%	0	0	0	0	0	\$0	\$0
17	7	0				0	0				?	17	?		0	0%	0	0	0	0	0	\$0	\$0
18	7	0				0	0				?	18	?		0	0%	0	0	0	0	0	\$0	\$0
19	7	0				0	0				?	19	?		0	0%	0	0	0	0	0	\$0	\$0
20	7	0				0	0				?	20	?		0	0%	0	0	0	0	0	\$0	\$0
21	7	0				0	0				?	21	?		0	0%	0	0	0	0	0	\$0	\$0
22	7	0				0	0				?	22	?		0	0%	0	0	0	0	0	\$0	\$0
23	7	0				0	0				?	23	?		0	0%	0	0	0	0	0	\$0	\$0
24	7	0				0	0				?	24	?		0	0%	0	0	0	0	0	\$0	\$0
25	7	0				0	0				?	25	?		0	0%	0	0	0	0	0	\$0	\$0
26	7	0				0	0				?	26	?		0	0%	0	0	0	0	0	\$0	\$0
27	7	0				0	0				?	27	?		0	0%	0	0	0	0	0	\$0	\$0
28	7	0				0	0				?	28	?		0	0%	0	0	0	0	0	\$0	\$0
29	7	0				0	0				?	29	?		0	0%	0	0	0	0	0	\$0	\$0
30	7	0				0	0				?	30	?		0	0%	0	0	0	0	0	\$0	\$0
31	7	0				0	0				?	31	?		0	0%	0	0	0	0	0	\$0	\$0
32	7	0				0	0				?	32	?		0	0%	0	0	0	0	0	\$0	\$0
33	7	0				0	0				?	33	?		0	0%	0	0	0	0	0	\$0	\$0
34	7	0				0	0				?	34	?		0	0%	0	0	0	0	0	\$0	\$0



Prepared For: **Joe Latteo**
Williamson County (Jail)
508 S Rock St

Your KWH Saved: 426,183

According to the EPA, for each KWH saved, approximately 1.8 pounds of Carbon Dioxide (CO₂), .006 pounds of Sulfur Dioxide (SO₂), .003 pounds of Nitrogen Oxides (NO_x), and .043 milligrams of Mercury (Hg) are eliminated from future power plant emissions into our atmosphere annually.

CO₂ is a "Greenhouse Gas" while SO₂ contributes to acid rain formation and NO_x contributes to the tropospheric ozone formation (Smog) and estuarial damage.

The Annual Pollution Reduction Impact of Your Project

Carbon Dioxide <small>lbs</small>	430,448	Nitrogen Oxides <small>lbs</small>	717
Sulfur Dioxide <small>lbs</small>	1,435	Mercury <small>grams</small>	10

For every 10,000 Kilowatt Hours saved the EPA has estimated the savings to be equivalent to planting **2.9 acres** of trees annually or equivalent to removing **1.4 cars** from our roads annually.

Your Project's Local Impact

Acres of Trees Planted: 69 Cars Removed: 33

The EPA does regulate the disposal of lighting products if they contain hazardous waste. Fluorescent lamps, HID lamps, and some incandescent lamps may be considered hazardous waste. PCB containing ballast are already regulated. If you are already classified as a hazardous waste generator you must follow the disposal and or recycling regulations from the EPA. If you produce more than 100kg of hazardous waste per month, you are considered a hazardous generator.

All Generators of lamp waste products must perform a TCLP (Toxicity Characteristic Leaching Procedure) to identify potential hazards. The lamps cannot exceed 0.2 milligram per liter in order to pass. Your local landfill may or may not accept the lamps that pass. Ballast containing **PCB's MUST** also be disposed of through incineration or recycling.

FSG recommends recycling the lamps and incinerating the ballast to provide you with the safest disposal method and sound environmental practices. We can manage the entire project and minimize your potential exposure while achieving the highest savings.



Williamson County (CTTC)



lighting • electrical • energy
technology • design

Chris Haskell
Sales Representative

Executive Summary

kW Reduced:	20	EPAct Deduction:*	Not Included (Extended to 12/31/13)
Avg kWh Rate:	\$0.09750	Estimated Rebate:	\$0 (Utility must verify)
kWh Reduced:	78,412	Net Installed Cost:	<u>\$39,316</u>
Annual Utility Savings:	\$8,533	Total Fixtures:	549
Annual Maintenance Savings:	\$2,724	Est. Days to Complete:	9
Inflation Rate:	2.0%	Simple Payback:	3.49 Yrs
Discount Rate: (Cost of Capital)	8.0%	Return on Investment:	28.6%
FSG's Invoice Amount:	<u>\$39,316.37</u>		
Cost per Day to Wait:	\$51		

(Excluding EPAct Deductions)

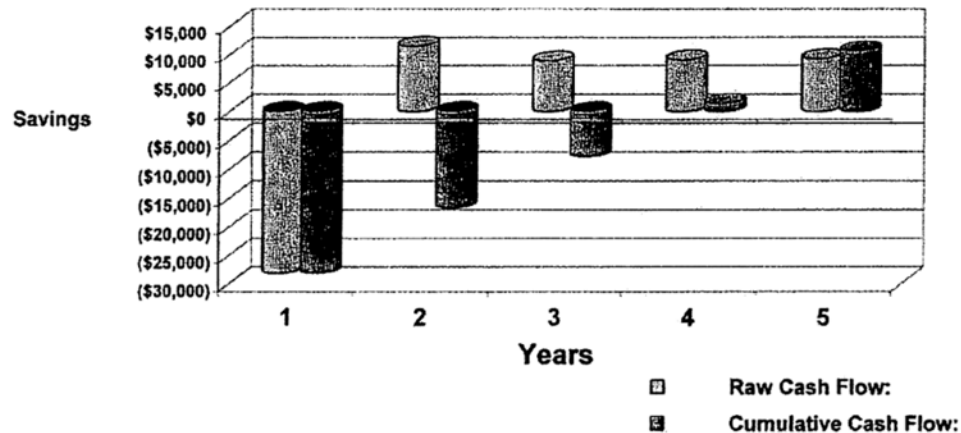
Annual Savings:
Raw Cash Flow:
Cumulative Cash Flow:

Year 1	Year 2	Year 3	Year 4	Year 5
\$11,257	\$11,483	\$8,875	\$9,045	\$9,216
(\$28,059)	\$11,483	\$8,875	\$9,045	\$9,216
(\$28,059)	(\$16,576)	(\$7,702)	\$1,344	\$10,560

If Maintenance Savings was included, it will affect the first two years (as additional savings).
If Inflation was entered, it will impact years 2-5

*See your CPA for confirmation

CASH FLOW



Authorization To Proceed:

I hereby agree with the proposal presented to me by FSG and hereby authorize them to proceed with the installation. If there is a utility rebate, I also authorize FSG to file the necessary paperwork to secure such rebate on my behalf.

Name: Joe Latteo

Signature

Facilities Director
Title

Date

FSG Lighting Economic Analysis

Joe Latteo
Williamson County (CTC)
FSG Representative: Chris Haskell

Avg Impact of Lighting on HVAC: 12.6%
Avg Loaded kWh Rate: \$0.0976
Simple Payback (Yrs): 3.48
Return on Investment: 28.6%

Each Foot Candle
3.15 Watts at 1 foot

PRESENT SYSTEM
Watts/Sq Ft Not Included
Total kW: 33.95
Total kWh: 148,823

PROPOSED SYSTEMS
Watts/Sq Ft: Not Included
Total kW: 13.56
Total kWh: 70,111
Total Saved: \$28,402
Saved kWh: 78,712

Direct Energy Savings: \$7,648.21
Estimated Maintenance Savings: \$2,724.00
Indirect HVAC Savings: \$289.19
TOTAL ANNUAL SAVINGS: \$11,267.40
Sales Tax Included: \$2,888.40
Total Contract (OUR INVOICE): \$39,316.37
Less Estimated Rebate: \$0.00
NET CUSTOMER COST: \$39,316.37



Rebate can only be guaranteed
by the supplying utility company

DEEMED HRS: Office 3,760 Retail 4,280 Educational K-12 2,160 Standard
24hr Grocery 6,990 In Patient Care 3,760 Parking Garage 6,990 Others

EXISTING LIGHTING											PROPOSED LIGHTING												
Item	Existing Lighting System	Existing Fixture Qty	Blgd ID or Floor #	Fixture Location	Fixt. Description	Existing Annual Burn Hrs	Existing Watts / Fixture	Existing kWh Per Line	Existing Annual Energy Cost	AC Space?	Item	Proposed Lighting System	New Kit or Fixture Type	Prop. Fixture Qty	Reduce Hrs % for Occ Sen.	Flt. per Sensor	Prop. Annual Burn Hrs	Prop. Watts / Fixture	Prop. kWh per Line	Prop. kWh per Line	Prop. Annual Energy Cost	Proposed Energy Savings	
1	F42EE	105		General Lighting		8,760	72	7.6	\$6,489	\$6,487	Yes	1	F42RLU-R		105	0%	0	8,760	44	4.62	40,471	\$3,546	\$2,511
2	190T	10		Track		4,500	90	0.9	\$4,050	\$393	No	2	CF23T1-SCRW		10	0%	0	4,500	23	0.23	1,025	\$101	\$294
3	160T	284		General Lighting		2,500	90	17.0	\$2,000	\$4,164	Yes	3	CF13T1-SCRW		284	0%	0	2,500	13	3.692	9,230	\$900	\$3,234
4	F22BS	108		Recharge Lamps		2,500	50	5.4	\$2,000	\$1,318	Yes	4	F22RL		108	0%	0	2,500	33	3.564	8,910	\$809	\$448
5	E1102	25		Line		8,760	20	0.5	\$4,380	\$427	Yes	5	ELED2/1		25	0%	0	8,760	6	0.15	1,314	\$128	\$299
6	F82EE	12		General Lighting		8,760	123	1.5	\$1,440	\$1,251	Yes	6	F42RLU-V		12	0%	0	8,760	65	0.75	6,833	\$600	\$594
7	MH175/1	5		Pool Pools		4,500	215	1.1	\$4,335	\$472	No	7	FEI100/1		5	0%	0	4,500	103	0.515	2,318	\$225	\$246
8	?	0				0	0				?	8	?		0	0%	0	0	0	0	0	\$0	\$0
9	?	0				0	0				?	9	?		0	0%	0	0	0	0	0	\$0	\$0
10	?	0				0	0				?	10	?		0	0%	0	0	0	0	0	\$0	\$0
11	?	0				0	0				?	11	?		0	0%	0	0	0	0	0	\$0	\$0
12	?	0				0	0				?	12	?		0	0%	0	0	0	0	0	\$0	\$0
13	?	0				0	0				?	13	?		0	0%	0	0	0	0	0	\$0	\$0
14	?	0				0	0				?	14	?		0	0%	0	0	0	0	0	\$0	\$0
15	?	0				0	0				?	15	?		0	0%	0	0	0	0	0	\$0	\$0
16	?	0				0	0				?	16	?		0	0%	0	0	0	0	0	\$0	\$0
17	?	0				0	0				?	17	?		0	0%	0	0	0	0	0	\$0	\$0
18	?	0				0	0				?	18	?		0	0%	0	0	0	0	0	\$0	\$0
19	?	0				0	0				?	19	?		0	0%	0	0	0	0	0	\$0	\$0
20	?	0				0	0				?	20	?		0	0%	0	0	0	0	0	\$0	\$0
21	?	0				0	0				?	21	?		0	0%	0	0	0	0	0	\$0	\$0
22	?	0				0	0				?	22	?		0	0%	0	0	0	0	0	\$0	\$0
23	?	0				0	0				?	23	?		0	0%	0	0	0	0	0	\$0	\$0
24	?	0				0	0				?	24	?		0	0%	0	0	0	0	0	\$0	\$0
25	?	0				0	0				?	25	?		0	0%	0	0	0	0	0	\$0	\$0
26	?	0				0	0				?	26	?		0	0%	0	0	0	0	0	\$0	\$0
27	?	0				0	0				?	27	?		0	0%	0	0	0	0	0	\$0	\$0
28	?	0				0	0				?	28	?		0	0%	0	0	0	0	0	\$0	\$0
29	?	0				0	0				?	29	?		0	0%	0	0	0	0	0	\$0	\$0
30	?	0				0	0				?	30	?		0	0%	0	0	0	0	0	\$0	\$0
31	?	0				0	0				?	31	?		0	0%	0	0	0	0	0	\$0	\$0
32	?	0				0	0				?	32	?		0	0%	0	0	0	0	0	\$0	\$0
33	?	0				0	0				?	33	?		0	0%	0	0	0	0	0	\$0	\$0
34	?	0				0	0				?	34	?		0	0%	0	0	0	0	0	\$0	\$0



Prepared For: **Joe Latteo**
Williamson County (CTTC)
601 N Alligator

Your KWH Saved: 78,412

According to the EPA, for each KWH saved, approximately 1.8 pounds of Carbon Dioxide (CO₂), .006 pounds of Sulfur Dioxide (SO₂), .003 pounds of Nitrogen Oxides (NO_x), and .043 milligrams of Mercury (Hg) are eliminated from future power plant emissions into our atmosphere annually.

CO₂ is a "Greenhouse Gas" while SO₂ contributes to acid rain formation and NO_x contributes to the tropospheric ozone formation (Smog) and estuarial damage.

The Annual Pollution Reduction Impact of Your Project

Carbon Dioxide (lbs):	141,142	Nitrogen Oxides (lbs):	235
Sulfur Dioxide (lbs):	470	Mercury (grams):	3

For every 10,000 Kilowatt Hours saved the EPA has estimated the savings to be equivalent to planting **2.9 acres** of trees annually or equivalent to removing **1.4 cars** from our roads annually.

Your Project's Local Impact

Acres of Trees Planted: 23 Cars Removed: 11

The EPA does regulate the disposal of lighting products if they contain hazardous waste. Fluorescent lamps, HID lamps, and some incandescent lamps may be considered hazardous waste. PCB containing ballast are already regulated. If you are already classified as a hazardous waste generator you must follow the disposal and or recycling regulations from the EPA. If you produce more than 100kg of hazardous waste per month, you are considered a hazardous generator.

All Generators of lamp waste products must perform a **TCLP** (Toxicity Characteristic Leaching Procedure) to identify potential hazards. The lamps cannot exceed 0.2 milligram per liter in order to pass. Your local landfill may or may not accept the lamps that pass. Ballast containing **PCB's** **MUST** also be disposed of through incineration or recycling.

FSG recommends recycling the lamps and incinerating the ballast to provide you with the safest disposal method and sound environmental practices. We can manage the entire project and minimize your potential exposure while achieving the highest savings.



Application & Fixture Design

- Well suited for a wide variety of applications, from multi-deck parking structures, under canopy exteriors, to refrigerated storage, our VPT series uses the latest in weatherproof housings. With a durable ribbed diffuser, excellent optics, and gear tray construction, it outperforms generic strip housings by far.
- Poured in place gasket and cam latches seal the enclosures from most hostile environments.
- Economical Mounting System can provide dramatic savings on the installation labor.
- Designed around T8 and T5 lamps for long term energy savings.
- Very tough diffusers resist breakage and reduce replacement and maintenance costs.

Ordering Options

- T8, T5, or T5HO in 1-lamp through 4-lamp cross sections.
- Available in 2', 4', 5' and 8' lengths.
- A variety of reflector materials available from Hi-Ref White, Micro-Matte, to Miro-4.
- Wide variety of electronic ballast and lamp configurations available from Advance, GE, Osram Sylvania, and Universal.

System Performance Guide

Common T8 or T5 VPT Systems	Lamp Quantity and Type	Mean Lumens Per Lamp	Mean Lumens Per Foot	Ballast Factor	Net Lumens Per Foot	Fixture Input Watts	Lumens Per Watt (Efficacy)
VPT-1-1x4-1L32	1 F32T8-B41	2,800	2,800	0.87	2,436	28	87.0
VPT-2-1x4-2L32	2 F32T8-B41	2,800	5,600	0.87	4,872	53	91.9
VPT-2-1x8-4L32	4 F32T8-B41	2,800	11,200	0.87	9,744	107	91.1
VPT-1-1x4-1L32-HP	1 F32T8-B41	2,900	2,900	1.15	3,220	41	78.5
VPT-2-1x4-2L32-HP	2 F32T8-B41	2,900	5,800	1.15	6,440	73	88.2
VPT-2-1x8-4L32-HP	4 F32T8-B41	2,900	11,200	1.15	12,980	147	87.6
VPT-2-1x4-2L28	2 F28T8-B41	2,725	5,452	1.00	5,452	64	85.2
VPT-2-1x8-4L28	4 F28T8-B41	2,725	10,904	1.00	10,904	128	85.2
VPT-2-1x4-2L54-HO	2 F54T8-HO-B41	5,000	10,000	1.00	10,000	117	85.5
VPT-2-1x8-4L54-HO	4 F54T8-HO-B41	5,000	20,000	1.00	20,000	234	85.5

Compare To

Common T12 Fluorescent System	Lamp Quantity and Type	Mean Lumens Per Lamp	Mean Lumens Per Foot	Ballast Factor	Net Lumens Per Foot	Fixture Input Watts	Lumens Per Watt (Efficacy)
1L40-1x4-WM Mag	1 F40CWES	2,280	2,280	0.68	2,006	43	46.7
2L40-1x4-WM Mag	2 F40CWES	2,280	4,560	0.68	4,013	72	55.7
1L96-1x8-SL/ES Mag	1 F96CWES	5,060	5,060	0.68	4,453	76	58.6
2L96-1x8-SL/ES Mag	2 F96CWES	5,060	10,120	0.68	8,906	126	70.7
1L96-1x8-HO/ES Mag	1 F96CW/HO/ES	6,990	6,990	0.93	6,512	125	52.9
2L96-1x8-HO/ES Mag	2 F96CW/HO/ES	6,990	13,920	0.93	12,946	210	61.6
2L96-1x8-VH/ES Mag	2 F96CW/VH/ES	10,125	20,250	0.93	18,833	310	60.8

VPT Weatherproof Fluorescents

Energy Efficient Series



Body and Mounting

- Fiberglass housing and injection molded polycarbonate lens.
- 5VA (f1) rated materials.
- Polycarbonate latches standard, or stainless steel optional.
- Durable stainless steel mounting hardware.
- No holes ever have to be drilled through the housing for installation.
- Installation time is dramatically reduced, providing lower installed costs.
- Standard stainless steel bail for chain hung or offset installations.
- Rotary locking sockets.

Reflector

- Hi-Ref white aluminum standard.
- Alanod Miro-4 or Micro Matte reflectors available.
- Snap-in design for ease of access.

Limited Material Warranty

- Limited material warranties direct from component manufacturers; reflectors, ballasts and housings.
- Ballasts by Advance, GE, Osram Sylvania, and Universal.

Contact Us

Precision Fluorescent

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(714) 434-0555

Gainesville, FL

(352) 692-5900

www.precisionfluorescent.com



Large Deep Wallpack

Security

Features

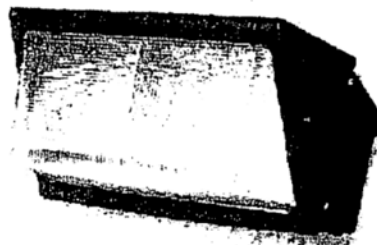
The Duraguard Large Deep wall pack is UL listed for wet locations.

Housing

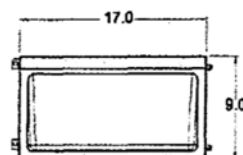
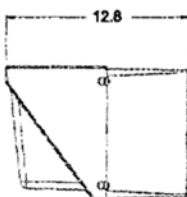
The housing is manufactured of heavy duty die cast aluminum with a powder coated dark bronze finish and a hinged door frame. A weatherproof silicone gasket is present for moisture and dust proof protection. Fixture includes a anodized aluminum reflector and high impact heat resistant borosilicate glass for optimum light distribution. Housing comes with threaded 1/2" apertures for securing conduit and or photo cell installation. Fixture wall-mounts directly over 4" outlet box.

Applications

Warehouse facilities
Shipping and receiving areas
Cold storage facilities
Industrial plants
Commercial buildings



ISO9002 Compliant



Wattage	Lamp Life	Lumens	Start Time	CRI	Kelven Temp
80	100000	6000	<.5 SEC	80	3500,4100,5000

Wattage	Lamp Life	Lumens	Start Time	CRI	Kelven Temp
100	100000	8000	<.5 SEC	80	3500,4100,5000

Select an appropriate choice from each column

Typical ordering number

Typical ordering number (Large)

D-080-IND-LDWP-MT-PC

Prefix	Wattage	Lamp Type	Fixture Type	Voltage	Options
D	80 100	IND = Induction	LDWP- Large Deep Wall Pack	120v MT 480v	PC = Photocell F = In-Line Fuse

Lamp Included