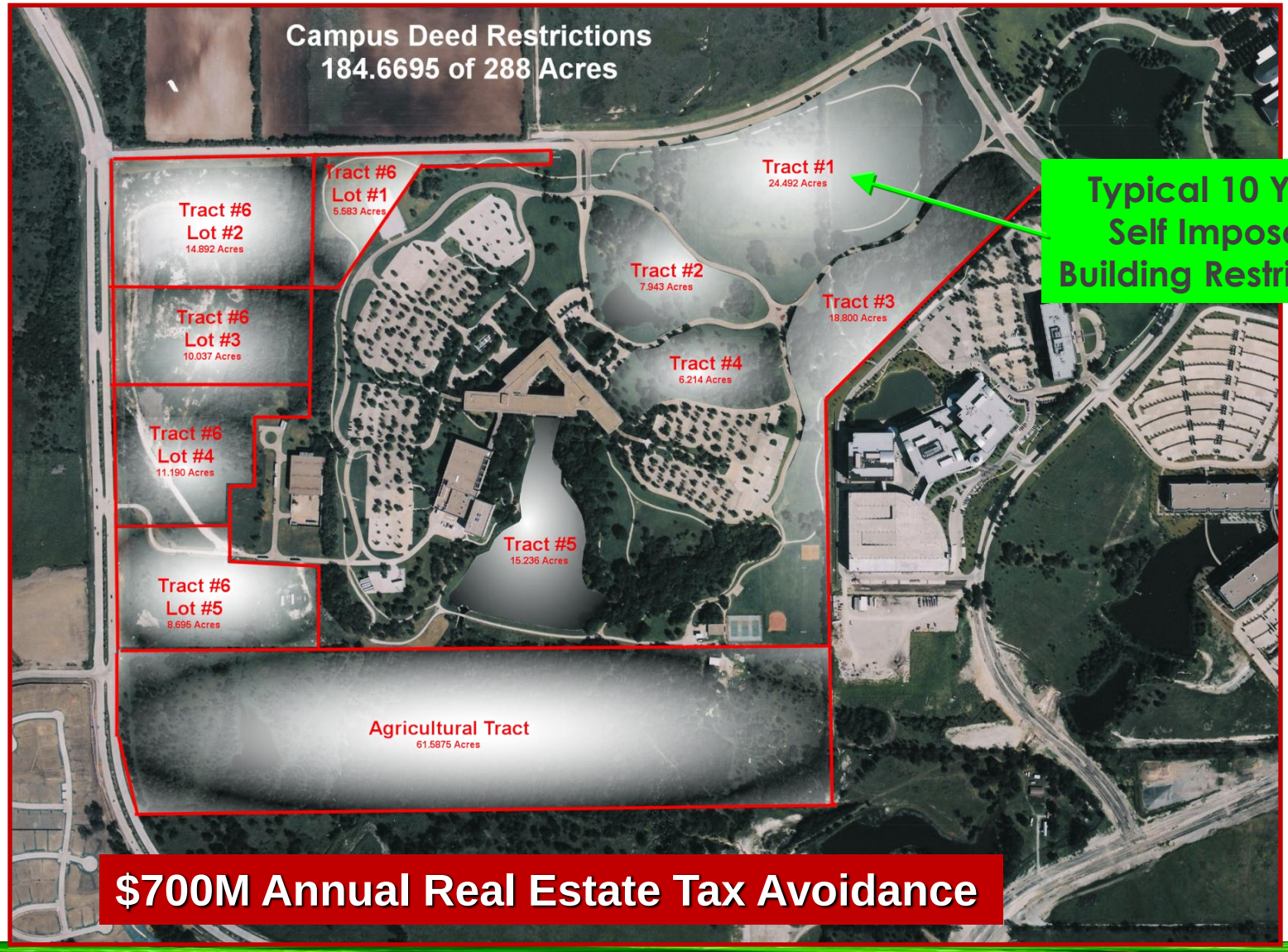
Strive for Continuous Improvement

Drive Facility Efficiency & Sustainability with Technology


FRITO LAY HEADQUARTERS
PLANO, TEXAS

CAMPUS & DEED RESTRICTIONS:



FACILITY OVERVIEW

- Frito Lay Headquarters Campus
  Plano, Texas:
  - 288 Acre Site
  - 580,000 SF (Campus 794,380 SF)
  - 2,384+ Employees (Campus 2,956 HC)
  - 2,281 Parking Spots
  - 25 Year Old Facility
  - 2 Year LEED Certification Project

GOLD Certification Awarded
September 15, 2009

Goal Over 3 Years:

Reduce Energy	**25%**
Reduce Water Use	**50%**
Reduce Landfill	**75%**

Technology is a Huge Help!

RECYCLING PROGRAM – 663 tons

- Cardboard

- Aluminum Cans

- Glass

- Kitchen Processed Food & Scrap

- Paper

- Metal

- Landscape Materials - **100%** Compost /Recycle
- Plastic Bottles

SUSTAINABLE LANDSCAPE MANAGEMENT

- **Campus Compost – all cuttings**

SUSTAINABLE WATER CONSERVATION MANAGEMENT

- **Campus Irrigation Upgrade – TECHNOLOGY**

Campus Weather Station - 2010 with moisture monitoring Stations – projected water Reduction of 30% or 11 million gallons annually

Campus Automatic Valves - 2007 Reduced Water Consumption Over 6 million gallons or 31% + annually

SUSTAINABLE LANDSCAPE MANAGEMENT

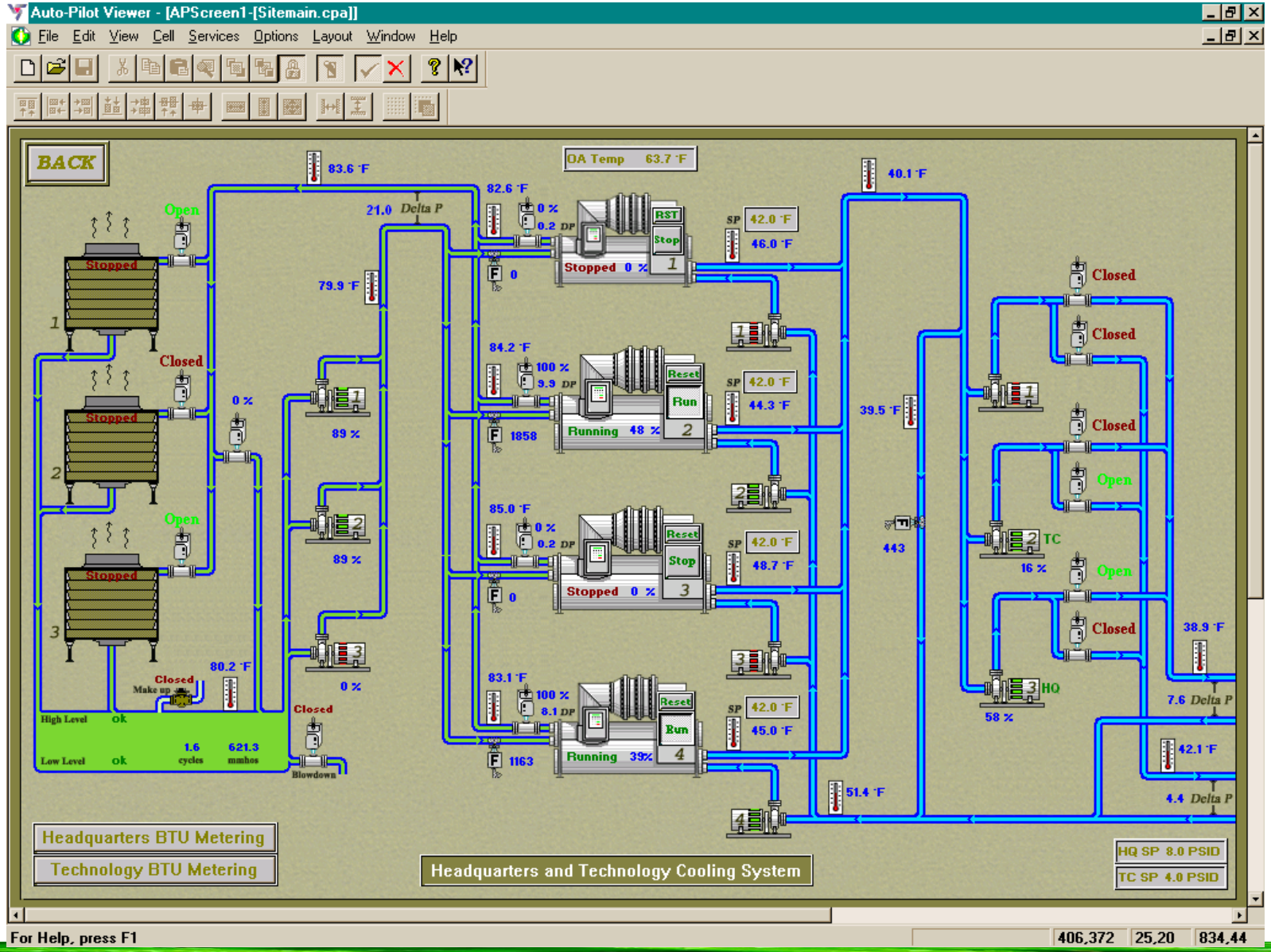
- **Campus Native and Drought Tolerant Plantings - 2010**

Native plantings with
Drip irrigation

Texas A&M Developed Zoysia Grasses – **50% less water** and Less frequent cutting

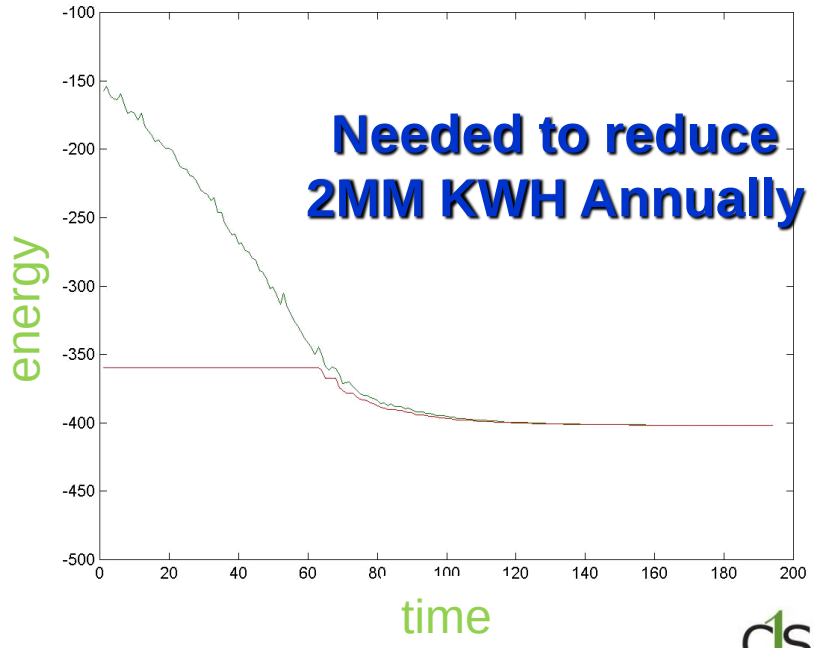
Total Campus Organic Fertilization In Compliance with USDA Guidelines

Direct Digital Energy Management System



TYPICAL CHALLENGES or EXCUSE

- Size and Age of the Facility
- Multiple Energy Reduction Projects



SOLAR THERMAL
HOT WATER SYSTEM - 2008

Solar Hot Water System
150,000 kWh Annual Energy Reduction

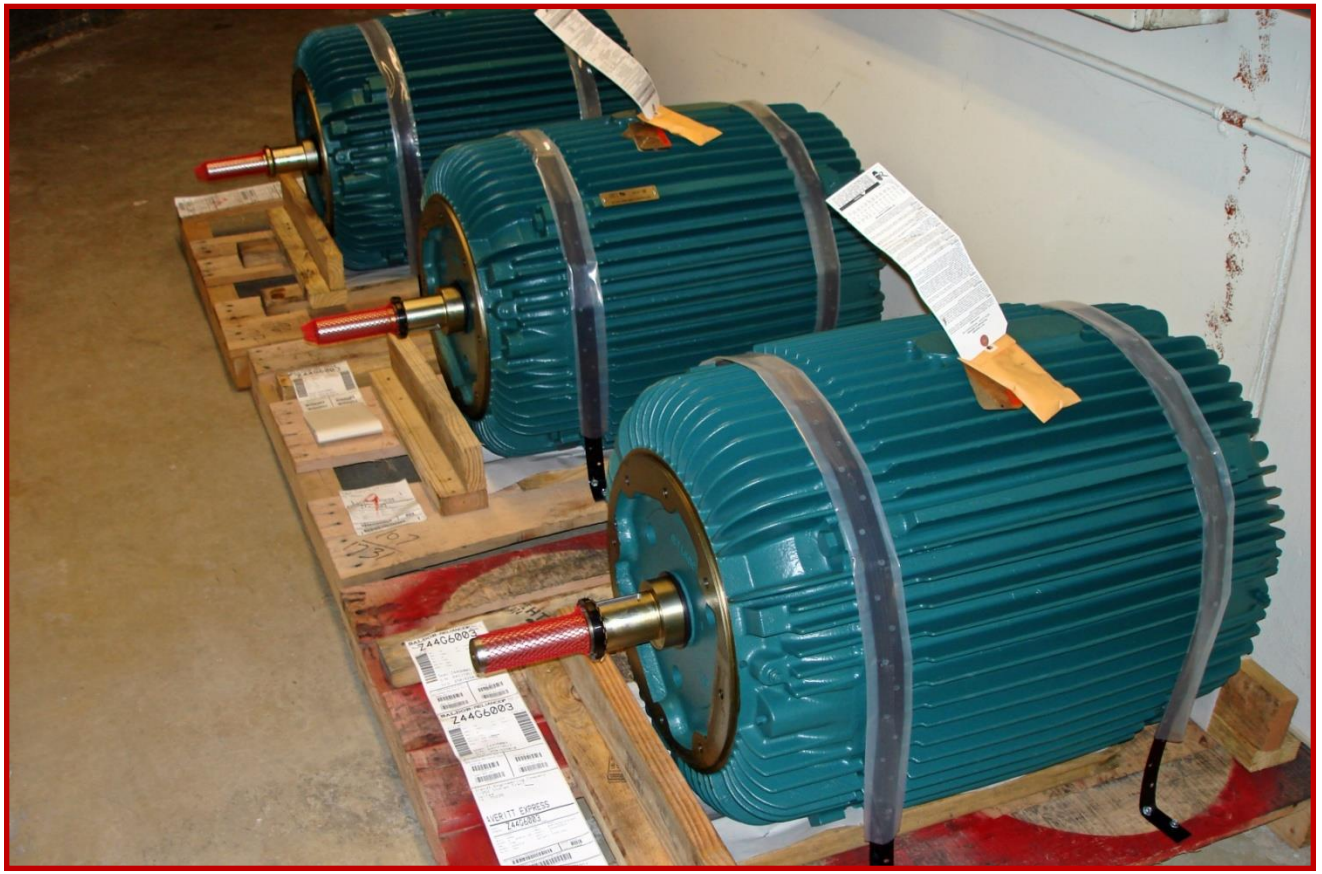
UPGRADE CHILLER PLANT - 2009

Eliminated Ozone Depleting CFC's

New 750 Ton High Efficiency Chillers

2 Chillers – 975,000 kWh Annual Energy Reduction

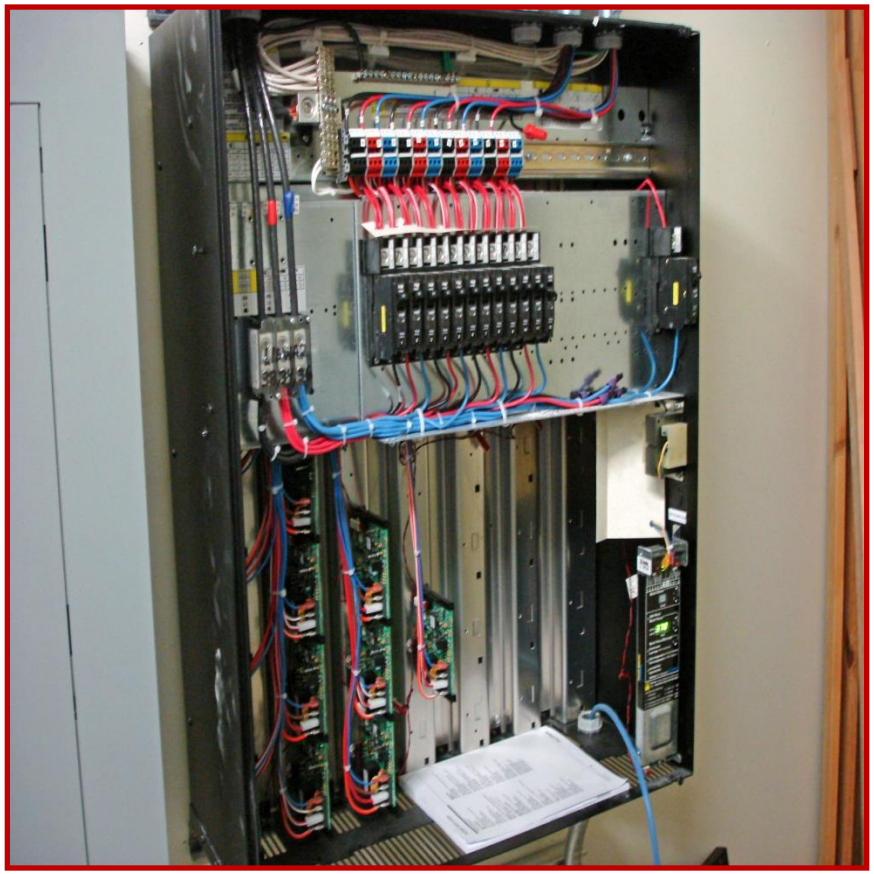
REPLACE MAIN HVAC FAN MOTORS - 2009



New 125 HP Premium High Efficiency HVAC Motors

Completed Installation of 9 Motors – 220,000 kWh Annual Energy Reduction

BUILDING LIGHTING CONTROLS - 2009



Lighting Control System
266,200 kWh Annual Energy Reduction

HOOD CONTROL SYSTEMS - 2010

Mid Speed 50%

Low Speed 10%

Average Daily Energy Consumption Reduced by 40%+

High Speed 100%

CIS Group, Inc.

Continuous Improvement - Lighting

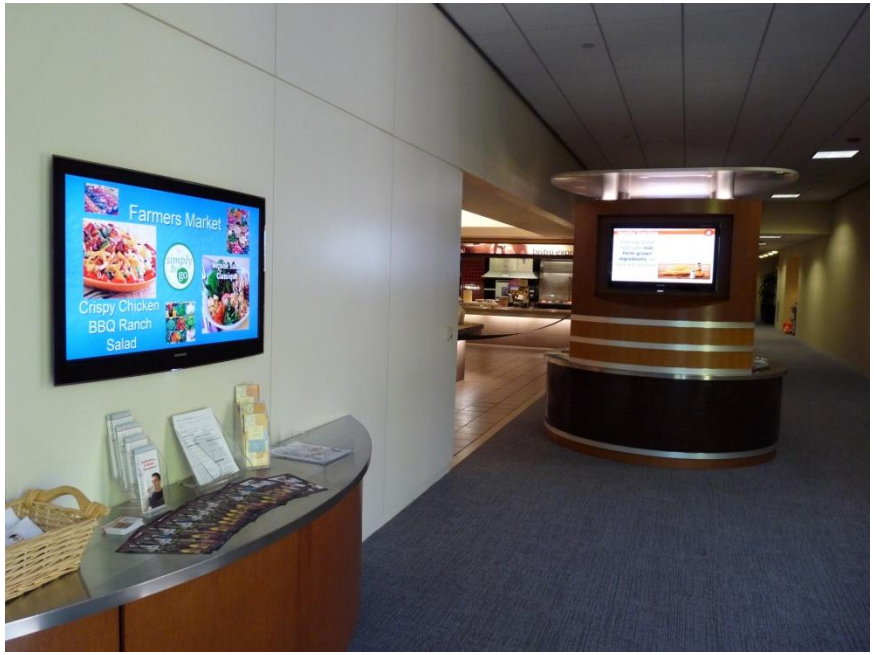
60 Watt - Incandescent — **106 Bulbs over 33 years**

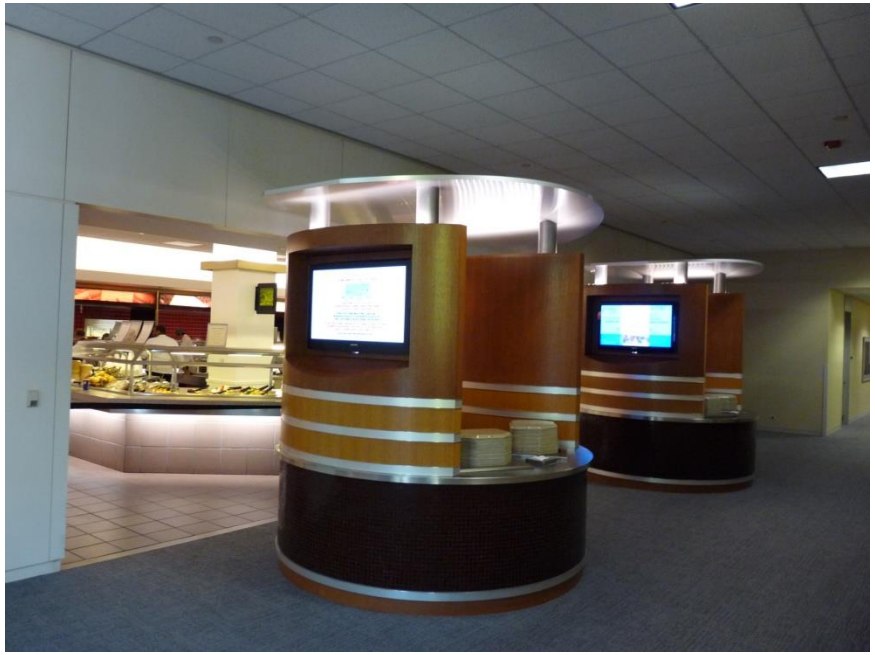
15 Watt - CFL — **10 Bulbs over 33 years**

7 Watt - LED — **1 Bulb over 33 years**

Each bulb has 890 Lumens (Brightness)

Upgrades with LED Lighting and Monitors - 2010

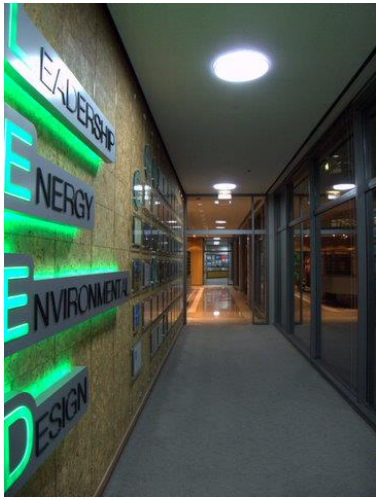


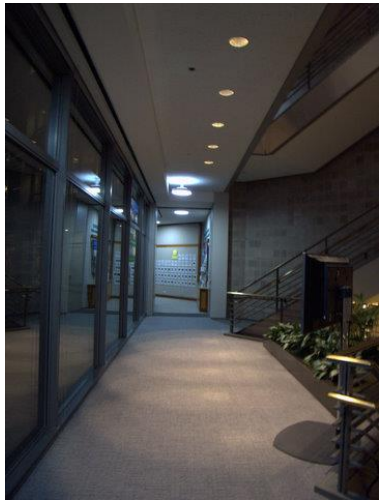


All new monitors LED
40% less energy then LCD

All Servery indirect lighting converted to LED

Common Area LED Lighting:





Campus Print Sustainability Strategy - 2011

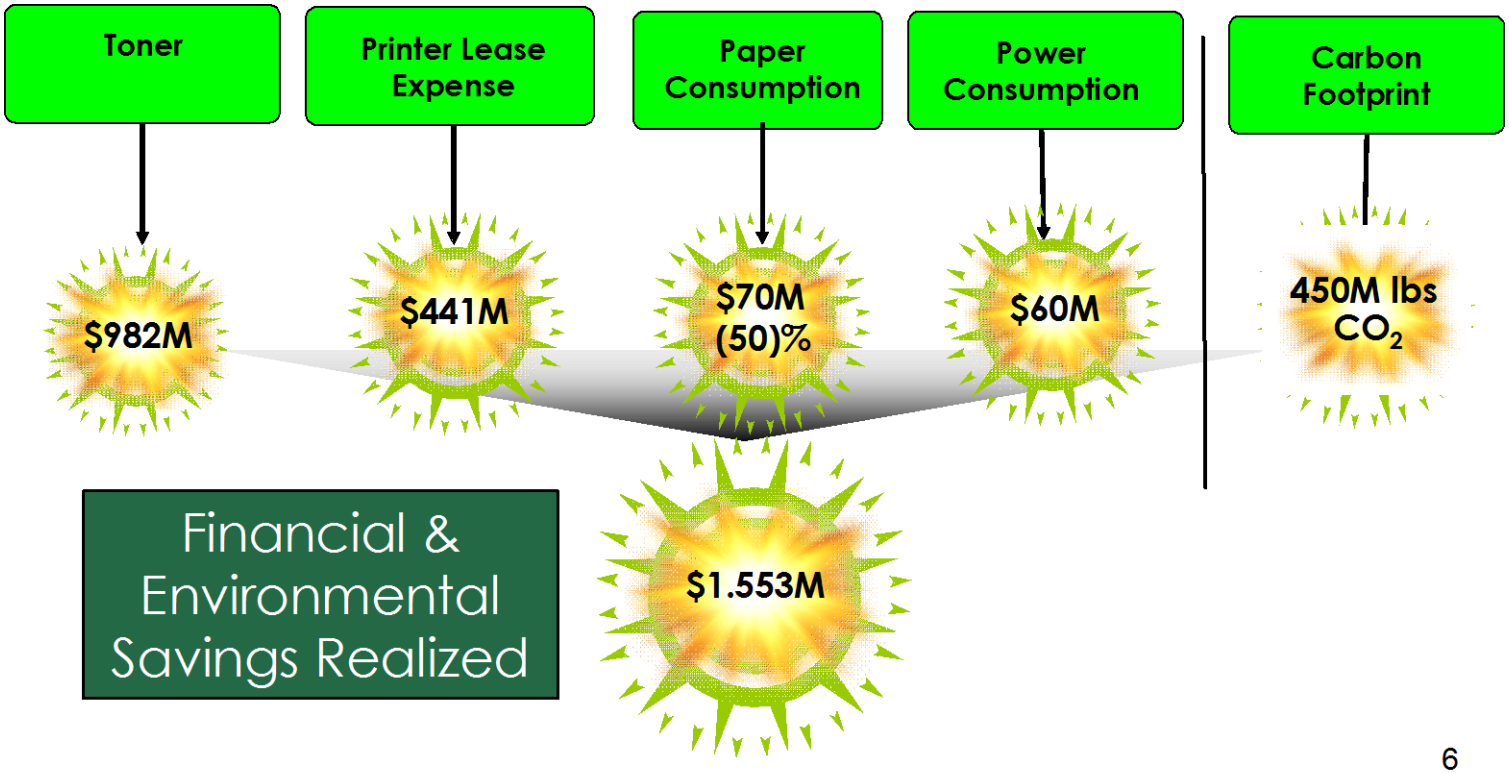
From	To
	

Project Objectives – Eliminate Individual Printers (left) LAN Printers (right)

- Centralized print management
- 8:1 ratio with B3+ exception approval
- Policy for EOS and P Card purchases
- All In One LAN devices (fax, secure print, copy, default duplex)
- Automated toner alert to F&CS Help Desk
- Ongoing evaluation of print environment & requirements

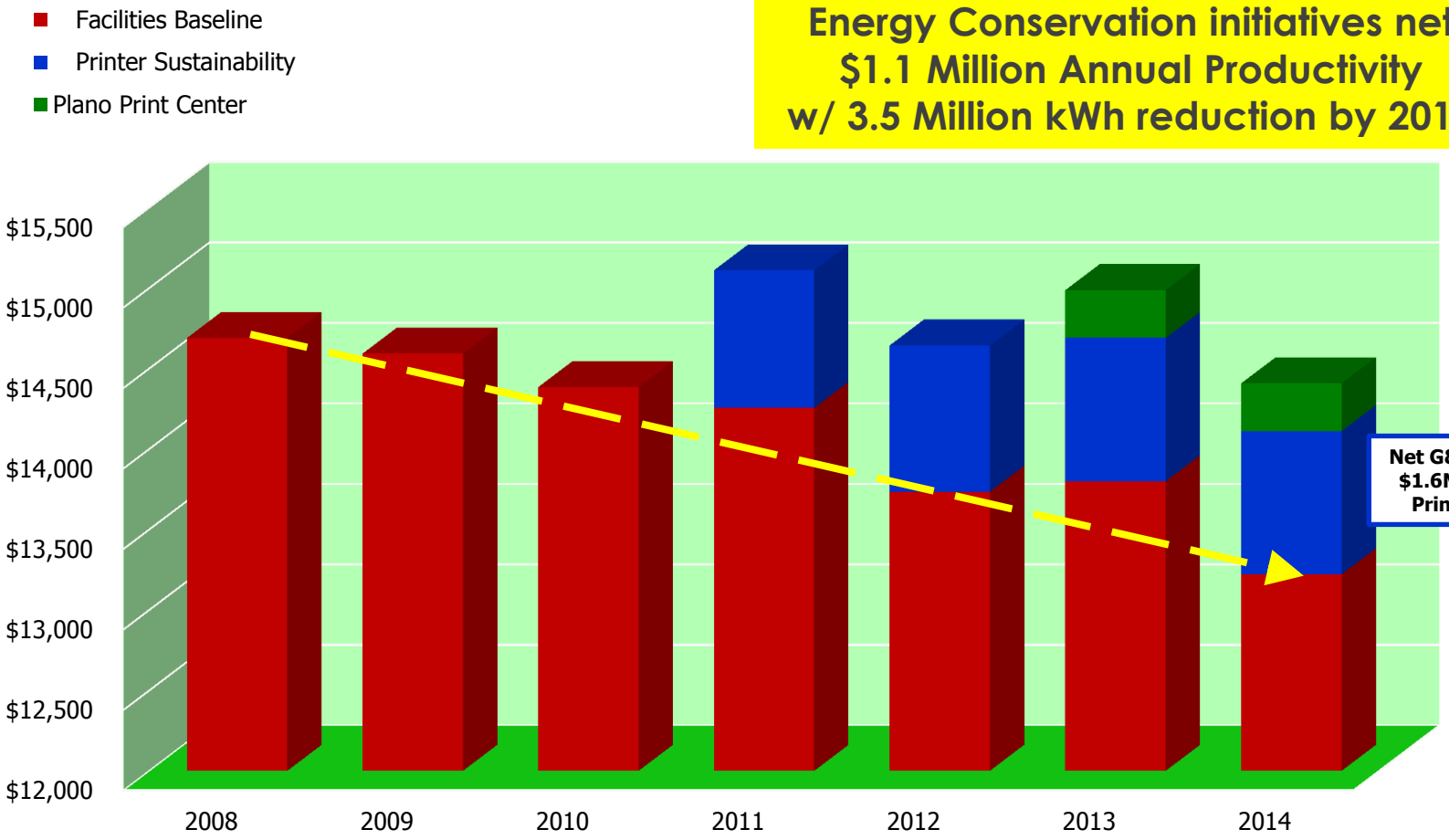
Sustainability In Action

Beating The Expectations



Facilities & Corporate Services Historical Campus Spending ($M)

Energy Conservation initiatives net $1.1 Million Annual Productivity w/ 3.5 Million kWh reduction by 2014



Facilities Baseline	$14,689	$14,592	$14,384	$14,255	$13,734	$13,799	$13,221
Printer Sustainability				$854	$908	$891	$890
Plano Print Center						$296	$296

Core LEED Team, Executive and City Plano Dignitaries - 2009

Only LEED EB Gold Certified Headquarters in Texas
And 1 of 12 within the United States

EPA Energy Star Program

November, 2011 Official Notification

EPA's ENERGY STAR label has been approved with rating of 88:

Frito-Lay Headquarters
Frito-Lay, Inc.
7701 Legacy Drive
Plano, TX 75024

Initial rating 47 in 2007
LEED rating 67 in 2009
EPA Energy Star 79 in 2010
EPA Energy Star 88 in 2011
(87% improvement over 4 years)

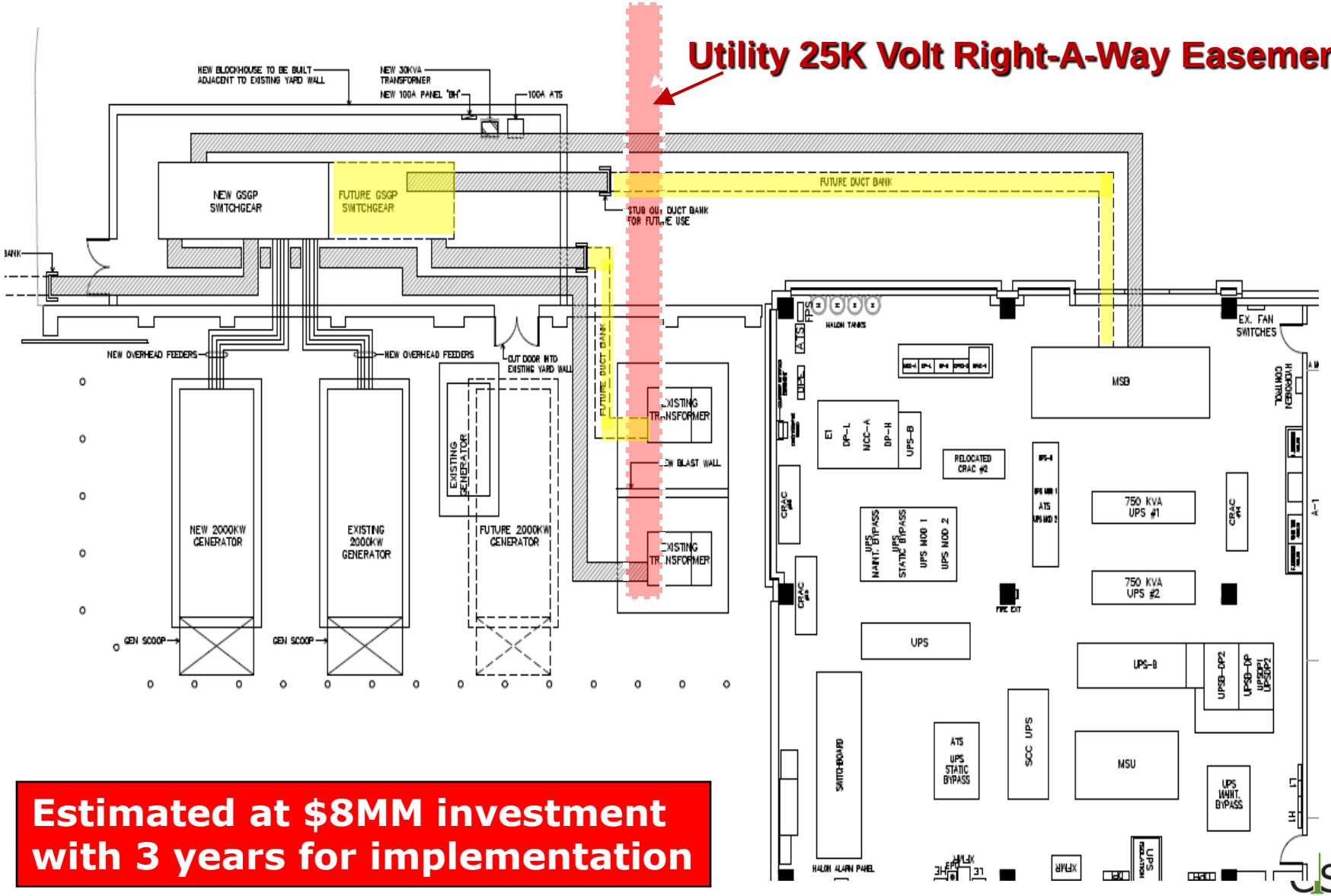
Campus Green Team and City Plano Dignitaries


U.S. GREEN BUILDING COUNCIL
LEED GOLD
2009
energy
ENERGY STAR
FRITO LAY HEADQUARTERS
DALLAS, TEXAS

Data Center Main Electrical Upgrade 2011

Listed as 1 of 5 Major Risks to PepsiCo Business

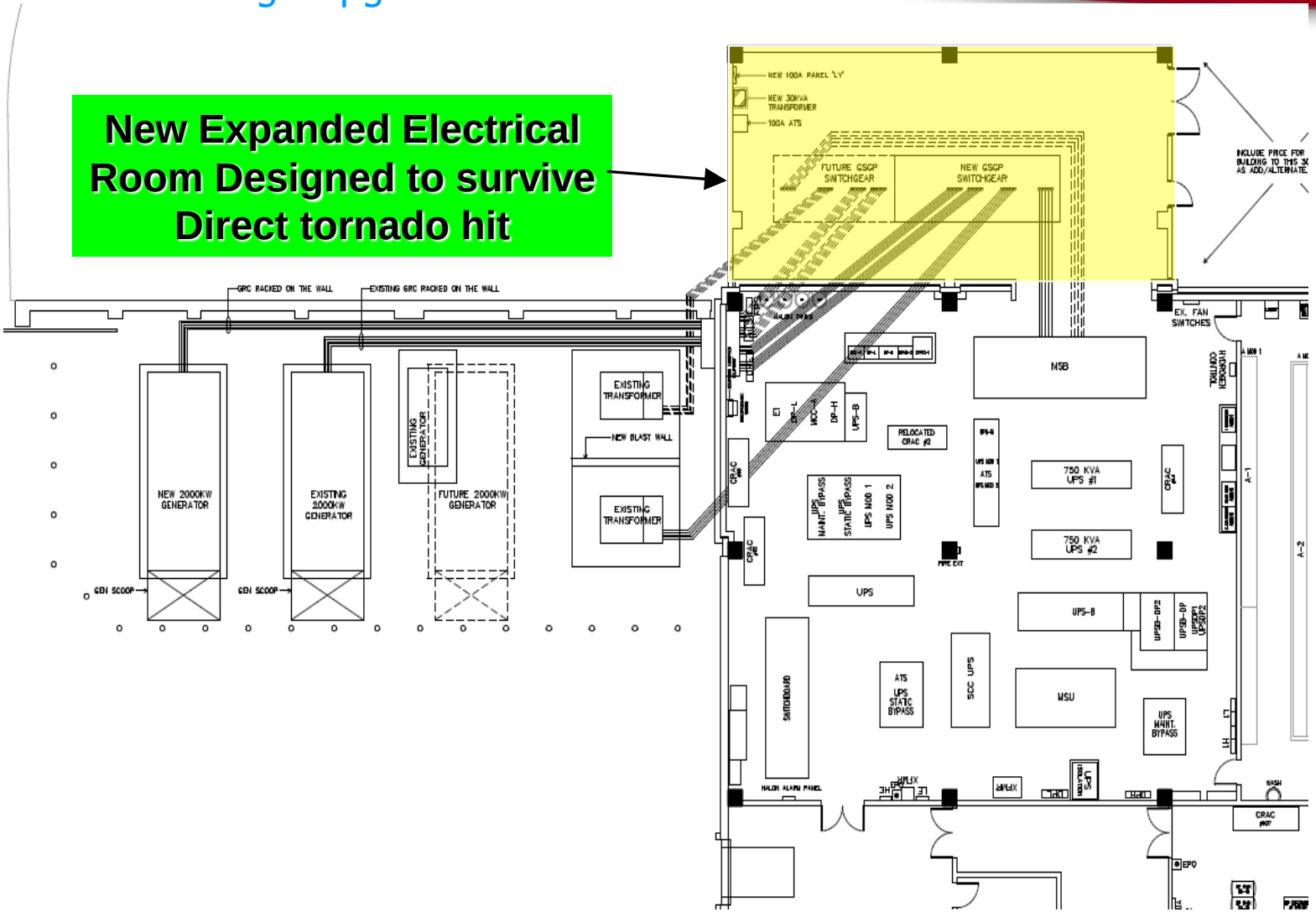
Initial Design Concept 2010 Data Center Upgrade



Estimated at $8MM investment with 3 years for implementation

2011 Revised Design Upgrade Data Center

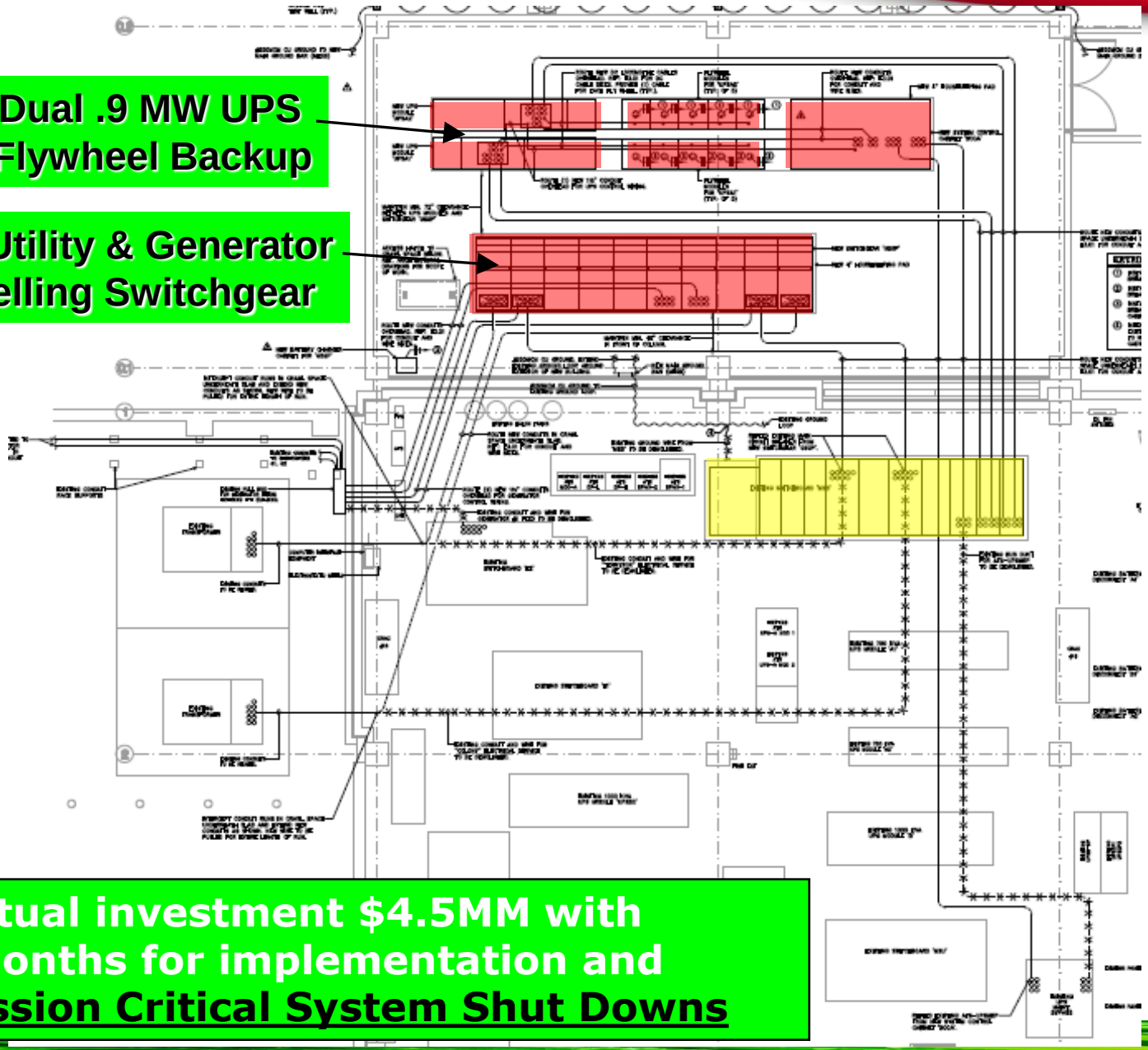
New Expanded Electrical Room Designed to survive Direct tornado hit



Final Design Solution 2011 Data Center Upgrade

New Dual .9 MW UPS With Flywheel Backup

New Utility & Generator Parrelling Switchgear



Actual investment $4.5MM with 9 months for implementation and NO Mission Critical System Shut Downs

2011 Expanded Electrical Room

Expanded Electrical Room
With Parrelling Gear
And new 1.8 MW UPS

New 2MW Generator