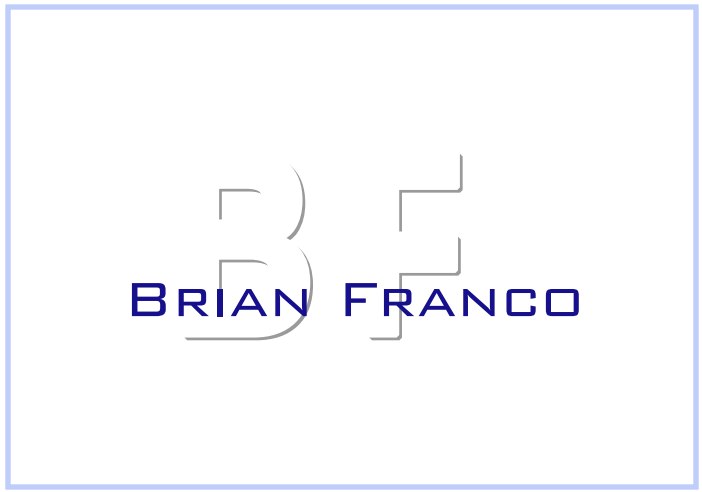
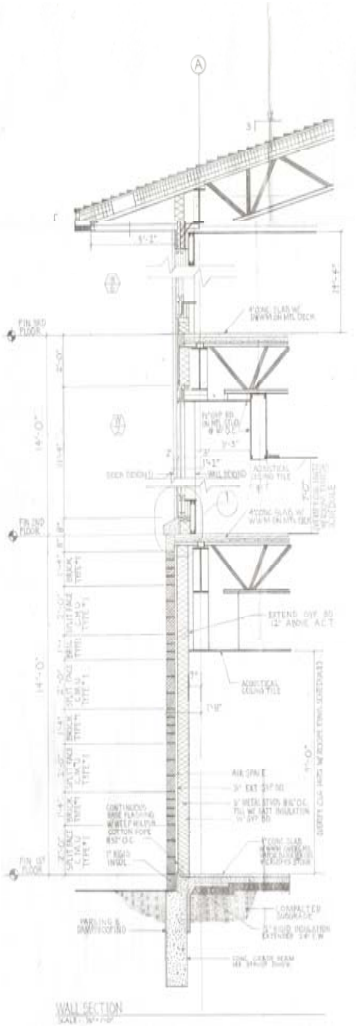

BRIAN FRANCO

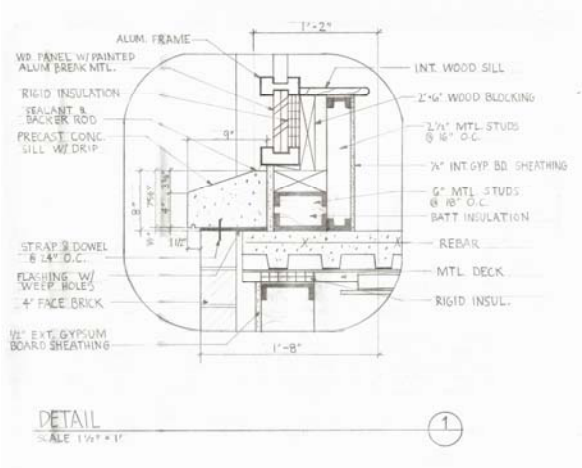
# Portfolio Contents

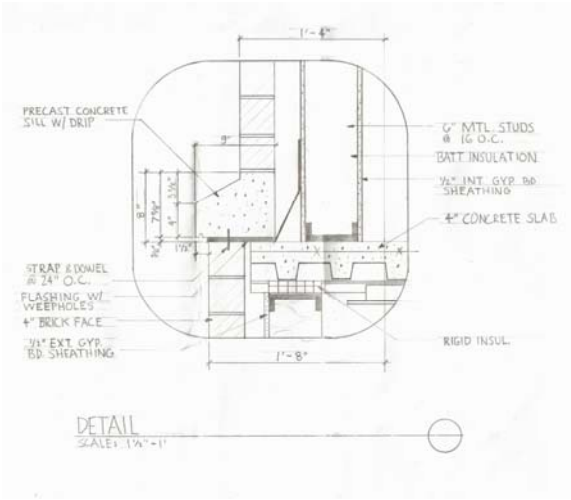


# Hand Drafting

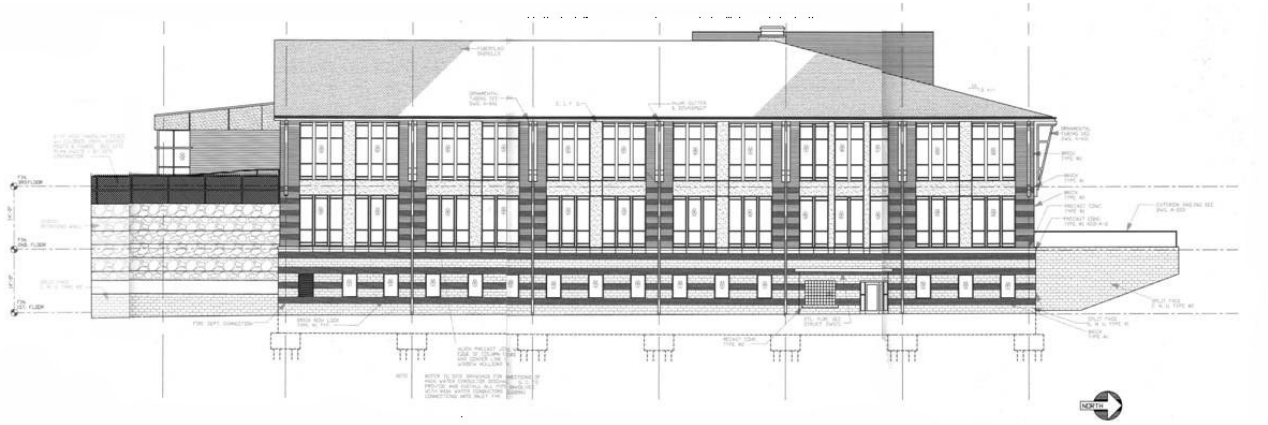


*Hand drafting is a valuable skill that teaches you to think as you draw…it teaches a level of discipline and calls for an attention to detail that carries over to other aspects.*

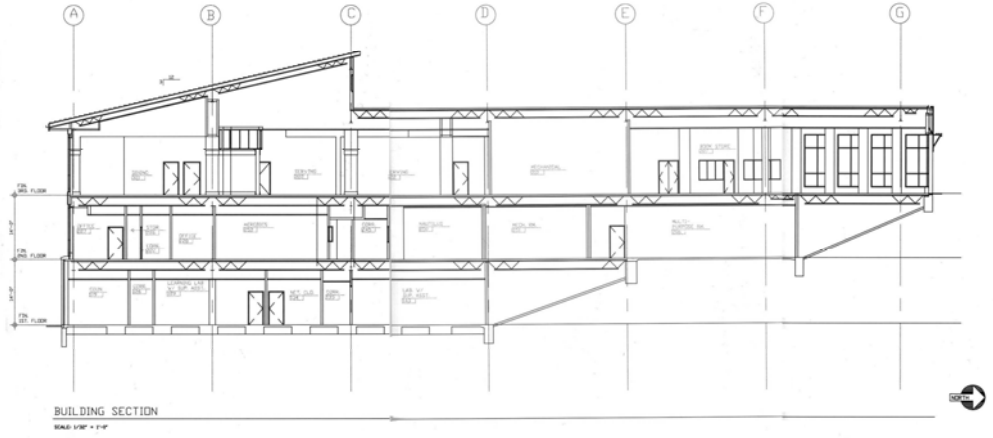


# CAD Work



*Computer Aided Drafting*



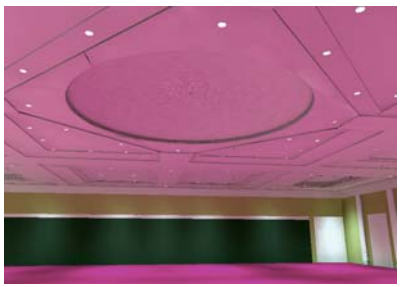
# CAD Work




*3 Dimensional Computer Aided Drafting*

*These renderings were created with AG132 but are solely intended to show 3D CAD model building skills.*





# Illuminating Engineering Society: Philadelphia Section
# Student Lighting Design Competition 2003 - 04

## Design of a Maryland Art Gallery

The design process for the gallery/guest house began with group brainstorming sessions discussing the existing building. From there I began to explore different effects that could be created with the lighting design. What we had to work with was a very unique structure indeed. The majority of the building was enclosed with a glass wall inside an old barn. The glass wall made it hard to find places to put luminaries.

The gallery was to double as a guest house for guests of the owners of the property. The whole estate was treated as a weekend getaway from the busy days of the city. In my design I attempted to create a very relaxing atmosphere. I wanted to instill a carefree "vacation" feeling. My main objectives were to light the building to meet illuminance levels while at the same time coming up with a creative lighting solution. I wanted my creative solution to include some modern aspects that one may find in a modern art gallery but also hold on to the history of the old barn structure.

# Lighting Design

*Renderings done with Lumen Designer*

*(Bedroom, Kitchen, Gallery/Living Room. Clockwise from top left)*

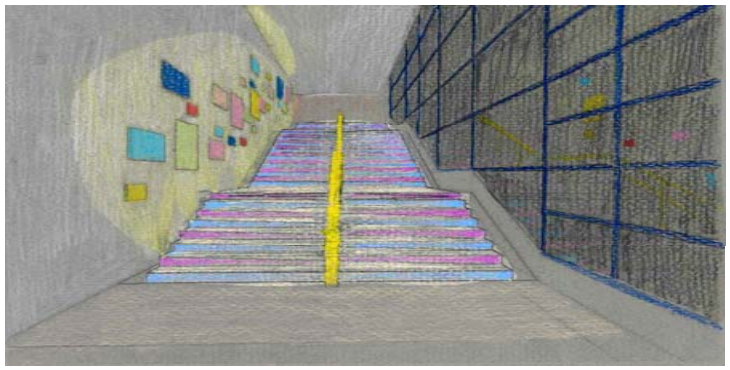
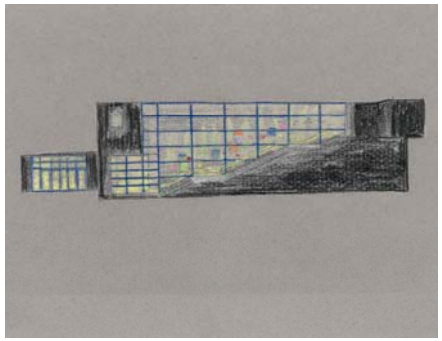
# Howard Brandston

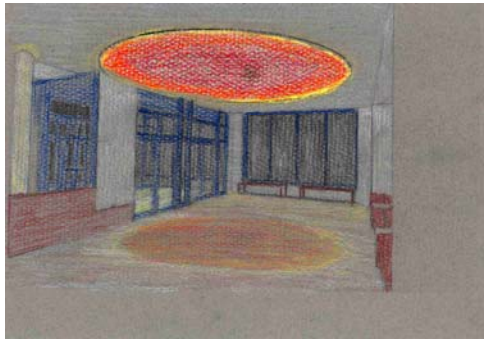
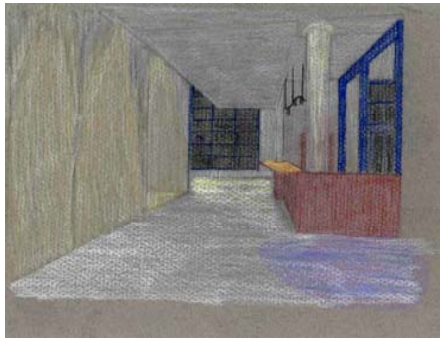
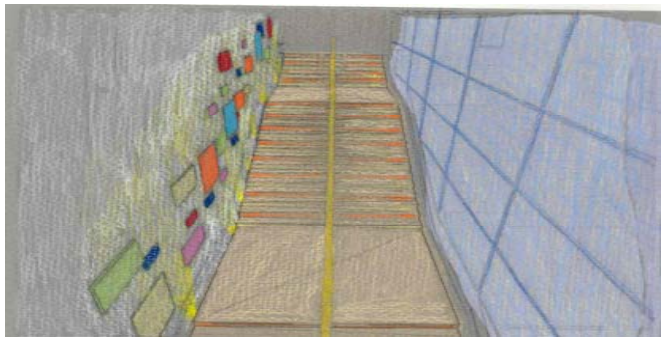
# Student Lighting Design Competition 2003 - 04

## Art Based Elementary School: Design Concept

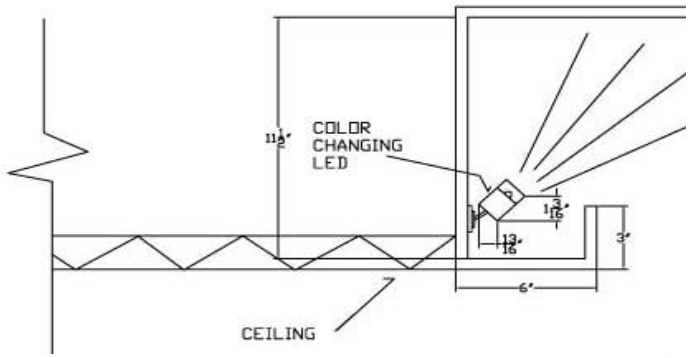
Nature has always been considered to be one of the most beautiful forms of art. That is why nature was chosen to inspire the design of this art school. In its simplest form, nature is a combination of four seasons. Using this idea, a color changing scheme of lights throughout the design space was devised. With the use of LEDs, the color of the lights change along with the turn of each season, such that red and yellow represent fall, blue and purple for winter, and so on. The goal was to inspire the young artists as they walk to class and to capture their attention every day they are in school. What better way to do this than to reflect the colors of nature, where there are no walls and no limits, where one is free to have an open mind.

## *Schematic Design Sketches*

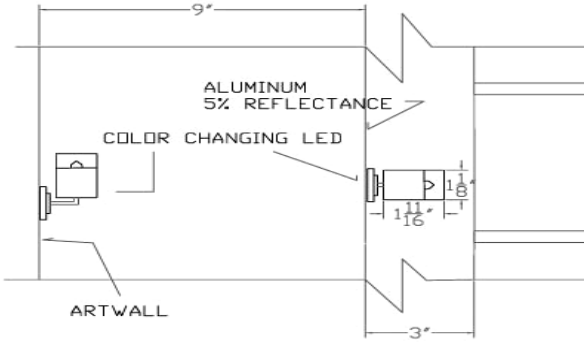




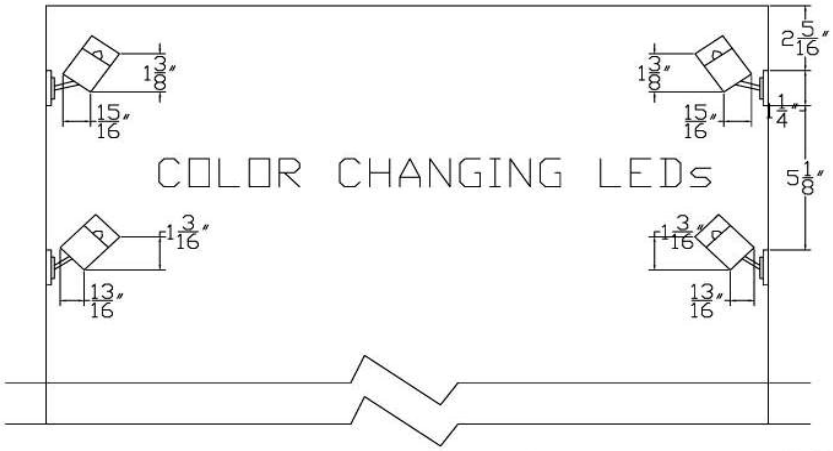
# Lighting Design




*Lobby Cove*




*Art Wall and Staircase*



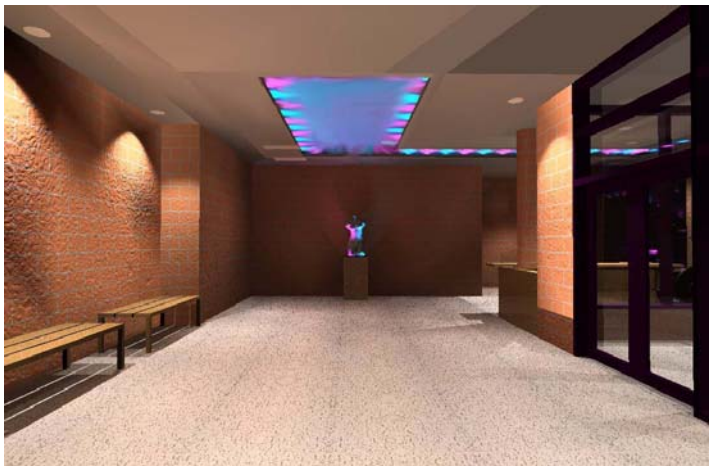

*Statue Podium*

*LED Aiming and Positioning Details*

# *Luminaire Schedule*

| Symbol | Designation | Description | Lamp Type/Wattage |
|---|---|---|---|
|  | A | LC LENS WALLWASHER WITH SILVER RECLECTOR | 75W T4 HALOGEN, 3000K, 1575 LUMENS |
|  | B | RECESSED COMPACT FLUORESCENT DOWNLIGHT, 8" DIAM., SPECULAR REFLECTOR | 32W TRIPLE TUBE 4-PIN COMPACT FLUORESCENT, 4100K, 2400 LUMENS |
|  | C | RECESSED COMPACT FLUORESCENT DOWNLIGHT, 8" DIAM., SPECULAR REFLECTOR | (2) 26W 4-PIN COMPACT FLUORESCENT, 3500K, 1800 LUMENS |
|  | D | 12", VERTICAL BASE UP POSITION, CLEAR SEMI-CIRCULAR PLASTIC DROP LENS | 45 LEDs (15 RED, 15 GREEN, 15 BLUE) |

# Lighting Design



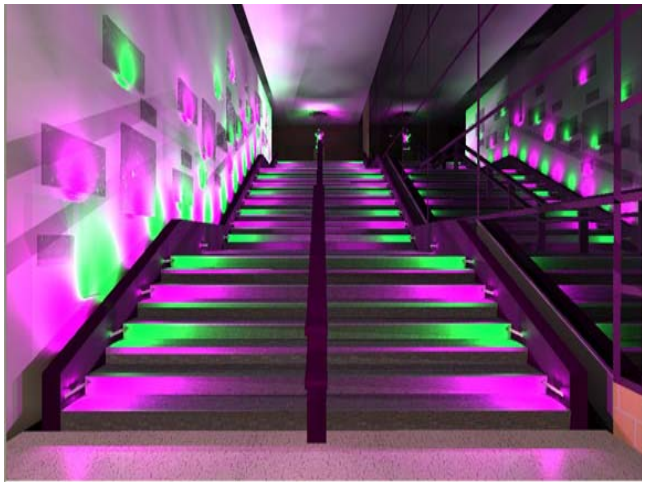
## *Lobby*

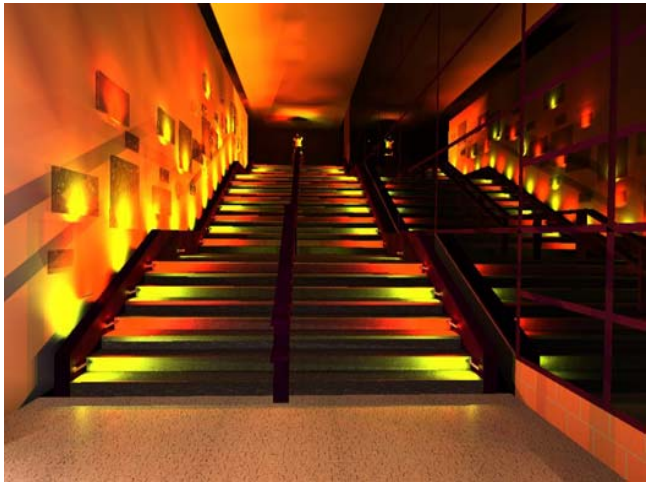
*-downlighting for ambient lighting and scalloping effect on walls*

*-LED's in cove and glass-topped statue stand*

*All images were rendered with Lumen Designer*

# Lighting Design

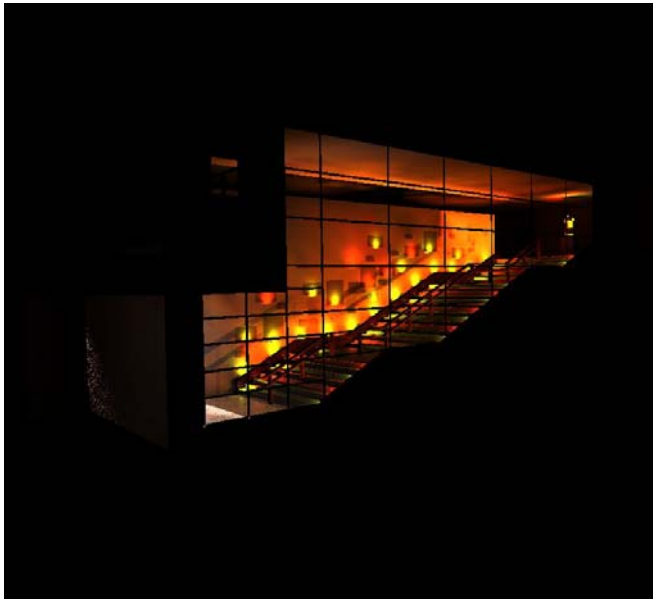


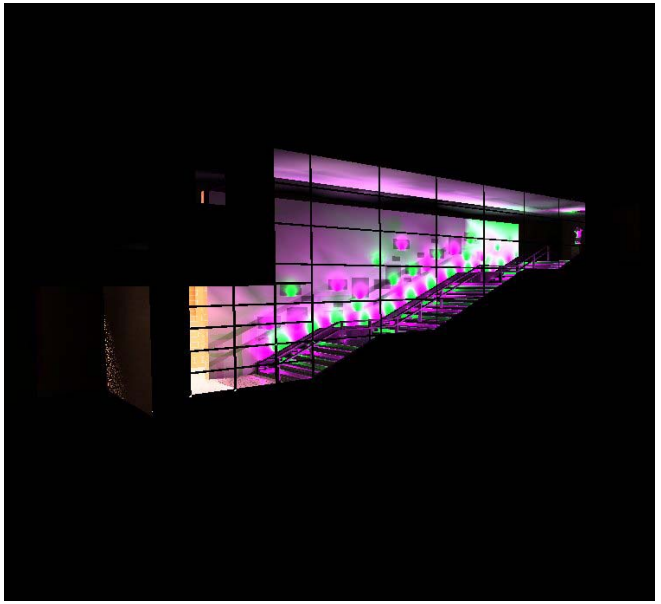


## *Staircase*

*Color changing LED's oriented both upward on the art wall and down on the stairs transform the space into a piece of art all on its own.*

# Lighting Design





## *Exterior*

*The school is an important piece of the local community and therefore the intention of the lighting design for the staircase was to create a beacon at night to the surrounding community by way of the glass façade.*

# Illuminating Engineering Society: Philadelphia Section

# Student Lighting Design Competition 2004 - 05

## Dental Complex: Design Concept

(statement from owner)
The Owner wants the overall lighting design to appear clean and refined. The design should not end up looking “visually busy”. The lighting goal for the entire building is to properly illuminate the interior without it becoming too “sparkly” from the outside. Meaning, beyond the lighting of the monolithic exterior wall, he would like the dental complex’s architectural interior space to become the secondary focal point utilizing luminaires to accent particular surfaces within the structure. There also needs to be a strong visual relationship between the site lighting specifications and the architecture.

**With that comes…**
A design that is sleek and sophisticated.

## Inspiration:

The lighting design of the Philadelphia Dental Complex should be simple, clean, and refined. The Golden Gate Bridge in San Francisco is the most photographed and best known bridge in the world. It is known not only for its beauty and elegance but also for its sleek style and simplicity. By night the bridge takes on the look of a beam of light spanning the great bay between San Francisco and Marin County. Like the Golden Gate, the Dental Complex provides a bridge that links students from their academic life to their professional careers.

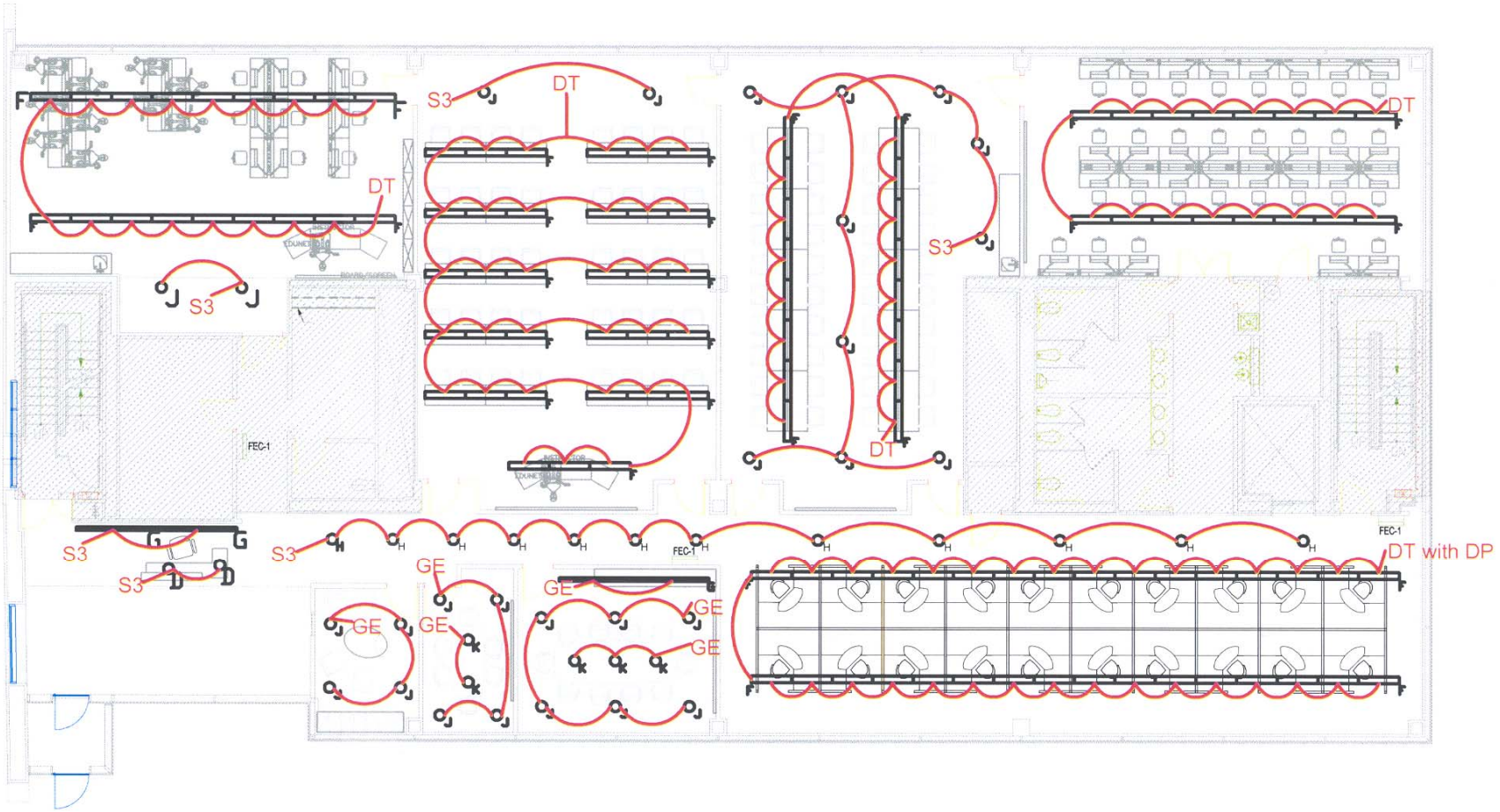
| Type | Luminaire Description | Lamp Description | Volts | Ballast | Ballast Factor | Total Watts |
|---|---|---|---|---|---|---|
| A | Pathway exterior bollard, single side emission | 18W CFL | 120 | electronic | 1.05 | 20W |
| B | Recessed ground uplight, with 50 degree cutoff | 70W T6 metal halide | 120 | electronic | 0.9 | 94W |
| C | Exterior fiber optic strip, with interior source lamp on strip ends | 150w metal halide source, plastic fiber optic cable | 120 | electronic | 0.9 | 173W |
| D | Low voltage pendant, with cylindrical frosted and glass tubes | 17W MR-16, NFL 36 degree | 120 | _ | _ | 17W |
| E | Cylindrical recessed downlight, w/ 7" conoid apertures | 250W T-4 Tungsten halogen | 120 | _ | _ | 250W |
| F | Pendant-mounted linear fluorescent indirect w/ perforated bottom | 54W T5-HO | 120 | electronic | 0.99 | 62W |
| G | Fluorescent wallwasher | 35W T5 | 120 | electronic | 1 | 41W |
| H | Recessed downlight w/4" conoid aperture | 18W TT CFL | 120 | electronic | 1.05 | 20W |
| J | Recessed downlight w/8" conoid aperture | 32W TT CFL | 120 | electronic | 0.98 | 36W |
| K | decorative aluminum pendant | 32W TT CFL | 120 | electronic | 0.98 | 36W |

| Control Type | Symbol |
|---|---|
| Grafik Eye | GE |
| Dual Technology Occupancy Sensor | DT |
| Dimming Photosensor | DP |
| Three Way Switch | S3 |
| On/Off Photosensor | PS |

## *Control Systems*

*Controls systems were used wherever feasible to minimize energy use.*

# *1st Floor Lighting Plan*



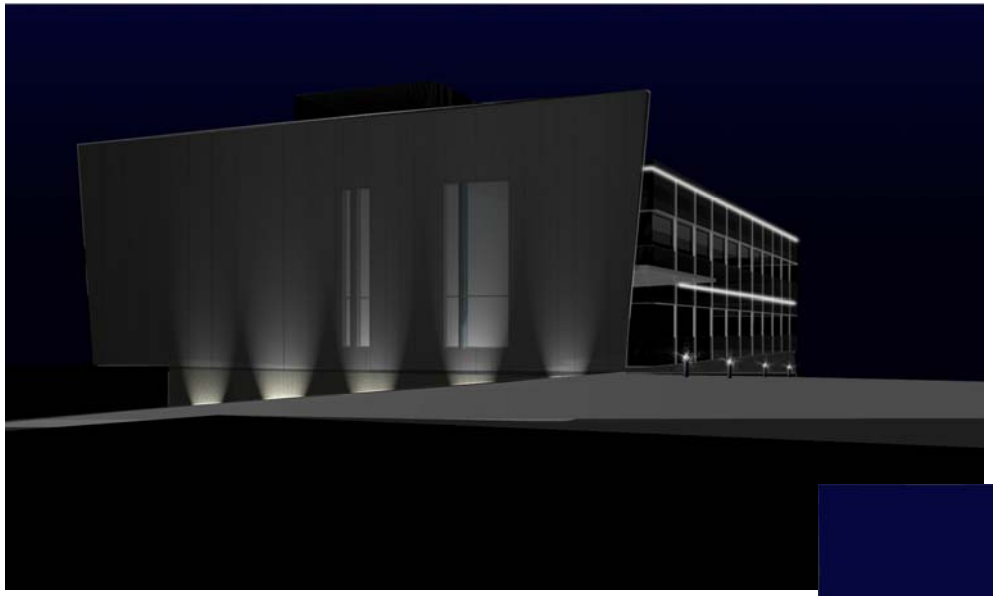
# Lighting Design

## *Interior*

*-A limited number of fixtures were used for ease of maintenance and to help achieve a simple design.*

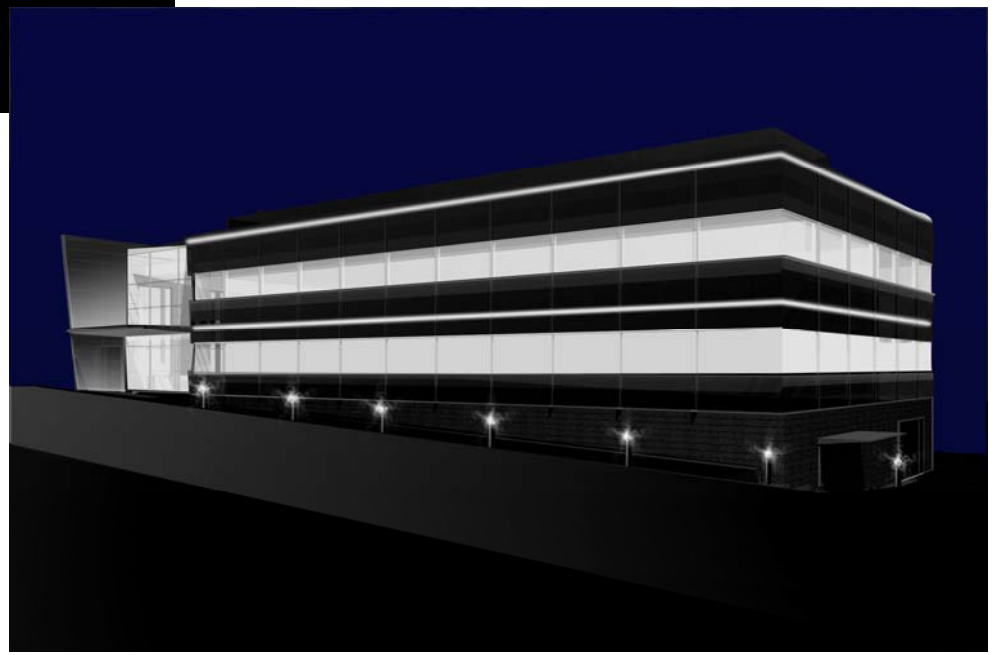
*(Lobby, Open Office, Training Room. Clockwise from upper left corner.)*

# Lighting Design



*Exterior*

*-Uplighting on building façade*



*-Bollards illuminate perimeter walkway*

*-Fiber optic strips highlight geometry of the building*

# *Pastels*

*Theatre lighting*

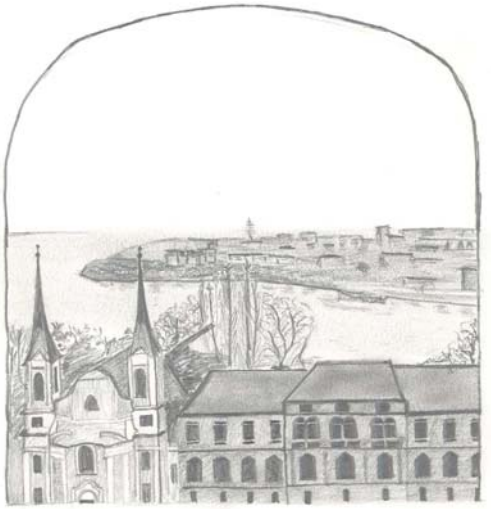
*Crater Lake at sunset*

Dali Study

# Pencil Sketches

Still Life

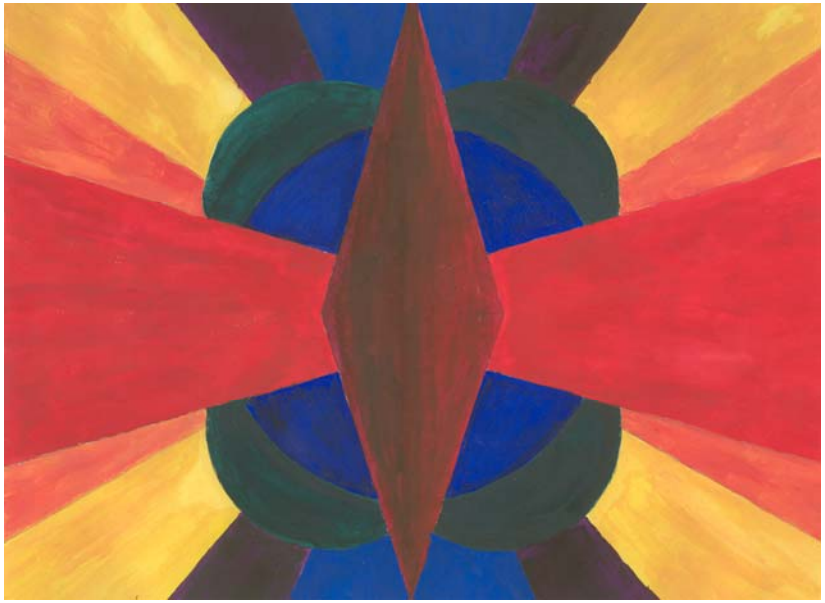
View of the Danube from a Hungarian window



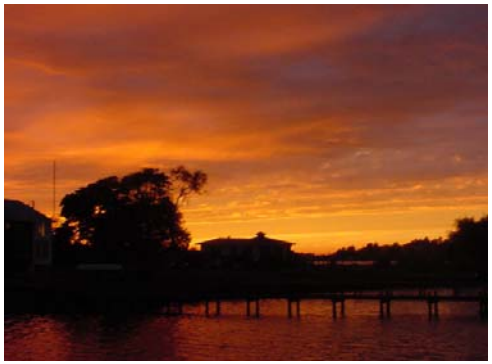
The Coliseum

## Watercolors

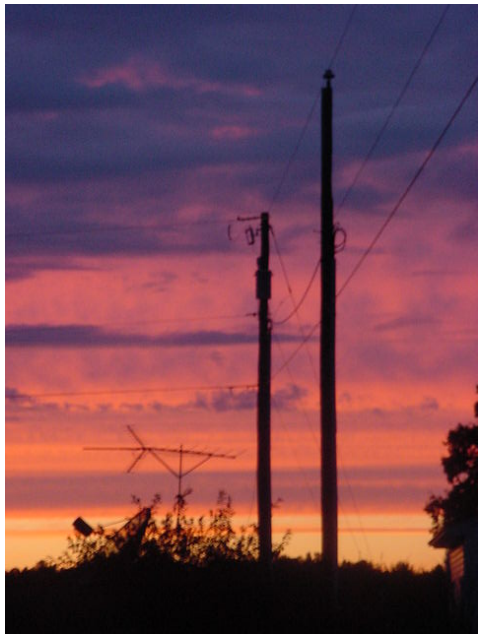
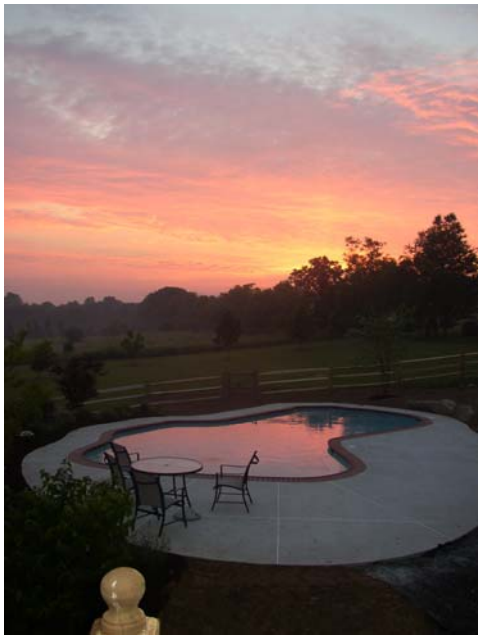
### Exploration of Color



# Photography

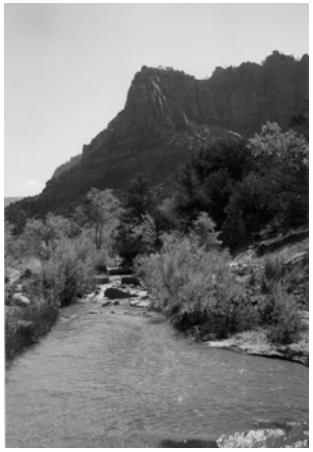




*The beauty of the most primitive source of light…sunrise and sunset.*

# Photography

*Black-and-white photography is a great way to learn about our visual perception of the world around us. Concepts of highlight and shadow detail, reflection, and image contrast, are all best understood by studying the black-and-white image*



# Photography

*Nature…color, energy, and life in their truest forms…*

*End*

*By Brian Franco*