

# Boston University · Arena and Recreation Center

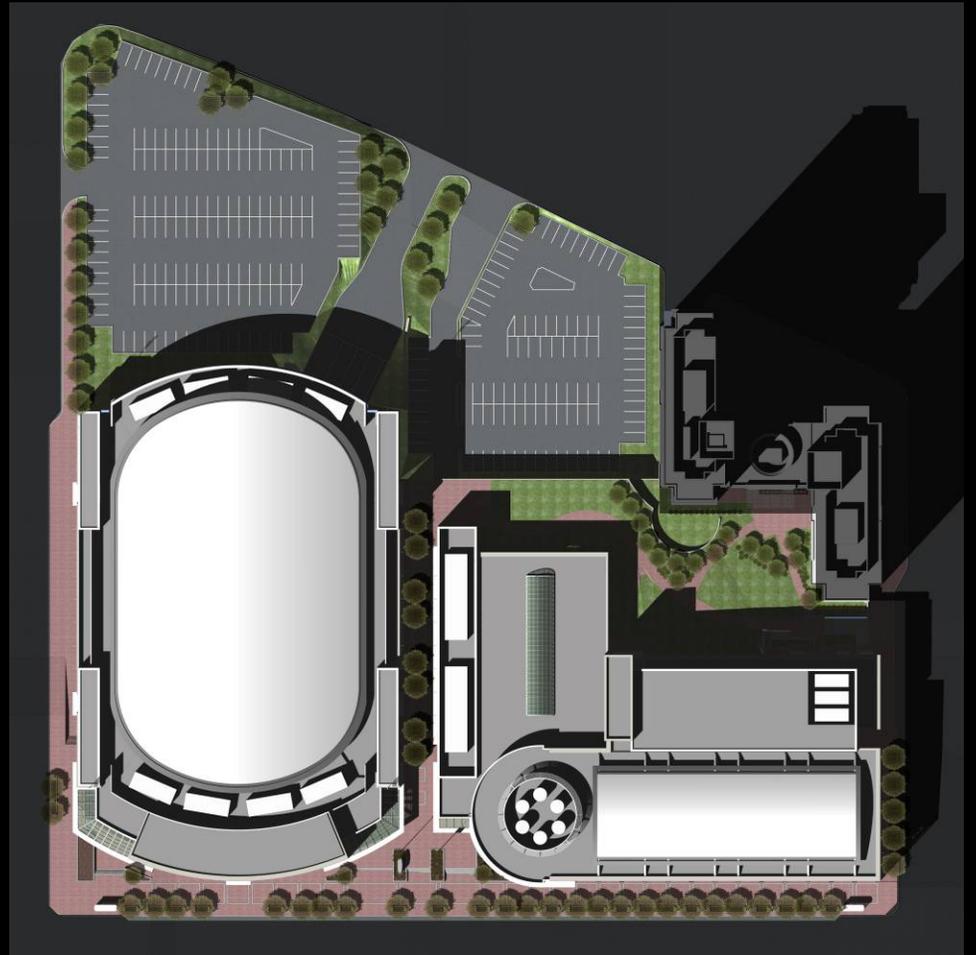
Alexis M. Kreft



December 15<sup>th</sup>, 2006  
Schematic Design Presentation

# Building Overview

- Name: Boston University Arena and Recreation Center
  - Location: Boston, MA
  - Architect: Cannon Design
    - Size: 822,000 sq ft
      - Arena: 264,635 sq ft
      - Rec Center: 267,995 sq ft
    - Underground Parking: 289,370 sq ft
- Construction Dates: May 2002-April 2005
  - Cost: \$185,000,000



All photos courtesy of CANNON DESIGN

# Building Features

## Recreation Center

- 18,000 sq ft weight & cardio room
  - 2 swimming pools
  - 2 gymnasiums
- 1/8 mile elevated track
  - 35' climbing wall
- Multipurpose activity/classrooms
  - Dance theater



## Arena

- State of the Art ice hockey rink
  - Portable basketball floor
- Seating for 6,300 with 20 suites and premium seats
  - Exclusive Club Room
  - Black Box Theater
- Concession stands throughout concourse



All photos courtesy of CANNON DESIGN

# Concepts

MOTION

ENERGY

FRESH

PRIDE

LIFE

YOUTH

INNOVATIVE

DETERMINATION



# General Design Goals

Create an environment that appears to be  
full of life and energy

Use light to guide people through spaces

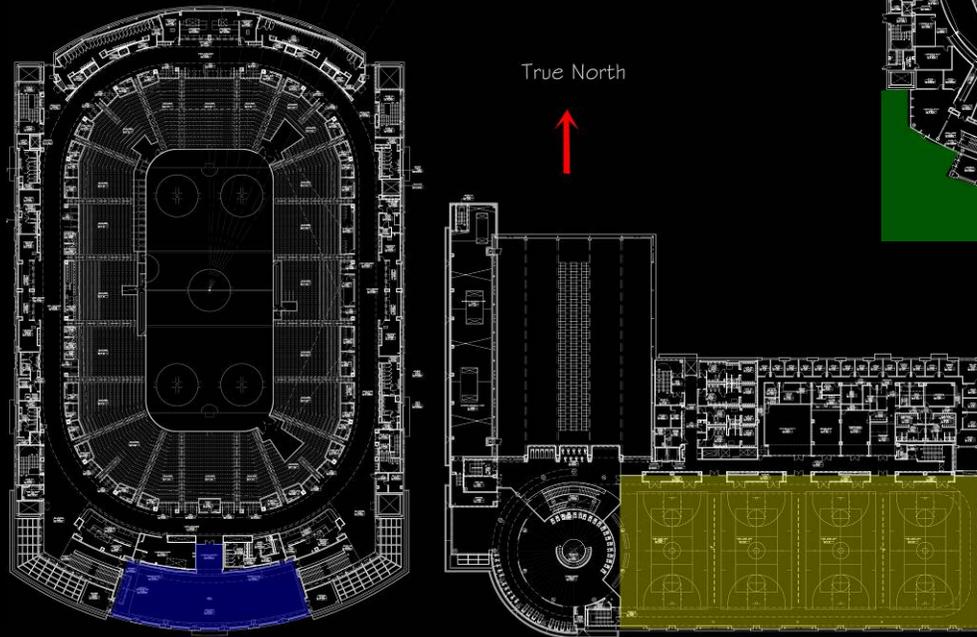
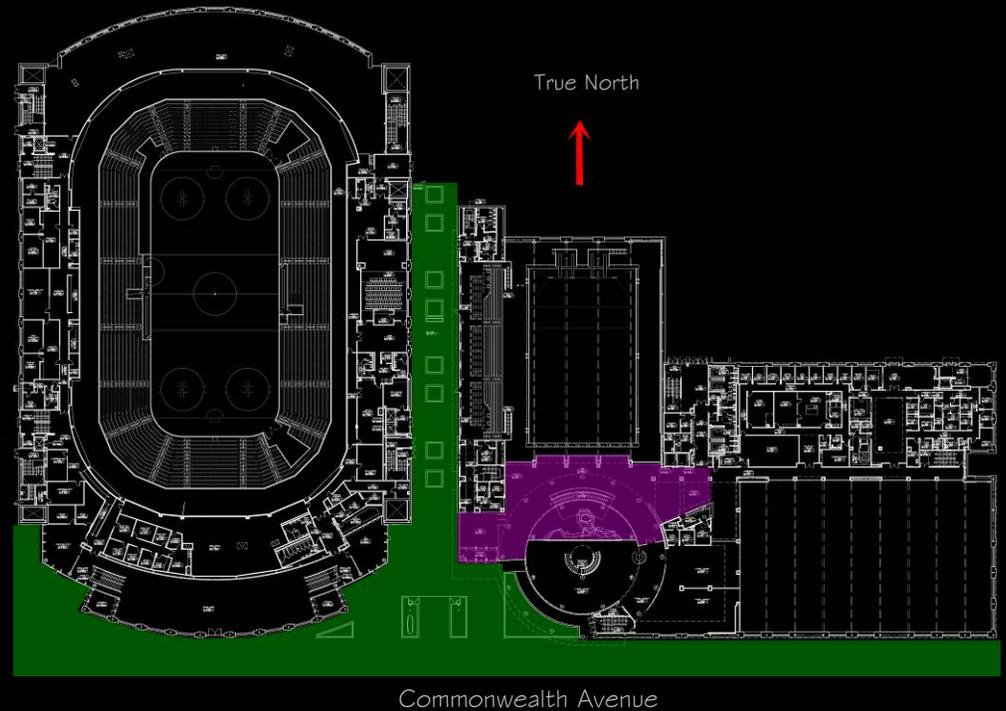
Provide efficient light levels while taking  
energy conservation into account

Atmosphere should have an inviting feel

# Scope of Design

## First Floor Plan

- Exterior/Façade
- Lobby/Circulation Space



## Second Floor Plan

- Executive Club Room
- 4 Court Gymnasium

# Executive Club Room

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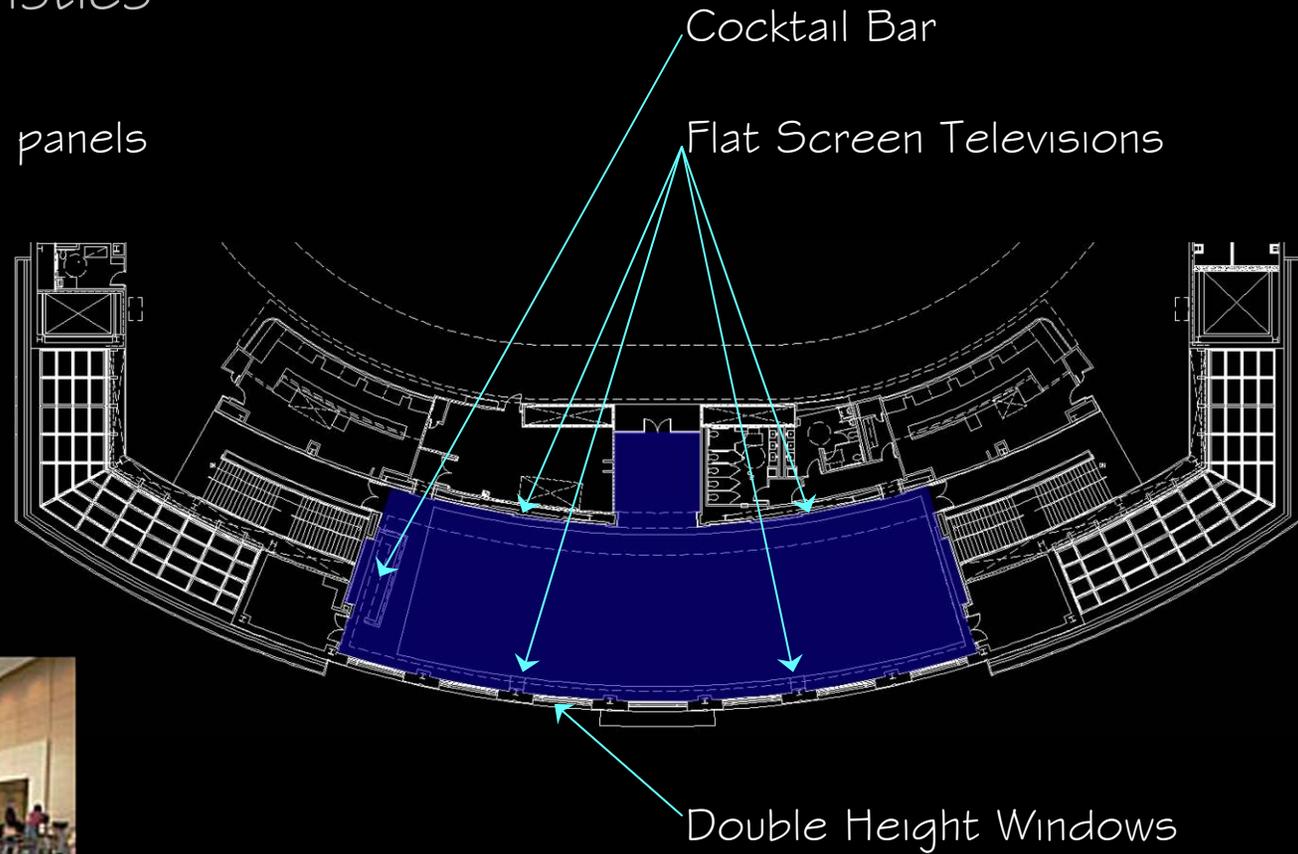
# Executive Club Room

## Space Characteristics

Walls: 2' x 4' wood panels

Ceiling: off-white

Floor: grey carpet



All photos courtesy of Boston University

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# Executive Club Room

## Design Goals

- Create a relaxed and warm environment for all VIPs and exclusive club members
- Provide a flexible system for the different social setting requirements
- Avoid veiling reflections on flat screen televisions
- Integrate daylighting and daylighting control into the system
- Highlight the space characteristics:
  - Wood panels through use of warmer color temperatures
  - Curved architecture
  - Double-height windows
  - Cocktail bar

# Executive Club Room

## Design Concepts



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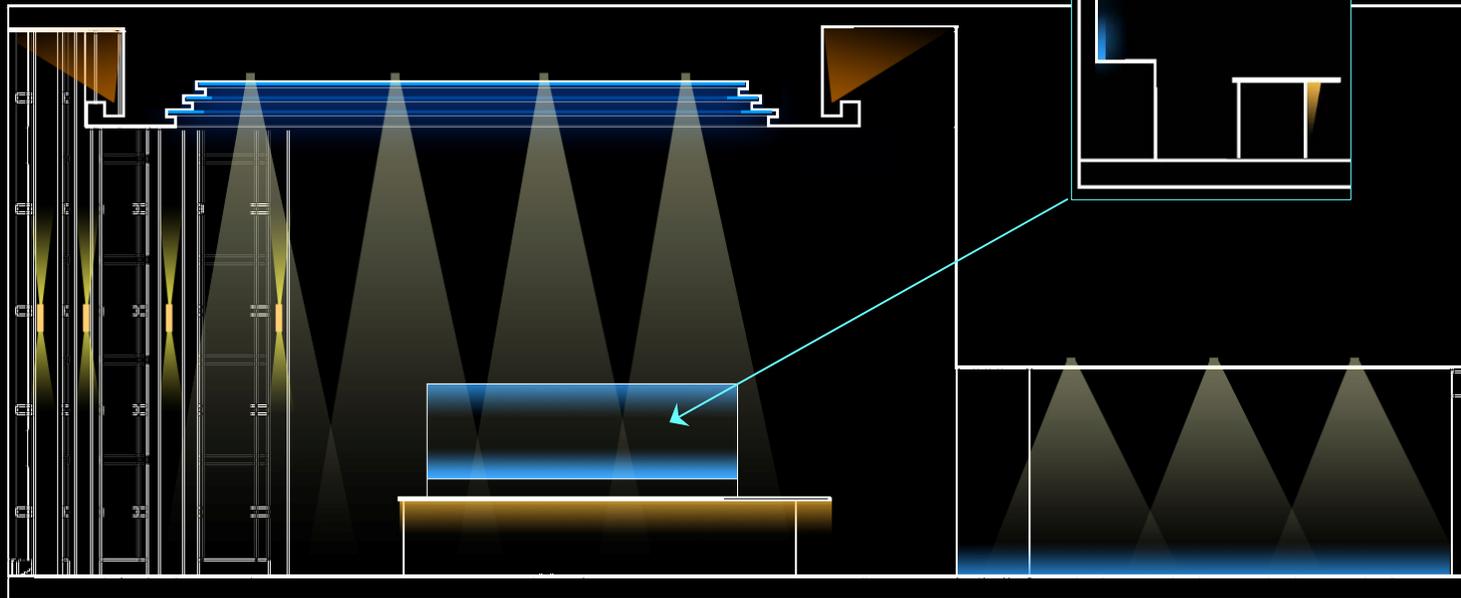
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# Executive Club Room

## Design Sketches

### Special Event Lighting:

Dimmable downlights for ambient lighting, blue LED strip lights in stepped cove, orange LED strip lights in outer cove for contrast, and decorative wall sconces between window openings.



### Bar Lighting Detail:

Blue LEDs to illuminate liquor bottles, orange LEDs to graze the front of the bar, and pendants for ambient & counter lighting.

### Main Entrance Corridor:

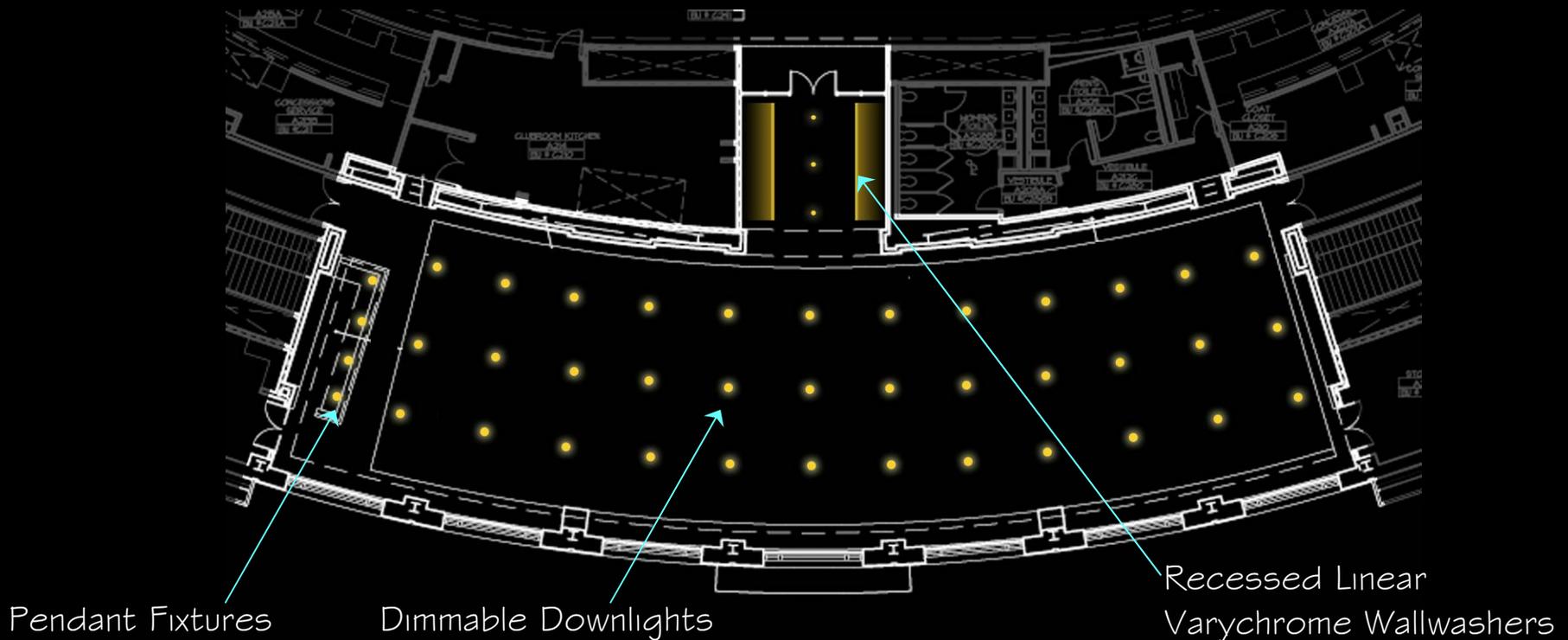
Blue LED strip lights meant to guide people to main room

# Executive Club Room

## Design Sketches

### General Lighting:

Versatile dimmable downlights to minimize veiling reflections on flat screen monitors



# Lobby & Circulation Space

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# Lobby & Circulation Space

## Space Characteristics

Walls: white

Ceiling: metallic grey

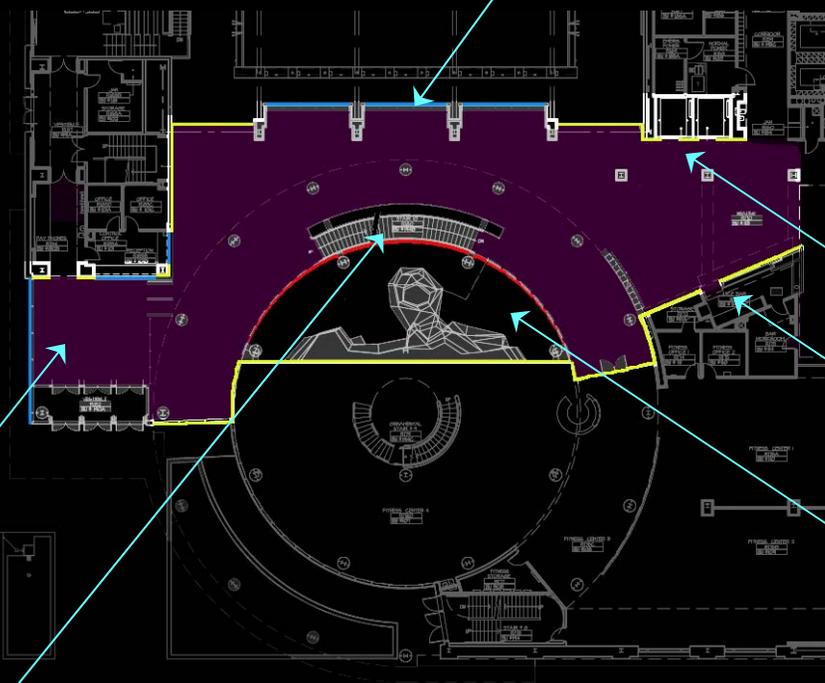
Floors: glossy white and grey tile

Columns: white



Main Entrance

Main Stairwell



Competition Pool  
Viewing Windows



Main Elevators

Juice Bar

Open to Below



All photos courtesy of Boston University

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# Lobby & Circulation Space

## Design Goals

- Create an environment that represents energy and pride within the campus setting through the use of light in motion and Boston University school colors
- Use contrast (high luminance uniformity ratio) to guide people through the space
- Highlight space characteristics:
  - Curved architecture
  - Area around competition pool viewing windows
  - Central rock wall
  - Large columns

# Lobby & Circulation Space

## Design Concepts



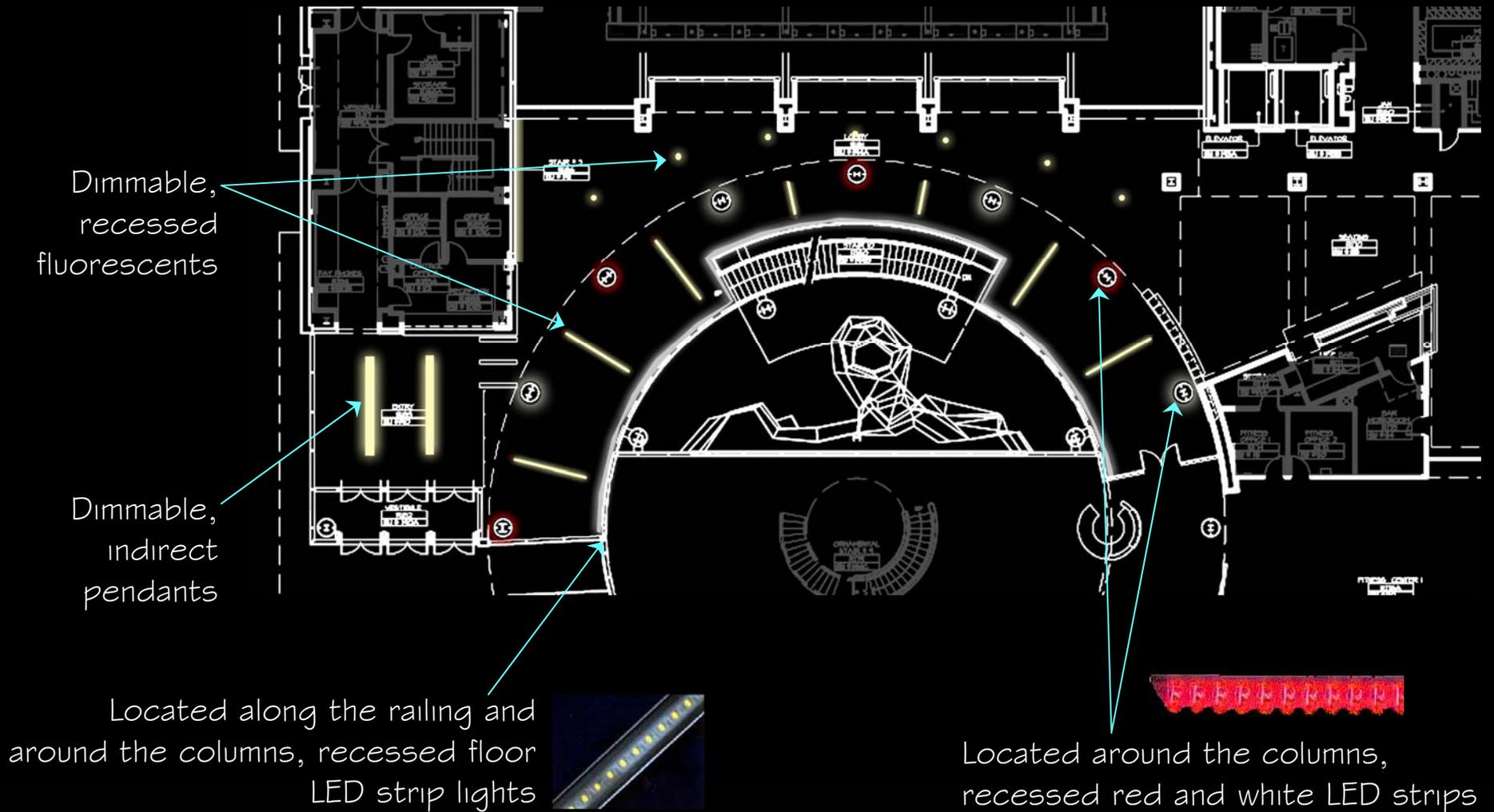
Boston University photos courtesy of BU

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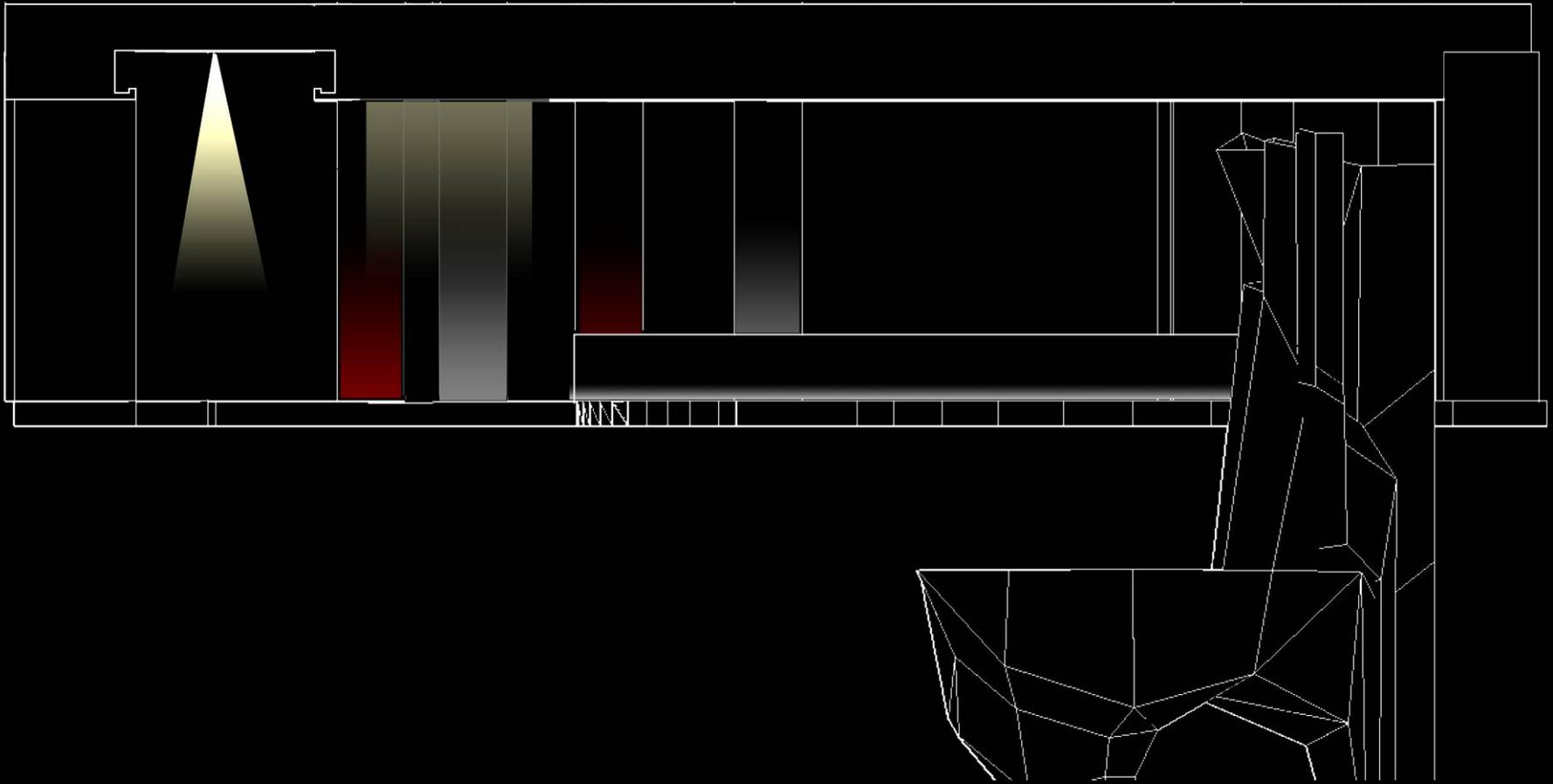
# Lobby & Circulation Space

## Concept Sketches



# Lobby & Circulation Space

## Concept Sketches



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# Exterior

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# Exterior

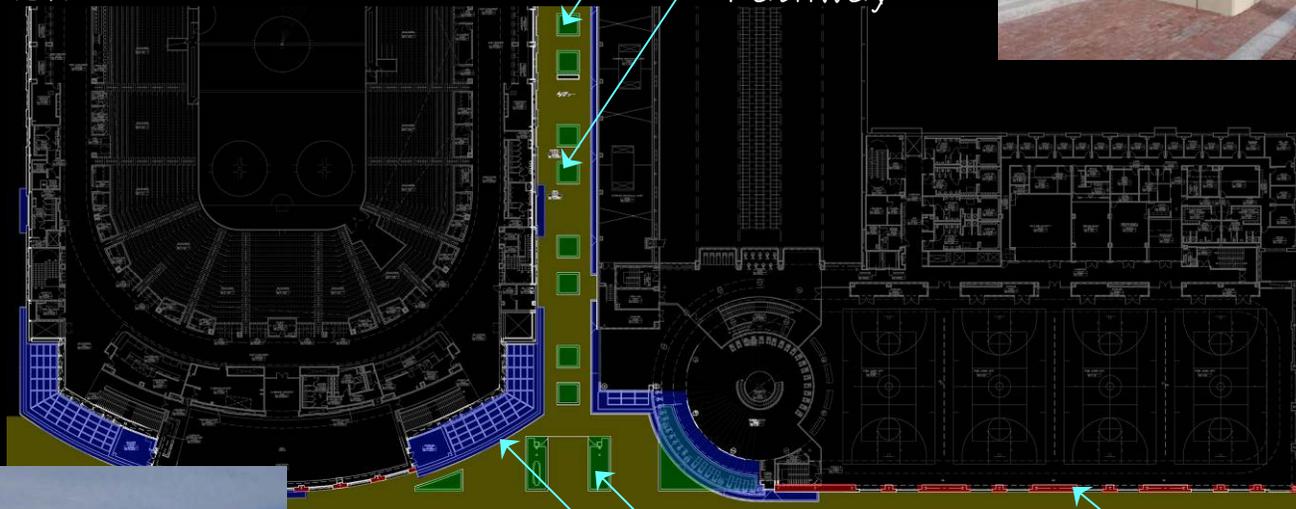
## Space Characteristics

Façade: Brick and Concrete Blocks

Walkways: Brick

Concrete Planters

Central Pathway



Concrete Sign  
Glass Canopy

Brick Façade



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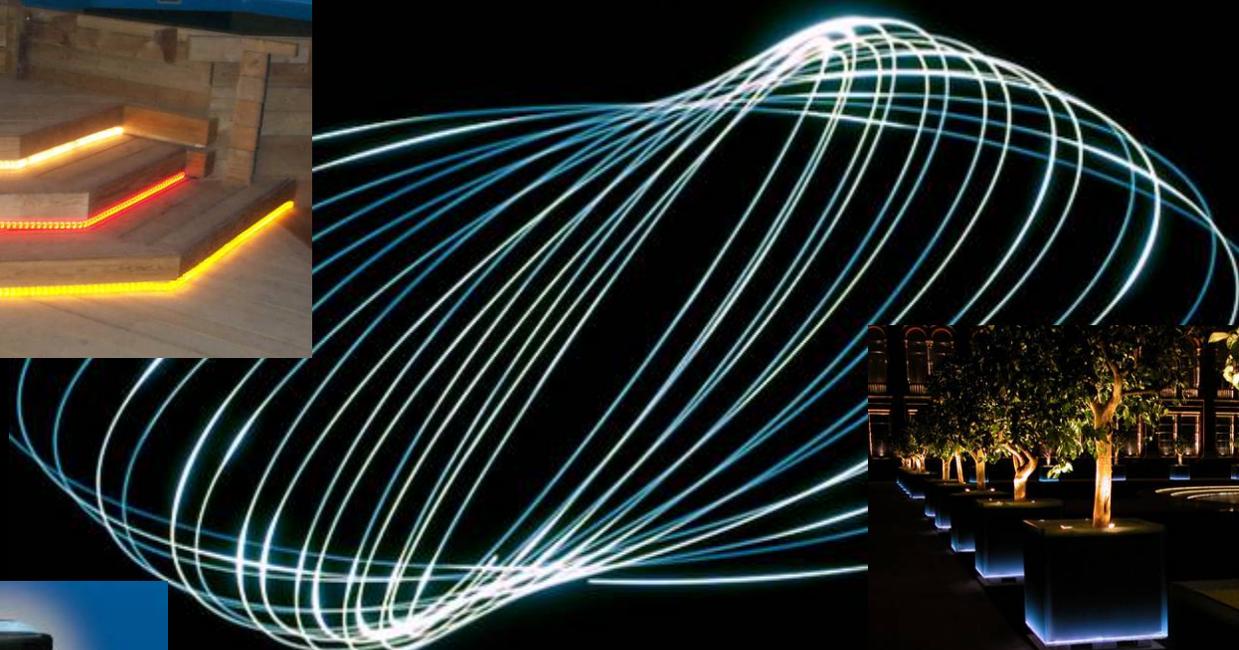
# Exterior

## Design Goals

- Create a safe and welcoming environment, while complying with Boston University exterior lighting standards
- Avoid direct glare
- Use dark sky compliant fixtures to minimize light pollution
- Emphasize brick façade with warmer color temperatures
- Use lines of light to guide people through the central pathway
- Highlight space characteristics:
  - Entrances
  - Circular rotunda
  - Concrete planters boxes

# Exterior

## Design Concepts



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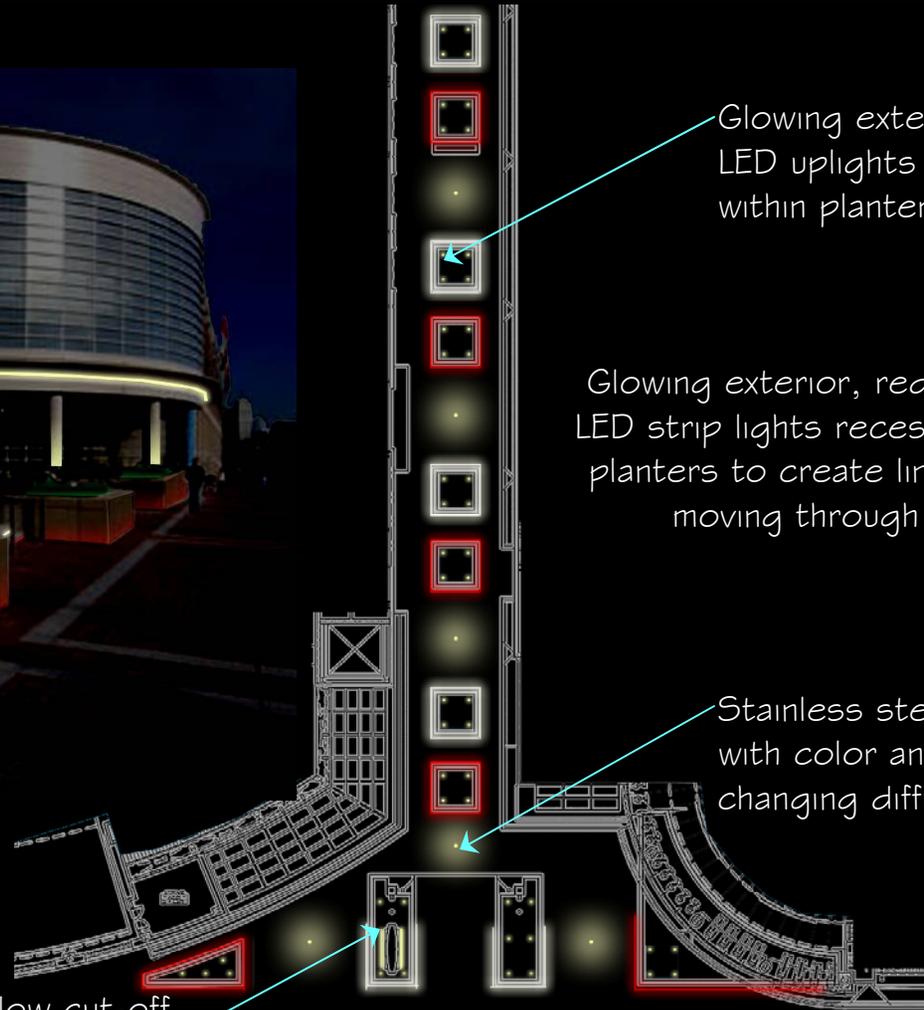
# Exterior

## Concept Sketches



Red and white LED strip lights to highlight stairs and bring out BU colors

Exterior uplight with low cut-off angle to highlight sign



Glowing exterior, green LED uplights located within planter



Glowing exterior, red and white LED strip lights recessed around planters to create lines of light moving through plaza

Stainless steel bollards with color and design changing diffusers



# Four Court Gymnasium

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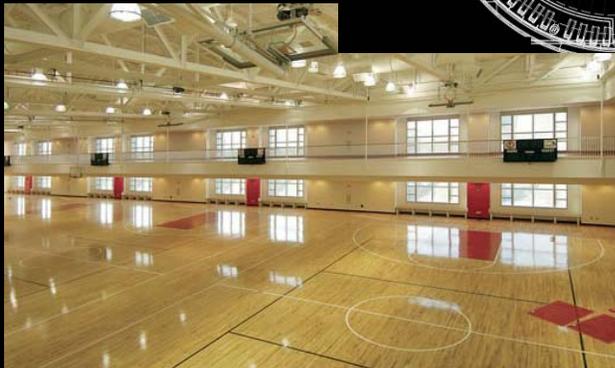
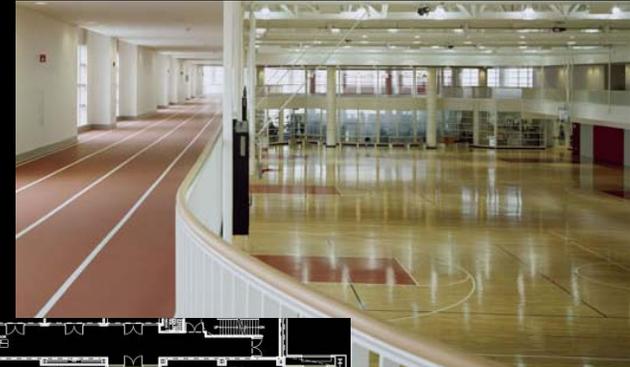
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# Four Court Gymnasium

## Space Characteristics

Walls and ceiling: matte off-white

Floors: glossy wood



Elevated track

Large floor-ceiling windows

All photos courtesy of Boston University

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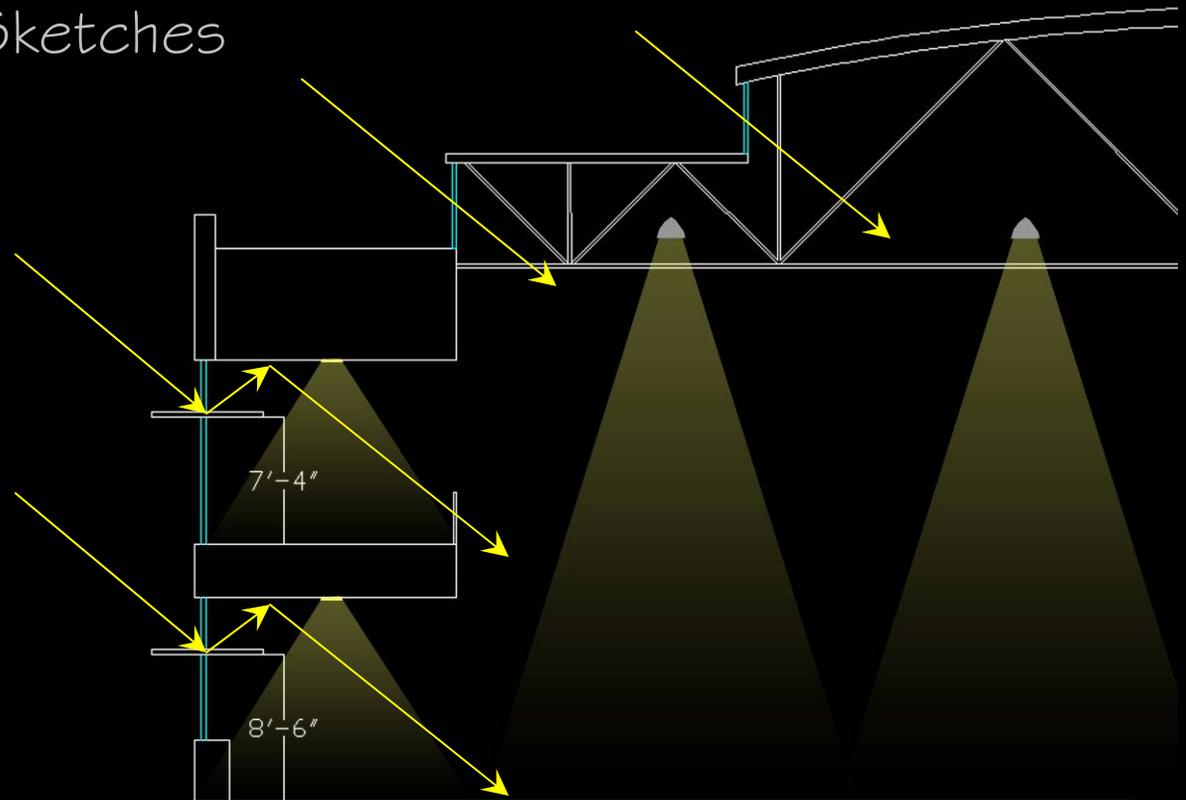
# Four Court Gymnasium

## Design Goals

- Provide adequate light levels for sporting events
- Evenly illuminate track and gym floor
- Avoid direct and reflected glare
- Integrate daylighting and daylighting control into system
  - Use dimmable fixtures controlled by photosensors
- Provide an energy efficient lighting system

# Four Court Gymnasium

## Design Concepts and Sketches



Light shelves 2ft from ceiling and south facing clerestories to distribute light throughout the gym and minimize direct glare. Fixtures are dimmable-high bay compact fluorescent controlled by photosensors.

# Questions and Comments

*are Welcome*



Thank you!  
Have a great day!