



# lighting proposal memo

Denver Police Department Crime Lab || Denver, Colorado

lighting || electrical

Jackie Eury || September 8, 2014 || Shawn Good

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## **Purpose**

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The lighting proposal memo is designated to propose four different spaces that will be redesigned within the Denver Police Department Crime Lab. Each space will be broken down by tasks, dimensions, materials, and visual aids. Below are the spaces I have selected to analyze:

Circulation Space || Lobby/Atrium 103  
Special Purpose Space || Multipurpose Room 212  
Large Work Space || Main DNA Lab 224  
Outdoor Space || South Plaza

Three schematic design concepts will be applied to the lobby/atrium. This space is a large circulation area, with visibility from all three floors. A psychological impression will be performed on the south plaza, where the Flynn Mode of relaxation shall be utilized.

*All images in this document are courtesy of SmithGroupJJR.*

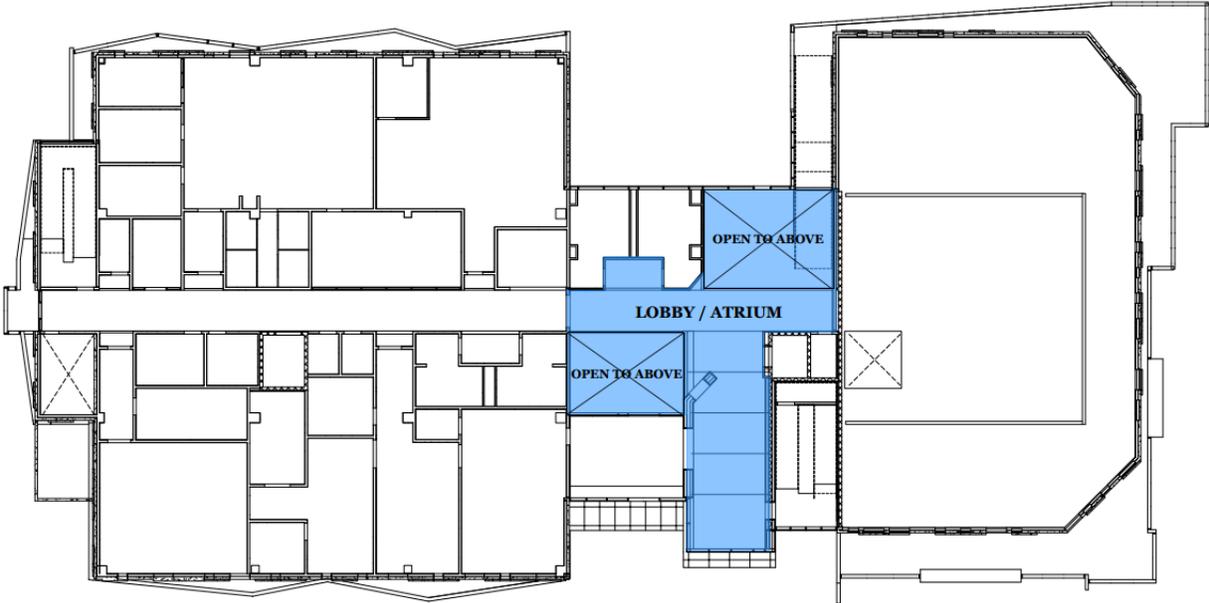
## **Building Overview**

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The Denver Police Department Crime Lab serves the public of Colorado through proper and thorough forensic investigation. Neighboring the lab in downtown Denver is the Police Department and Department of Safety, along with several other government buildings. The lab itself houses many facilities such as conference rooms, a multipurpose room, open offices, and various laboratories that allow their users to be able to work efficiently and effectively. Architecturally, the crime lab showcases a unique façade that was modeled after a double helix, or DNA molecule. This contemporary look continues on the interior of the building, where distinctive ceiling systems and modern labs.

**Spaces**

Circulation Space || **Lobby / Atrium**



**Figure 1.1 FIRST FLOOR**

The lobby and atrium is the first site that you are greeted with when entering the building. Located in the center the building, the most traffic occurs here. There are two rectangular areas (indicated above) that are open to the second and third floor. This gives me an opportunity to create three interesting lighting design schemes.

**Tasks || Activities**

- Transition
- Reading
- Writing
- Lounge

**Materials**

- Ceiling: Perforated Metal Panels, Wood Laminate, Acoustical Wood Slots
- Walls: Gypsum, Composite Panels
- Floor: Terrazzo

**Dimensions**

- Area: 1985 SF
- Ceiling Height: 12'-0," 46'-0"
- Room Length: 71'-0"
- Room Width: 51'-0"

**Furnishings**

- Chairs
- Couches
- Tables



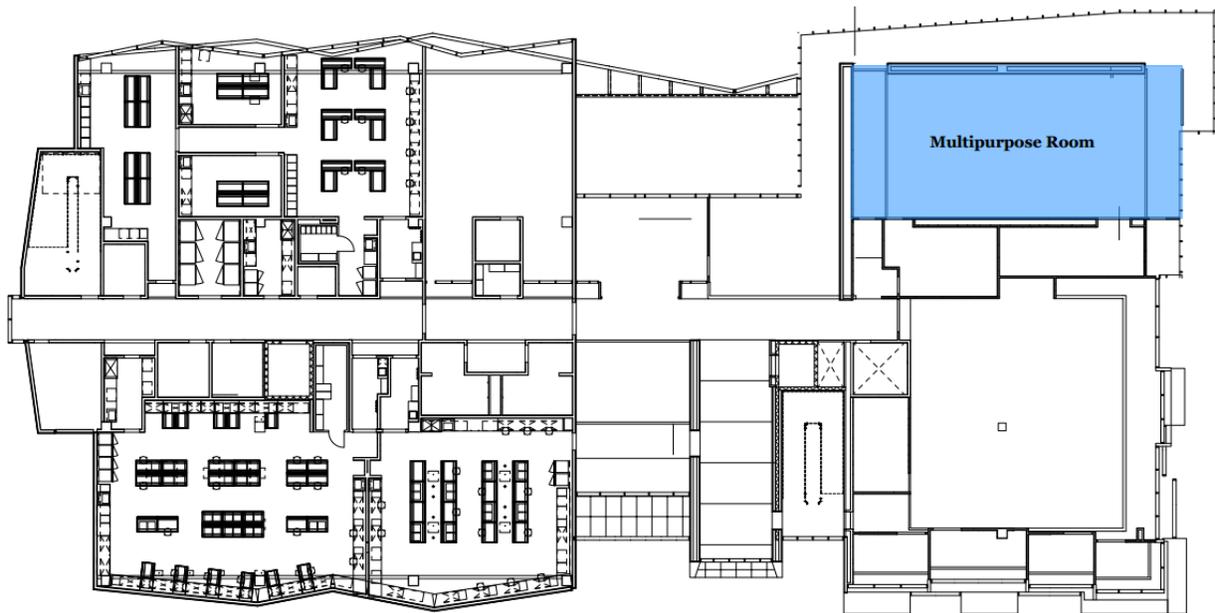
**Figure 1.2 View of Stairs from Lobby**



**Figure 1.3 View of Floors 2 and 3 from Floor 1**

## Spaces

### Special Purpose Space || Multipurpose Room



**Figure 2.1 SECOND FLOOR**

Located on the second floor, the Multipurpose Room serves as an area for lecture, training, and presentations. The ceiling system slopes (see Figure 2.3) and the floor terraces to create optimal viewing. This space also contains Audio/Visual system, which is something to consider when designing controls.

#### Tasks || Activities

Training  
Reading  
Writing  
A/V Viewing

#### Materials

Ceiling: Wood Laminate, Gypsum  
Walls: Gypsum, Composite Panels, Glass  
Floor: 1x1 Carpet Tile

#### Dimensions

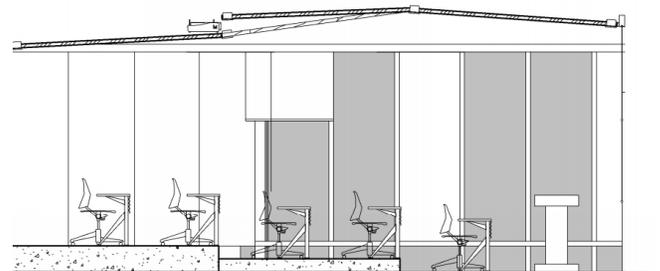
Area: 1792 SF  
Ceiling Height: 10'-0," 12'-0"  
Room Length: 64'-0"  
Room Width: 28'-0"

#### Furnishings

Rolling Chairs  
Tables in Rows  
Podium  
Projection Screens



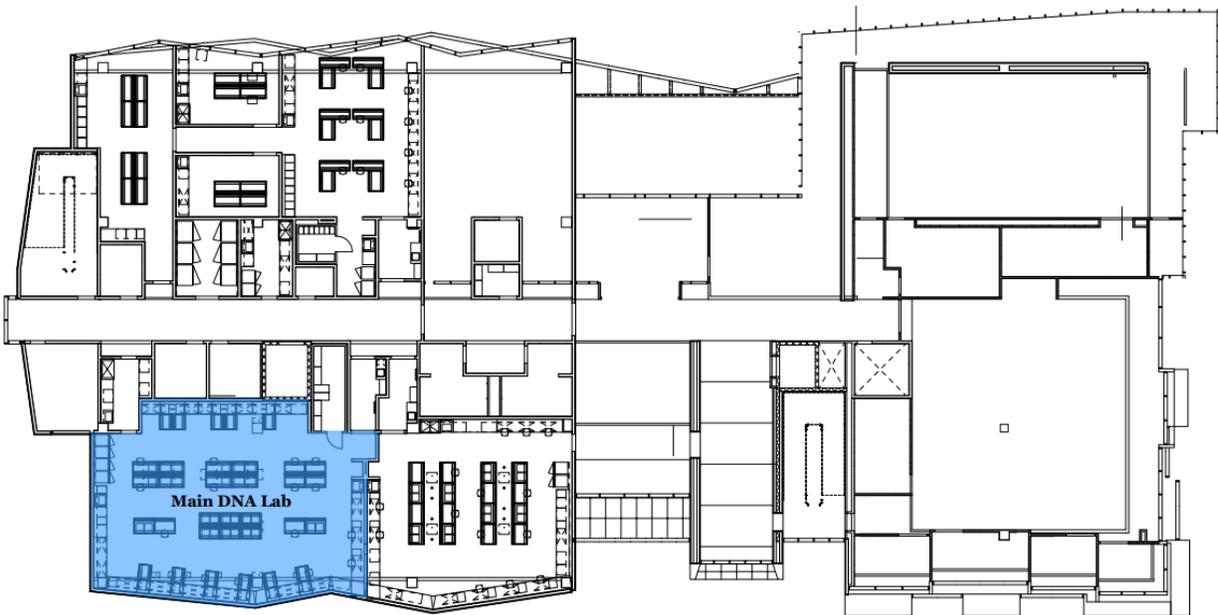
**Figure 2.2 Multipurpose Room**



**Figure 2.3 Multipurpose Room Section**

## Spaces

### Work Space || **Main DNA Lab**



**Figure 3.1 SECOND FLOOR**

The Main DNA Lab is where a lot of testing and careful investigation occur. It will be important that the appropriate amount of light is provided in this space so that correct conclusions can be made regarding cases. It may also be useful to do a daylight study in this space as it is located in the southwest corner of the building.

#### Tasks || Activities

Reading  
Writing  
Lab Work

#### Materials

Ceiling: 2x2 ACT, Gypsum  
Walls: Gypsum  
Floor: Seamless Rubber

#### Dimensions

Area: 2004 SF  
Ceiling Height: 10'-0," 12'-0"  
Room Length: 52'-6"  
Room Width: 39'-0"

#### Furnishings

Chairs  
Lab Tables  
Lab Equipment



**Figure 3.2 Main DNA Lab**



**Figure 3.3 Exterior View of DNA Lab**

## Spaces

### Outdoor Space || South Plaza

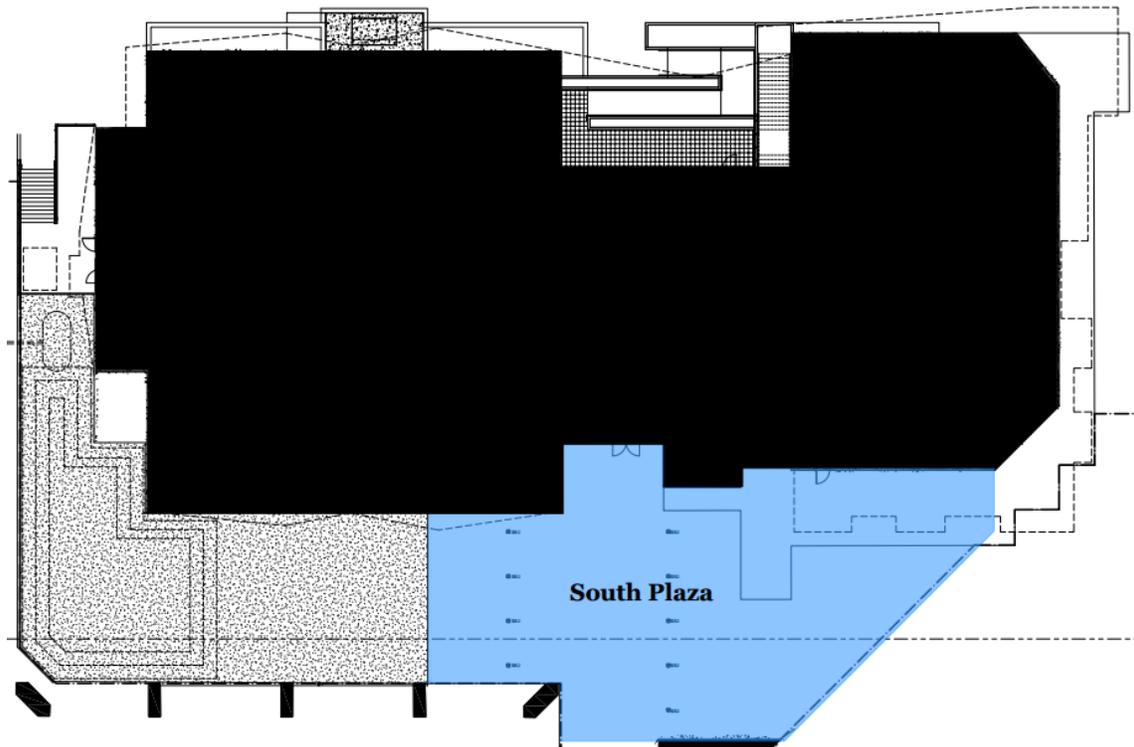


Figure 4.1 SITE PLAN

The South Plaza connects the Denver Police Department Crime Lab to the main plaza where the Denver Police Department. As transitional space, and one that often be stressful, I have decided to use a psychological impression to transform this space. My goal would be to create an outdoor space that embodies calm and relaxation.

#### Tasks || Activities

Transition  
Lounge

#### Materials

Ceiling: N/A  
South Façade of Crime Lab: Frosted Glass, Frit Glass, Metal Panels  
Floor: Colored Concrete

#### Dimensions

Area: 6094SF  
Ceiling Height: N/A  
Room Length: 92'-0"  
Room Width: 66'-6"

#### Furnishings

Stone Wall  
Trees  
Shrubs  
Bike Rack

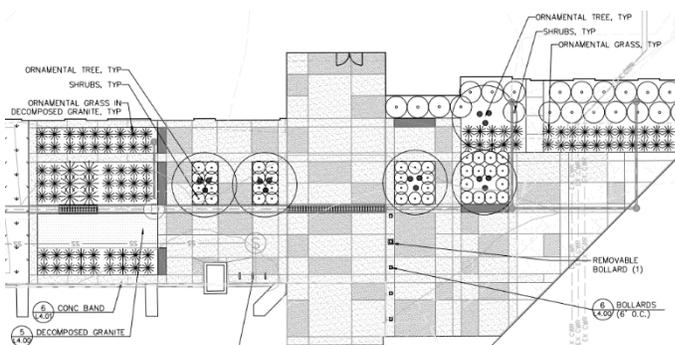


Figure 4.2 (left) Bird's Eye View of Concrete Pattern and Plantation Arrangement