

A modern office hallway with a teal wall of vertical panels and a red chair in a glass-walled room.

Law and Order

Streamlined lighting helps create cohesion in a structurally chaotic law firm office

BY ELIZABETH HALL



The purpose of law is to create order from chaos. The same can be argued for lighting. Exhibit A is the newly redesigned Washington D.C. office of national law practice Foley & Lardner.

The firm rents three floors of office space in a waterfront building in Georgetown that was designed to be a residential condo. Though the building never served its original purpose and was instead turned into commercial space, it was designed to maximize the exterior vistas for residences. As a result, it features some of the city's best waterfront views. It also presented Foley & Lardner with a problem: The transformation of the floor plate created structural disorder in the form of uneven ceiling planes and unorganized columns.

"The standard commercial building has a very structural-type grid, but because of the type of soil this is sitting on, they moved the columns very randomly, so there wasn't a prevailing grid system that we could work with," explains principal and director of sustainable design for Group Goetz Architects (GGA), Washington, D.C., Mansour Maboudian, who designed the renovation of the 210,000-sq ft space. "Nevertheless, we didn't want our design to create more chaos. Instead, we wanted it to bring cohesion."

Along with a reorganized office plan, a minimalist palette of materials and finishes, and carefully executed structural renovations, streamlined lighting helped remedy the helter-skelter appearance of the interior. But Maboudian didn't just want the lighting to *look* efficient; he wanted it to *be* efficient too. He had been inspired at a recent lighting conference "to provide light only where we needed it.

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Central corridors, or “boulevards,” run the length of the building. MR16 accents and fluorescent T5s are arranged in “dots and dashes” to complement the linearity of the boulevards and highlight materials and finishes, such as the dark wood walls and white Terrazzo floors.



The question was, ‘How do you do that without looking like you’re economizing things?’ It still needs to look architecturally rich. I was looking for an opportunity to experiment with that concept, and I needed a very competent lighting designer.”

Maboudian got the chance to test his theory at Foley & Lardner, where principal Maureen Moran and senior designer Frank Feist from the Washington, D.C.-based lighting design firm MCLA created a lighting plan that maximized outside views and minimized maintenance.

REORGANIZE

The first step toward taming the chaos was to reconfigure the office floor plan. In the spirit of conserving electric light, Maboudian decided to flip-flop the floor plan to maximize daylight from the expansive windows. Private offices around the perimeter were moved inwards to open up the window lines, allowing greater penetration of natural light and limiting the need for artificial light.

Next the core was reorganized. To make sense of what Maboudian calls the building’s “incomprehensible form,” the team created central access corridors, or “boulevards,” that run the length of each floor. “These became our main public artery,” he notes. Along the boulevards and in surrounding circulation areas, lights are likewise organized in repeating patterns that emphasize the linearity of the corridors and create continuity throughout the space. Lamp and fixture selections were limited to long-life sources to comply with the client’s maintenance concerns; surface-mounted linear fluorescent luminaires (a-light) with lensed 28-W T5s and round, 10,000-hour, 37-W MR16s provide the majority of ambient and accent lighting.

While Foley & Lardner had initially wanted to use fluorescents throughout the space, Moran convinced her client that halogen sources were necessary for certain applications, for example, to light its art collection. “The color rendition, light quality and controllability of an MR16 for art is so much better than a fluorescent,” she explains. Maboudian and MCLA set aside certain areas to be used as gallery space for the artwork, including the library and sixth floor boulevard. Previously placed wherever there was room, the art now has designated zones, a fact which hasn’t gone unnoticed: “Some of Foley & Lardner’s clients are museum directors, and they were quite pleased by the museum quality of the lighting,” says Maboudian.

REFINISH

Arranged in patterns of “dots and dashes,” the MR16 accents and linear luminaires not only delineate the newly reorganized cor-



A structurally complex ceiling made it challenging to achieve necessary illuminance levels in the boardroom. A direct/indirect pendant provides 30 vertical and 75 horizontal footcandles over the boardroom table, and dimmed T5s supplement vertical illuminance between the table and the video monitor.

ridors and circulation areas, they also highlight the four main materials used throughout the interior—stone, wood, glass and metal.

The patterns of light vary depending on the surface being illuminated and the effect desired. For example, MR16s were used to brighten some of the darker material finishes, such as the dark-veined wood used in the elevator banks and the pre-function area, where “they give sparkle for functions in the winter or in the evening,” says Moran.

The dark wood walls in these areas are set off by the highly reflective Terrazzo floors used throughout the office. “The Terrazzo allows for the natural light to expand, and it reduced the number of lights we needed,” says Maboudian. Walls and ceilings, meanwhile, were painted white to increase reflectance and make the space appear more open.

In keeping with the minimalist aesthetic of the materials and finishes, the same fixture profile was used to house both the T5s and MR16s, which are largely surface mounted due to the building’s low ceiling height. “We used the same profiles so that everything blends together and has the same vocabulary,” says Moran. At 3.5-in.-wide by 3.5-in. deep, “it’s a little bit smaller scale than your standard 4-in. by 4-in. luminaire.”

RESTRUCTURE

The continuity of the luminaire housings helps bring order to the structurally complex ceiling, which was an architectural challenge. “Initially, there were 2-ft by 2-ft ceiling tiles all over the place. But when we looked at it from outside, we knew it was more than flat slabs. It occurred to us that maybe someone had not bothered to play with the ceiling and allow the floor that is visible from the outside to be visible from the inside,” says Maboudian.

Where possible, the ceiling was removed to expose the concrete shells of vaults. Lighting was then used to articulate the new ceilings. In the lunchroom, for example, the newly exposed barrel vault ceiling was uplighted with an asymmetric cove fixture mounted atop central cabinets.

Even in areas where recessing luminaires was possible, such as in the reception area, Moran chose to mount the luminaires inside a slot in the ceiling over the seating area instead. “It’s another way of using that vocabulary,” she notes. “It’s significant that we didn’t use the luminaires continuously. We didn’t need to, and we saved energy that way.” Across from the seating area, a channel glass wall backlit by a recessed version of the same luminaire separates the reception area from visiting offices.

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The ceiling between the fourth and fifth floors was removed to create “vertical connectivity” between the two floors.

In other areas, the ceiling posed problems in achieving necessary illuminance. For instance, in the main boardroom it is sloped in three places, “which made it really challenging to work with because of light levels,” says Moran. “We tried to get at least 30 footcandles vertically and 75 fc horizontally” from the direct/indirect fluorescent pendant (Delta Light) over the boardroom table. Panels backlit by dimmed T5s supplement vertical illuminance in between the end of the table and the video conferencing monitor.

One area where the ceiling wasn’t a challenge was in the new atrium, where it was removed to open up a space between the fourth and fifth floors. “We thought that we could create vertical connectivity so that someone who was on the fourth floor could look at someone on the fifth floor, and it would feel like you are working in one company instead of two separate ones,” says Maboudian. “Lawyers like to sit in their offices. Our idea was to create an environment of collegiality where lawyers come out of their offices and people share knowledge. Nowadays when I visit, very few doors are closed.” ■

METRICS THAT MATTER

Foley & Lardner Office

Watts per sq ft: complies with IECC 2000

Illuminance Levels: offices = approx. 50 fc; circulation = approx. 10 fc; boardroom = 30 fc (vertical), 75 fc (horizontal)

Lamp Types: 18

Fixture Types: 2 fixtures used for majority of project; 85 fixtures total (including variations in lengths, accessories, etc.)

THE DESIGNERS

Maureen Moran, LC, IALD, Member IES (1983), is the principal of MCLA, Inc. in Washington D.C. Mansour Maboudian, Assoc. AIA, LEED AP, is a design principal and director of sustainable design at GGA. Frank Feist is a senior designer for MCLA in Washington, D.C.

