

# Cathedral Place

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## Executive Summary

**\*\*NOTE:** This report is submitted in draft form pending the architectural outcome of 3 spaces (and possibly one additional). Revisions to the report and the modeling of spaces shall be completed as soon as possible. See Appendix C for revision comments.

The Lighting Existing Conditions and Design Criteria Report developed here is an in-depth review and summarization of the current lighting designs of spaces in Cathedral Place. The analysis of the following spaces was completed to analyze the proficiencies and deficiencies of the current lighting design for the spaces made available. These spaces include: ground-level office lobby, full building façade, parking level 3, Deloitte & Touche conference room, Deloitte & Touche open office, and Deloitte & Touche reception area. All information made available in the basebuilding plans regarding these spaces regarding luminaires, lamps, and controls, was supplemented with investigative information pertaining to ballasts, light-loss factors, and daylighting elements (especially glass characteristics and specular surfaces).

After the base information had been gleaned from plans or obtained through manufacturer resources, design criteria for the spaces were analyzed, and for the available spaces compared briefly to the installed design's considerations. The criteria were taken directly from the IESNA Handbook Ch. 10 section for particular spaces, and analyzed independently with respect to the actual or perceived spaces for importance level, and particular consideration. In the following report, you will find complete briefs respective to each criterion for each space. The object of this analysis was to identify the lighting considerations that were implemented and ascertain which criteria the redesign should focus upon. Following the existing information and criteria, initial visual and numeric analyses were made of the spaces using drafting and high-end lighting-design software. Personal critiques of the spaces as developed and recommendations for improvement for the individual spaces wrap up each individual analysis. These critiques of the area, the building, and the individual spaces drive the process of redesign.

As a landmark in the immediate community which has seen very little new construction, the aesthetics of the building from the public point-of-view seemed to need further assessment. It was felt that the publicly viewable ground-level spaces and the overall building façade could benefit from a second look and further analysis to better hallmark the building as a prominent downtown structure. In addition to this, altering the interior design issues with regard to control devices, energy management, daylight usage, and innovative luminaire design would lead toward better mechanical, electrical, and daylight integration to reduce building power needs. The building follows very few ASHRAE 90.1 guidelines currently, and does not comply with any particular lighting standard (especially Dark sky). The compliance with these guidelines and the benefits the building would see make up the core of the redesign and analysis seen here.

This report builds a foundation from existing system information from which an aesthetically-improved and power-efficient lighting scheme can be designed and implemented.