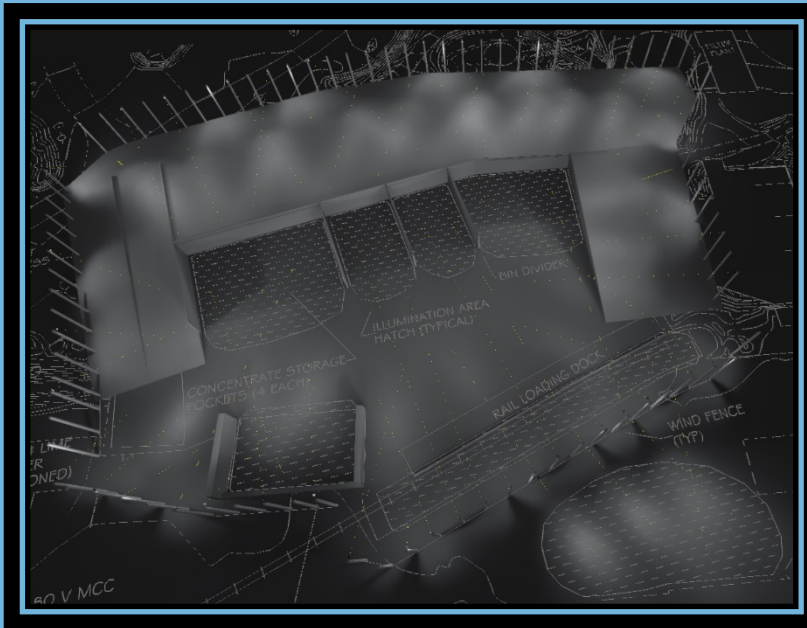


SVERDRUP ENGINEERING SERVICES

PROJECT EXPERIENCE



Hayden Outside Lighting Project

Hayden, AZ

Designed and oversaw construction of 56 Eaton Lumark LED outdoor lights with approximately 32,000 lumens each. A lighting analysis was performed in DIALux Version 7.1, a software program that calculates foot-candle (fc) distributions for any given user-defined area. The analysis encompassed the concentrate storage area to confirm that sufficient lighting values were provided in comparison with Illuminating Engineering Society of North America (IESNA) recommendations while maintaining compliance with the local governing body and client requests. Target lighting level was 5 foot-candles with final results matching up extremely close. Drawings include one-line, lighting, general arrangement, details, and material list.

Owner: Asarco LLC

Design: October 2017

Inservice: June 2018

Value: \$250,000

