

City of Custer, TIF #4 Streetlighting



The project scope involved replacement of the existing street lighting for 17 blocks in downtown Custer SD to provide enhanced downtown lighting and businesses facades. The design replaced existing and underperforming high-pressure sodium street lighting with 67 decorative poles with acorn post-top luminaries by Holophane. Due to the divergence from traditional DOT HPS cobra head fixtures, the new pole fixtures were not installed at the existing locations. Consideration of existing conditions was a priority to minimize the total project cost, minimize the impact of luminary placement of business operations and maximize the effectiveness of the new lighting.

Project Data

Owner

City of Custer

Location

Custer, SD

Lighting Types and Objectives

Decorative Performance Fixtures
Main Street Upgrade

Project Magnitude

17 Blocks, 52 Drawings w/Demo
67 Luminaries
16 UG Junction Boxes

Electrical Systems / Features

DOT Highway Standards
Three Site Services
Acorn Post-top Luminaries
Integration of Wired/Wireless Audio
200w / Pole for Christmas Lights

Construction Cost

\$500,000 Electrical

Completion Date

2012

Project Reference

Rex Harris
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Electrical Engineering Details

The design objectives for this project were to remove the pole-top streetlighting circuits, install more appealing luminaries, and enhance the color rendering of the downtown business district signage and storefronts while also complying with State of South Dakota DOT State Highway lighting performance requirements. Electrical and Lighting design for this streetlighting project replaced existing and underperforming high-pressure sodium lighting in the downtown district of Custer with 67 decorative poles with acorn post-top luminaries.

The design to replace existing lighting was required to also consider existing conditions, including fixtures removal, OH circuiting, OH lighting circuits and business services, roadway signage, pole placements, businesses signage and canopies, etc. The DOT required design to minimize illumination outage.

The City use of downtown for tourism functions necessitated the removal and reapplication of an existing audio system in a significant portion of the downtown area. The system audio signal was sourced from the adjacent chamber of commerce facility and captured wireless microphone signals from main street.

The design also facilitated 200 watts/pole for Christmas or other decorations.

