

TWILIGHT

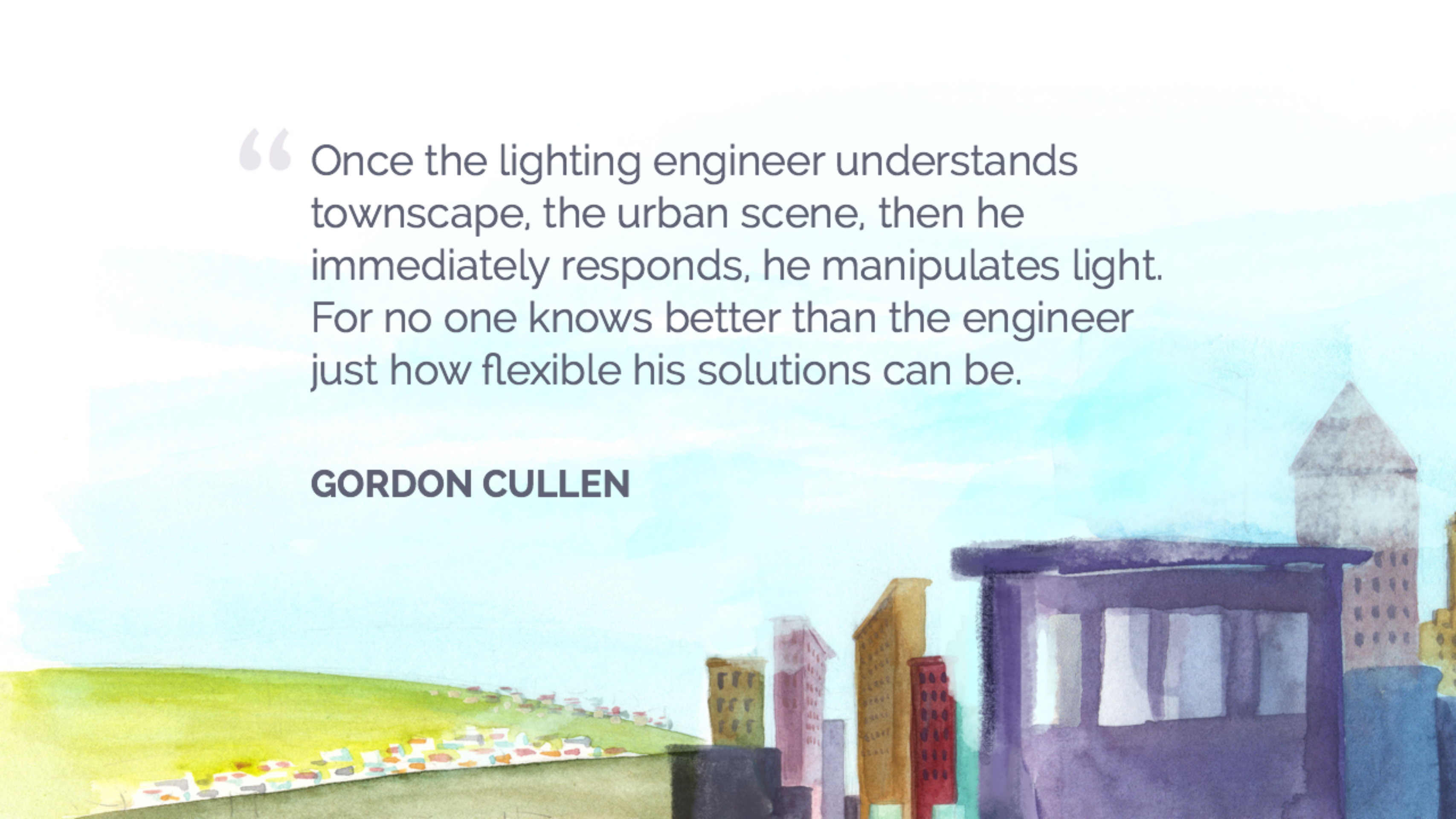
Smart Sensor-
Enabled Bike
Lane Lighting

8 April 2014 By
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“ Once the lighting engineer understands townscape, the urban scene, then he immediately responds, he manipulates light. For no one knows better than the engineer just how flexible his solutions can be.

GORDON CULLEN



TOPIC

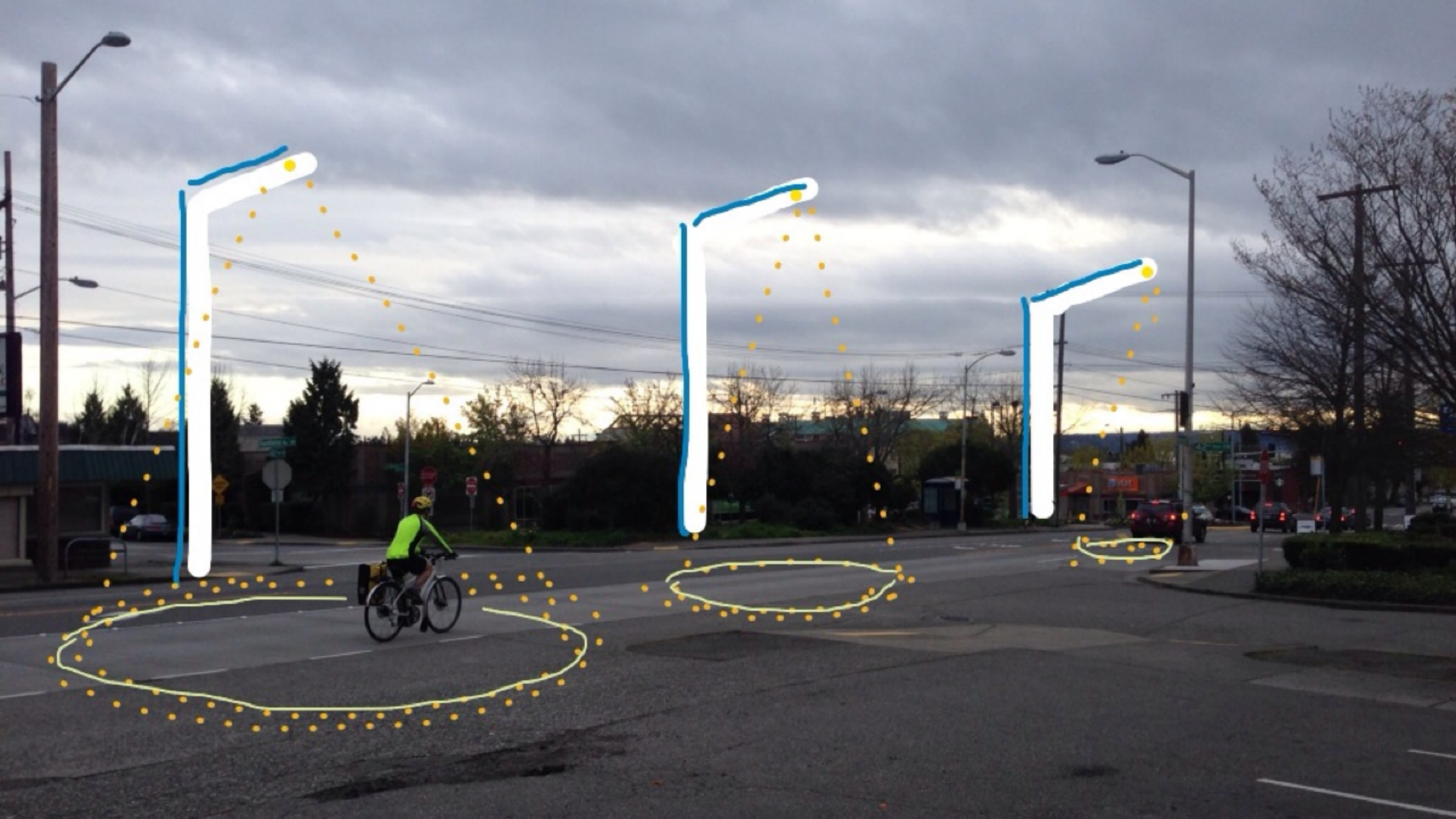
SMART STREET LIGHTING FOR BIKE LANES



MORGAN JUNCTION, WEST SEATTLE (ERIC GOULD)

Concept sketch using Morpholio Trace





WHAT: I would like to explore how street lighting and sensor technologies can trigger undulating halos of light over a bicyclist while in motion at night. A range of expanding light in front and behind a cyclist in a bike lane can add value to bicyclists by elevating visibility to motorists.

WHY: Seattle, like many cities, is facing increasing population density contributing to traffic density on the roads and in compact neighborhoods. Trends adding to Seattle's traffic density include threats to public transportation cuts and delays to a large city highway tunnel project.

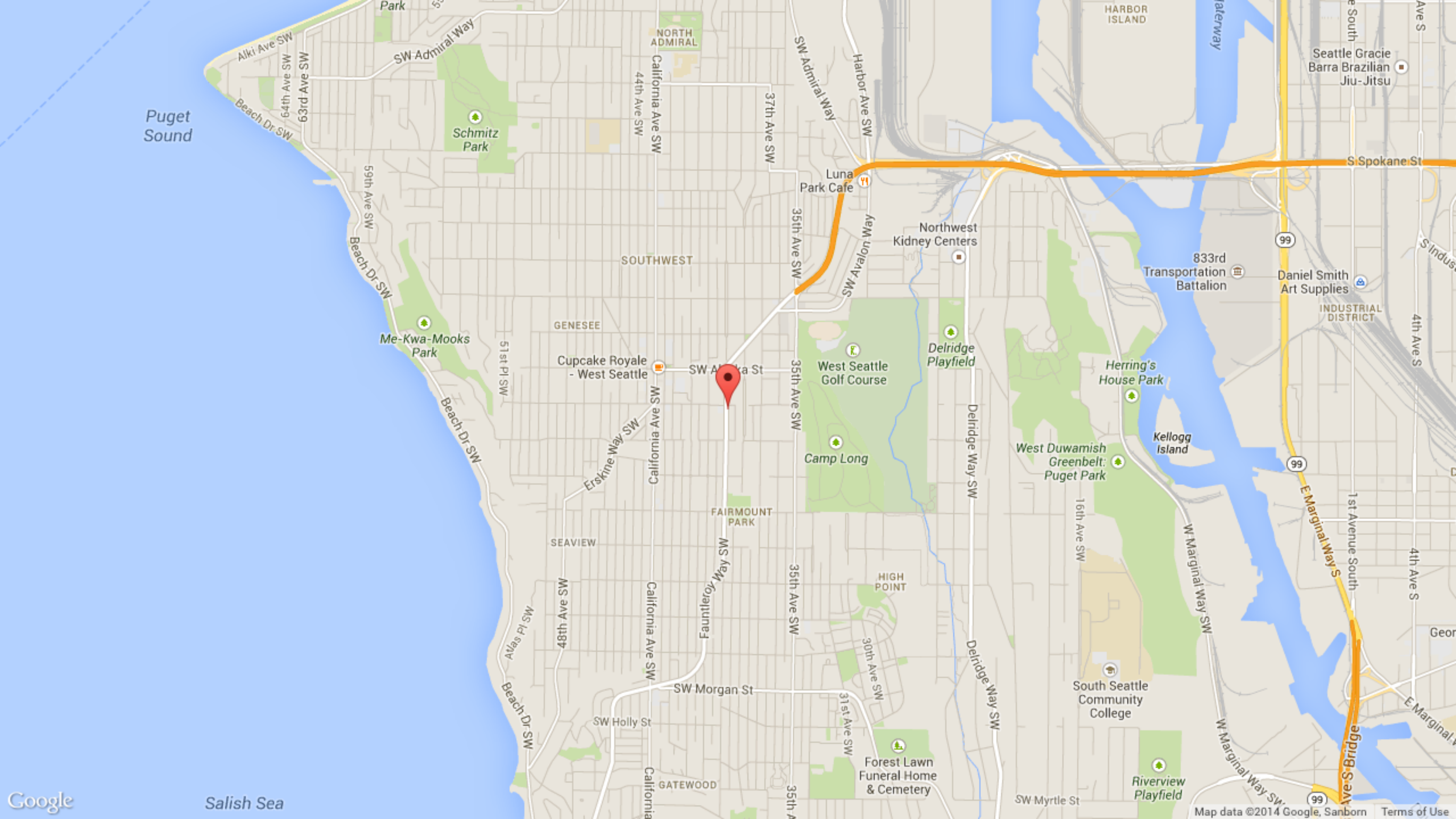
How do these factors contribute to a need to improve bike lane lighting? More traffic on Seattle's narrow neighborhood street arterials like in West Seattle require enhanced visual safety cues. Improved street lighting is greatly needed especially during Seattle's long, dark winter months.

WHERE: This proposal is for the City of Seattle.

FAIRMOUNT PARK, WEST SEATTLE

Source: Google Maps





Puget Sound

Salish Sea

SOUTH LAKE UNION AND FAUNTLEROY WAY, SEATTLE

Photos by Eric Gould







WHO: Who are the people most impacted by the issue? Commuters, motorists and bicyclists.

HOW: DATA ANALYSIS

- Neighborhood arterials have painted bike icons but are poorly rendered
- Street lighting is uneven along suburban bike lane routes
- Sensor-enabled Street Lighting for bike lanes elevates visibility



HOW: DESIGN

- Research key traffic and bike lane arterials for priority need
- Produce concepts for street lighting design and undulation
- Implementation of sensor-enabled street lighting
- Leverage smart data collection for energy efficiency, safety and usage
- Conduct traffic and cyclist study for further enhancement



PINTEREST BOARD SCREENSHOT

Street Light Inspiration





Street Lighting Design



eric

Street Lighting Design inspiration for 2014 Technicity class project. Industrial illumination design concepts, prototypes, and emerging trends for street and bike lighting. Follow me!

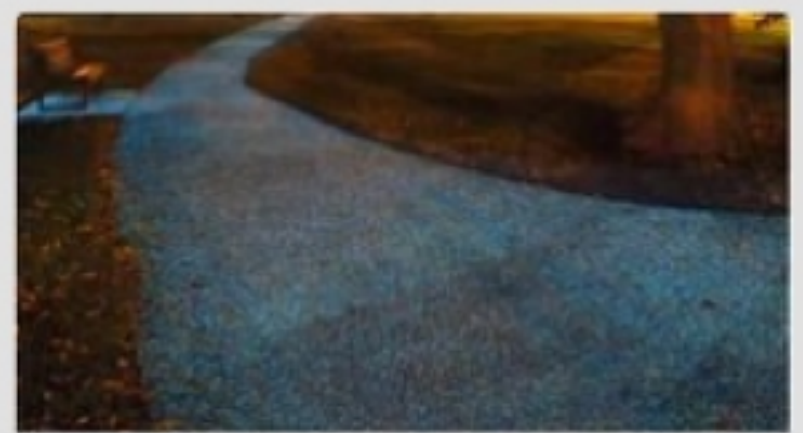


Edit



Bridge over I-25 has sci-fi feel - ABQ Journal

abqjournal.com



Britain Is Experimenting With a Glowing, Seemingly Self-Aware Bike Path - The Atlantic Cities

from The Atlantic Cities

theatlanticcities.com



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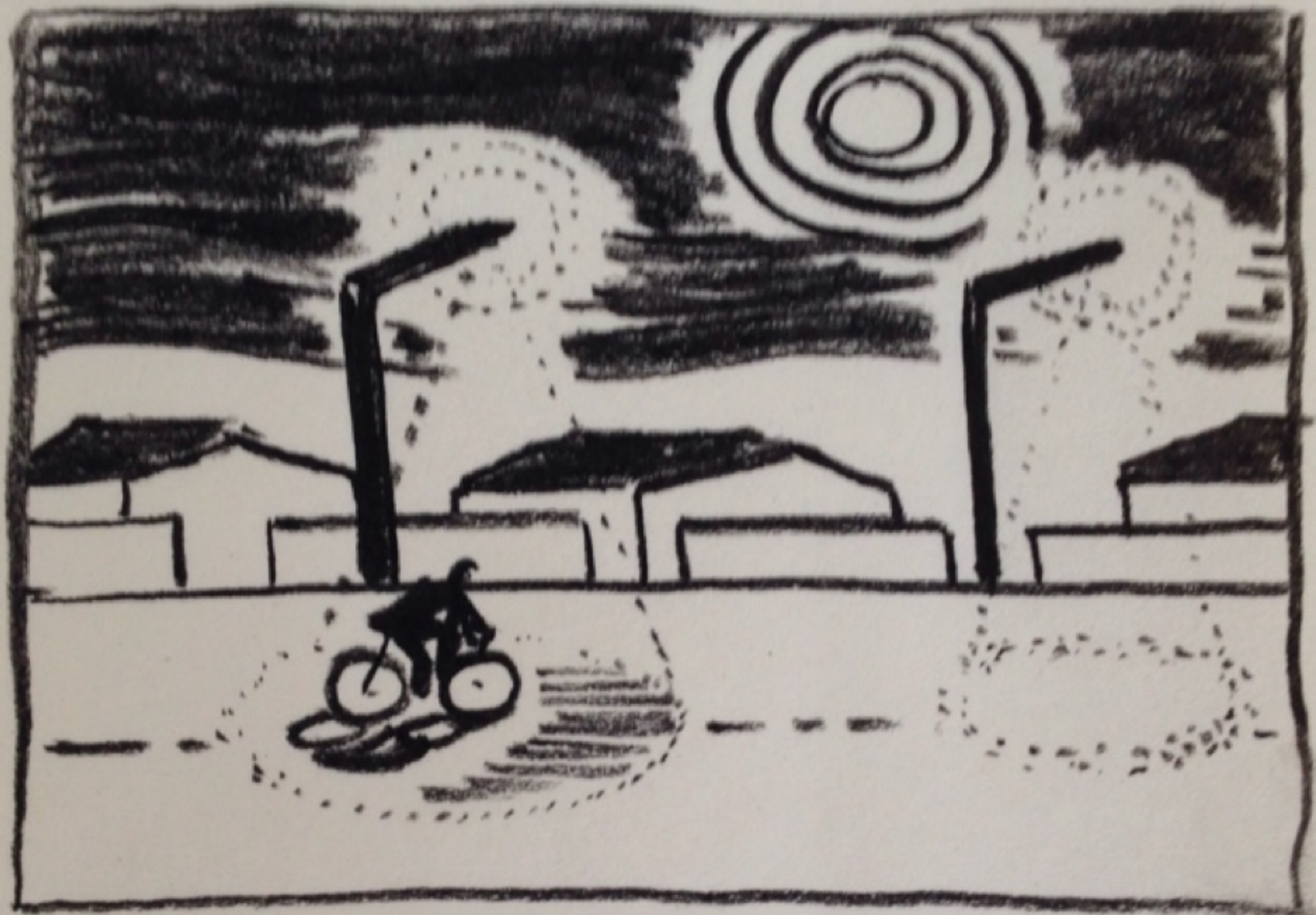
Turning street lighting into a system for gathering Big Data - atelier.net



PERSONAL SKETCH

Working Concepts





“ What we need to do is to integrate street lighting with the fabric and character of the town, both by day and night, to manipulate light and the light sources in the full knowledge and love of our towns and cities.

GORDON CULLEN

