

## Designers Lighting Forum

Take me to the Bridge...

08.19.2020

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Director, Lighting applications

Zumtobel Group

- Zumtobel lighting
- ACDC lighting



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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

## Learning Objectives

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At the end of this course, participants will be able to::

1. Why is architectural lighting to a bridge so important, what does it bring ?
2. The 7 key factors in what matters before we start designing the lighting scheme for a bridge
3. The 6 types of bridge's and how the designer must consider their characteristics in design and the 5 fundamental methods of applying light to a bridge
4. How does the specifier ensure that lighting is a key element as part of a multi-disciplinary design team

The logo for LED Education, featuring the letters 'LED' in a stylized font made of colored dots (red, green, blue) and the word 'Education' in white text.

LED Education®

A photograph of a cable-stayed bridge at night, illuminated with blue lights. The bridge's cables and towers are visible against a dark sky.

Take me to the Bridge...

[leducation.org](http://leducation.org)

















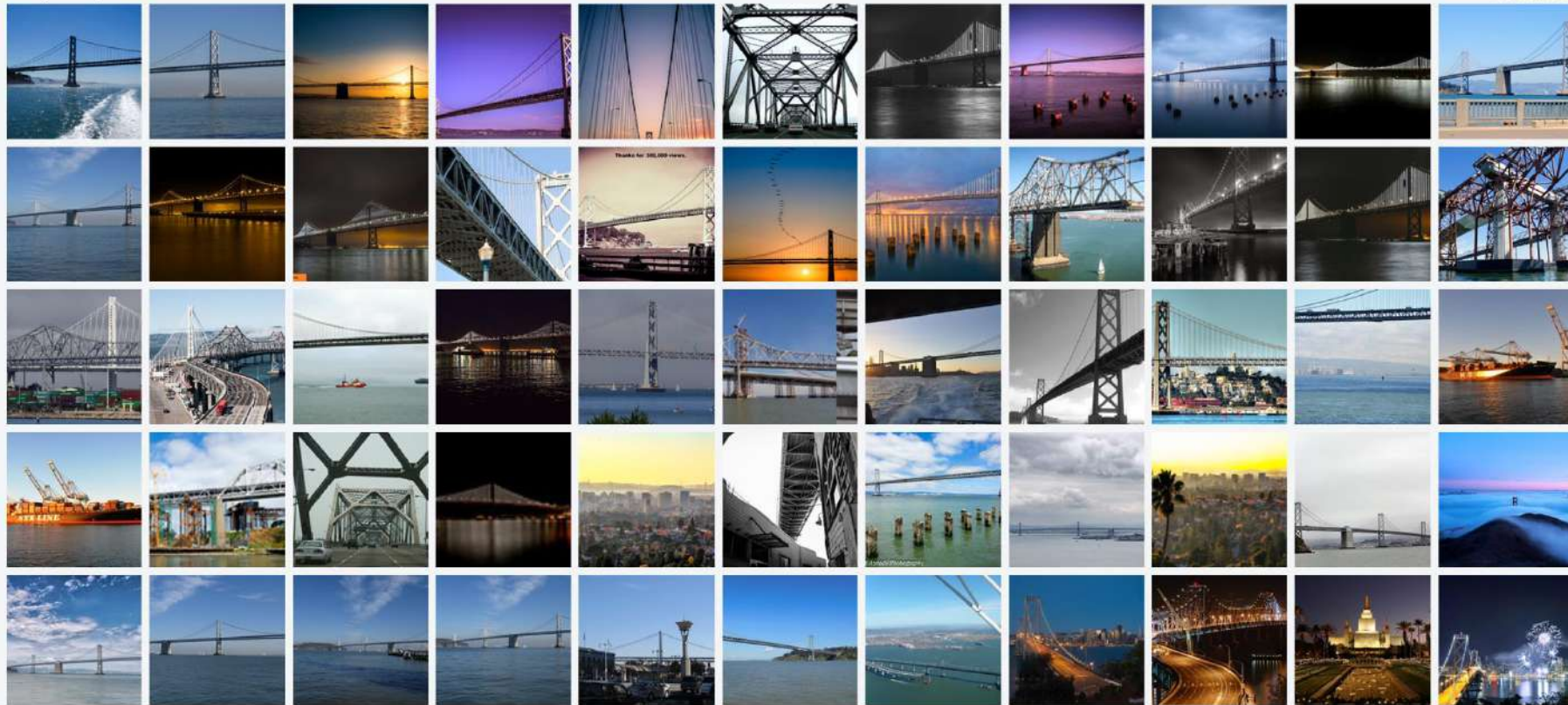
**LIGHTING CAN TURN  
SPACES INTO  
EXPERIENCES**





Everyone's photos

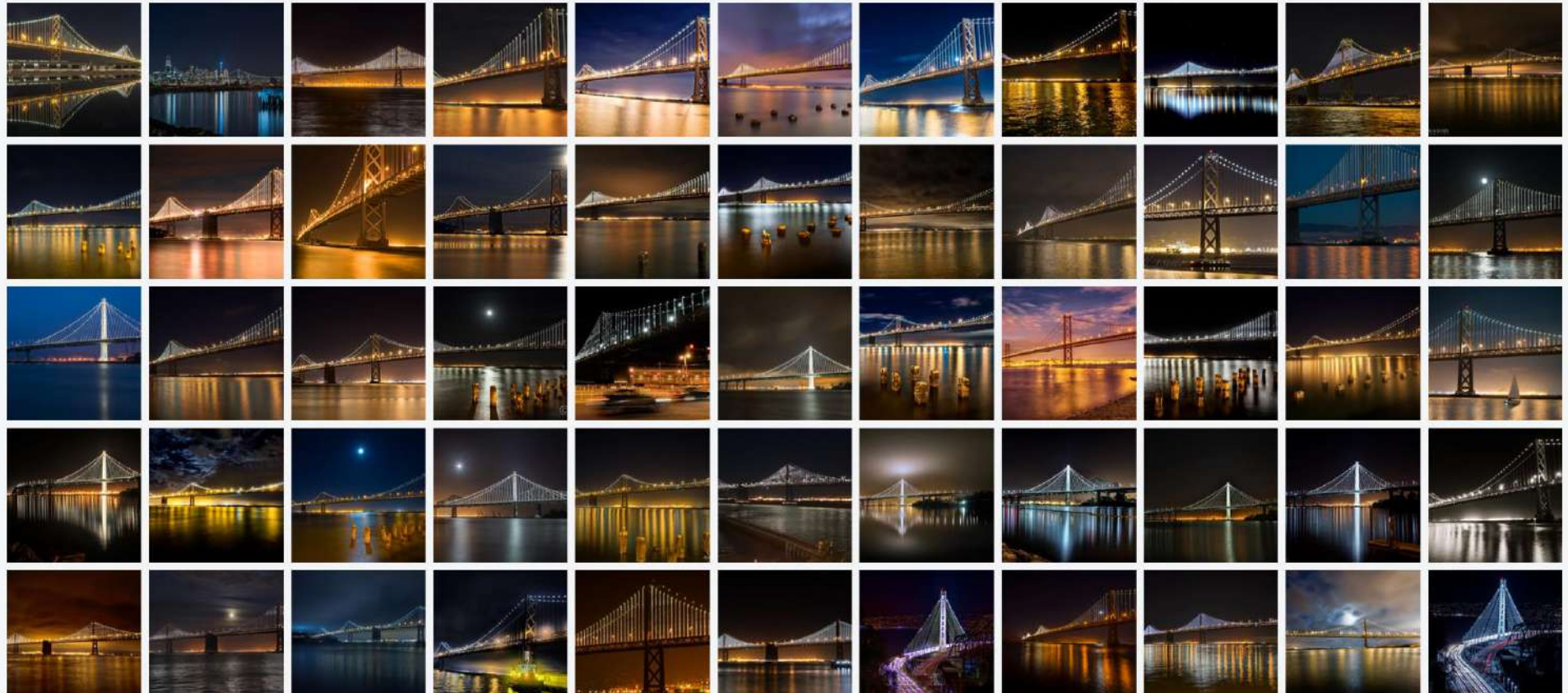
View all 615





Everyone's photos

[View all 4,113](#)





Light can turn a structure of civil engineering to Architecture of the night





**7 FACTORS IN WHAT**

**6 TYPES OF BRIDGE**

**5 METHODS OF LIGHT**

**WHY?**



A large, illuminated arch bridge at night, spanning a body of water. The bridge features two prominent white arches supported by tall, conical piers. The bridge deck is lit with blue lights, and the arches are lit with warm white lights. The sky is dark blue, and the water reflects the lights. In the background, city lights and buildings are visible.

**WHY?  
CREATE AMAZING  
EXPERIENCES WITH LIGHT**

**WHY?  
TO AMAZE**



WHY?  
TO AMAZE

A nighttime photograph of a modern bridge with illuminated railings and concrete pillars. The bridge features a series of white concrete pillars supporting a walkway with a railing of warm white lights. The background shows a dark sky and some distant lights.

 A photograph of a classroom scene, heavily tinted with a blue color grade. In the foreground, a large, curved, metallic-looking structure, possibly a piece of art or a large-scale project, is visible. In the background, several students are seated at desks, looking towards the camera or slightly away. The overall atmosphere is one of a modern, collaborative learning environment.

**WHY?**  
**CELEBRATE COMMUNITY**

**WHY?**

**IDENTITY & EXPERIENCE**



**WHY?  
INTEGRATED & SEAMLESS**

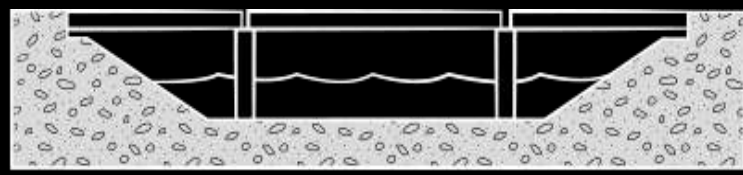


**WHY?**

**INTEGRATED  
& SEAMLESS**

# 6 TYPES OF BRIDGE

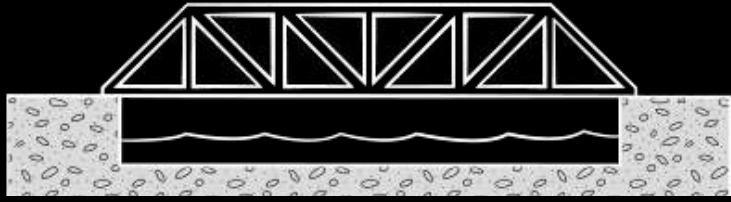
BEAM



SUSPENSION



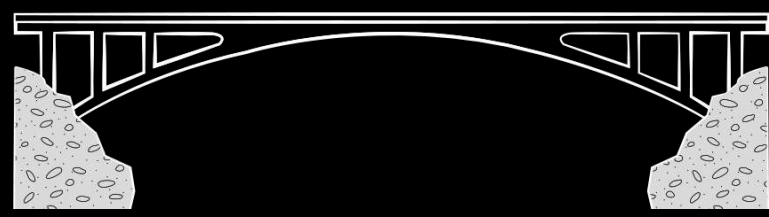
TRUSS



CABLE-STAY



ARCH



CANTILEVER



**WHAT  
MATTERS ?**

**TOP 7**

**CONTEXT**

**COLOUR**

**CONTRAST**

**PEOPLE**

**CONTROL**

**CUSTOM**

**INSTALLATION**



**WHAT  
MATTERS ?**

**CONTEXT**

**CONTEXT**

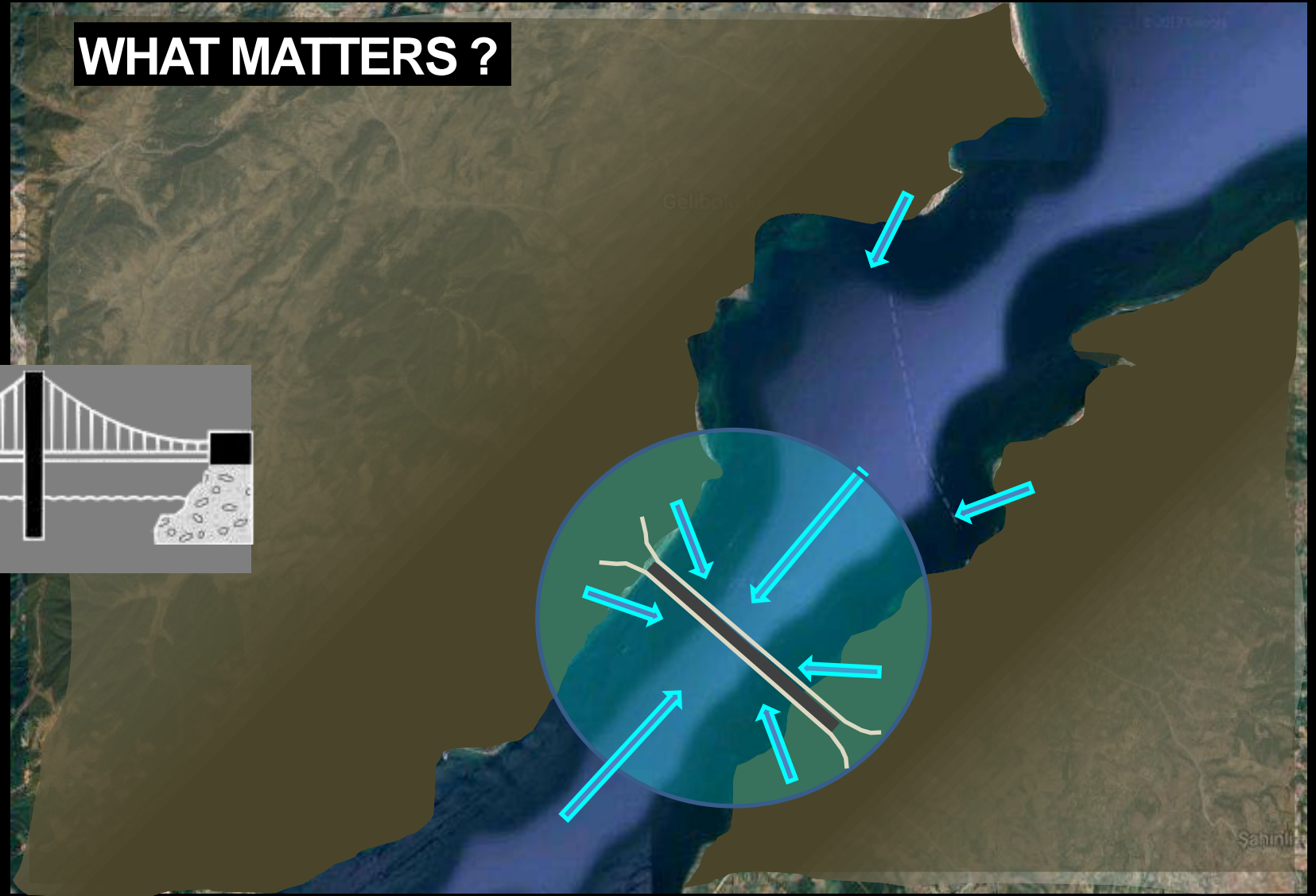
**WHAT MATTERS ?**



CONTEXT



WHAT MATTERS ?



**CONTEXT**



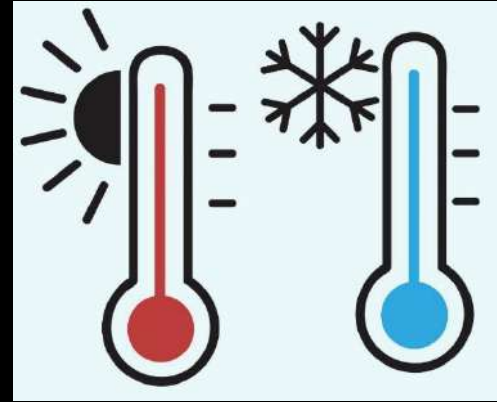
**COASTAL**



**FRESH WATER**



**WILDLIFE**



**TEMPERATURE**



**VIBRATION**



**WHAT  
MATTERS ?**

**CONTRAST**





## 5 METHODS

## CONTRAST

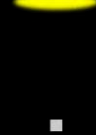
GRAZE



FLOOD



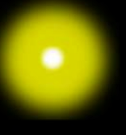
SPOT



GUIDANCE



INTEGRATED



# CONTRAST

OTHER LAYERS OF LIGHT

# WHAT MATTERS ?

ROAD



LOW  
LEVEL

ROAD



POLE  
MOUNT

EMERGENCY



HOW CAN WE COORDINATE TO REDUCE VISUAL  
NOISE & REDUCE WIND RESISTANCE?



**WHAT  
MATTERS ?**

**COLOUR**

**WHAT MATTERS ?**



**MATERIALS & PAINT FINISH**



**TO COLOR OR NOT?!**

**WHAT  
MATTERS ?**

**CONTROL**



## WHAT MATTERS ?

**CONTROL**

**ACCESSORIES**

**DYNAMIC**

**LIGHT POLLUTION / SKY GLOW**

**COLLABORATION & COMMUNICATION**



**CONTROL**

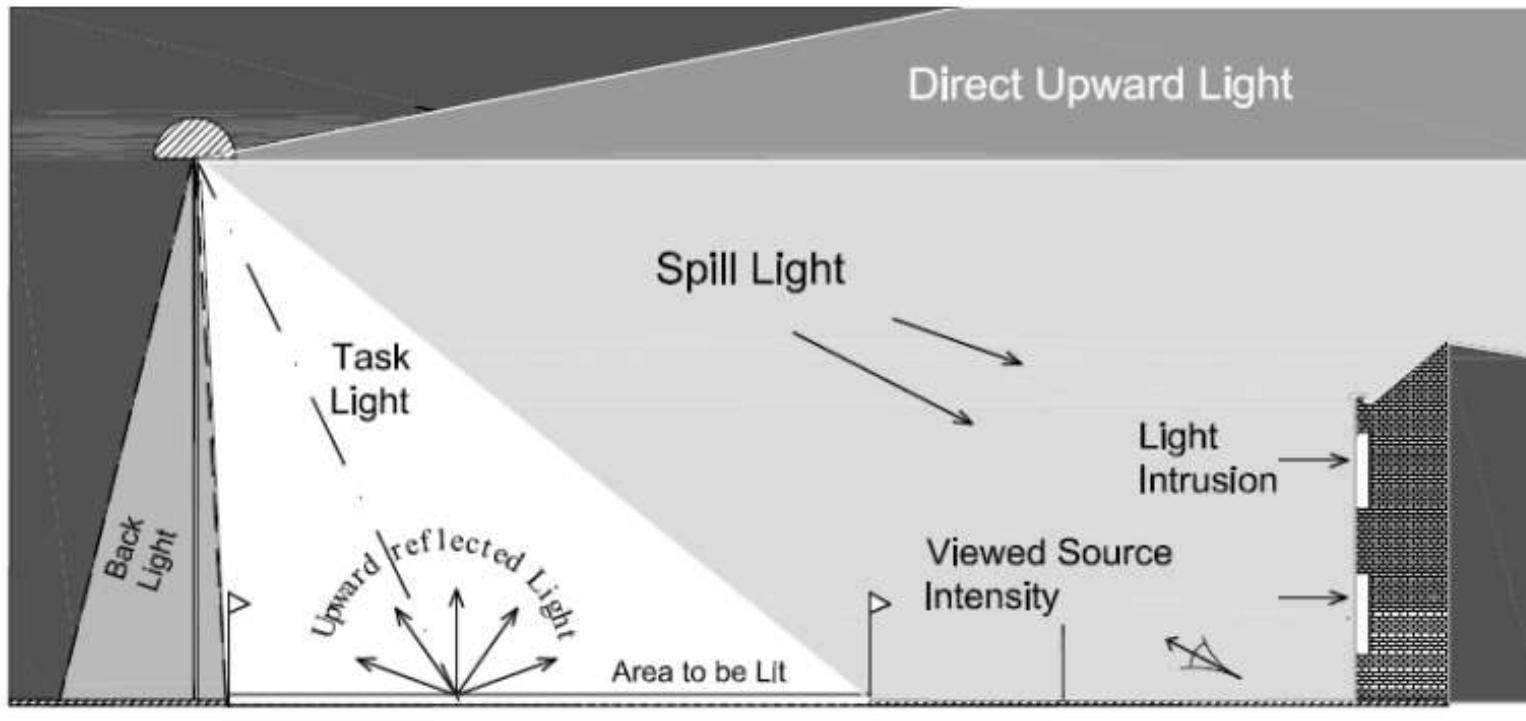


# WHAT MATTERS ?

## CONTROL

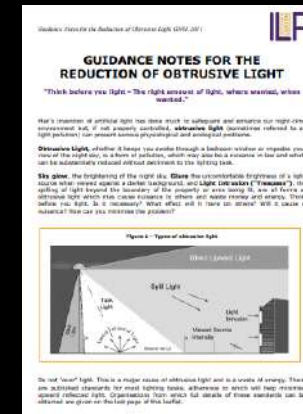
### ILP DARK SKY & LIGHT POLLUTION ADVISE

Figure 1 – Types of obtrusive light

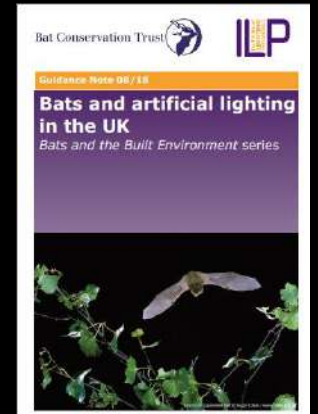


SOURCE : <https://www.theilp.org.uk/documents/obtrusive-light/>

#### GUIDANCE DOCUMENTATION



<https://www.theilp.org.uk/documents/obtrusive-light/>



<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>





**WHAT  
MATTERS ?**

**PEOPLE**

**PEOPLE**

**WHO IS USING IT ?**

**HOW ARE THEY USING IT ?**

**VIEW POINTS**

**CAN THEY WALK OVER**

**GLARE**



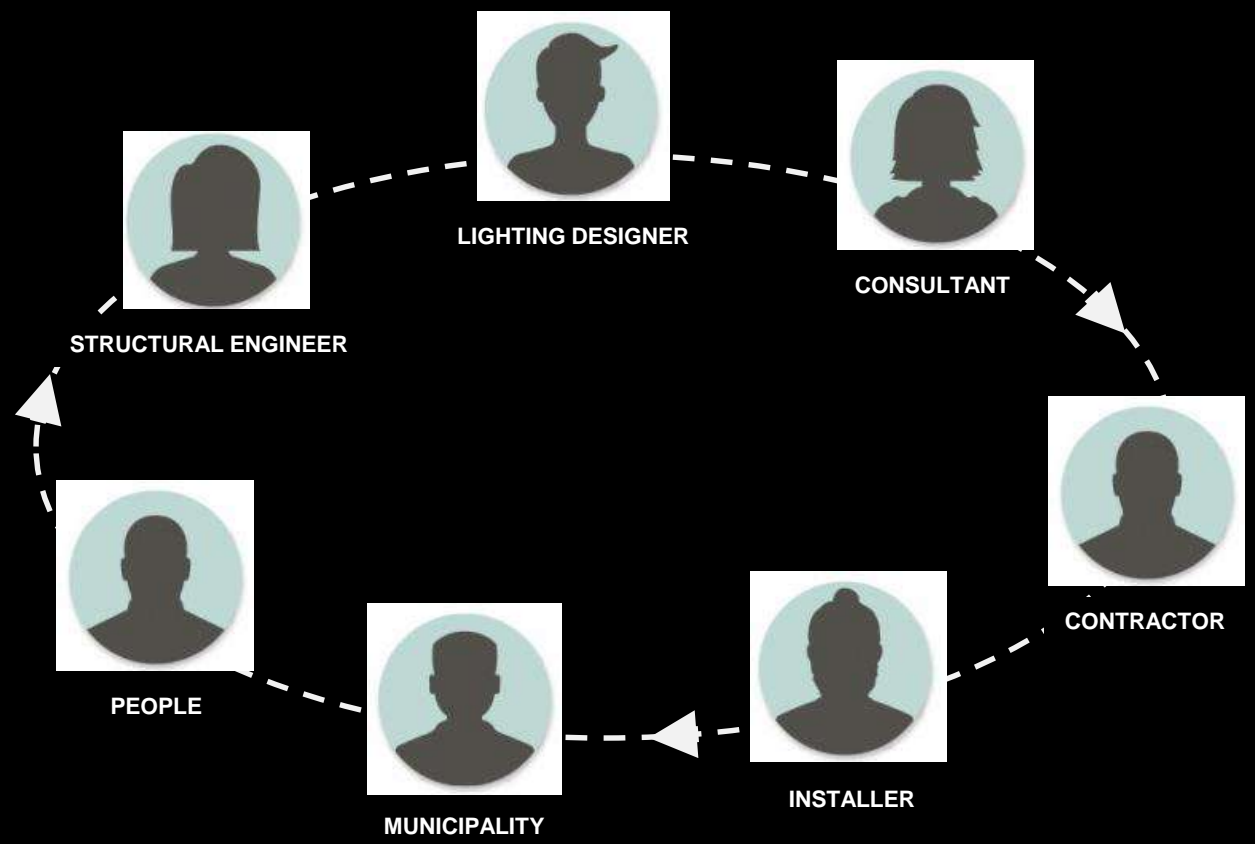
**WHAT  
MATTERS ?**

**INSTALLATION**





**INSTALLATION**  
**COMMISSIONING**  
**ACCESS & MAINTENANCE**



**COMMUNICATE & COLLABORATE**

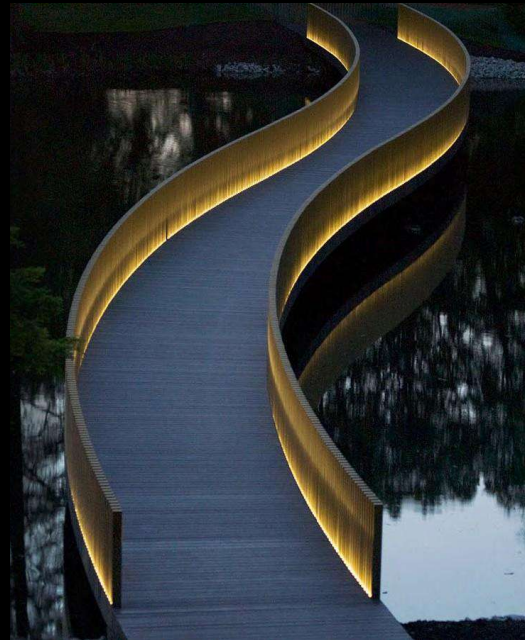


**WHAT  
MATTERS ?**

**CUSTOM**



**CUSTOM**



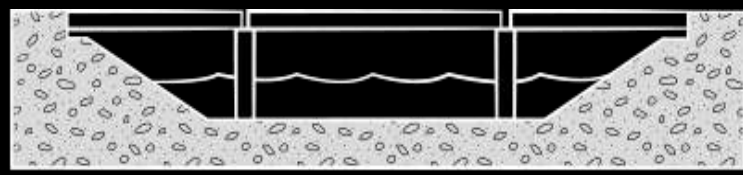
**7 FACTORS IN WHAT**

**6 TYPES OF BRIDGE**

**5 METHODS OF LIGHT**

# 6 TYPES OF BRIDGE

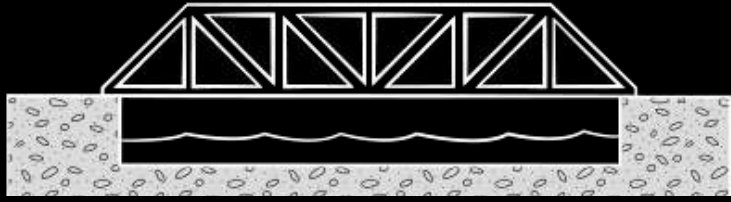
BEAM



SUSPENSION



TRUSS



CABLE-STAY



ARCH

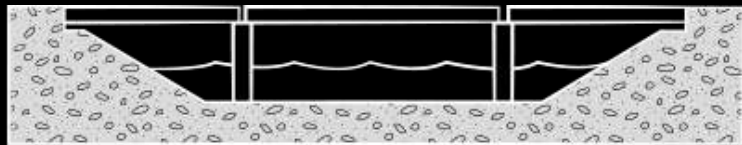


CANTILEVER

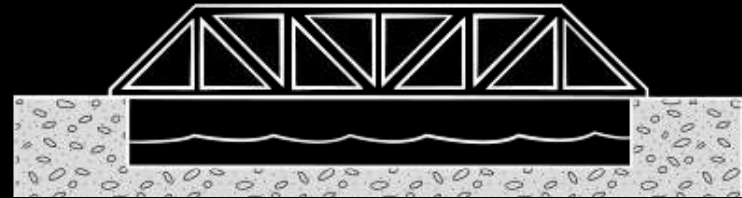




## TYPES OF BRIDGE



BEAM



TRUSS



ARCH



## TYPES OF BRIDGE

SUSPENSION



CABLE-STAY



CANTILEVER



**7 FACTORS IN WHAT**

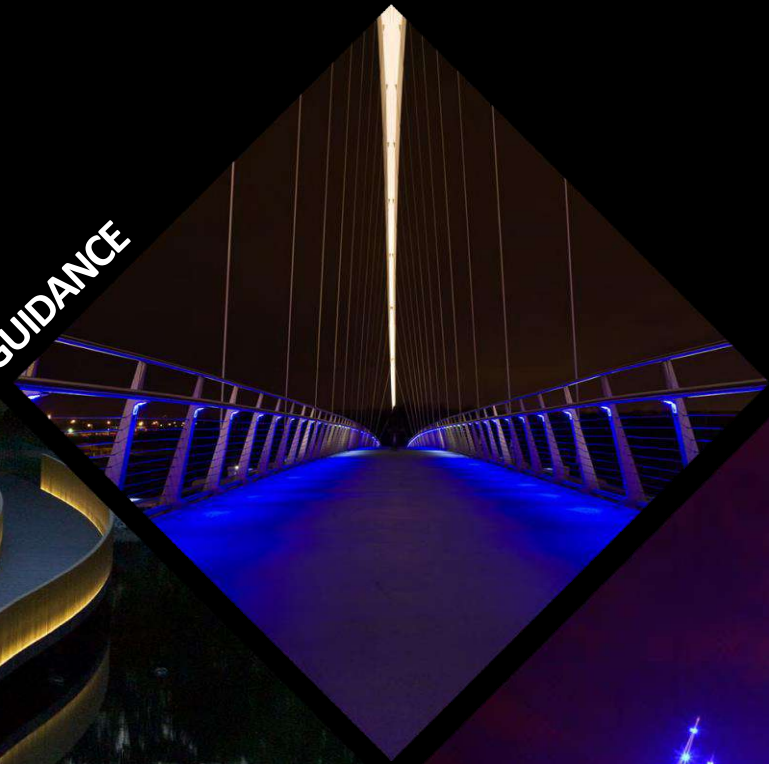
**6 TYPES OF BRIDGE**

**5 METHODS OF LIGHT**

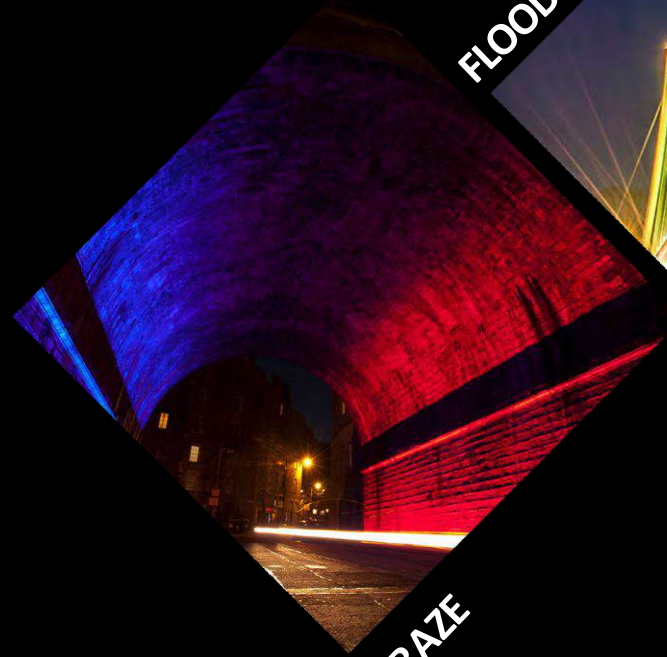
FLOOD



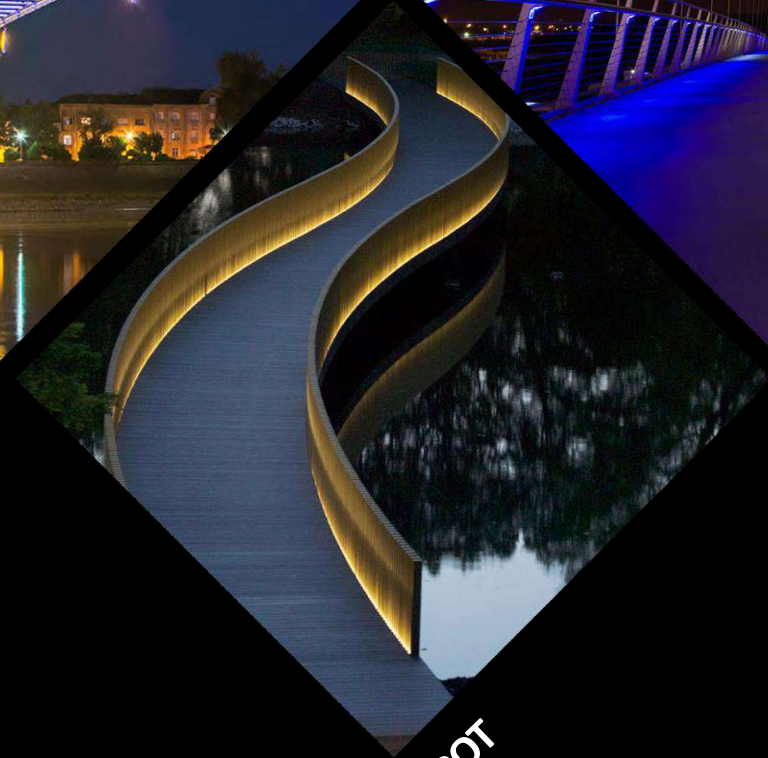
GUIDANCE



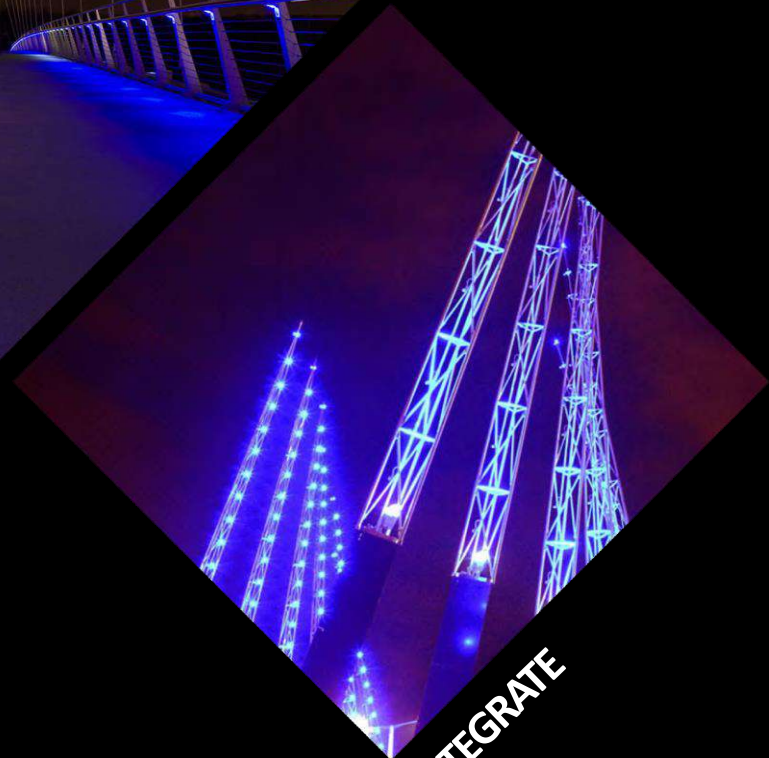
GRAZE



SPOT



INTEGRATE



**GRAZE**

**GRAZE**



**FLOOD**



**FLOOD**



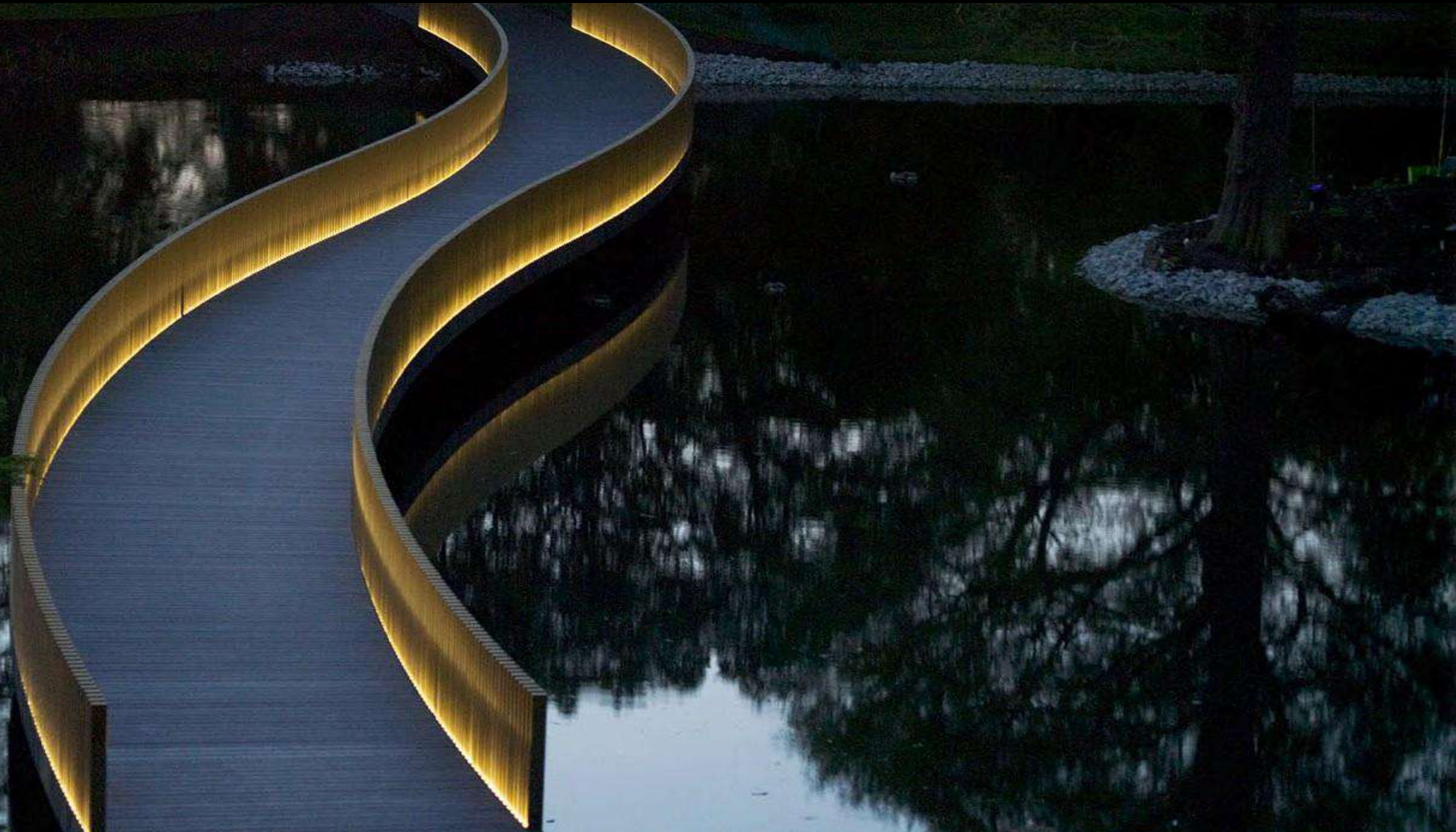
OSIJEK BRIDGE, CROATIA





# SPOT

SACKLER CROSSING, UK



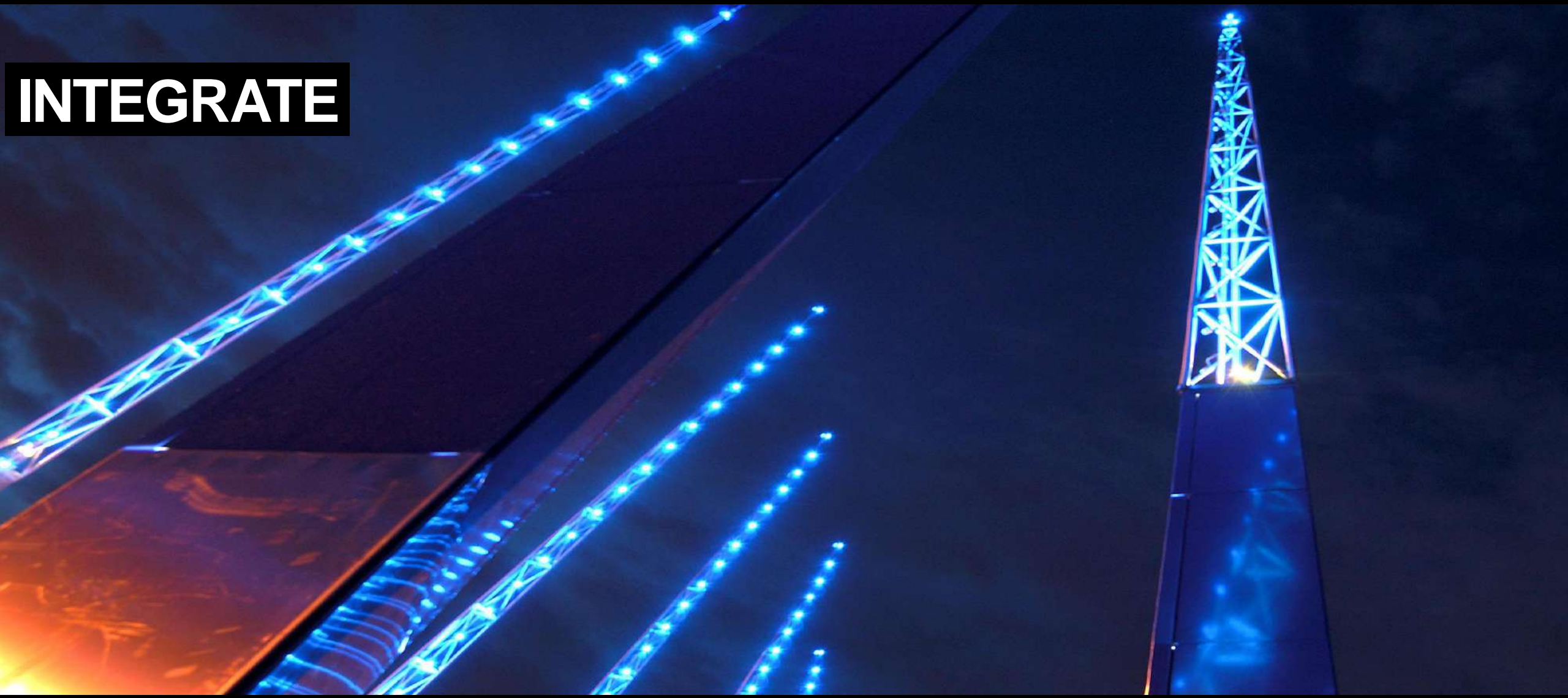


**GUIDANCE**

# GUIDANCE

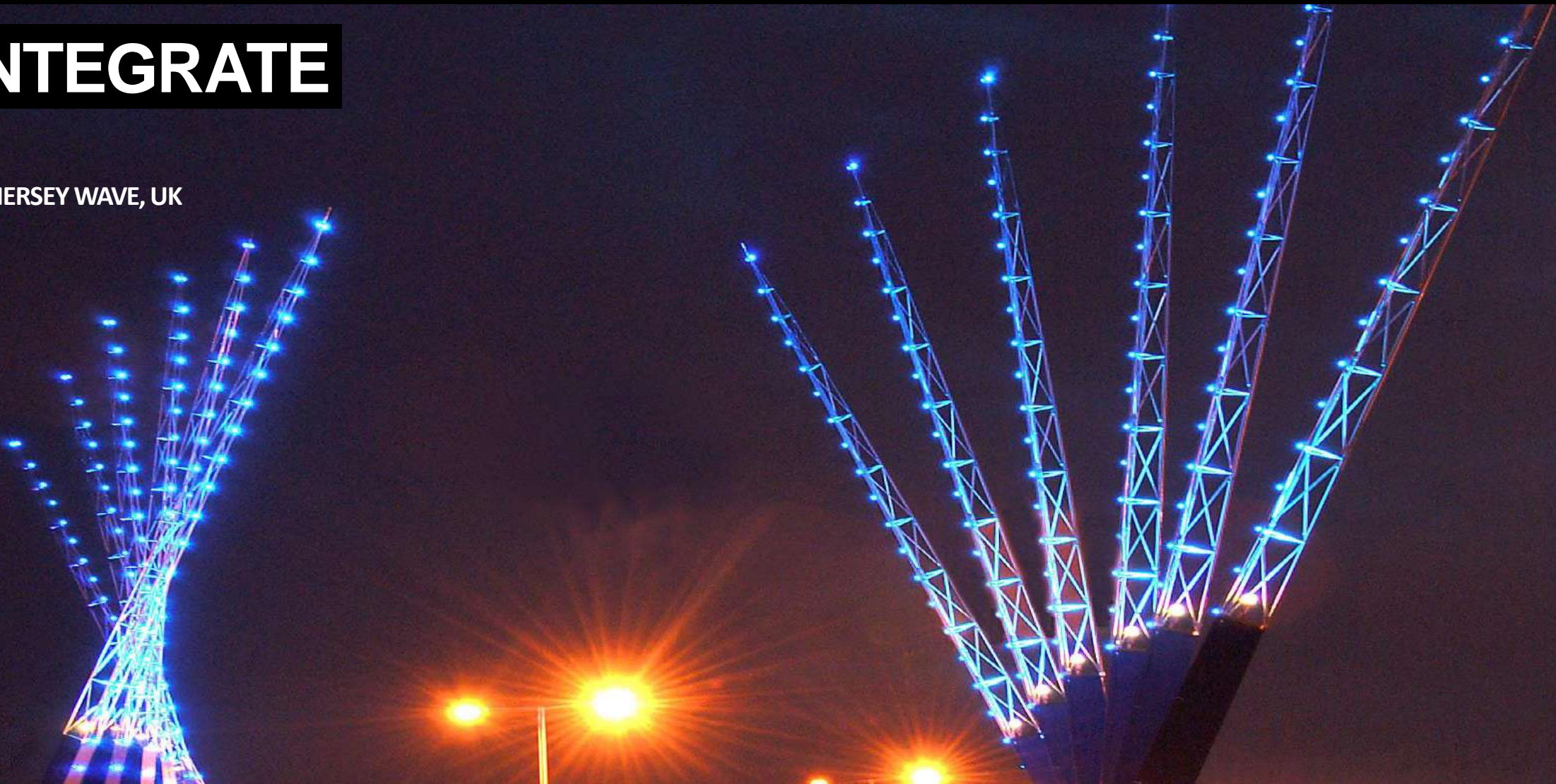
INFINITY BRIDGE, UK

**INTEGRATE**



**INTEGRATE**

MERSEY WAVE, UK





**& TO CONCLUDE**

# 5 METHODS

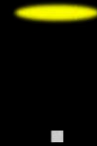
GRAZE



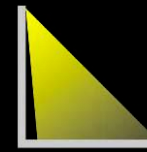
FLOOD



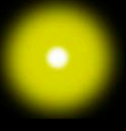
SPOT



GUIDANCE



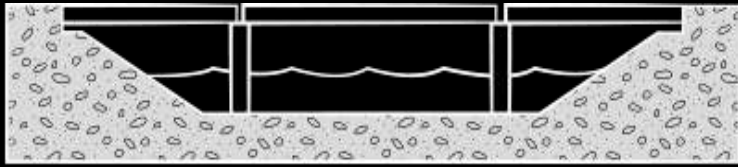
INTEGRATED





# 6 TYPES OF BRIDGE

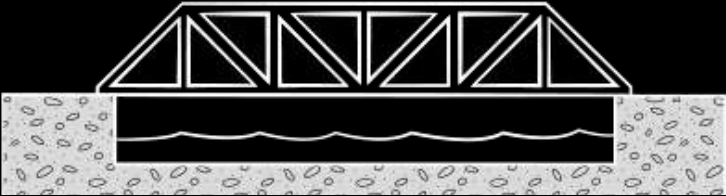
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SUSPENSION



TRUSS



CABLE-STAY



ARCH



CANTILEVER



## WHAT MATTERS ?

<b>TOP 7</b>	<b>CONTEXT</b>
<b>COLOUR</b>	<b>CONTRAST</b>
<b>PEOPLE</b>	<b>CONTROL</b>
<b>CUSTOM</b>	<b>INSTALLATION</b>



This concludes The American Institute of Architects Continuing  
Education Systems Course



[leducation.org](http://leducation.org)



## Take me to the Bridge...

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Director, Lighting applications  
Zumtobel Lighting Ltd

