# International reference projects

Structural strengthening with FRCM systems





Metro North Railroad – NY (U.S.A.) Salisbury Mills - Cornwall Station

# Building type:

Railway bridge

Year 2010

#### Product:

PBO-MESH MX- PBO CONCRETE

### **Used for:**

Piles repair/strengthening

Surface 2000 mg









Metro North Railroad - NY (U.S.A.) Salisbury Mills - Cornwall Station





Metro North Railroad - NY (U.S.A.) Salisbury Mills - Cornwall Station



Alpharetta (Georgia) USA

### **Building type:**

Stonewalk lofts – Shear and flexural Strengthening of residential building

## <u>Year</u>

2015

#### Product:

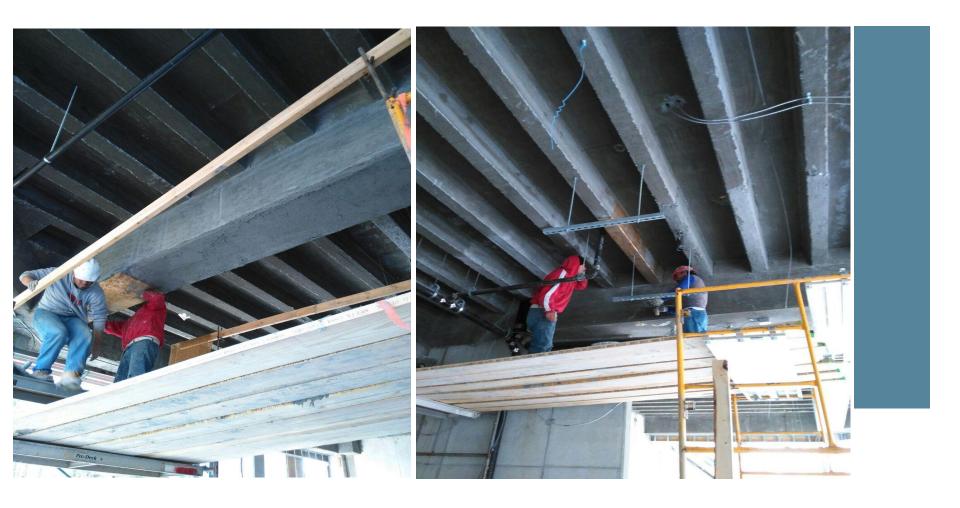
PBO-MESH MX- PBO CONCRETE

### <u>Surface</u>

6000 sf











Moscow - Russia

### **Building type:**

Office building – Increase load capacity on a concrete slab.

#### Year

October 2012

#### Product:

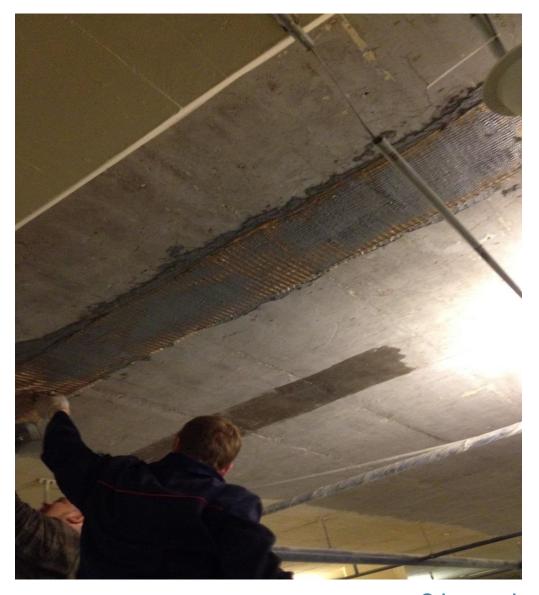
PBO-MESH MX- PBO CONCRETE

### <u>Surface</u>

3000 sf













# Structural Strengthening Office Building in Moscow - Russia



Novosibirsk (Russia)

## Building type: Bridge piles

<u>Year</u> Oct 2007

### Product:

PBO-MESH MX- PBO CONCRETE

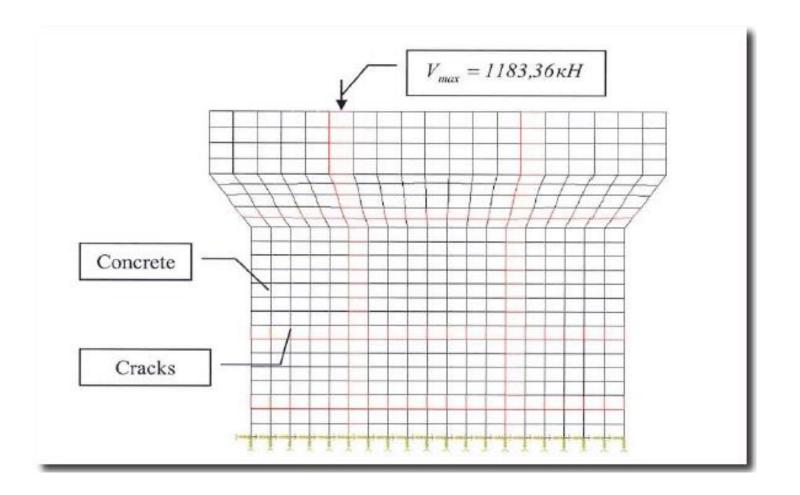
### Used for:

Piles strenghtening

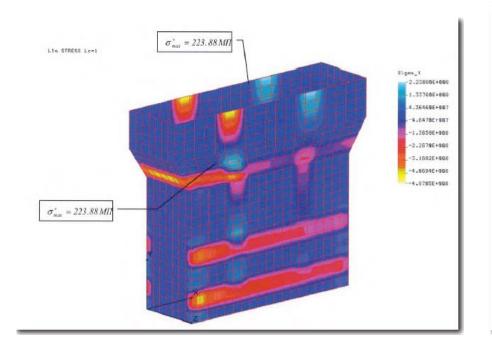
Surface 600 mg

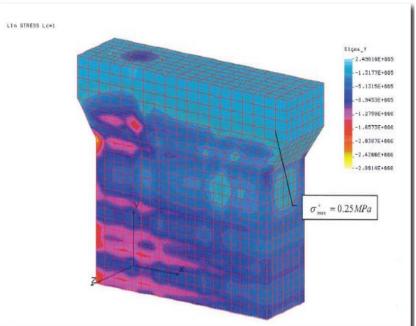




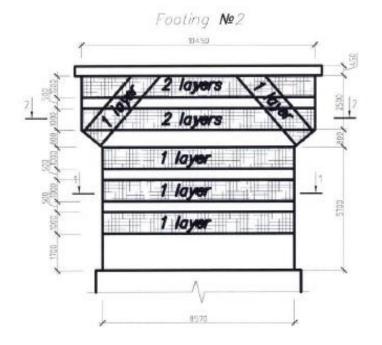


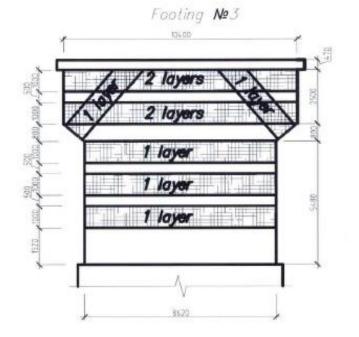


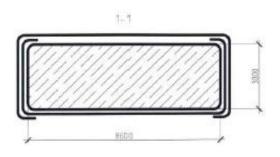


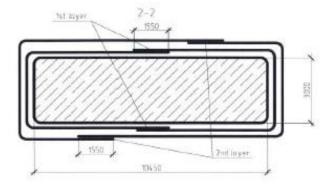














Bridge in Novosibirsk (Russia)









Structural Strengthening
Bridge in Novosibirsk (Russia)

Bergheim (Germany)

## **Building type:**

Cooling tower

# <u>Year</u>

Oct 2012

### Product:

PBO-MESH MX- PBO CONCRETE

### Used for:

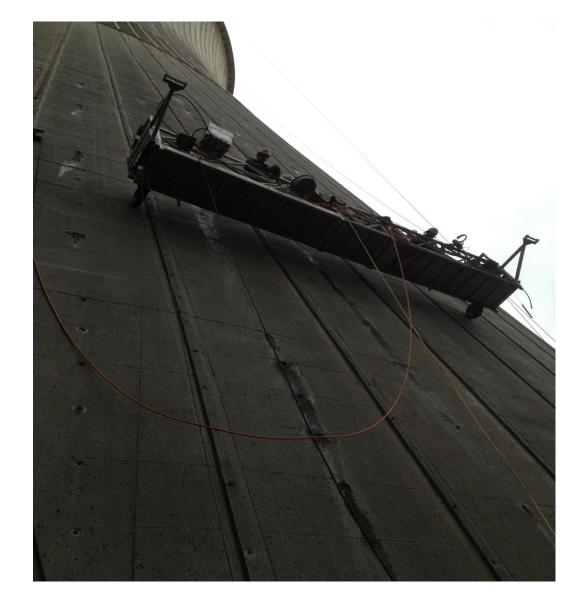
Structure repair and strengthening

### **Surface**

1800 mg









# Structural Strengthening Cooling tower - Bergheim (Germany)





# Structural Strengthening Cooling tower - Bergheim (Germany)





Structural Strengthening Cooling tower - Bergheim (Germany)



Cooling tower - Puławy (Poland)

# Building type:

Cooling tower

<u>Year</u> 2012

#### Product:

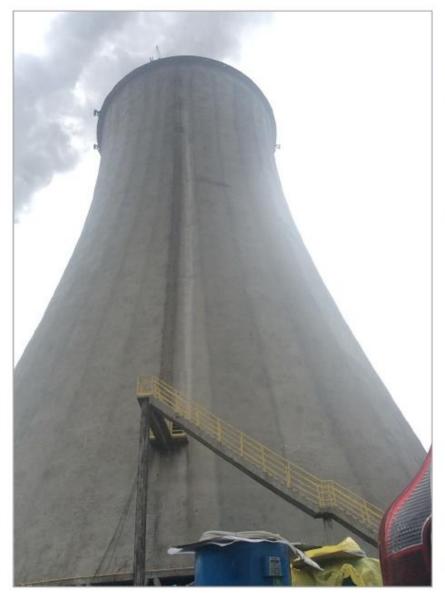
PBO-MESH MX- PBO CONCRETE

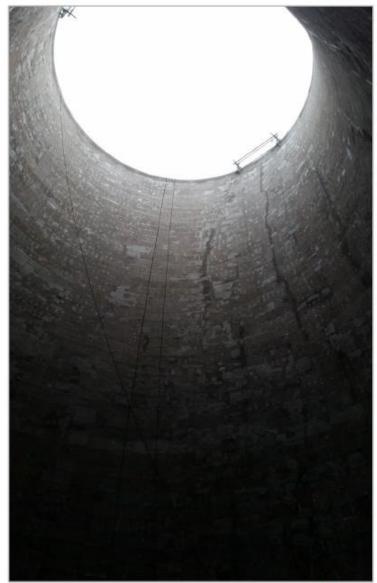
### Used for:

Structure repair and strengthening



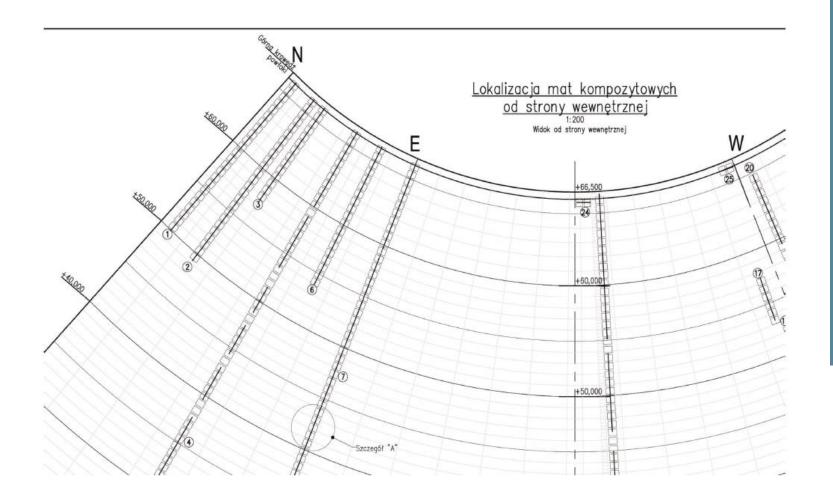






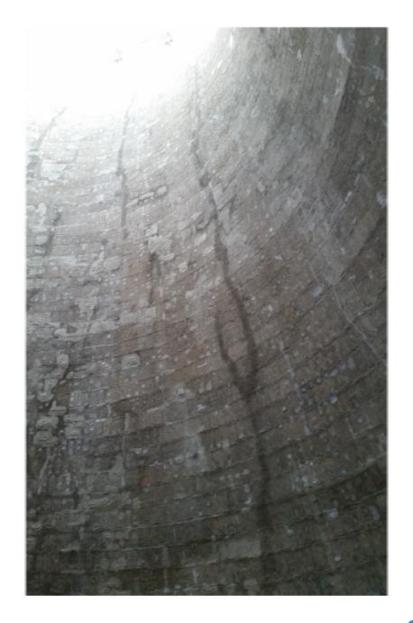


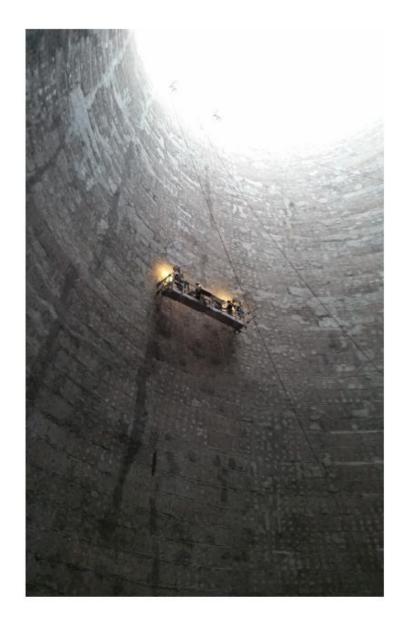
Structural Strengthening Cooling tower - Puławy (Poland)





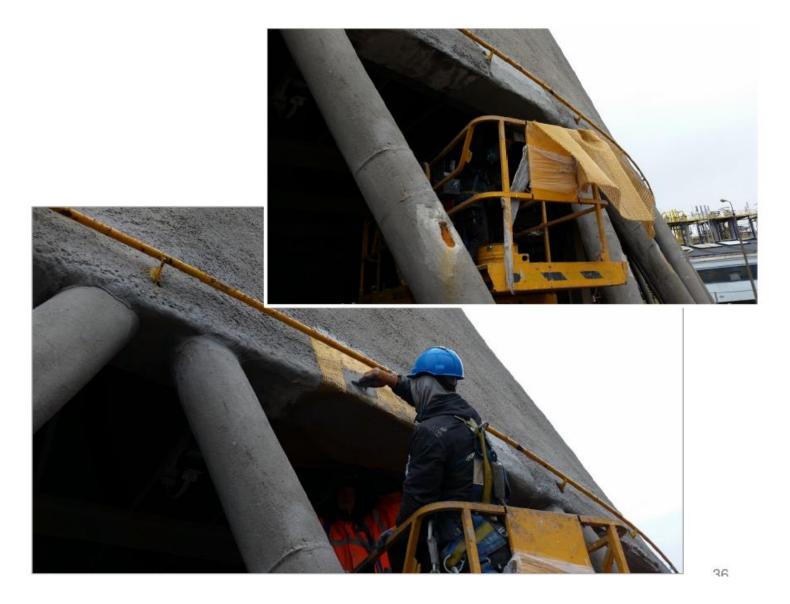
Cooling tower - Puławy (Poland)







Structural Strengthening Cooling tower - Puławy (Poland)





Cooling tower - Puławy (Poland)

# Structural Strengthening Athens (Greece) – 2008

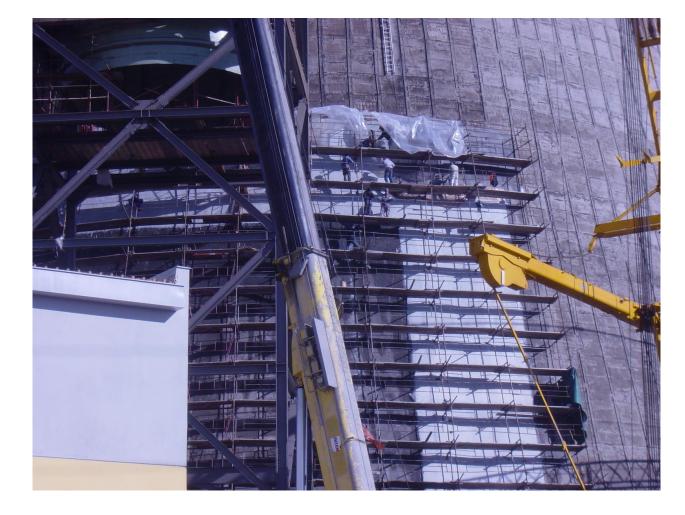
Building type: Cooling tower

Year Oct 2008

Product:
PBO-MESH
MX-PBO CONCRETE

<u>Used for:</u> See drawing

Surface 2500 mg













Ożarów cement plant (Poland) Beam strengthening

### **Building type:**

Industrial support structure

#### Year

Oct 2013

#### Product:

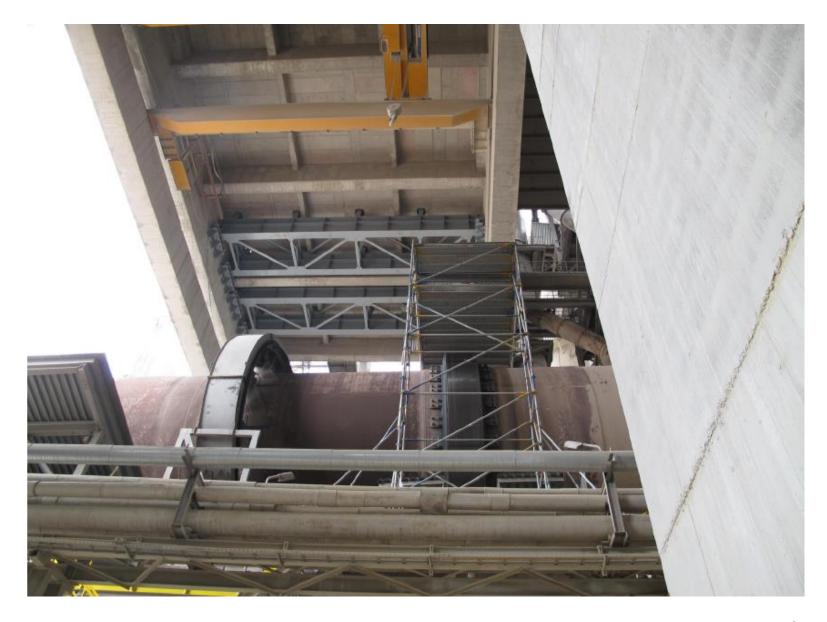
PBO-MESH MX- PBO CONCRETE

#### Used for:

Beam strengthening









Ożarów cement plant (Poland)

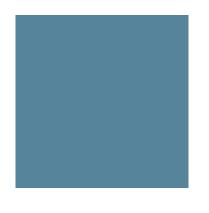








Structural Strengthening
Ożarów cement plant (Poland)



Egnatia Odos Tunnel - Greece – 2008

## **Building type:**

Highway Tunnel

### <u>Year</u>

2008

#### Product:

PBO-MESH MX- PBO CONCRETE

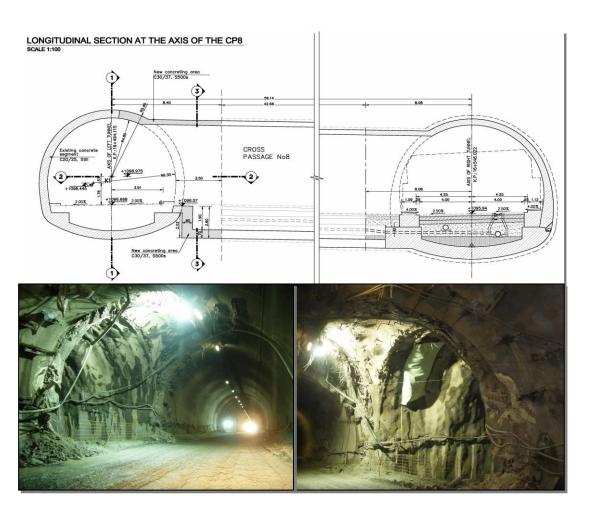
#### Used for:

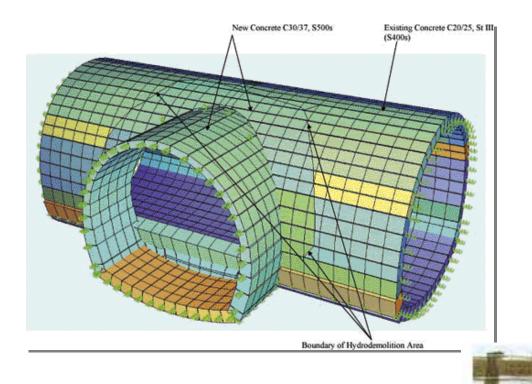
Cross passage surface retrofitting

### Surface

12.000 mg









Egnatia Odos Tunnel - Greece – 2008





Structural Strengthening Egnatia Odos Tunnel - Greece – 2008





Structural Strengthening Egnatia Odos Tunnel - Greece – 2008







Structural Strengthening Egnatia Odos Tunnel - Greece – 2008





Structural Strengthening Egnatia Odos Tunnel - Greece – 2008

# Titan Cement Company - Greece

### **Building type:**

Cement Plant Silos

# <u>Year</u>

2010

#### Product:

PBO-MESH MX- PBO CONCRETE

#### Used for:

Retrofitting silos roof and concrete walls

# <u>Surface</u>

800 mg







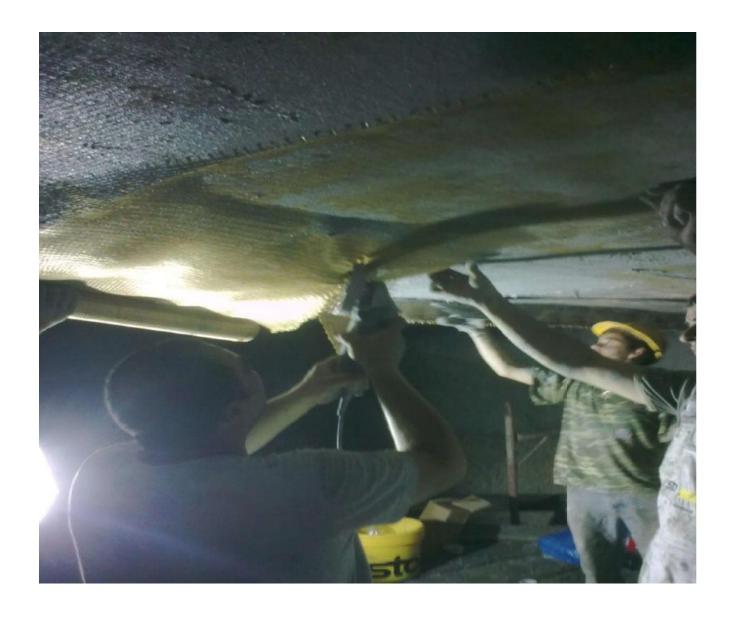


Structural Strengthening
Titan Cement Company - Greece





# Structural Strengthening Titan Cement Company - Greece





# Structural Strengthening Titan Cement Company - Greece



Exxon Refinery plant - Syracuse (Italy) - 2012

### **Building type:**

Bridge piles – sea water

### <u>Year</u>

2012

### **Product:**

PBO-MESH MX- PBO CONCRETE

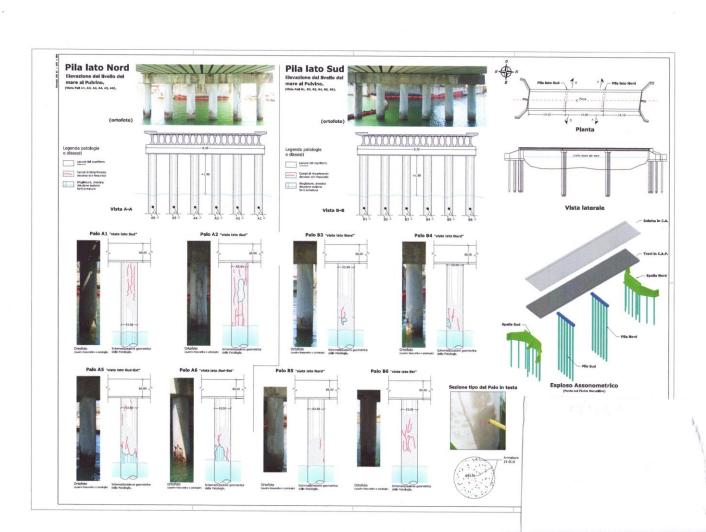
### **Used for:**

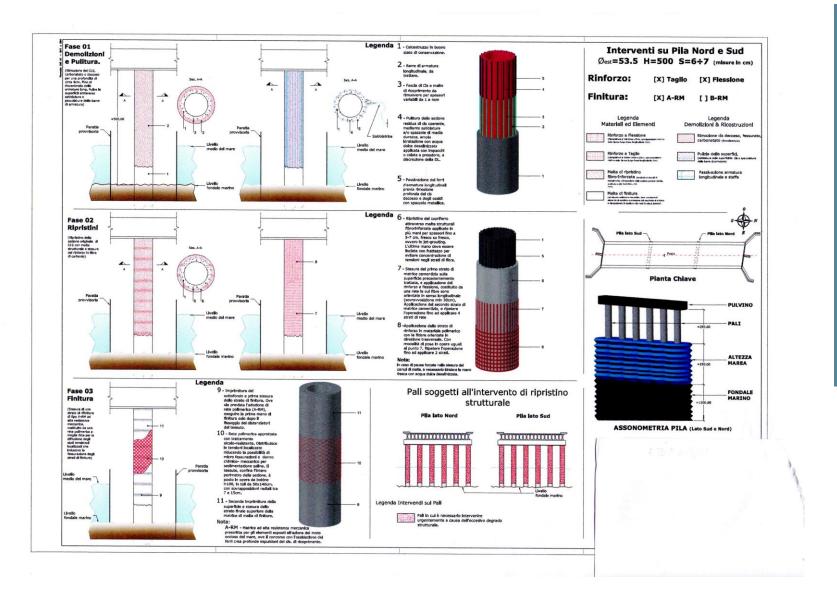
Piles repair/strengthening

### **Surface**

2000 ma









Exxon Refinery plant - Syracuse (Italy) - 2012



Concrete bridge repair - Italy - 2013

### **Building type:**

Concrete bridge

<u>Year</u> 2013

### Product:

PBO-MESH MX- PBO CONCRETE

### Used for:

Retrofitting beams, columns

Surface 1500 mq

















Structural Strengthening Concrete bridge repair - Italy – 2013









Structural Strengthening Concrete bridge repair - Italy – 2013















Belice Bridge repair - Guatemala

### **Building type:**

Steel bridge on Concrete support structure

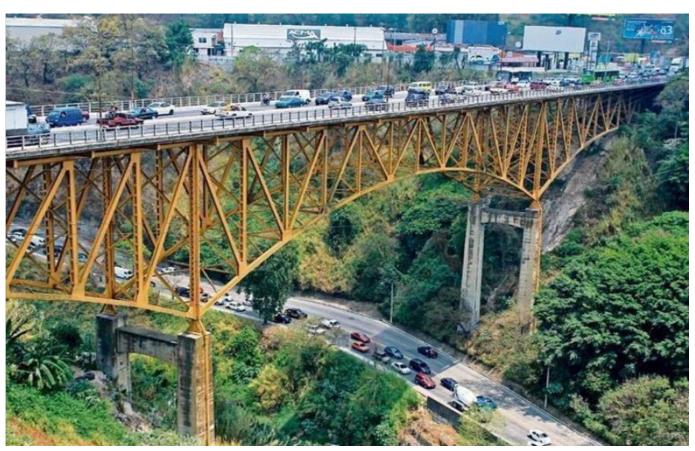
### <u>Year</u> 2018

### Product:

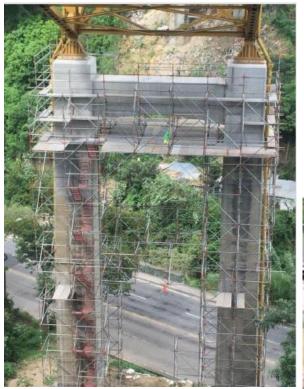
PBO-MESH MX- PBO CONCRETE

#### Used for:

Retrofitting concrete support structure



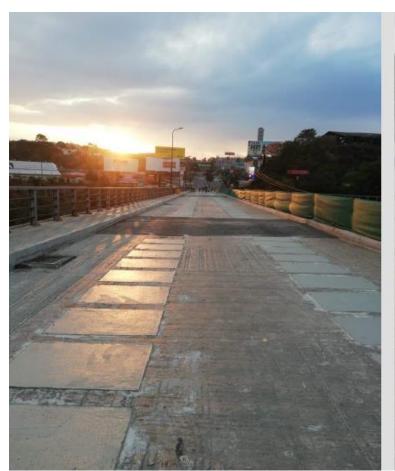








# Structural Strengthening Belice Bridge repair - Guatemala







# Structural Strengthening Belice Bridge repair - Guatemala







Anillo Periférico Bridge - Guatemala

### **Building type:**

Concrete bridge

<u>Year</u> 2017

### Product:

PBO-MESH MX- PBO CONCRETE

### Used for:

Shear strenghtening of the beams









Inmaculada Concepción church Heredia - Costa Rica

Building type: Masonry building

<u>Year</u> 2017

Product:

C-MESH MX- C MASONRY

Used for:

Seismic structural strenghtening









Structural Strengthening Inmaculada Concepción church - Heredia - Costa Rica





Structural Strengthening

Inmaculada Concepción church - Heredia - Costa Rica

San Rafael church Heredia - Costa Rica

### **Building type:**

Masonry building

<u>Year</u> 2017

#### Product:

C-MESH MX- C MASONRY

### Used for:

Structural
Strenghtening and repair after an earthquake









San Rafael church - Heredia - Costa Rica





Structural Strengthening
San Rafael church - Heredia - Costa Rica



Four Domes Pavilion - Wrocław, Poland

### **Building type:**

Masonry / Concrete building

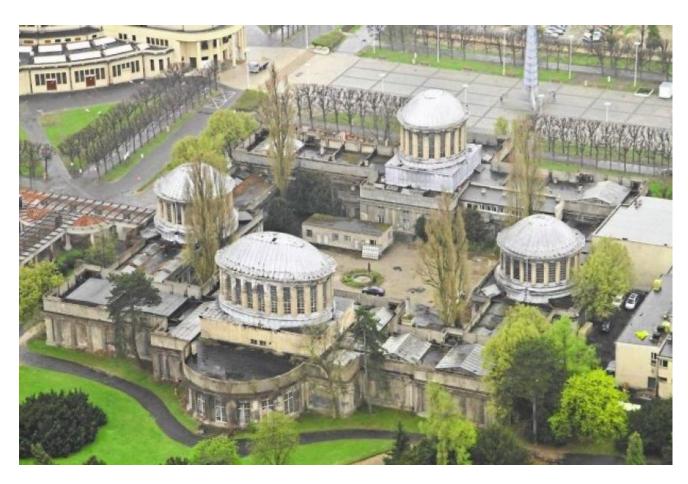
### <u>Year</u> 2017

### Product:

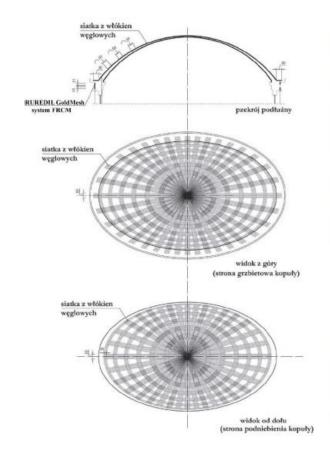
PBO-MESH MX- PBO CONCRETE

### Used for:

Domes strenghtening











Four Domes Pavilion - Wrocław, Poland











Structural Strengthening
Four Domes Pavilion - Wrocław, Poland