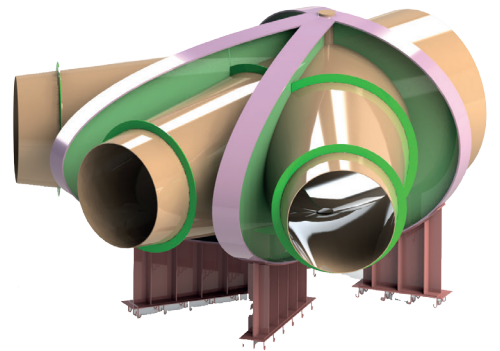
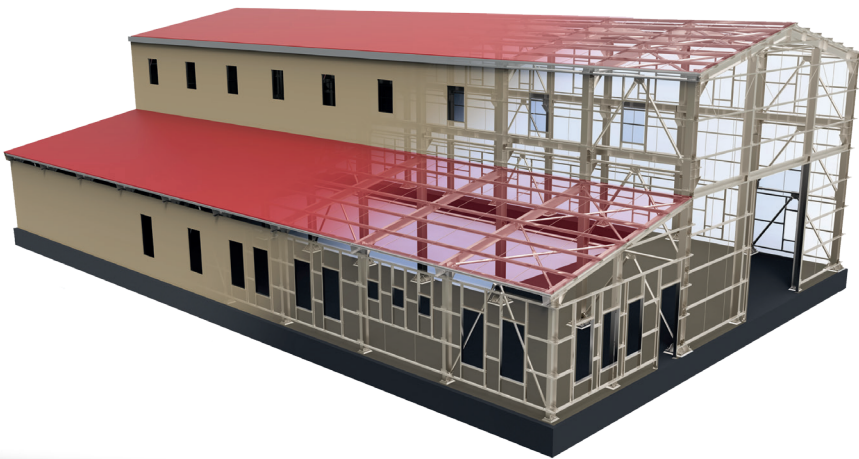
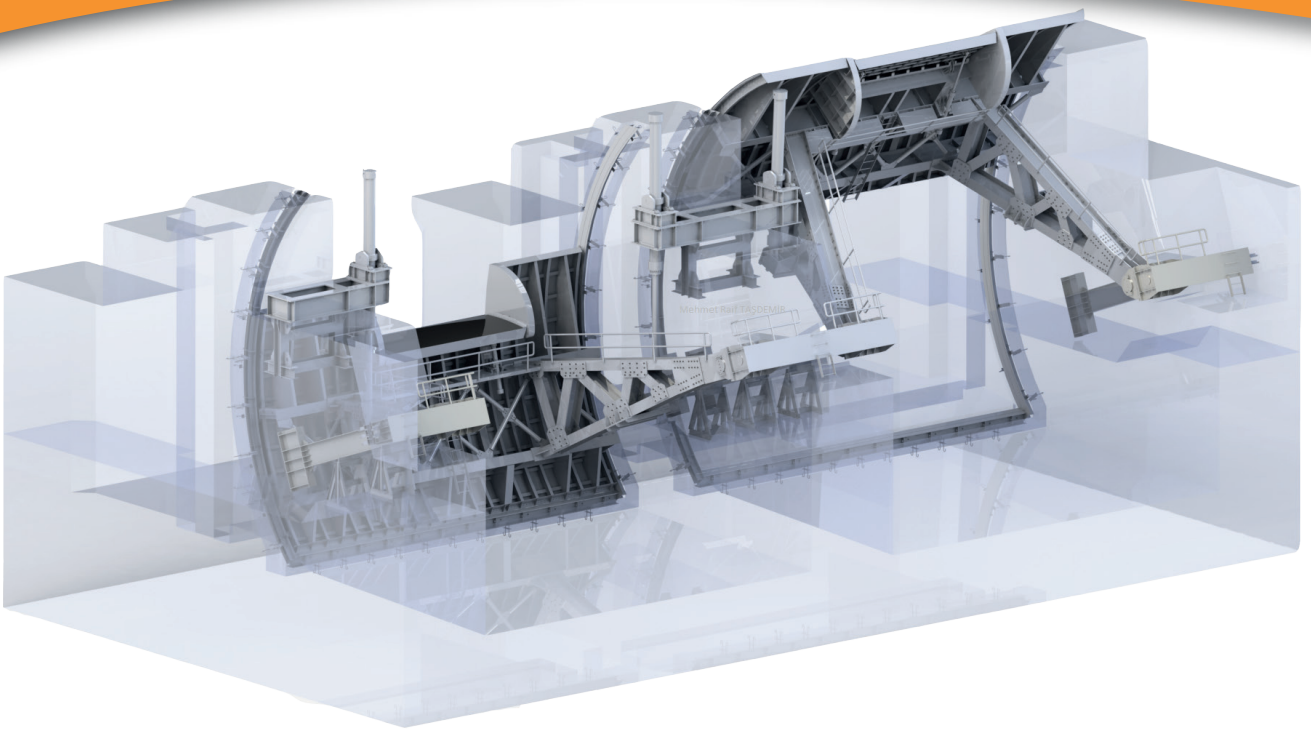




ST DESIGN GROUP

CONSULTANCY PROJECT ENGINEERING CONSTRUCTION TOURISM CO. GMBH.



# ST Group Design

ST Group Design Consultancy, Project, Engineering, Construction, Tourism Trade Ltd. Co. is established by Tuncay ÜNAL in  
**2009**

The company serves to his local and foreign clients, mainly, in design and manufacturing of dams and regulators, hydro-mechanic gates, penstocks, valves, powerhouse steel construction projects, both domestic and overseas construction works.



ST GROUP DESIGN CONSULTING PROJECT ENGINEERING CONSTRUCTION TOURISM TRADE LTD. CO.

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Phone : +90 312 385 10 16  
Fax : +90 312 287 96 64

st@stdizayn.com.tr  
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## Area of Activity

Hydro-Mechanic Gate Works  
Pumping Station Works  
Penstock and valves Works  
Foreign Works  
Electrical Project Works  
Engineering Structures Works

Installation Project Works  
Manufacturing and Assembly Works  
Steel Construction Project Works  
Inspection and Consultancy Works  
Superstructure Project Works  
Construction Works

ST Group Design provides service to his clients in hydromechanic gates, penstock design and manufacturing projects, electrical design and implementation projects, installation design and implementation projects, regulator construction projects, any kind of steel construction manufacturing projects, any kind of superstructure projects, pumping station manufacturing projects, any kind of engineering structures works; any kind of hydro-mechanic gate, steel construction and penstock assembly works, and also inspection and consultancy works in the areas mentioned above.

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## Our Staff

Tuncay ÜNAL Director of the company

Yusuf AKKUŞ Mechanical Engineer (Project Manager)

Onur ONSEKİZ Mechanical Engineer

Esra DORUK Mechanical Technician

Burcu ÖZARSLAN Mechanical Technician

Gaffar BÜYÜKTAŞ Electrical Engineer

Ali AYYILDIZ Electrical Technician

Barış UĞRAŞ Civil Engineer

Gamze BÖCEK Metallurgy and Material Engineer

A. Nihan BAYINDIR Management Assistance



## Projects

### Finished Works

<u>Project Name</u>	<u>Project Description</u>
CEVİZLİK Regulator and HEPP 100MW	Hydro-Mechanical gates manufacturing practice projects
BURÇ BENDİ and HEPP 28MW	Hydro-Mechanical gates manufacturing practice projects
SARIGÜZEL Dam and HEPP 100MW	Hydro-Mechanical gates and Electrical , installation final designs
ALPASLAN-II Dam and HEPP 280MW	Hydro-Mechanical gates and Electrical , installation final designs
FEKE I Dam and HEPP 30MW	Hydro-mechanical valve manufacturing application projects
FEKE II Dam and HEPP 70MW	Hydro-mechanical valve manufacturing application projects
KARASU - 4.2 Regulator and HEPP	Hydro-mechanical valve manufacturing application projects
KARASU - 4.3 Regulator and HEPP	Hydro-mechanical valve manufacturing application projects
KARASU - 5 Regulator and HEPP	Hydro-mechanical valve manufacturing application projects
HİMMETLİ Regulator and HEPP 27MW	Hydro-mechanical gates manufacturing application and Electrical projects
KARGI Dam and HEPP 194MW	Hydro-mechanical valve manufacturing application projects
GÖKKAYA Dam and HEPP 30MW	Hydro-mechanical gates manufacturing application and Electrical projects
KANDİL Dam and HEPP 200 MW	Hydro-mechanical gates and ve electrical,installation final designs
KOÇLU Regulator and HEPP 50 MW	Hydro-mechanical gates and ve electrical,installation final designs
ÇAMBAŞI Regulator and HEPP 45MW	Hydro-mechanical gates final designs
KUŞAKLI Regulator and HEPP 17MW	Hydro-mechanical gates final designs
Çukurçay Regulator and Narlı HEPP	Hydro-mechanical gates, installation final designs
ONUR Regulator and HEPP	Hydro-mechanical gates, installation final designs
MURAT-II Regulator and HEPP	Hydro-mechanical gates, installation final designs
KIZILAĞAÇ Regulator and HEPP	Hydro-mechanical gates, installation final designs
KUZHEY Regulator and HEPP 20MW	Hydro-mechanical gates, installation final designs
EBRU Regulator and HEPP 30MW	Hydro-mechanical gates and ve electrical,installation final designs
ABULİ Regulator and HEPP 22MW	Hydro-mechanical gates and ve electrical,installation final designs
UZUNGÖL Dam burgundy blue energy	Hydro mechanical, electrical, installation, steel firm and application projects
ILISU Dam and HEPP	Electrical and installation application projects
BAKHAVİ Regulator and HEPP(Georgia)	Hydro mechanical, electrical, installation final design ve application projects
YAZILI Regulator and HEPP	Hydro mechanical, electrical, installation, steel firm and application projects
KIRNATI Regulator and HEPP	Hydro mechanical final design and application project
KHELVACHUARI Regulator and HEPP	Hydro mechanical final design and application project
KEMAH DAM and HEPP	Hydro mechanical final design and application project
ÇİLEHANE Regulator and HEPP	Hydro mechanical application project
DAHLA Dam and HEPP (Afghanistan)	Penstock application projects and manufacture of inspection services
ARDANUÇ-5 Regulator and HEPP	Hydro mechanical, electrical, installation, steel firm and application projects
LALE Regulator and HEPP	Hydro mechanical, electrical, installation, steel firm and application projects

### Project Name

ARAKALI Regulator and HEPP 9MW  
AKHALKALAKI Regulator and HEPP 18MW  
İNCİR Dam and HEPP 160 MW  
KIRNATI Regulator and HEPP 34 MW  
KHELVACHAURI Regulator and HEPP 36 MW  
TEPEKİŞLA Dam and HEPP  
KADAHOR Regulator and HEPP  
ÇAY Regulator and HEPP  
ARISU Regulator and HEPP  
ERİÇ-1,2,3,4 Regulator and HEPP  
YAVAŞLAR Dam and HEPP  
BANDIRMA Regulator and HEPP  
PARAVANI Regulator and HEPP (Georgia)

### Project Description

Hydro-mechanical gates and electrical, installation final designs projects  
Hydro-mechanical gates and electrical, installation final designs projects  
Installation application projects  
Hydro-mechanical electrical, installation, steel final design and application projects  
Hydro-mechanical electrical, installation, steel final design and application projects  
Hydro-mechanical application projects  
Hydro-mechanical application projects  
Hydro-mechanical application projects  
Hydro-mechanical application projects  
Plumbing vent implementation projects  
Hydro-mechanical electrical, installation projects  
Hydro-mechanical electrical, installation final design and application projects  
Installation (HVAC) projects

### Steel Construction Works

#### Project Name

Murat I Regulator and HEPP  
Murat II Regulator and HEPP  
Çiğdem Regulator ve HEPP  
Koçlu Regulator ve HEPP  
KALEN II Regulator and HEPP  
SOĞUKPINAR Regulator and HEPP  
ONUR Regulator and HEPP  
YEDİGÖZE Dam and HEPP  
SARIGÜZEL Dam and HEPP  
MEREK Regulator and HEPP  
Iraq Stadium SULEYMANİYE  
Gym Iraq SULEYMANİYE  
Hangar Iraq SULEYMANİYE  
BAGHDAD, Iraq Hotel and Mall  
Kalkandere Regulator and HEPP  
Kalkandere Regulator and HEPP  
Güneşli-2 Regulator and HEPP  
Cyprus Gloria Hotel

#### Project Description

Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Central building - Manufacturing implementation projects  
Plant Building Roof - Fabrication implementation projects  
Manufacturing Plant building application projects  
Steel construction  
Steel construction  
Steel construction  
Steel construction  
Twin coolant tank  
Single coolant tank  
3000 mm butterfly valve  
Steel manufacturing practice projects

## Pump Stations

### Project Name

Algeria pumping station (MNG Holding)  
Kırşehir pump station (Renaissance)

### Project Description

Application Projects  
Application Projects

## Fabrication and Erection Works

### Project Name

Poyraz regulator and HEPP  
İkem Kolej İskenderun  
Atlı Hotel Ankara  
Iraq kербela Hotel  
Adaklı Regulator and HEPP

### Project Description

Penstock and transition - Steel construction Works  
Steel Fabrication and installation of cladding  
Steel Fabrication works  
55 m fire escape tower manufacturing and installation works  
Hydro-mechanical valve assembly manufacturing

## Fabrication and Erection Works, Supervision and Consulting

### Project Name

Cevizlik Regulator and HEPP (Hidro dizayn)  
Ortaçağ Regulator and HEPP (Nuryol)  
Tepekışla Dam and HEPP (Msk Energy)  
Tepekışla Dam and HEPP (Sanko)  
Murat Regulator and HEPP (Akasya Elektrical)  
Araklı Regulator and HEPP (Yüceyurt Energy)  
Yeşilköy Regulator and HEPP (Yeşilköy Energy)  
Khelvachauri Regulator and HEPP (Fichtner)  
Burç Bendi and HEPP (Hidro dizayn)  
Çakmak -1-2 Regulator and HEPP (Ege Hidro)

### Project Description

Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works  
Manufacturing and installation works

## Roads Tunnel Works

### Project Name

Usak-Afyon Highway Tunnel  
Fethiye willow tunnel (3.5 km)  
Çetin Dam Access Tunnel  
Dörtüol-Hassa road Tunnel-3

### Project Description

Electromechanical project works  
Electromechanical project works  
Electromechanical project works  
Electromechanical project works

## References

### CEVİZLİK REGULATOR AND HEPP 100 MW

(Sanko – Hidrodizayn A.Ş.)



## Scope of work

### Final design and application projects

### Scope of Hydro Mechanical Works

Penstock

Gravel pass operational gate

Water intake structure trashrack

Energy intake structure trashrack

Central tailrace gate

Water intake structure operational gate

Maintenance gate

Stilling basin gate

Regulation of the pool trashrack cleaning machine

Application engineering services projects.

St Group

# KALKANDERE SETTLING TANK

## Turbine Cooling Water Sediment Filter Tank

(Sanko – St Grup Dizayn)



### Scope of work

#### Application Projects

#### Scope of Hydro Mechanical Works

Turbine Cooling Water Sediment Filter Tank

(Pre-sedimentation tanks of the filtration pressure for cleaning purposes)

#### Scope of Installation Works

Clean water and waste water installations

Plumbing column charts

Fire equipment implementation plan

Heating, cooling and ventilation system plan

Penstock

# St Grup

# HİMMETLİ - GÖKKAYA DAM and HEPP

(MEM Enerji – Hidrodizayn A.Ş.)



## Scope of work

### Final design and application projects

#### Scope of Hydro Mechanical Works

- Penstock
- Energy intake trashrack
- Gate shaft structure maintenance gate
- Gate shaft structure operational gate
- Spillway radial gate structure
- Central tailrace gate
- Application engineering services projects

#### Scope of Electrical works

- Internal and external lighting, security, communication, grounding and protection systems implementation projects against fire and lightning.

# St Grup

## BURÇ BENDİ ve HEPP 28 MW

(Akkur Enerji – Hidrodizayn A.Ş.)



### Scope of work

#### Application Projects

#### Scope of Hydro Mechanical Works

Penstock

Spillway radial gate

Spillway maintenance gate

Energy tunnel emergency gate

Central tailrace gate

Energy tunnel inlet trashrack structure

Energy tunnel maintenance gate

Bottom outlet shaft maintenance gate

Bottom outlet shaft hatch 'n' cover

Central tailrace gate

Application engineering services projects

# St Grup

# SARIGÜZEL DAM ve HEPP 100 MW

(EnerjiSA – Hidrodizayn A.Ş)



## Scope of work

### Final Design Project

### Scope of Hydro Mechanical Works

Spillway maintenance gate and radial gate  
Gate shaft maintenance and operational gate  
Diversion maintenance gate  
Bottom outlet tunnels, vertical and horizontal trashrack  
Bottom outlet tunnels, maintenance gate  
Penstock  
Central tailrace gate

Energy tunnel inlet trashrack

Final project engineering services.

### Scope of Electrical Works

Internal and external lighting, security, communication, grounding,  
Final design of lightning protection systems and fire.

### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems implementation projects.

St Group

## FEKE I & II DAM ve HEPP 70 MW

(Akkur Enerji – Hidrodizayn A.Ş.)



### Scope of work

#### Application Projects

#### Scope of Hydro Mechanical Works

Penstock

Spillway Maintenance gate

Energy sprinklers gate cofferdam

Energy sprinklers trashrack structure

Energy sprinklers service door structure

Diversion bottom outlet tunnel steel coating

Outlet structure sprinklers gate

Central tailrace gate

Application engineering services projects

St Grup

# KANDİL DAM ve HEPP 200 MW

(EnerjiSA – Hidrodizayn A.Ş.)



## Scope of work

### Final Design Project

#### Scope of Hydro Mechanical Works

Penstock  
Water intake structure trashrack  
Sediment pool outlet operation gate  
Sediment silt gate and lifting equipment  
Gravel pass 1-2 maintenance and operational gate  
Energy tunnel inlet gate structure  
Headpond silt gate

Central tailrace gate  
final project engineering services.

#### Scope of Electrical Works

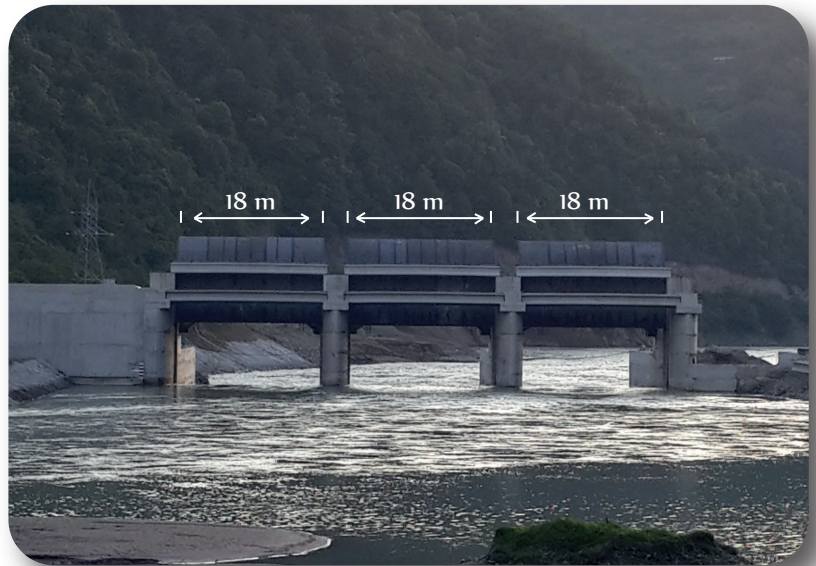
Internal and external lighting, security, communication, grounding,  
Final design of lightning protection systems and fire.

#### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems implementation projects.

St Group

## KIRNATI VE KHELVACHAURI REGULATOR and HEPP 80 MW (FICHTNER) Georgia



### Scope of work

#### Final design and application projects

#### Scope of Hydro Mechanical Works

Penstock  
Spillway maintenance gate  
Spillway radial gate (18 m)  
Energy intake structure maintenance gate  
Powerhouse tailrace operational gate  
Final design projects and applications  
engineering services.

#### Scope of Electrical Works

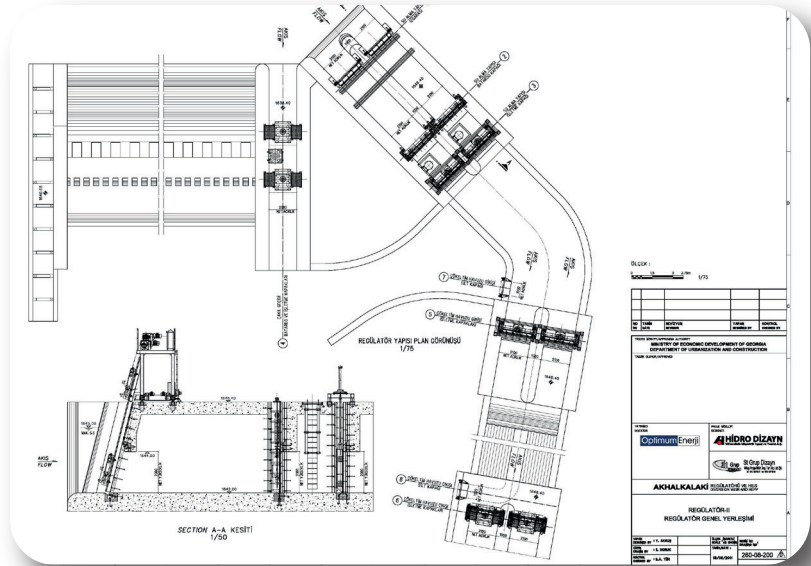
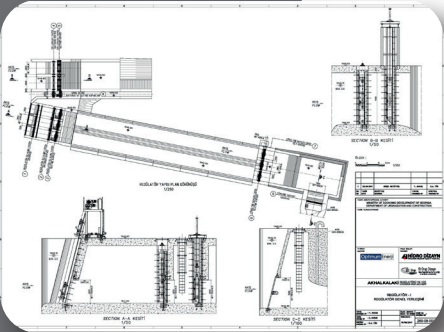
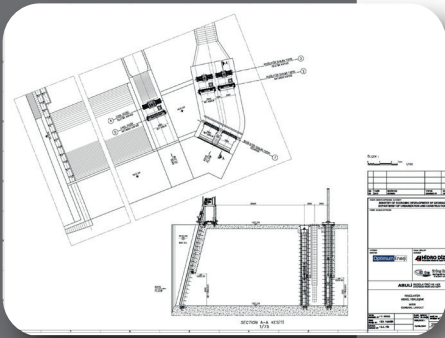
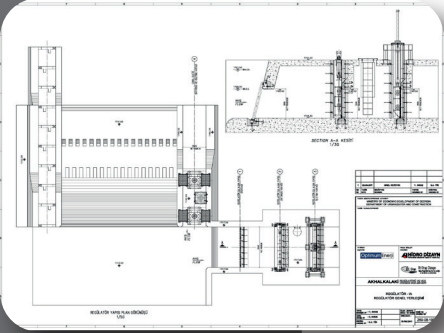
Internal and external lighting, security, communication, grounding,  
Fire and lightning protection systems in the final project.

#### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems final design and application projects

# ARAKALI-ABULI-AKHALKALAKI HEPP

## 48 MW Georgia (Ağaoğlu – Hidrodizayn A.Ş.)



### Scope of work

#### Final Design Project

#### Scope of Hydro Mechanical Works

Penstock

Coffer dam and fishway operational gate

Tirol water intake structure operational gate

Silt sediment pool gate

Energy inlet structure trashrack

Central tailrace gate

Final design engineering services projects

#### Scope of Electrical Works

Internal and external lighting, security, communication, grounding,

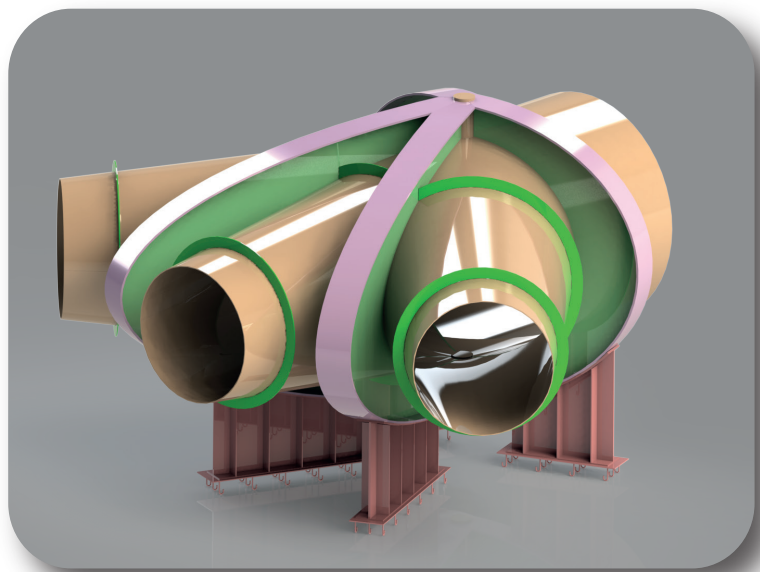
Final design of lightning protection systems and fire.

#### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,

Fire Fighting systems implementation projects

## DAHLA DAM and HEPP (Afghanistan)



Scope of work

Application Projects

Penstock projects and supervision

# St Grup

# KOÇLU REGULATOR and HEPP 36 MW

(İyon Enerji – Hidrodizayn)



## Scope of work

### Application Projects

#### Scope of Hydro Mechanical Works

Penstock

Intake trashrack structure, maintenance and operational gate

Gravel pass maintenance gate

Sediment pool operational gate

Energy tunnel inlet trashrack  
and trashrack cleaning machine

Energy maintenance and operational gate

Steel construction of the power plant building

Headpond silt gate

Plant cover tailwater

Cooling water settling tank

Application engineering services projects.

#### Scope of Electrical Works

Internal and external lighting, security, communication,  
grounding, Fire and lightning protection systems  
implementation projects.

#### Scope of Installations Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems implementation projects

# St Grup

# GÖKBEL 1-2 REGULATOR and HEPP 20 MW

(Yıldızlar Grup)



## Scope of work

Final design and application projects

Scope of Hydro Mechanical Works

Water intake structure and fishway

Gravel pass maintenance gate

Gravel pass operational gate

Sediment pool outlet operation gate

Headpond trashrack

Headpond operational gate

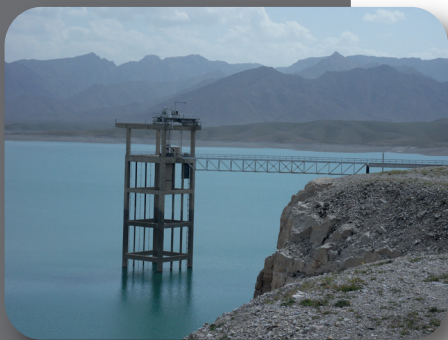
Fish Passage gate

Central tailrace gate

Application engineering services projects

St Grup

## KAJAKI DAM and HEPP 49,5 MW (Afghanistan)



### Scope of Work

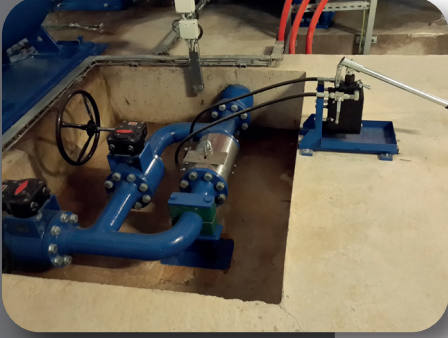
#### Application Projects

#### Scope of Hydromechanical works

Hydro mechanical, electrical, Installation Application Projects  
Route hydraulic cylinder valve assemblies and manufacturing units  
commissioning system  
Intake structure, mechanical and electrical works  
Tunnel mechanical electrical works  
Jet valve installation and commissioning  
Micro turbine erection

Consulting and control services  
Operational gate and assembly  
Route dismantling valve assemblies

## ORTAÇAĞ REGULATOR VE HEPP 12.94 MW ( Beray Müh. )



### Scope of Work

#### Final Design and Application Projects

#### Scope of Hydro-mechanical Works

- Headpond operation gate
- Headpond drain gate
- Water intake structure operation gate
- Gravel pass maintenance and operation gate
- Regulator silt gate
- Penstock
- Central tailrace gate

#### Scope of Electrical Works

- Internal and external lighting, security, communication, grounding,
- Final design of lightning fire protection systems

#### Scope of Installation Works

- Heating, Cooling, Air Conditioning, Plumbing Installations,
- Fire Fighting systems implementation projects.

#### Powerhouse Steel Construction Projects

# TEPEKIŞLA DAM VE HEPP 33 MW

( Sanko Enerji - Hidro Dizayn )



## Scope of Work

### Final Design and Application Projects

#### Scope of Hydro-mechanical Works

Water intake structure maintenance and operational gate  
Water intake structure trashrack  
Regulators water intake structure maintenance and operational gate  
Spillway maintenance and radial gate  
Diversion tunnel operational and radial gate  
Penstock  
Central tailrace gate

#### Scope of Electrical Works

Internal and external lighting, security, communication, grounding,  
Final design of lightning fire protection systems.

## MURAT 1-2 REGULATOR and HEPP 11,9 MW ( Akasya Elektrik )



### Scope of Work

#### Final Design and Application Projects

##### Scope of Hydro-mechanical Works

Water intake structure trashrack  
Regulators water intake structure maintenance and operational gate  
Gravel pass maintenance and operational gate  
Sediment pool outlet operational gate  
Trawl gate  
Penstock  
Central tailrace gate

##### Scope of Electrical Works

Internal and external lighting, security, communication, grounding,  
Final design of lightning fire protection systems

##### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems implementation projects.

##### Powerhouse Steel Construction Projects

Fabrication and erection supervision services

## ÇAKMAK 1-2, SÖĞÜTLÜ REGULATOR and HEPP 64,3 MW ( Ege Hidro )



### Scope of Work

#### Final Design and Application Projects

##### Scope of Hydro-mechanical Works

Regulators water intake structure maintenance and operational gate  
Gravel pass maintenance and operational gate  
Sediment pool outlet operational gate  
Headpond butterfly valve  
Penstock  
Powerhouse tailrace gate

##### Scope of Electrical Works

Internal and external lighting, security, communication, grounding,  
Final design of lightning fire protection systems.

##### Scope of Installation Works

Heating, Cooling, Air Conditioning, Plumbing Installations,  
Fire Fighting systems implementation projects.

##### Fabrication and erection supervision services

## YEŞİLKÖY REGULATOR and HEPP 1200 mm Butterfly Valve



### Scope of Work

Butterfly valve engineering calculations and drawings  
Supervision Services in Manufacturing and installation Works



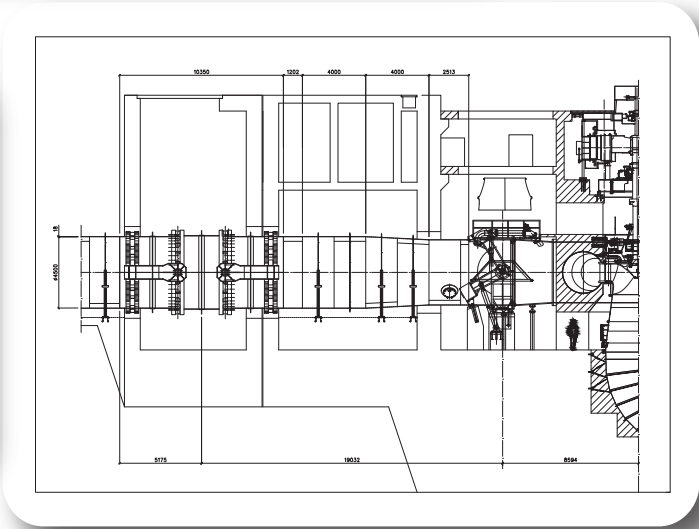
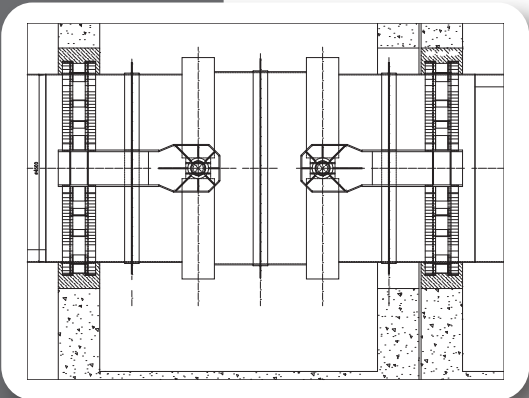
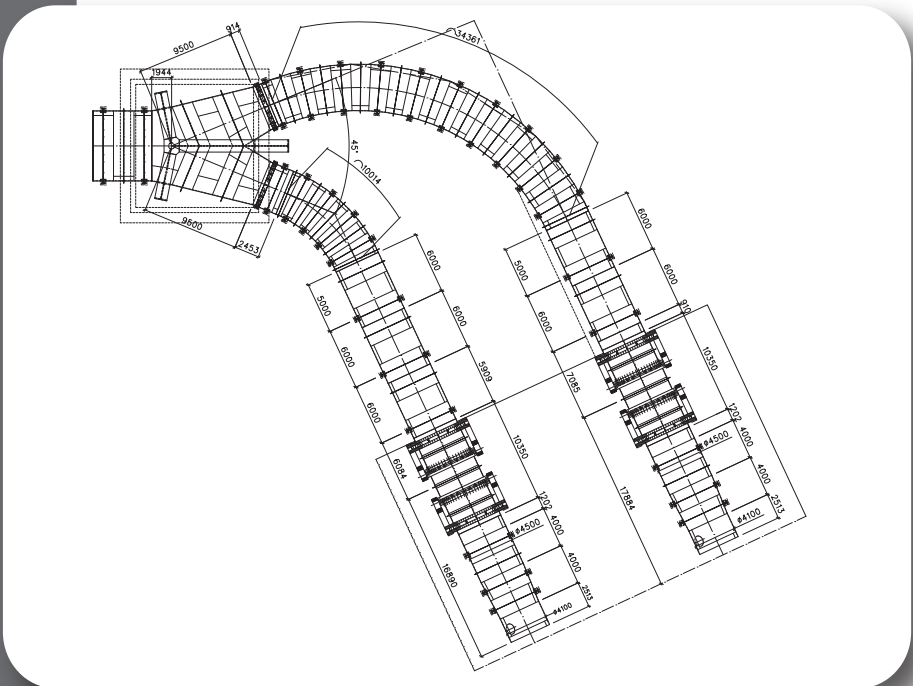
## GÜNEŞLİ REGULATOR and HEPP 3300 mm Butterfly Valve (800 mm VANTUZ)



### Scope of Work

Butterfly valve engineering calculations and drawings  
Supervision Services in Manufacturing and installation Works

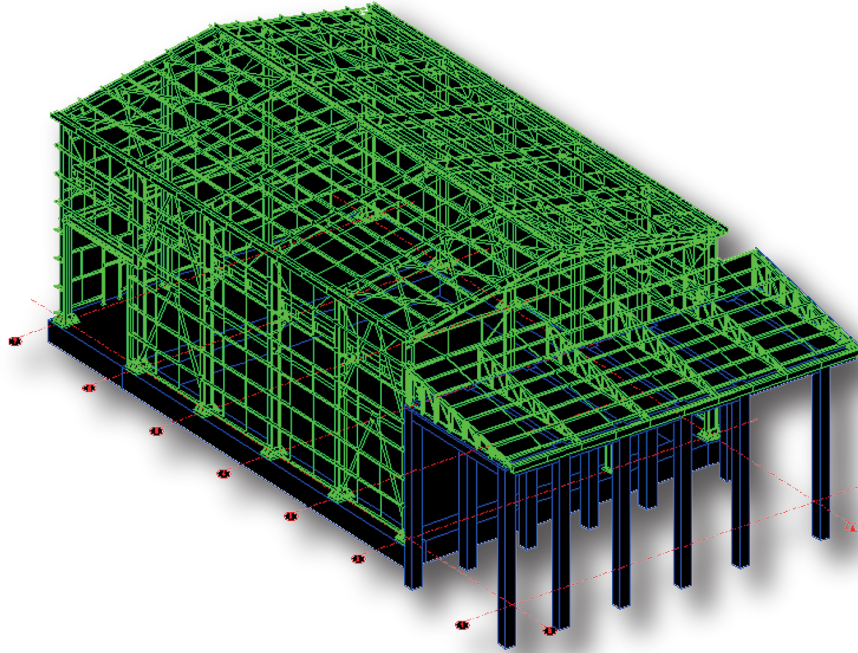
KARGI DAM and HEPP  
Ø4500 mm COMPENSATION JOINT



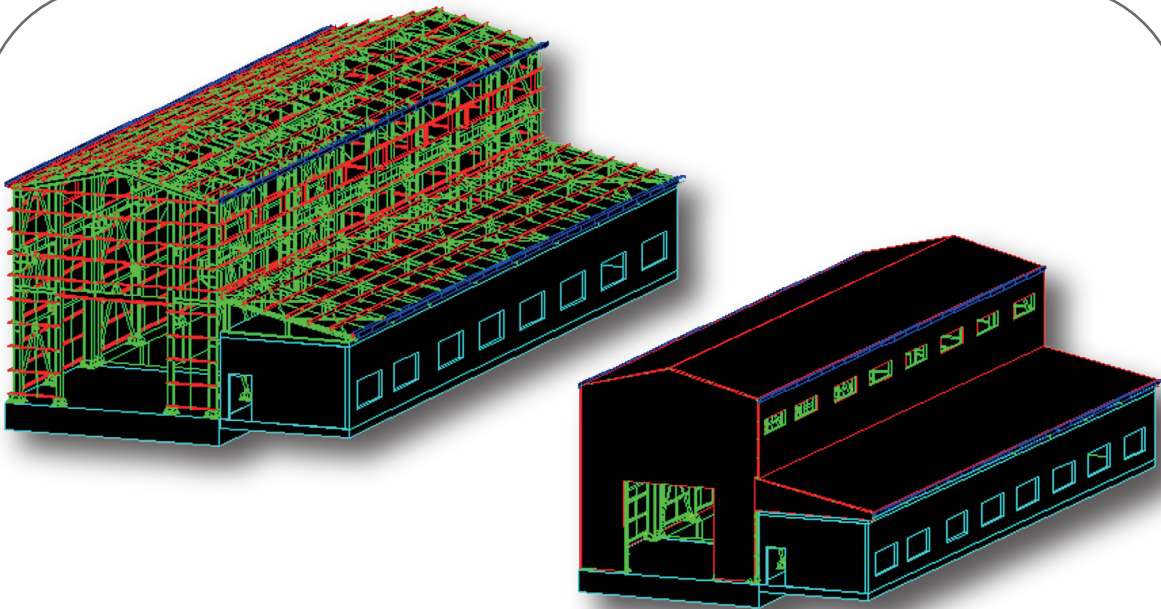
## Scope of Work

Ø4500 mm expansion seal with movable joint

## STEEL CONSTRUCTION APPLICATION PROJECTS

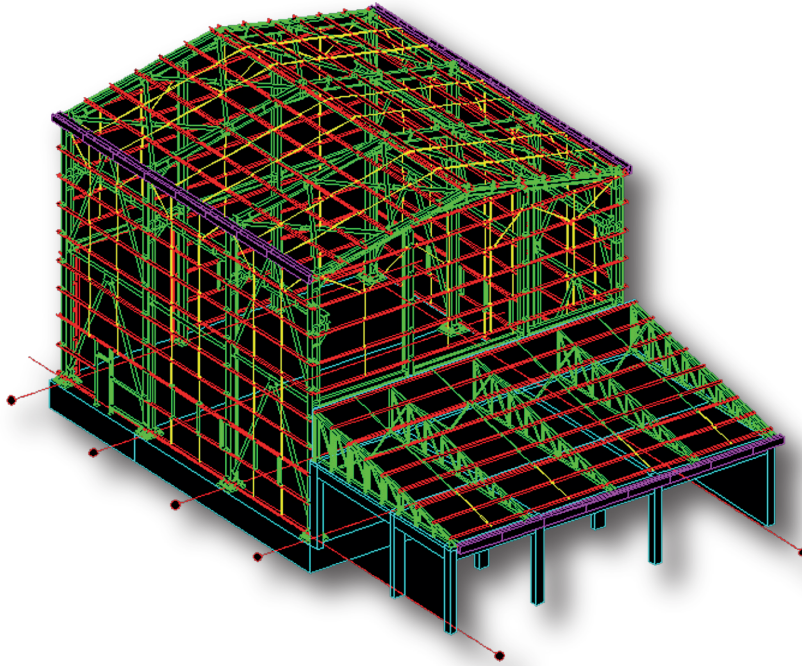


Çığdem HEPP Powerhouse

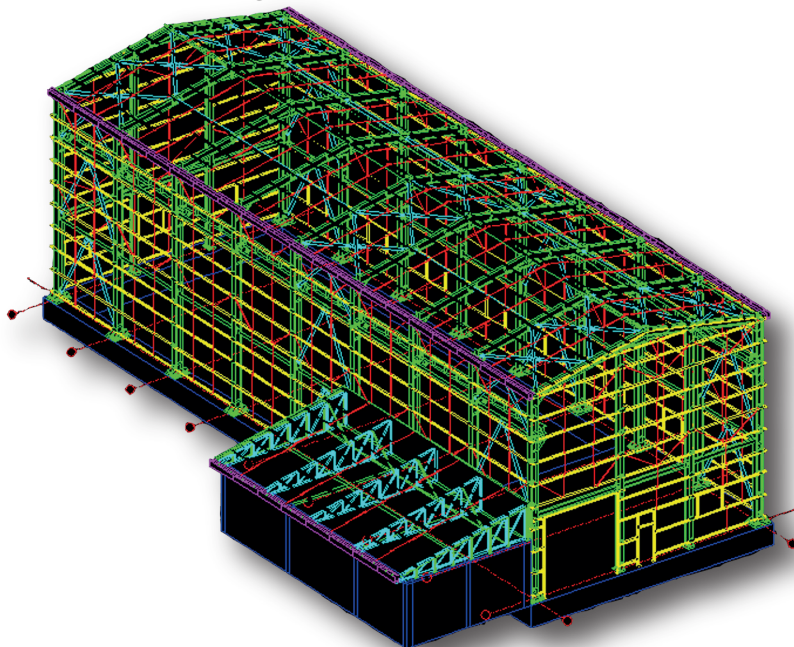


Kadahor HEPP Powerhouse

## STEEL CONSTRUCTION APPLICATION PROJECTS

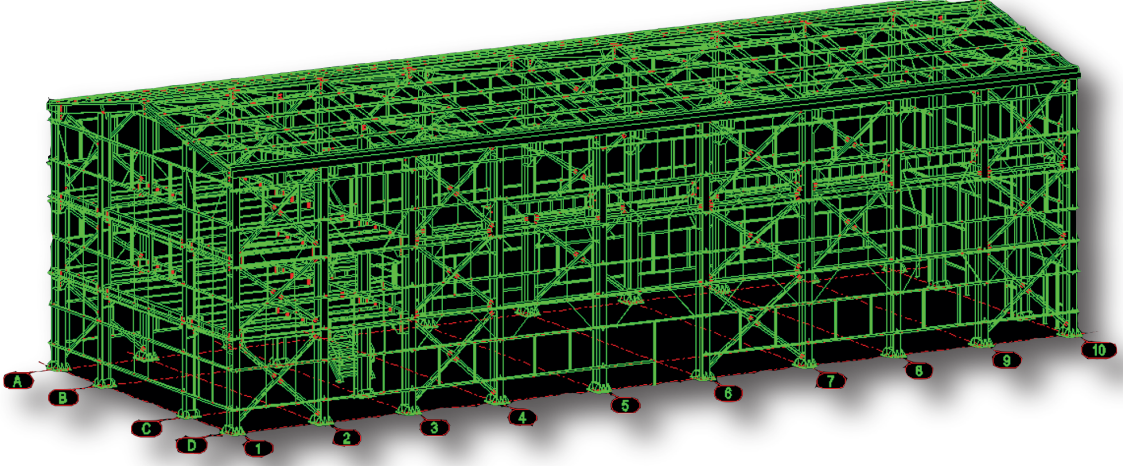


Murat 1 HEPP Powerhouse

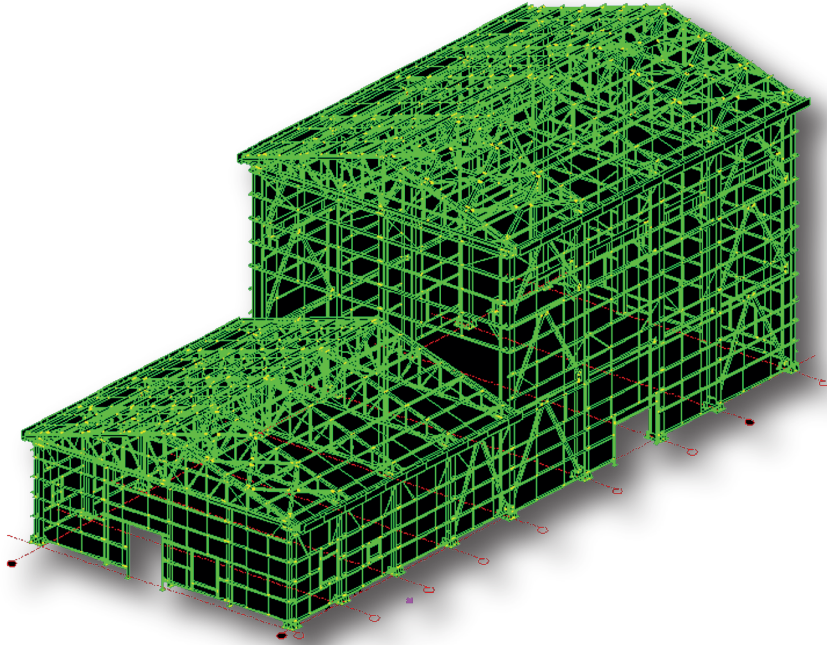


Murat 2 HEPP Powerhouse

## STEEL CONSTRUCTION APPLICATION PROJECTS

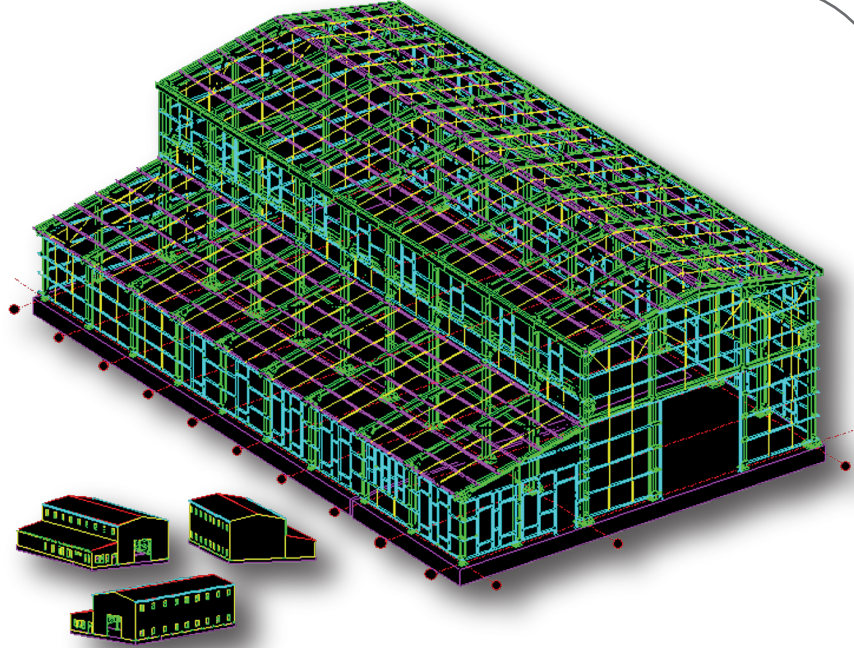


Onur HEPP Powerhouse

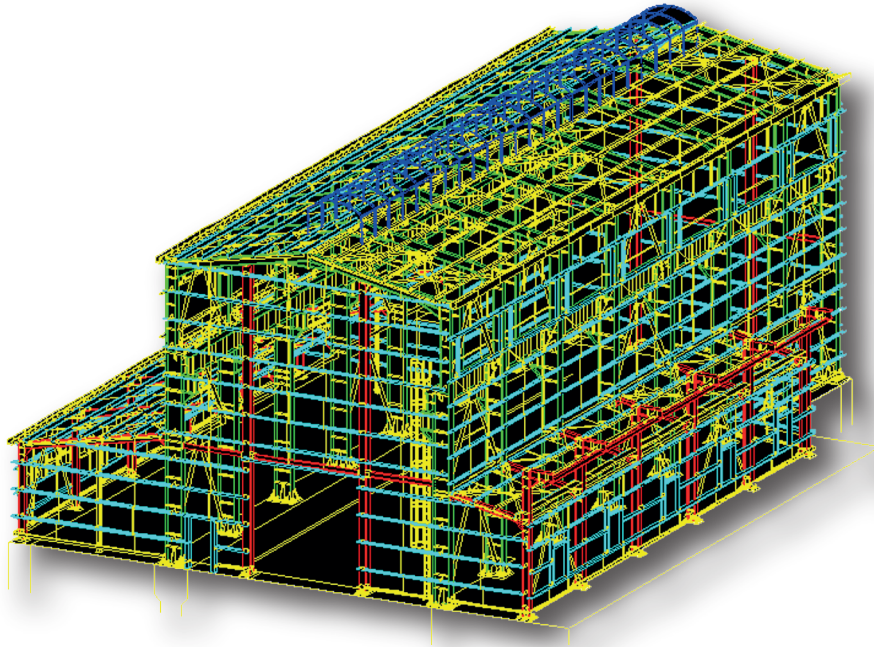


Ortaçağ HEPP Powerhouse

## STEEL CONSTRUCTION APPLICATION PROJECTS

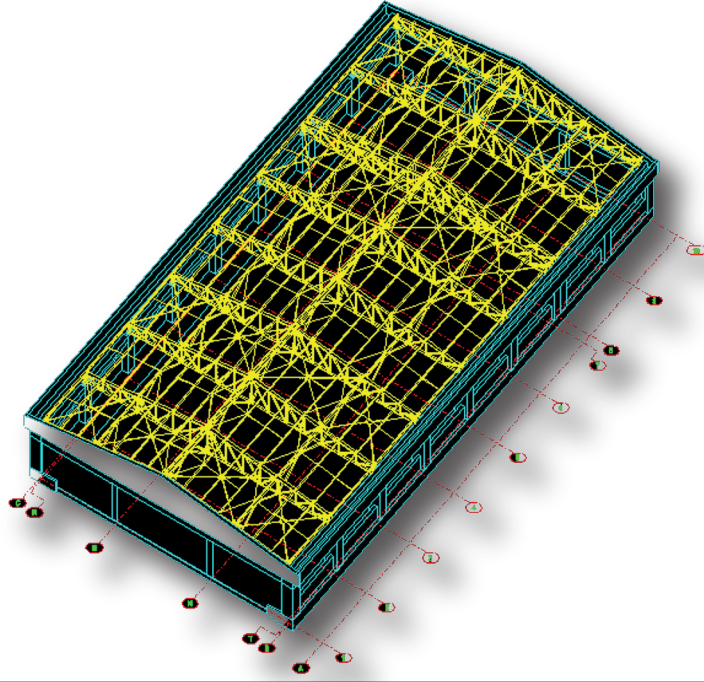


Merak HEPP Powerhouse

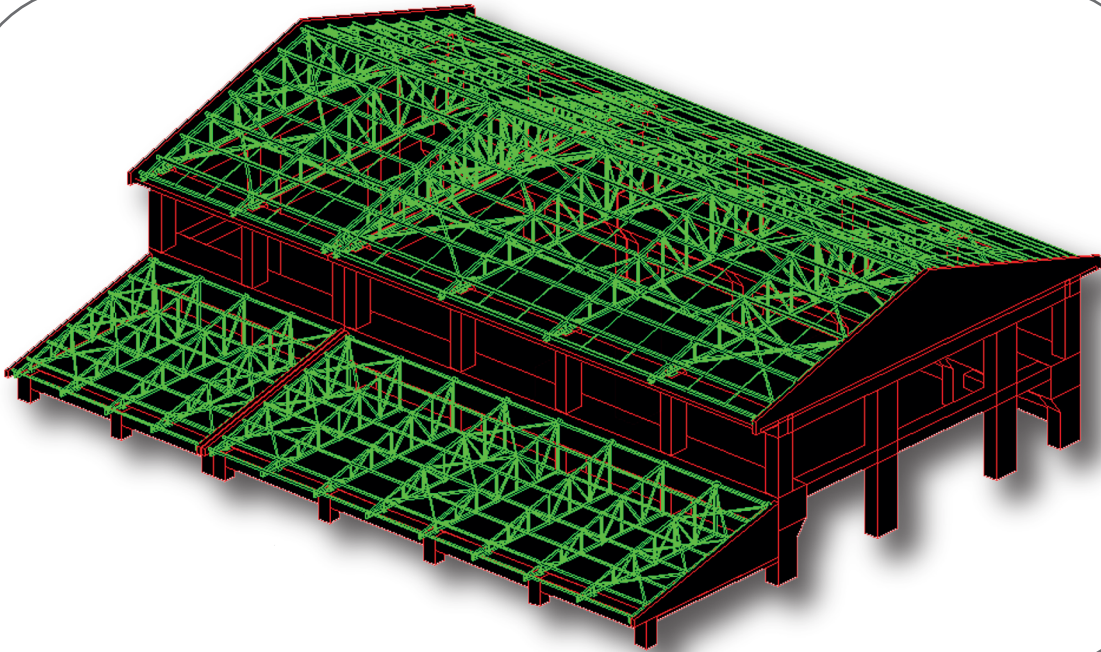


Koçlu HEPP Powerhouse

## STEEL CONSTRUCTION APPLICATION PROJECTS

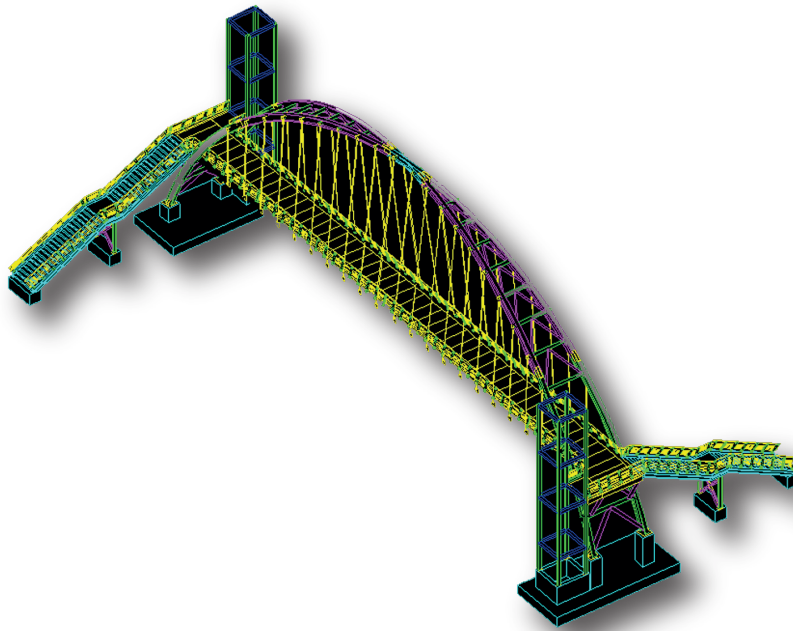


Kızılağaç HEPP Powerhouse Roof

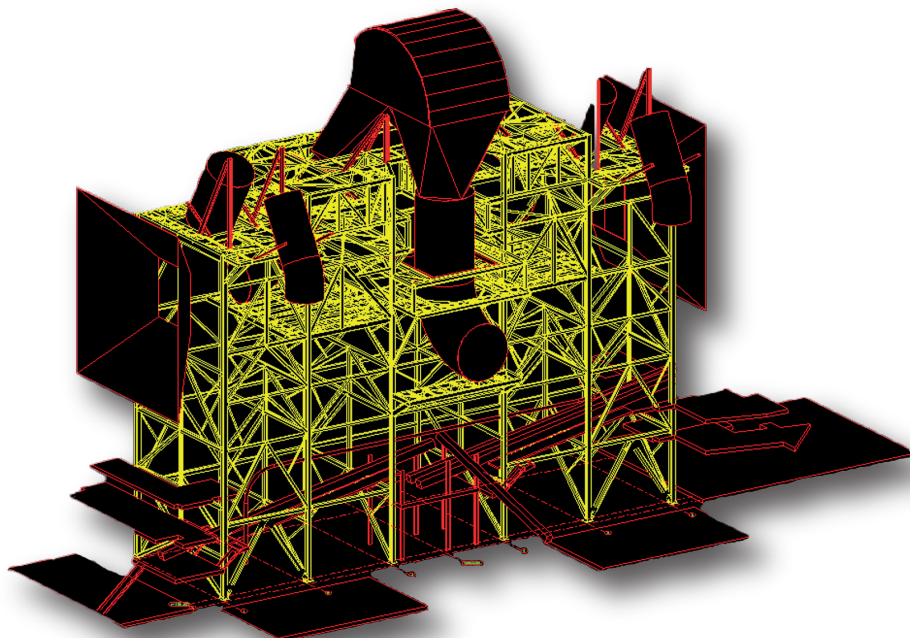


Garzan HEPP Powerhouse Roof

## STEEL CONSTRUCTION APPLICATION PROJECTS

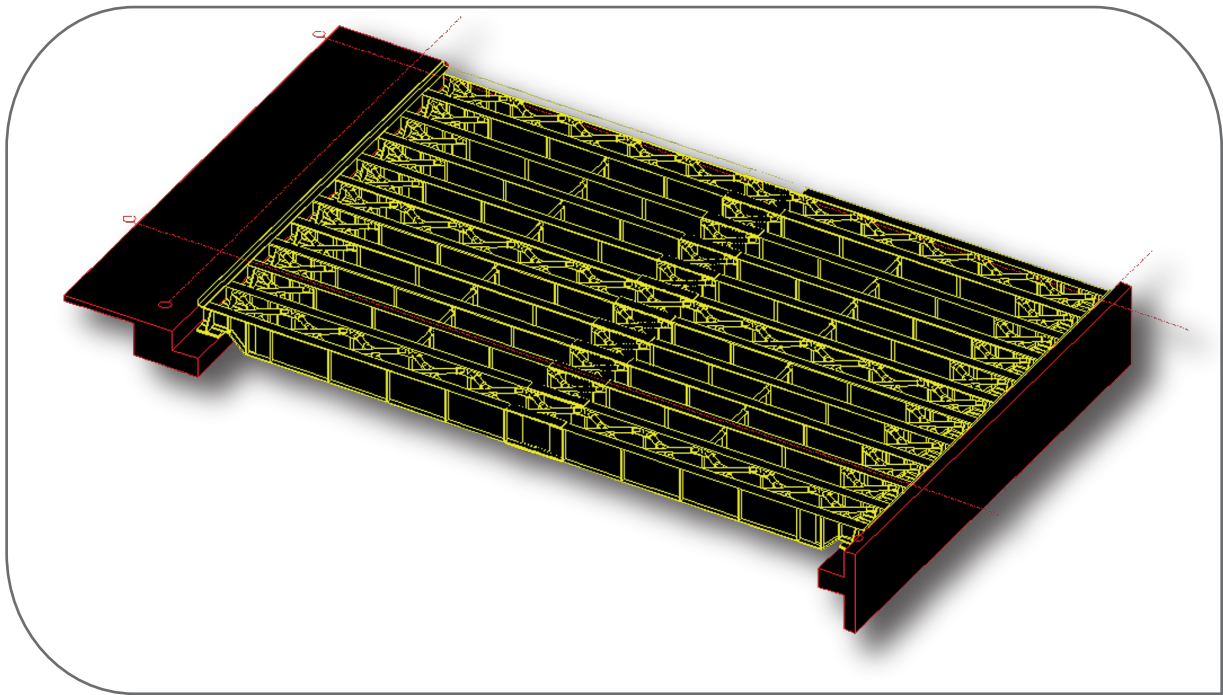


Road Pedestrian Overpass

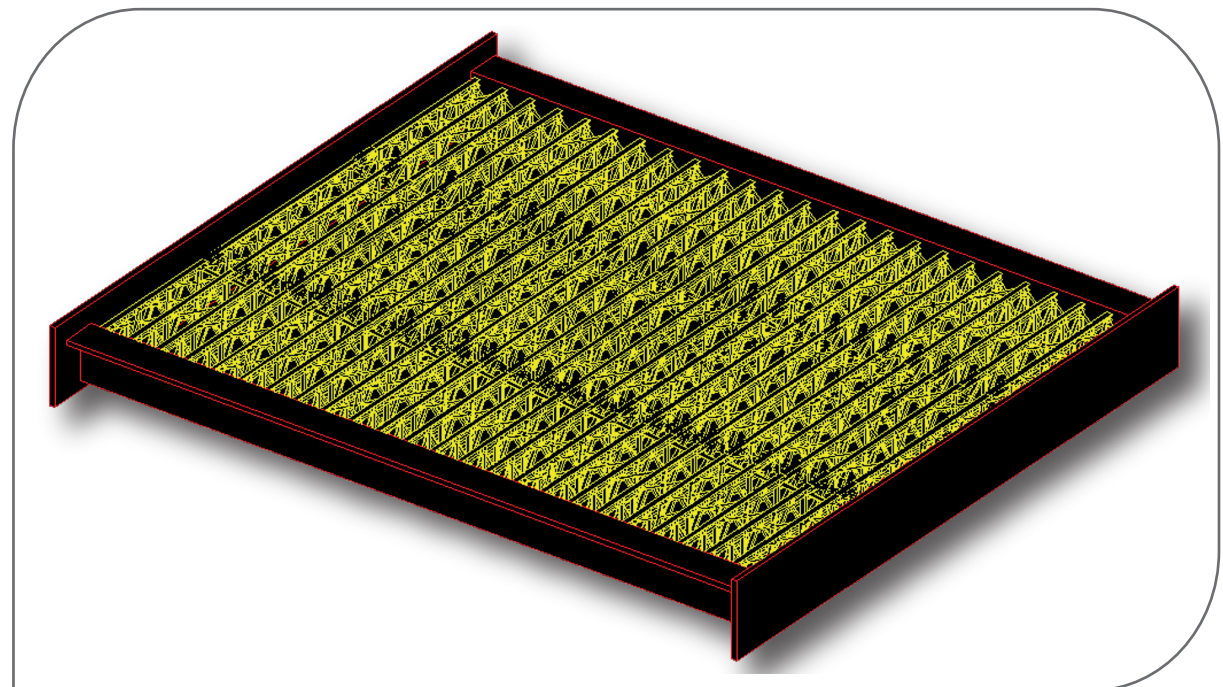


Cement Plant Unit

## STEEL CONSTRUCTION APPLICATION PROJECTS

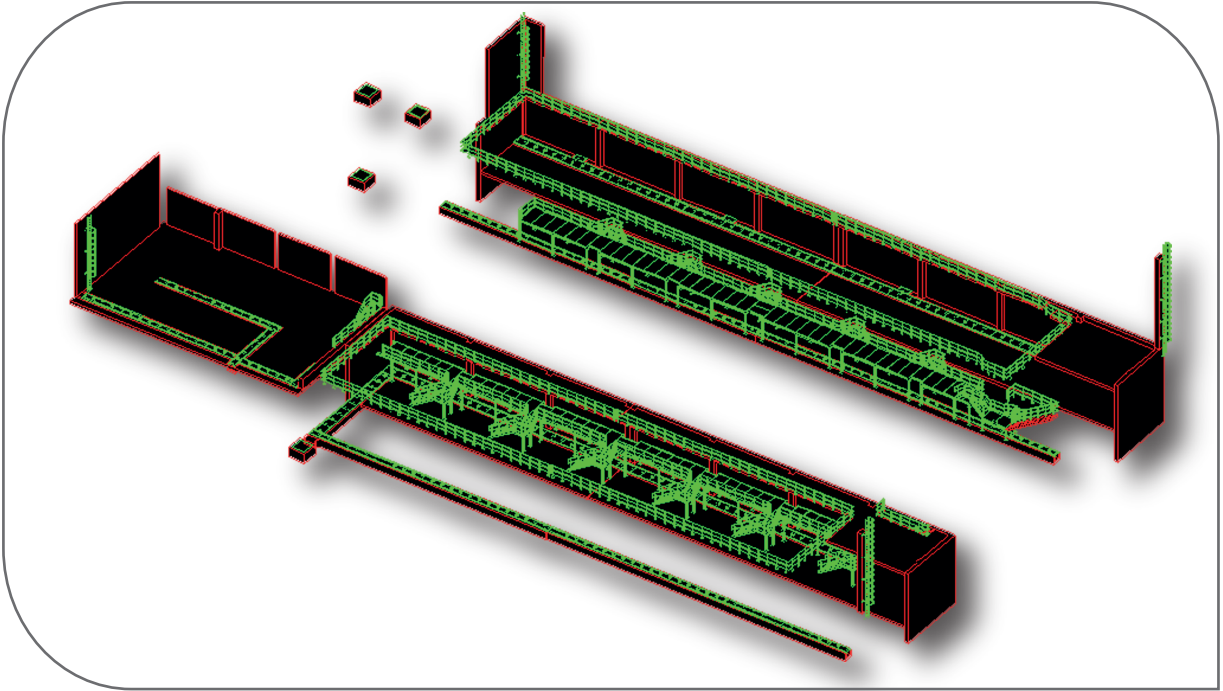


Cyprus Resort Hotel F block

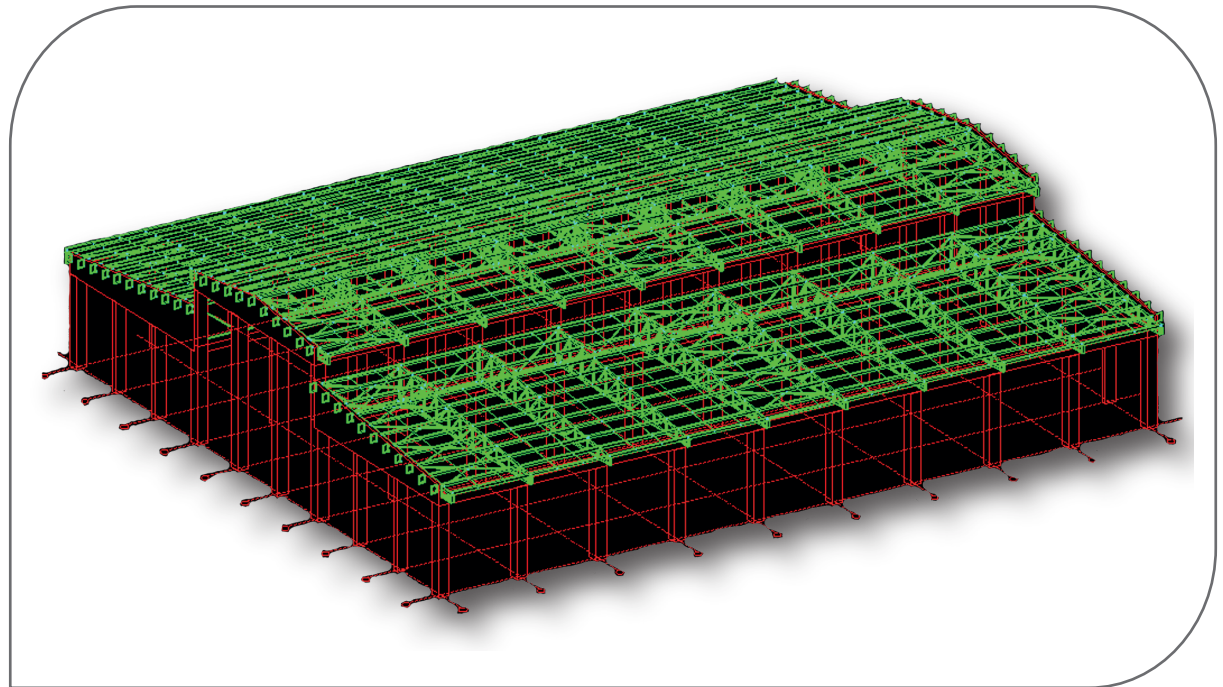


Cyprus Resort Hotel G block

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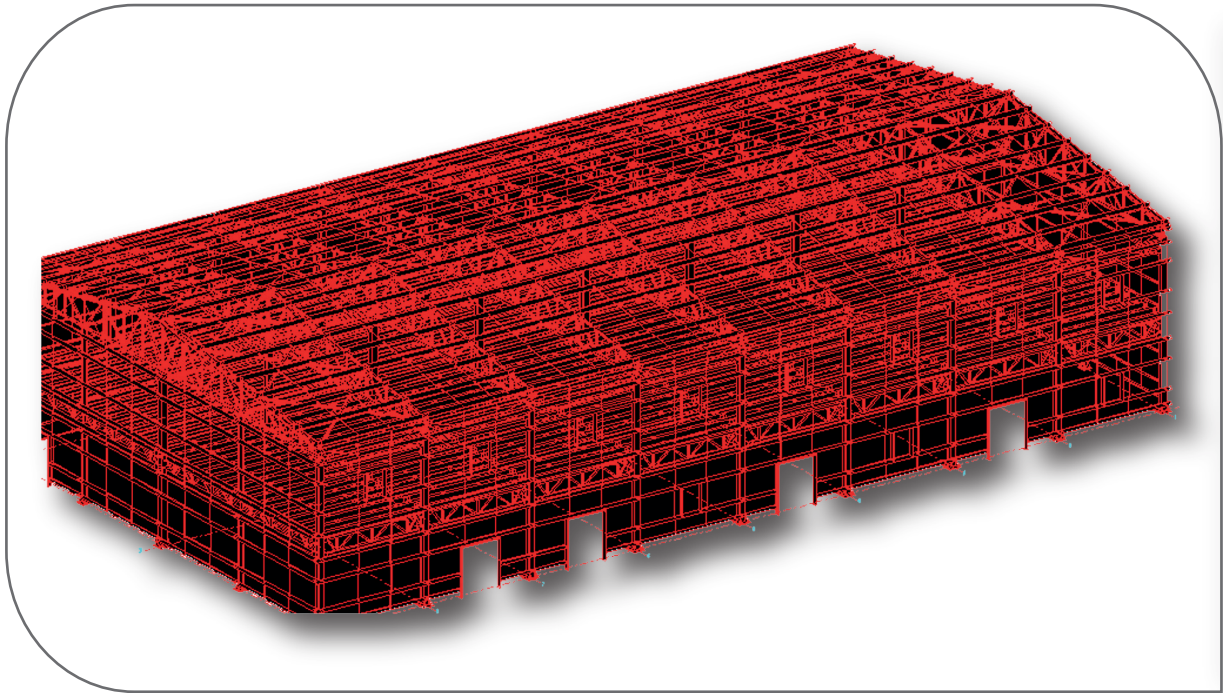


Hamzadere HEPP Pumping Station

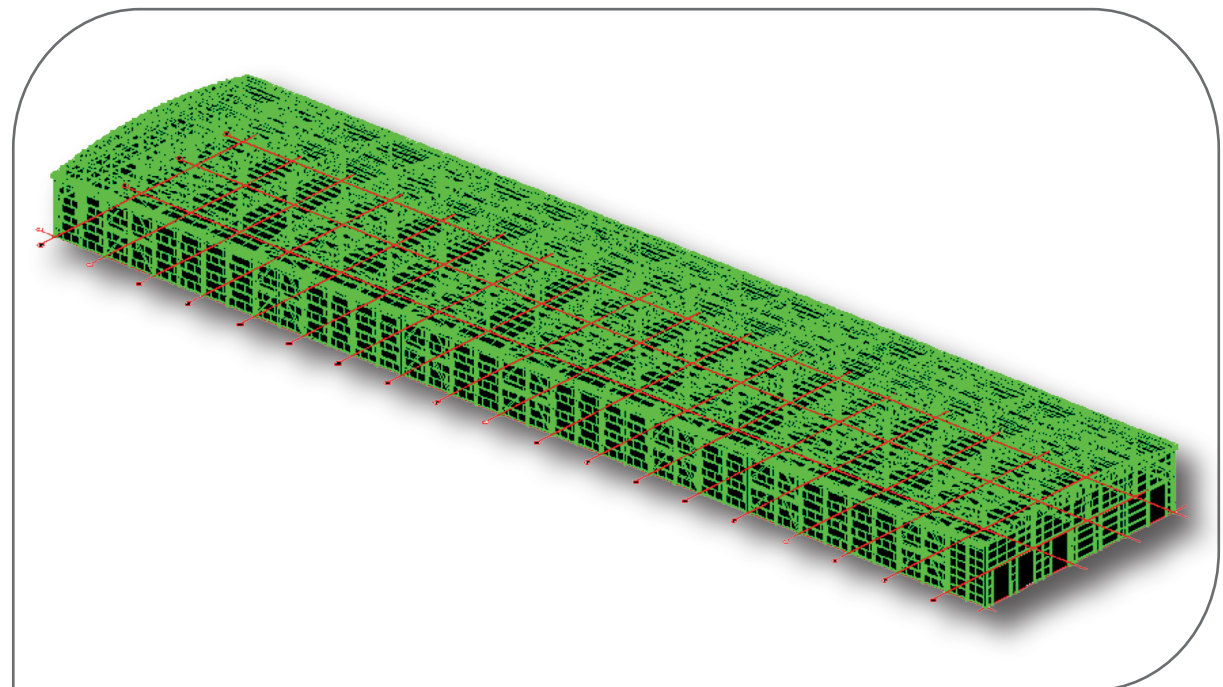


Kars General directorate of highways

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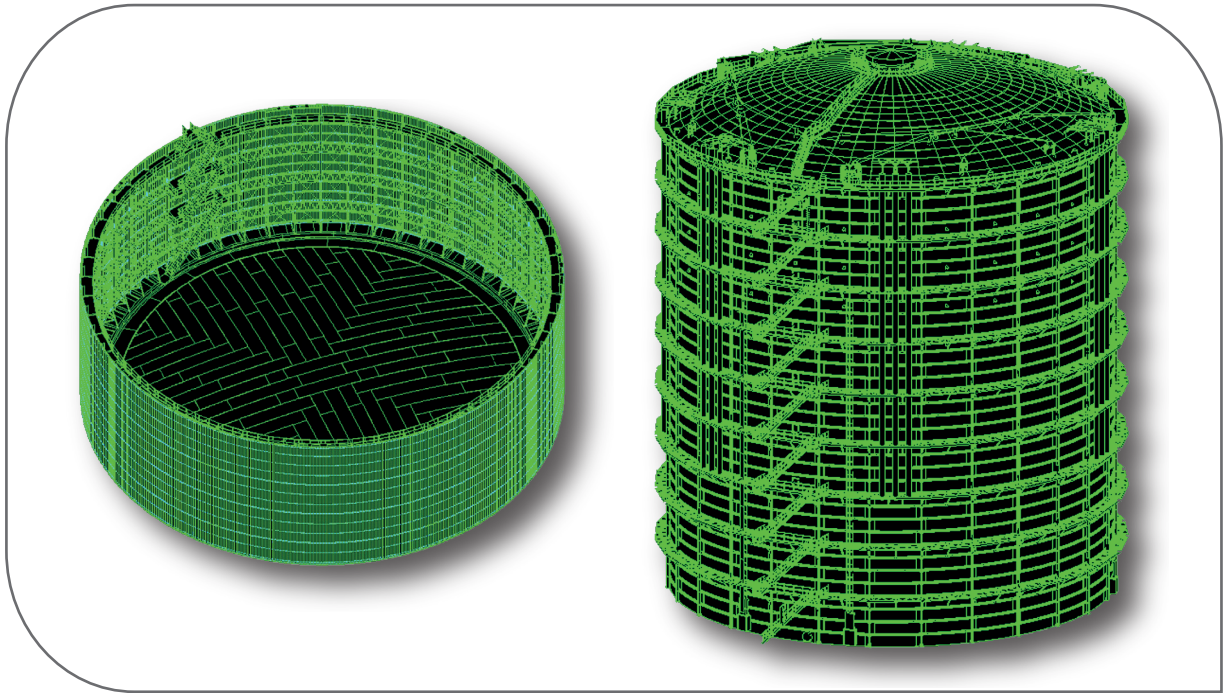


Hangar Building

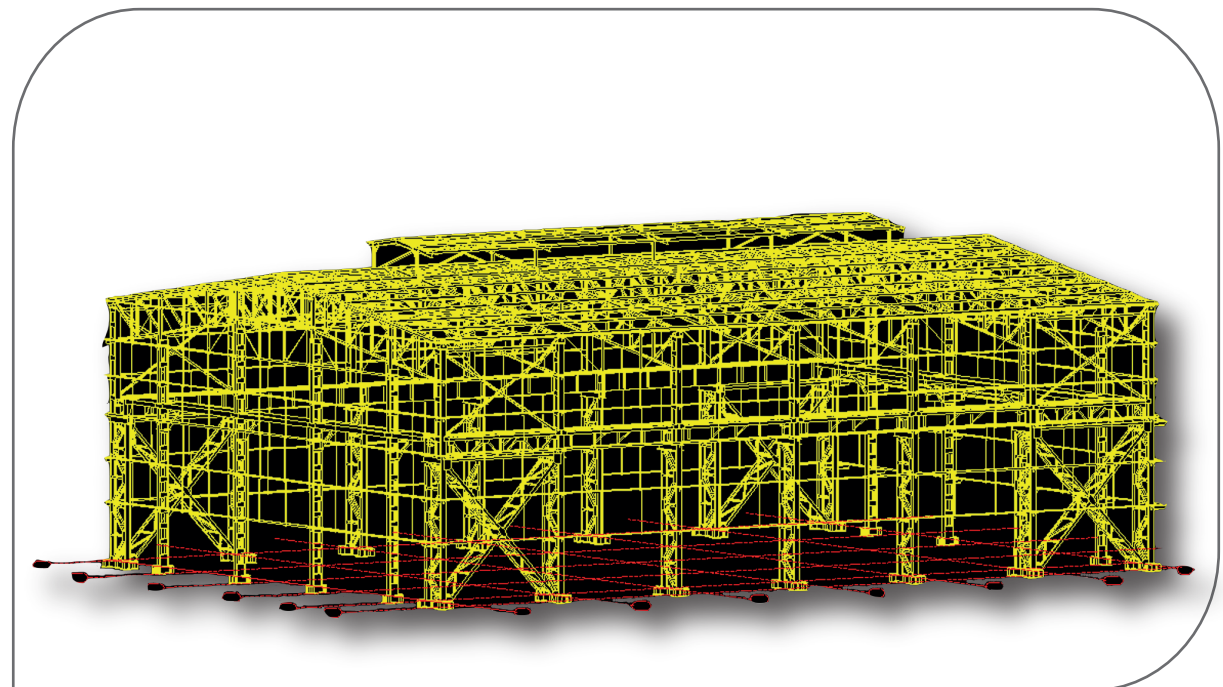


Hangar Building

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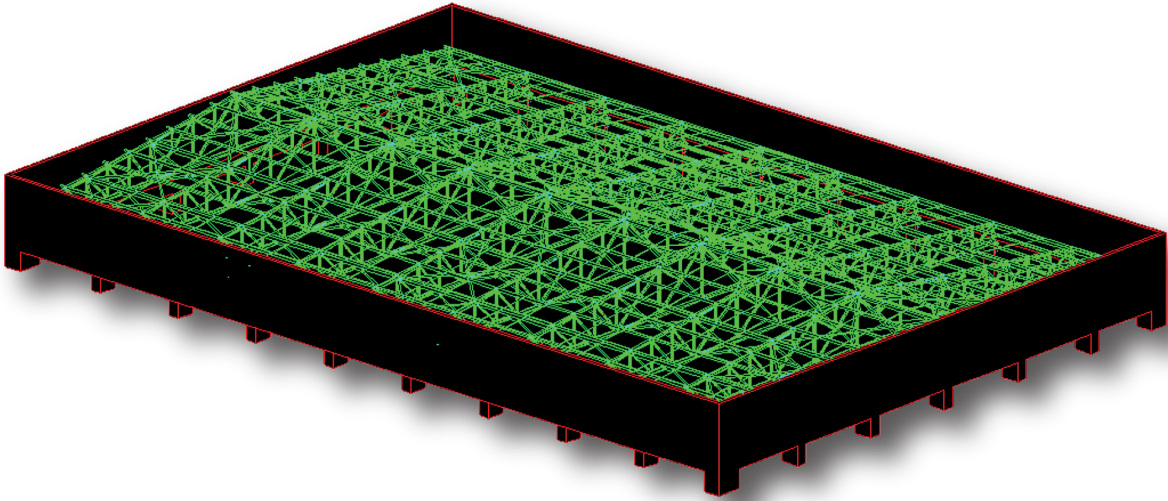


Structure of Gas Holder

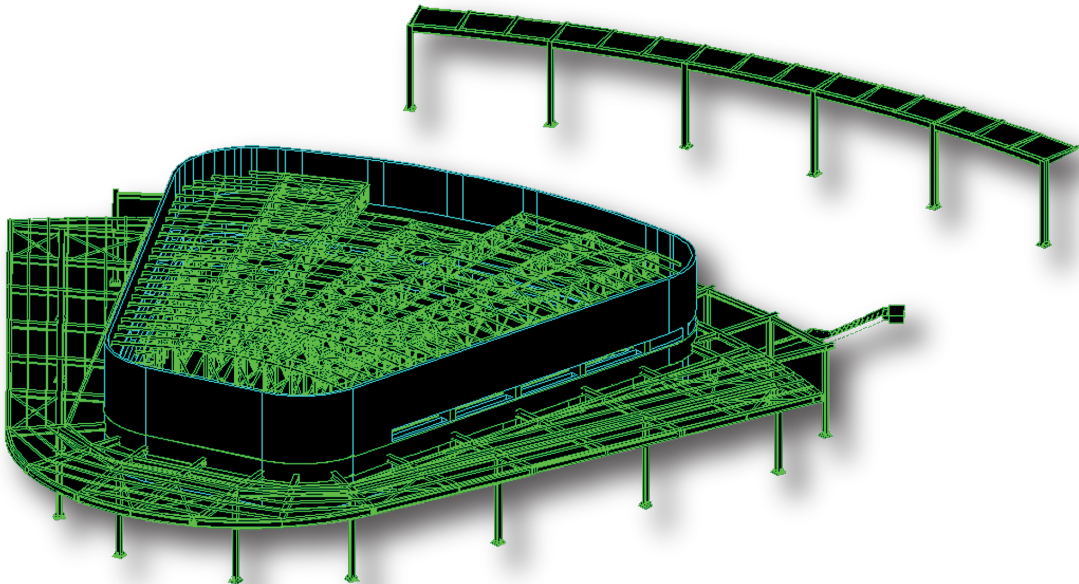


Pipe Factory

## STEEL CONSTRUCTION APPLICATION PROJECTS



Hasankeyf Gym



Haydarpasa Train Station Istanbul



St. Group Design  
Consultancy Project Engineering Construction Tourism Trade. Ltd.  
Sti.

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