

# ANDREAS ENZINGER

## PROJECTS

Water Treatment and Supply, Waste Water Treatment and Sewerage, Solid Waste and Landfill, and other projects undertaken from 1990 to 2023 as Project Director, Team Leader, Contract Expert, Civil Expert

### **1 - Water Treatment and Supply Projects:**

References, Work/Assignments
<p><b>Name of assignment or project:</b> <b>Thika &amp; Githunguri Water Supply and Sewerage Implementation Project</b>  <b>Year:</b> 11/2022 – 08/2023  <b>Location:</b> <b>Nairobi, Thika, Githunguri, Kenya</b>  <b>Client:</b> Athi Water Works Development Agency (Awwda)  <b>Financial Institution:</b> Danida - DSIF  <b>Main project features:</b> Consultancy services for detailed design, design review, tender documentation, Esia/Rap implementation – Component 1 (Design &amp; Procurement)  The development scenario is to be implemented as follows:</p> <ul style="list-style-type: none"> <li>○ Thika (Water Demand in 2047: 203,000 m<sup>3</sup>/day): <ul style="list-style-type: none"> <li>○ Water intakes / dams (h&gt; 15 m) and raw water transmission</li> <li>○ Rehabilitation, extension of existing Water Treatment Plant by 36,000m<sup>3</sup>/day, new WTP 15,000m<sup>3</sup>/day, water storage (55,000m<sup>3</sup>), associated transmission/ distribution pipe (194km networks)</li> <li>○ Wastewater treatment : 3 new WWTPs – 47,000m<sup>3</sup>/day total, sewerage collection (170km networks)</li> </ul> </li> <li>○ Githunguri (Water Demand in 2047: 13,500 m<sup>3</sup>/day) <ul style="list-style-type: none"> <li>○ Water intakes, borholes with 300KW solar plant and raw water transmission</li> <li>○ New WTP 5,000m<sup>3</sup>/day, water storage (5,000m<sup>3</sup>), associated transmission/ distribution pipe (140 km networks)</li> <li>○ Wastewater treatment : new WWTP – 4,000m<sup>3</sup>/day total, sewerage collection (75km networks)</li> </ul> </li> <li>○ Construction costs : € 130m</li> </ul> <p><b>Position held:</b> <b>Team Leader</b>  <b>Activities performed:</b></p> <ul style="list-style-type: none"> <li>○ Inception report</li> <li>○ Design Review</li> <li>○ Project Overview Report (updating the project to the water demand 2047)</li> <li>○ Sub-Consultancy tendering and awarding (Topographical Survey, Geotechnical Investigations)</li> <li>○ Design Review and complementary Detailed Design and tendering for the Fidic Red book components</li> <li>○ Conceptual Design and tendering for the Fidic Yellow book components</li> <li>○ ESIA, RAP</li> </ul>
<p><b>Name of assignment or project:</b> <b>Eastern Nairobi Water And Sewerage Network Intensification Project</b>  <b>Year:</b> 01/2022 to 10/2022  <b>Location:</b> <b>Nairobi, Kenya</b>  <b>Client:</b> Athi Water Works Development Agency (Awwda)  <b>Financial Institution:</b> AFD  <b>Main project features:</b> Consultancy services for detailed design, design review, tender documentation, Esia/Rap implementation and construction supervision  The development scenario is to be implemented as follows:</p> <ul style="list-style-type: none"> <li>○ Water pipeline extensions for the North-eastern, Northern and Eastern parts of Nairobi and last mile connections (length of 46 Km and 3805 new connections)</li> <li>○ Embakasi Water Distribution Network (length 285 km)</li> <li>○ Sewer lines and sewer last mile connections for the identified areas length of 50 Km and 1405 new sewer connections)</li> <li>○ Construction costs: € 15m</li> </ul> <p><b>Position held:</b> <b>Team Leader, Project Director</b>  <b>Activities performed:</b></p>

- Design review of the proposed water and sewerage works with detailed design
- Detailed design of various water and sewerage components with preliminary
- Preparation of Tender documents and supporting the Client in procurement of Works Contractor
- Review and carry out RAP/LRP study and provide requisite information/assistance during construction to enable the community outreach team effectively implement the proposed Resettlement of Project Affected Persons (PAPs)
- Supervise of the works, in accordance with the conditions of contract, specifications and drawings
- Technical assistance during defect liability period

**Name of assignment or project:** Lake Victoria Water and Sanitation in Mwanza

**Year :** 2019 to 10/2022

**Location:** Tanzania

**Client:** Mwanza Urban Water and Sanitation Authority (MWAUWASA)

**Financial Institution:** AFD, EIB

**Main project features :** Construction supervision of 5 contracts under FIDIC Red and Yellow books in Mwanza City and 3 satellite towns, including water treatment plants (2.000 m<sup>3</sup>/h and 3 units of 650 m<sup>3</sup>/h total), transmission mains, pump stations, distribution networks, customers connections (13,000 connections), waste water treatment plant and sewer lines, constructions costs: € 80m

**Position held:** Project Director

**Activities performed :**

- Project coordination
- Design review
- Tender review as FIDIC Red and Yellow Book
- Tender analysis and assistance in contract awarding
- Supervision, testing and commissioning

**Name of assignment or project:** Kayunga-Busana (Phase II), Buikwe and Kamuli Water Supply and Sanitation Project

**Year:** 2019 to 10/2022

**Location:** Uganda

**Client:** Ministry of Water and Environment

**Financial Institution :** AfBD

**Main project features:** The project is part of the Strategic Towns Water Supply Sanitation Project (STWSSP) is to provide water supply and sanitation services to small towns and rural growth centres in Uganda. The overall objective of this project is to carry out detailed designs and construction supervision in three selected towns: Kayunga-Busana, Buikwe and Kamuli

Project characteristics :

- Total population 150,000 people
- 3 WTP with total capacity 35,000m<sup>3</sup>/day and complete surface water clarification processes
- 235 km transmission pipelines, steel, DN 250 to DN400
- 15 press-steel elevated service reservoirs
- 330 km distribution pipelines, HDPE and PVC

**Position held:** Project Director

**Activities performed:**

- Design review of Kayunga water scheme
- Detailed design of Buikwe and Kamuli water schemes
- Technical assistance for the procurement of works (Tender, offer analyzing)
- Construction supervision (Red FIDIC conditions of contract)
- Commissioning of the works
- Technical assistance during defect liability period

**Name of assignment or project:** Northern Collector System Raw Water and treated Water Pipelines, Nairobi

**Year:** 2019 to 10/2022

**Location:** Nairobi, Kenya

**Client:** Athi Water Services Board

**Financial Organisation :** AFD

**Main project features:** The Project is part of the Northern Collector Project which is the second phase of the development scenario selected under the Water Sources Master Plan for Nairobi and 13 Satellite Towns, prepared by Egis from 2010 to 2012.

The development scenario is to be implemented as follows:

- Phase 1 : groundwater development including exploration and if possible development of wellfields in Ruiru

(30,000 m<sup>3</sup>/day), and associated transmission pipelines

- Phase 2: new bulk water supply system (138,000 m<sup>3</sup>/day), including Northern Collector I (to divert defined flow from rivers Maragua, Gikige and Irati into Thika dam). Raw and treated water transmission pipeline, Treatment Works at Ngorongo,
- Phase 3: Maragua dam and associated upstream and downstream works, capacity 140,000 m<sup>3</sup>/day
- Phase 4: Northern Collector II (120,000 m<sup>3</sup>/day) and expansion of treatment and pipeline system
- Phase 5: Ndarugu dam, treatment works and pipelines (216,000 m<sup>3</sup>/day)

This project is related to the second component for the construction of the raw and treated water pipelines.

The new pipeline route is as follows:

- Raw Water Transmission Main from downstream of existing Thika Dam to proposed new Treatment Works at Kigoro (5.5 km long, DN 1200)
- Treatment Water transmission Main from Outlet Chamber at new Treatment Works at Kigoro to existing Kabete Tanks via the existing Ngethu-Gigiri-Kabete pipeline route/Wayleave (48.9 km long DN1200 +10.4 km long DN800)

**Position held: Team Leader, Project Director**

**Activities performed:**

- Detailed design of the proposed Water mains (New Raw water transmission main, New Treated water transmission main, Existing Reservoirs to Ngethu Pipeline)
- Preparation of tender Documents
- Technical assistance for the procurement of works (Tender, offer analyzing)
- Construction supervision
- Commissioning of the works
- Technical assistance during defect liability period

**Name of assignment or project: High level water treatment plant at Kigoro**

**Year:** 2016 – 12/2018

**Location:** Nairobi, Kenya

**Client:** Athi Water Services Board

**Financial Institution :** AFD

**Main project features:** Preliminary design, design-build tender document preparation and works supervision for a new water treatment plant for the water supply of the city of Nairobi, capacity 142,500 m<sup>3</sup>/day. The raw water is derived from the Thika dam. A treated water reservoir of 70,000 m<sup>3</sup> is also included.

- Component I: Preliminary design, design-build tender document preparation (FIDIC Yellow Book) for the new water treatment plant
- Component II: Design review, construction supervision and coordination of works and commissioning

**Positions held: Project Director, Contract Manager, Team Leader** (supervision phase)

**Activities performed:**

- Assignment 1: Review of the construction design, including the high level water treatment plant and the connections to water transmission pipelines
- Assignment 2: Construction supervision and coordination of works (24 months)
- Assignment 3: Shop inspection of electromechanical equipment and valves
  - Supervision of engineering staff
  - Reporting

**Name of assignment or project: Kabala project - Potable water supply of right bank of Bamako**

**Year:** 2014 – 12/2018

**Location:** Bamako, Mali

**Client:** SOMAPEP (*Société Malienne de Patrimoine de l'Eau Potable* – Malian drinking water authority)

**Financial Institution :** IDA (WB)

**Main project features:** Technical studies, tender documents and supervision of works for the extension of the water supply network on the right bank of River Niger at Bamako (1.4 million inhabitants, 1,650 km of water supply network):

- 2 reservoirs of 10,000 m<sup>3</sup> each
- 13 km of transmission pipes (DN 1400 to 900 mm)
- 207 km of primary and secondary pipelines
- 400 km of tertiary pipelines and associated house connections and kiosks).
- Services provided:
  - Hydraulic modelling of networks (Epanet, WaterCad)
  - Detailed engineering studies of primary, secondary and tertiary pipelines
  - Preparation of tender documents for several lots

- Assistance in tender evaluation and contract awards
- Supervision of works f (1 lot for reservoirs, 1 lot for water supply pipelines and 2 lots for primary and secondary pipelines)

**Positions held:** **Procurement Expert, Civil Engineer**

**Activities performed:**

- Assistance in tender opening and evaluation for reservoirs
- Supervision works of reservoir civil works

**Name of assignment or project:** **Yerevan water and wastewater system improvements**

**Year:** 2013 – 2017

**Location:** **Yerevan, Armenia**

**Client:** Yerevan municipality

**Financial Institution :** French Ministry of Finance

**Main project features:** RPE project divided into 3 components:

- Component 1 - Rehabilitation of Aeratsia WWTP: Rehabilitation of the screenings and grit removal, addition of primary sedimentation, sludge dewatering and liming for landfill disposal. Capacity: 350 000 m<sup>3</sup>/day - 1,3 M PE
- Component 2 - Water supply and wastewater projects: Renewal of 18 km of networks, extension and modifications of 15 km of water supply networks, rehabilitation of the main collectors and 10,000 connection replacements of detached houses.
- Component 3 - SCADA of water supply networks: Automation of well fields and SCADA water supply networks
- Constructions costs: € 25m

**Positions held:** **Procurement Expert, Contract Manager, Team Leader, Resident Engineer** (3/16 - 2/17)

**Activities performed:** For all components:

- Detailed design
- Tender (FIDIC Red Book)
- Tender analysis and assistance in contract awarding
- Supervision and commissioning

**Name of assignment or project:** **Technical studies and supervision of reinforcement and extension of the water supply network in 18 secondary centers in Niamay**

**Year:** 2012 – 2017

**Location:** **Niger**

**Client:** Société de Patrimoine des Eaux du Niger (SPEN – Water Utility Agency)

**Financial Institution:** AFD

**Main project features:** In order to meet the growing water demand of the main cities of the country, the government of Niger has planned a 4-year program aiming at reinforcing and extending the corresponding water networks.

The program for the 18 secondary centers in Niamay represents 1.35 million inhabitants and involves:

- Construction of 20 boreholes
- Network (rehabilitation and extension) over 321 km and associated connections
- Water storage reservoirs of 2,000 m<sup>3</sup>
- Water treatment
- Monitoring system (SCADA)

**Positions held:** **Civil Expert**

**Activities performed:**

- Detailed studies and tender documents for the water tower
- Works supervision of the water tower (execution documents review, support to supervision team)

**Name of assignment or project:** **Complete design services and construction supervision for the construction of emergency drinking water reservoirs**

**Year:** 2009 – 2015

**Location:** Muscat Governorate, Oman

**Client:** Public Authority of Electricity and Water (PAEW)

**Main project features:** Over 16 different sites, construction of reinforced concrete reservoirs with a total capacity of 2.35 Mm<sup>3</sup> (99 reservoirs ranging from 15,000 m<sup>3</sup> to 50,000 m<sup>3</sup>, with a water depth ranging from 5 m to 7 m), involving major earthworks (20 Mm<sup>3</sup> of excavations), connection to the network, pumping station

Cost of works: € 460m

**Positions held:** **Project Director**

**Activities performed:** Complete design services and construction supervision: preliminary and detailed design studies, tender documents, bid evaluation, supervision of works, acceptance procedures

**Name of assignment or project: Sur - desalination plant**

**Year:** 2007

**Location:** Sur, Oman

**Client:** OTV, Veolia group

**Financial Institution:** Oman Founds

**Main project features:** New desalination plant in the vicinity of Sûr to supply the Sharqiyah region (350,000 hab.) with drinking water. Capacity: 80,200 m<sup>3</sup>/d (in addition to the existing capacity of 12,000 m<sup>3</sup>/d). Transient analysis.

**Positions held:** Project Director, Civil Engineer

**Activities performed:** Civil engineering expertise

**Name of assignment or project: Valence reservoir**

**Year:** 2002

**Location:** Valence, France

**Client:** Valence municipal council

**Main project features:** Complete design and construction supervision services for the extension of a rectangular reservoir with a capacity of 6,000 m<sup>3</sup> and repair of the old reservoir

Cost of works: € 960k

**Positions held:** Project Director, Civil expert

**Activities performed:** Complete design and construction supervision: preliminary and detailed designs – assistance with works contracts – inspection of working designs - assistance with acceptance procedures

**Name of assignment or project: Drinking water reservoir in Vaujany**

**Year:** 2001 – 2002

**Location:** Vaujany, France

**Client:** Vaujany municipal council

**Main project features:** Design and project supervision services for a circular drinking water reservoir with a capacity of 5,000 m<sup>3</sup> on land that is very difficult to access

Cost of works: € 488k

**Positions held:** Project Director, Civil Expert

**Activities performed:** Complete design and construction supervision: preliminary and detailed designs – assistance with works contracts – inspection of working designs - assistance with acceptance proced

**Name of assignment or project: Reservoirs rehabilitation in Montélimar**

**Year:** 2001

**Location:** Montélimar, France

**Client:** Montélimar municipality

**Main project features:** Design and construction supervision services for the repair, renovation and rehabilitation of 19th century reservoirs

Cost of works: € 360k

**Positions held:** Project Director, Civil Expert

**Activities performed:** Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project: Complete design and construction supervision services for a drinking water treatment plant and reservoir at an altitude of 1400 m (structures partly to completely underground)**

**Year:** 1999 – 2000

**Location:** Vaujany, France

**Client:** Vaujany municipal council

**Main project features:** Drinking water treatment plant and reservoir at an altitude of 1400 m (structures partly to completely underground):

- Daily discharge: 4,500 m<sup>3</sup>/d
- Rated discharge: 250 m<sup>3</sup>/h
- Storage volume: 2,500 m<sup>3</sup>
- Cost of works: € 2.7m

**Positions held:** Project Director

**Activities performed:** Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project: Drinking water treatment plant in Huez**

**Year:** 1998

<p><b>Location:</b> Huez, France  <b>Client:</b> Rampa  <b>Main project features:</b> Rehabilitation and extension of the drinking water treatment plant.  <b>Positions held:</b> Responsible for working design studies  <b>Activities performed:</b> Performance of working design studies on behalf of the civil engineering contractor.</p>
<p><b>Name of assignment or project:</b> Construction of a drinking water reservoir in Crolles  <b>Year:</b> 1997 – 1998  <b>Location:</b> Crolles, France  <b>Client:</b> SIERG  <b>Main project features:</b> Engineer: Etudes &amp; Projets.  <b>Positions held:</b> Health &amp; Safety Protection Coordinator, Level 2  <b>Activities performed:</b> Design and construction supervision</p>
<p><b>Name of assignment or project:</b> 8,000 m<sup>3</sup> drinking water reservoir in Crolles  <b>Year:</b> 1997 – 1998  <b>Location:</b> Crolles, France  <b>Client:</b> SIERG  <b>Main project features:</b> 2 circular tanks, reinforced concrete pumping station.  <b>Positions held:</b> Project Director  <b>Activities performed:</b> Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures</p>
<p><b>Name of assignment or project:</b> Drinking water reservoir in Pontcharra  <b>Year:</b> 1997 – 1998  <b>Location:</b> Pontcharra, France  <b>Client:</b> Pontcharra municipal council  <b>Main project features:</b> 1,000 m<sup>3</sup> drinking water reservoir in Pontcharra, 1 reinforced concrete circular tank, rehabilitation of the valve chamber  <b>Positions held:</b> Project Director  <b>Activities performed:</b> Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures</p>
<p><b>Name of assignment or project:</b> Drinking water reservoir in Voreppe  <b>Year:</b> 1997 – 1998  <b>Location:</b> Voreppe, France  <b>Client:</b> SIEVM  <b>Main project features:</b> 2,000 m<sup>3</sup> drinking water reservoir in Voreppe, 1 circular tank, reinforced concrete valve chamber  <b>Positions held:</b> Project Director, Civil Expert  <b>Activities performed:</b> Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures</p>
<p><b>Name of assignment or project:</b> Restructuring of the drinking water network in Roche-la-Molière  <b>Year:</b> 1997  <b>Location:</b> Roche-la-Molière, France  <b>Client:</b> Commune de Roche-la-Molière  <b>Main project features:</b> Restructuring of the drinking water network (Roare collector) at Roche-la-Molière. Engineer: Citie Ingénierie (Drôme)  <b>Positions held:</b> Health &amp; Safety Protection Coordinator, Level 2  <b>Activities performed:</b> Design and construction</p>
<p><b>Name of assignment or project:</b> Restructuring of the drinking water network in Roche-la-Molière  <b>Year:</b> 1996  <b>Location:</b> Roche-la-Molière, France  <b>Client:</b> Commune de Roche-la-Molière  <b>Main project features:</b> Restructuring of the drinking water network (Péchier collector) in Roche-la-Molière. Engineer: Citie Ingénierie (Drôme).  <b>Positions held:</b> Health &amp; Safety Protection Coordinator, Level 2  <b>Activities performed:</b> Design and construction</p>

**Name of assignment or project:** "Le trou qui souffle" drinking water treatment plant in Méaudre

**Year:** 1995 – 1996

**Location:** Méaudre, France

**Client:** SIAM

**Main project features:** drinking water treatment plant (active carbon), Main contractor: SOGEA (Rhône)

**Positions held:** Project manager

**Activities performed:** Design services and construction supervision

**Name of assignment or project:** Drinking water reservoir in Saint-Jeoire-Prieuré

**Year:** 1994 – 1996

**Location:** Saint-Jeoire-Prieuré, France

**Client:** DUCC

**Main project features:** 12,000 m<sup>3</sup> drinking water reservoir at Saint-Jeoire- Prieuré, 2 circular tanks, prestressed concrete, valve chamber

**Positions held:** Project Director, Civil Expert

**Activities performed:** Design services and construction supervision

## **2 - Waste Water Treatment and Sewerage Projects:**

**Name of assignment or project:** Thika & Githunguri Water Supply and Sewerage Implementation Project

**Year:** 11/2022 – 08/2023

**Location:** Nairobi, Thika, Githunguri, Kenya

**Client:** Athi Water Works Development Agency (Awwda)

**Financial Institution:** Danida - DSIF

**Main project features:** Consultancy services for detailed design, design review, tender documentation, Esia/Rap implementation – Component 1 (Design & Procurement)

The development scenario is to be implemented as follows:

- Thika (Water Demand in 2047: 203,000 m<sup>3</sup>/day):
  - Water intakes / dams (h> 15 m) and raw water transmission
  - Rehabilitation, extension of existing Water Treatment Plant by 36,000m<sup>3</sup>/day, new WTP 15,000m<sup>3</sup>/day, water storage (55,000m<sup>3</sup>), associated transmission/ distribution pipe (194km networks)
  - Wastewater treatment : 3 new WWTPs – 47,000m<sup>3</sup>/day total, sewerage collection (170km networks)
- Githunguri (Water Demand in 2047: 13,500 m<sup>3</sup>/day)
  - Water intakes, borholes with 300KW solar plant and raw water transmission
  - New WTP 5,000m<sup>3</sup>/day, water storage (5,000m<sup>3</sup>), associated transmission/ distribution pipe (140 km networks)
  - Wastewater treatment : new WWTP – 4,000m<sup>3</sup>/day total, sewerage collection (75km networks)

○ Construction costs : € 130m

**Position held:** Team Leader

**Activities performed:**

- Inception report
- Design Review
- Project Overview Report (updating the project to the water demand 2047)
- Sub-Consultancy tendering and awarding (Topographical Survey, Geotechnical Investigations)
- Design Review and complementary Detailed Design and tendering for the Fidic Red book components
- Conceptual Design and tendering for the Fidic Yellow book components

**Name of assignment or project: Waste Water Treatment Plant Balbala**

**Year :** 2021 to 10/2022

**Location :** Djibouti

**Client :** Office National des Eaux et de l'Assainissement de Djibouti (ONEAD)

**Financial Institution :** EU

**Main project features:** The project involves the construction of the Balbala wastewater treatment plant, with a capacity of 30,000 P.E., and the creation of its associated networks, namely the network for transferring the raw effluent to be treated from the 2 km Cheick Osman pumping station to the Balbala wastewater treatment plant, and the 600 ml network for discharging the treated effluent.

**Position held:** Team Leader, Project Director

**Activities performed:**

- Supervision of the works
- Review of the contractor designs (Design & Build contract)
- Support to the local supervision staff

**Name of assignment or project: Clean Oceans Project Identification and Preparation (COPIP)**

**Year :** 2020 to 10/2022

**Location :** Coastal sub-Saharan African countries (except South Africa)

**Client :** European Investment Bank (EIB)

**Financial Institution :** EIB

**Main project features:** The Clean Oceans Project Identification and Preparation (COPIP) Programme will identify and prepare projects in sub-Saharan Africa that contribute to reducing the discharge of plastics to the oceans. These projects will focus on Solid waste management with focus on plastics; Wastewater management systems ; Urban storm water management systems

Project characteristics:

- 3 years
- € 5,6m (studies)

**Position held:** Wastewater and Storm Water Key-Expert

**Activities performed:**

- Leading teams for wastewater and storm water
- Ensuring high-quality performance of the studies and other COPIP outputs and deliverables
- Ensuring the timely implementation of activities in wastewater and storm water sector
- Management of units of Non-key experts (local and international) in this sector

**Name of assignment or project: Eastern Nairobi Water And Sewerage Network Intensification Project**

**Year:** 01/2022 to 10/2022

**Location:** Nairobi, Kenya

**Client:** Athi Water Works Development Agency (Awwda)

**Financial Institution:** AFD

**Main project features:** Consultancy services for detailed design, design review, tender documentation, Esia/Rap implementation and construction supervision

The development scenario is to be implemented as follows:

- Water pipeline extensions for the North-eastern, Northern and Eastern parts of Nairobi and last mile connections (length of 46 Km and 3805 new connections)
- Embakasi Water Distribution Network (length 285 km)
- Sewer lines and sewer last mile connections for the identified areas length of 50 Km and 1405 new sewer connections)
- Construction costs: € 15m

**Position held:** Team Leader, Project Director

**Activities performed:**

- Design review of the proposed water and sewerage works with detailed design
- Detailed design of various water and sewerage components with preliminary
- Preparation of Tender documents and supporting the Client in procurement of Works Contractor
- Review and carry out RAP/LRP study and provide requisite information/assistance during construction to enable the community outreach team effectively implement the proposed Resettlement of Project Affected Persons (PAPs).
- Supervise of the works, in accordance with the conditions of contract, specifications and drawings
- Technical assistance during defect liability period

**Name of assignment or project: Lake Victoria Water and Sanitation in Mwanza**

**Year :** 2019 to 10/2022

**Location:** Tanzania

**Client:** Mwanza Urban Water and Sanitation Authority (MWAUWASA)

**Financial Institution:** AFD, EIB

**Main project features :** Construction supervision of 5 contracts under FIDIC Red and Yellow books in Mwanza City and 3 satellite towns, including water treatment plants (2.000 m<sup>3</sup>/h and 3 units of 650 m<sup>3</sup>/h total), transmission mains, pump stations, distribution networks, customers connections (13,000 connections), waste water treatment plant and sewer lines, constructions costs: € 80m

**Position held:** Project Director

**Activities performed :**

- Project coordination
- Design review
- Tender review as FIDIC Red and Yellow Book
- Tender analysis and assistance in contract awarding
- Supervision, testing and commissioning

**Name of assignment or project:** Construction supervision of the Khan Younis wastewater treatment plant

**Year:** 2015 – 12/2018

**Location:** Khan Younis, Palestine

**Client:** United Nations Development Program (UNDP)

**Financial Institution:** Kingdom of Japon

**Main project features:** The objective of this 2nd contract (following the studies and tender documents performed by Artelia in 2008-2010) is to ensure treated water reuse for agricultural irrigation. Capacity: 26,600 m<sup>3</sup>/d (240,000 PE)

**Positions held:** Procurement expert, Contract Manager, Team Leader

**Activities performed:**

- Project coordination
- Design review
- Tender review as FIDIC Red Book
- Tender analysis and assistance in contract awarding
- Supervision and commissioning

**Name of assignment or project:** Gabal El Asfar wastewater treatment plant Phase II, Section II

**Year:** 2010 – 12/2018

**Location:** Gabal El Asfar, Egypt

**Client:** Construction Authority for potable and Wastewater (CAPW)

**Financial Institution :** AfDB

**Main project features:** 500,000 m<sup>3</sup>/d capacity wastewater treatment plant, construction in compliance with FIDIC Yellow Book, constructions costs: € 80m

**Positions held:** Procurement Expert, Contract Manager, Team Leader

**Activities performed:**

- Tender documents
- Bid analysis
- Supervision of works, commissioning and warrant period

**Name of assignment or project:** Yerevan water and wastewater system improvements

**Year:** 2013 – 2017

**Location:** Yerevan, Armenia

**Client:** Yerevan municipality

**Financial Institution :** French Ministry of Finance

**Main project features:** RPE project divided into 3 components:

- Component 1 - Rehabilitation of Aeratsia WWTP: Rehabilitation of the screenings and grit removal, addition of primary sedimentation, sludge dewatering and liming for landfill disposal. Capacity: 350 000 m<sup>3</sup>/day - 1,3 M PE
- Component 2 - Water supply and wastewater projects: Renewal of 18 km of networks, extension and modifications of 15 km of water supply networks, rehabilitation of the main collectors and 10,000 connection replacements of detached houses.
- Component 3 - SCADA of water supply networks: Automation of well fields and SCADA water supply networks
- Construction costs: € 25m

**Positions held:** Procurement Expert, Contract Manager, Team Leader, Resident Engineer (3/16 - 2/17)

**Activities performed:** For all components:

- Detailed design
- Tender (FIDIC Red Book)
- Tender analysis and assistance in contract awarding
- Supervision and commissioning

**Name of assignment or project: North Gaza wastewater treatment plant**

**Year:** 2014 – 2015

**Location:** Gaza, Palestine

**Client:** Palestinian Water Authority (PWA)

**Financial Institution:** WB

**Main project features:** 344,000 PE which represent 36,500 m<sup>3</sup>/d in the first phase, 548,000 PE which represent 49,300 m<sup>3</sup>/d in the second phase. Review of detailed design and tender documents. Works supervision.

**Positions held:** Team Leader, Civil works Expert and Contract Specialist

**Activities performed:** Design review, review of tender documents, assistance with works contracts and supervision of plant works, assistance to the employer for all contract's claims & Institutional Arbitration.

**Name of assignment or project: Restructuring of the sewerage system of the Albertville region**

**Year:** 2010 – 2014

**Location:** Albertville, France

**Client:** Syndicat Intercommunal d'Assainissement de la Région d'Albertville

**Main project features:**

- Reconstruction of the treatment plant (45,000 PE):
  - Flow rate: 1,000 m<sup>3</sup>/h
  - Pretreatment
  - Sludge treatment
  - Treatment of by products
  - Treatment of bad smells
  - Low-load biological treatment
  - 7,000 m<sup>3</sup> stormwater basin
- Restructuring of the wastewater collector network:
  - 7.5 km
  - Pipe driving under the motorway
  - Construction of three stormwater weirs
- Cost of works: € 11m

**Positions held:** Team Leader

**Activities performed:** Complete project engineering services: preliminary and detailed design, assistance with works contract, supervision of works, OPC, assistance with acceptance procedures.

**Name of assignment or project: Study of the rehabilitation of the Sud Méliane I wastewater treatment plant**

**Year:** 2012 – 2013

**Location:** Tunis, Tunisia

**Client:** Office National de l'Assainissement (ONAS)

**Financial Institution:** AFD

**Main project features:** Rehabilitation and extension of the plants No.1 (first commissioned in 1982) and No. 2 (first commissioned in 2010) in order to treat household and industrial wastewater from the catchment area of southern Tunis. Global capacity: 333,000 PE, 90,000 m<sup>3</sup>/d and 36,000kg BOD<sub>5</sub>/day pollution load. The project includes concrete rehabilitation of structure partially or fully immersed in wastewater, with the difficulty of maintaining the service during rehabilitation.

**Positions held:** Project Director

**Activities performed:** Assessment, study of several sludge treatment scenarios (digester), environmental impact studies, design studies, tender documents (for a competitive bid).

**Name of assignment or project: Additional study for the Hann Bay remediation study in Dakar**

**Year:** 2009 – 2013

**Location:** Dakar, Senegal

**Client:** Office National de l'Assainissement du Sénégal

**Financial Institution:** AFD

**Main project features:**

- Technico-economic study of the interceptor:
  - Comparative studies of three options for the Hann Bay sewage interceptor (13 km long, two lift stations) at preliminary design level

- Detailed design study and preparation of tender documents for the selected interceptor alignment
- Treatment plant:
  - Technico-economic studies of two variants for the future N'Bio treatment plant (effluent made up of 75 % industrial waste)
  - Detailed design study and preparation of tender documents
- Sea outfall:
  - Detailed design study and preparation of tender documents for a 3 km long sea outfall

**Positions held:** **Project Director** for phase 1

**Activities performed:** Partial design services: comparative studies, preliminary design study, tender documents.

**Name of assignment or project:** **Due Diligence for 2 treatment plants in Abu Dhabi**

**Year:** 2008 – 2013

**Location:** **Abu Dhabi, United Arab Emirates**

**Client:** Veolia & Besix in Abu Dhabi UAE

**Main project features:** Technical assistance to banks (lending to the design/build/operate consortium) for two wastewater treatment plants in Abu Dhabi (Wathbah: 345,000 m<sup>3</sup>/d; 1,250,000 PE; Allahamah: 130,000 m<sup>3</sup>/d; 876,000 PE).

**Positions held:** **Team Leader**

**Activities performed:** Technical analysis of client – builder/operator contracts, design documents, working design drawings, performance tests (untreated water, treated water, treatment of water, sludge and odours), and reporting to the banks, giving specific risk indicators.

**Name of assignment or project:** **Construction of the Saône Vallée sewage treatment plant and sewerage networks**

**Year:** 2005 – 2013

**Location:** **Ain department, France**

**Client:** Communauté de Communes Saône Vallée

**Main project features:**

- Creation of a new sewage treatment plant for an equivalent population of 27,700, treating wastewater from the communes of Massieux, Parcieux and Reyrieux, low-load activated sludge with nitrogen and phosphorus treatment, sludge thickening by co-composting of green waste and sludge
- Creation of an effluent transfer network over a distance of 8 km with 2 pumping stations, 7 stormwater weirs, cast iron pipes
- Cost of works: € 10m

**Positions held:** **Team Leader**

**Activities performed:** Complete design services and construction supervision (preliminary and detailed designs – assistance with works contracts)

**Name of assignment or project:** **Upgrading of Dijon-Longvic sewage treatment plant in line with standards**

**Year:** 2003 – 2010

**Location:** **Dijon, France**

**Client:** Lyonnaise des Eaux France/Centre of Dijon

**Main project features:**

- Upgrading of outfall serving an equivalent population of 400,000 and treatment of carbon, nitrogen and phosphate pollution
- Sludge and by-product treatment
- Upgrading of the fume treatment system on the sludge incinerator
- Odour treatment
- Existing facilities kept in operation (at the level of the existing treatment plant outfall) during the works
- Cost of works: € 42m

**Positions held:** **Team Leader**

**Activities performed:** Project supervision services: assistance with works contracts - inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project:** **Design services and project supervision for the construction and rehabilitation of Saint-Etienne sewage treatment plant (300,000 PE)**

**Year:** 2003 – 2009

**Location:** **Saint-Etienne, France**

**Client:** Saint-Etienne municipal council

**Main project features:**

- Water treatment:

- Stormwater treatment line - rehabilitation of the existing facilities: physico- chemical settling
- Dry weather and light rain treatment line – Construction of new facilities: lamellar settling, extended-aeration activated sludge with aerobic areas (biological phosphate removal) and anoxic areas (denitrification), clarification
- Sludge treatment: thickening, digestion, dewatering
- Waste treatment: reception of septage, sand washing, biological treatment of grease
- Sludge disposal: incineration

**Positions held:** **Team Leader, Civil Engineer**

**Activities performed:** Complete design services and construction supervision: prefeasibility, preliminary and detailed design studies, assistance with works contracts, inspection of working designs, works supervision, organization, planning & coordination, assistance with acceptance procedures

**Name of assignment or project:** **Design and extension of Nîmes West sewage treatment plant (220,000 PE)**

**Year:** 2005 – 2008

**Location:** **Nîmes, France**

**Client:** Nîmes Métropoles

**Main project features:**

- Effluent transfer from the Centre sewage treatment plant to the West plant and stormwater basin
- Upgrading of the existing section 1 of the West treatment plant in line with standards: creation of nitrifying and denitrifying biofilters
- Construction of section 2 of the West treatment plant: low-load activated sludge
- Cost of works: € 28m

**Positions held:** **Team Leader, Civil Engineer**

**Activities performed:** Complete design services and construction supervision (preliminary and detailed design studies, assistance with works contracts, inspection of working designs, works supervision, assistance with acceptance procedures, organisation, planning & coordination).

**Name of assignment or project:** **Extension and upgrading of the Villefranche-sur-Saône urban district sewage treatment plant**

**Year:** 2000 – 2008

**Location:** **Villefranche-sur-Saône, France**

**Client:** District de l'Agglomération de Villefranche-sur-Saône

**Main project features:** Extension to an equivalent population of 130,000 (confined plant):

- nitrogen, phosphorus, stormwater, sludge and odour treatment,
- denitrification. Cost of works: € 18m.

**Positions held:** **Project Manager, Civil Expert**

**Activities performed:** Assistance to the owner: tendering, design/construction, works supervision, acceptance.

**Name of assignment or project:** **Rehabilitation, extension and upgrading of the Pardigon sewage treatment plant in Cavalaire-sur-Mer**

**Year:** 2002 – 2006

**Location:** **Cavalaire-sur-Mer, France**

**Client:** SIVOM du Littoral des Maures

**Main project features:**

- Extension of capacity from 50,000 to 68,000 PE
- Upgrading of outfall to 68,000 PE in line with standards with:
  - Physico-chemical SS, COD and BOD treatment and a biological treatment stage on attached growths
  - Sludge and odour treatment
  - Plant subject to wide seasonal variations in terms of pollutant and hydraulic loads.

Cost of works: € 6m

**Positions held:** **Project Manager – Design/Tender Phases**

**Activities performed:** Complete design services and construction supervision: preliminary design studies - assistance with works contracts - inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project:** Extension and rehabilitation of the Salon - Aurons - Pélissane- La Barben sewage treatment plant

**Year:** 2001 – 2005

**Location:** Bouches-du-Rhône department, France

**Client:** Communauté d'Agglomération Berre - Salon – Durance

**Main project features:**

- upgrading of outfall in line with standards for an equivalent population of 70,000
- carbon, phosphorus and nitrogen pollution treatment
- treatment of sludge and waste obtained during pretreatment
- Cost of works: € 8.2m

**Positions held:** Team Leader, Civil Engineer

**Activities performed:** Construction supervision services: assistance with works contracts - inspection of working designs - works supervision - assistance with acceptance procedures.

**Name of assignment or project:** Renewal of the stormwater sewer on Rue de la République in Toulon

**Year:** 2000 – 2002

**Location:** Toulon, France

**Client:** Toulon municipal council

**Main project features:** Renewal of the wastewater collector over 1.7 km using a micro tunnel boring machine in the aquifer.

**Positions held:** Project Director

**Activities performed:** Preliminary studies

**Name of assignment or project:** Rehabilitation and extension of the Mâcon urban area sewage treatment plant (77,000 PE on average, 147,000 PE at peak periods)

**Year:** 1998 – 2001

**Location:** Mâcon, France

**Client:** Syndicat Intercommunal pour le traitement des effluents de l'Agglomération Mâconnaise

**Main project features:**

- nitrogen and phosphorus treatment
- stormwater basin
- low-load activated sludge, biological phosphate removal
- sludge treatment, odour elimination
- Cost of works: €12.7m

**Positions held:** Team Leader

**Activities performed:** Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project:** Construction of a sewage treatment plant (39,000 PE) in Douvaine

**Year:** 1995 – 1998

**Location:** Douvaine, France

**Client:** SIVOM du Bas-Chablais

**Main project features:** Engineer: DDAF Annecy

**Positions held:** Health & Safety Protection Coordinator, Level 1, Construction

**Activities performed:** Works implementation

**Name of assignment or project:** Construction of a sewage treatment plant in La Côte-Saint- André

**Year:** 1996 – 1997

**Location:** La Côte-Saint-André, France

**Client:** District of La Côte-Saint-André

**Main project features:** Construction of a sewage treatment plant (9,700 PE) in La Côte-Saint-André. Main contractor: SAUR (Ardèche). Engineer: Etudes & Projets

**Positions held:** Health & Safety Protection Coordinator, Level 2

**Activities performed:** Design and construction

**Name of assignment or project:** Construction of a sewage treatment plant in La Côte-Saint- André

**Year:** 1996 – 1997

**Location:** La Côte-Saint-André, France

**Client:** District de la Côte-Saint-André

**Main project features:** Sewage treatment plant (9,700 PE) in La Côte-Saint- André. Main contractor: SAUR

(Ardèche), subcontractor to CG Charvet

**Positions held:** **Responsible for working design studies**

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** **Construction of a sewage treatment plant in Roche-la-Molière**

**Year:** 1995 – 1997

**Location:** **Roche-la-Molière, France**

**Client:** Roche-la-Molière municipal council

**Main project features:** Construction of a sewage treatment plant (13,000 PE) in Roche-la-Molière. Main contractor: E.I. (Rhône). Engineer: Beture-Cerec (Rhône)

**Positions held:** **Health & Safety Protection Coordinator, Level 2**

**Activities performed:** Construction.

**Name of assignment or project:** **Sewage treatment plant (13 000 PE) in Roche-la-Molière**

**Year:** 1995 – 1997

**Location:** **Roche-la-Molière, France**

**Client:** Roche-la-Molière municipal council

**Main project features:** Sewage treatment plant (13 000 PE) in Roche-la- Molière. Main contractor: E.I. (Rhône), subcontractor to Forézienne

**Positions held:** **Responsible for working design studies**

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** **Sewage treatment plant for the future science and technology park in Le Pouzin**

**Year:** 1997

**Location:** **Le Pouzin, France**

**Client:** Le Pouzin municipal council

**Main project features:** Main contractor: Degrémont (Rhône), subcontractor to Rampa.

**Positions held:** **Responsible for working design studies**

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** **Industrial sewage treatment plant in Ardoix**

**Year:** 1997

**Location:** **Ardoix, France**

**Client:** Chamatex

**Main project features:** Main contractor: Degrémont (Rhône), subcontractor to Rampa (Drôme)

**Positions held:** **Responsible for working design studies**

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

### **3 - Solid Waste, Landfill Projects:**

**Name of assignment or project:** **Solid landfill Kossihouen**

**Year:** 2017 – 12/2018

**Location:** **Abidjan, Ivory Coast**

**Client:** Ministère de la Salubrité, de l'Environnement et du Développement Durable of the Ivory Coast Republic

**Financial Institution :** PPP

**Main project features:** Solid landfill, sized for 8 000 000 m<sup>3</sup> of domestic waste (class2), including leachate and biogas treatment, access road, and the operation for 5 years

**Positions held:** **Project Director and Team Responsible (technical part), Solid Landfill Expert, Resident Engineer (Supervision)**

**Activities performed** Technical (design, build and operation) part of Tender for a Financing, design, build and operation contract, offer analysing, assistance to the client in negotiation and awarding.

**Name of assignment or project:** **Consultancy services for waste strategic & technical studies and works supervision in Addis Abeba**

**Year:** 2013 – 2016

**Location:** **Addis Ababa, Ethiopia**

**Client:** Addis Ababa City Government

**Financial Institution:** AFD

**Main project features:** Addis Ababa City Government has set solid waste management as one of its top priority: its

immediate priority is to close the current dumpsite and to replace it by a new sanitary landfill. Besides it is expected to establish three transfer stations (capacity: 12 000 000 m<sup>3</sup> - 600 000 tonnes/year). On a daily basis, more than 850 tons of solid wastes reach the current dumpsite of Koshe Repi.

The total integrated solid waste management project cost is estimated at € 43m.

**Positions held:** Procurement Expert, Contract Manager, Team Leader

**Activities performed:** Solid waste characterization; preparation of a global solid waste management strategy; implementation and monitoring of geotechnical and topographical surveys; project studies and execution project for the rehabilitation and final closure of the existing Addis Ababa landfill (leachate management, biogas and final cover), for the construction of a new sanitary landfill with a total waste storage capacity of 12,000,000 m<sup>3</sup>; preparation of the related tender documents (FIDIC Red Book); bid analysis; works supervision.

**Name of assignment or project:** Supervision and monitoring of works for the conversion of Mbeubeuss landfill

**Year:** 2013

**Location:** Dakar, Senegal

**Client:** Agency for promotion of investments and works (APIX)

**Financial Institution:** WB

**Main project features:** Rehabilitation of Mbeubeuss landfill according to international standards. A sandy clay layer (250,000 m<sup>3</sup>) ensures coverage after remodelling of 420,000 m<sup>3</sup> of waste on a surface of 75 ha. Rainwater, leachate and biogas recovery and valorization are also part of the works.

**Positions held:** Project Director

**Activities performed:** Tender analysis, technical assistance with contract awarding (unawarded contract, supervision phase not implemented).

**Name of assignment or project:** New solid waste treatment plant of Ivry

**Year:** 2012 – 2013

**Location:** Ivry, France

**Client:** BOUYGUES

**Main project features:** Technical support to a Contractor for a proposal. The project consists in the transformation of the existing plant into a new one with organic and energetic valorisation of wastes. Total solid waste capacity: 560 000 tons/year. The civil works include an underground part under water table (26 000m<sup>2</sup> of raft and 950lm of diaphragm wall), a superstructure part made of concrete and steel reaching +40m above ground level, and a steel chimney reaching +110m above ground level. Spans are very important (up to 30m) and live loads also (up to 2tons/m<sup>2</sup>).

**Positions held:** Team Leader

**Activities performed:** Structural design of reinforced concrete and steel works at a preliminary design level.

**Name of assignment or project:** Study of the conversion of the Mbeubeuss landfill site in Dakar

**Year:** 2009 – 2011

**Location:** Dakar, Senegal

**Client:** Agence de Développement Municipale – Dakar

**Financial Institution :** WB

**Main project features:**

- Study concerning the closure and rehabilitation of the 60 ha Mbeubeuss landfill site:
  - Waterproof covering
  - Stormwater recovery
  - Leachate recovery and treatment
  - Biogas recovery and treatment
- Study of health and social risks and impacts, proposal of rehabilitation solutions
- Quantified risk assessment, dimensional design of the individual solutions, proposals for and priority ranking of an overall scenario

**Positions held:** Project Director

**Activities performed:**

- Preliminary design study
- Tender documents
- Resettlement action plan
- Environmental and social impact study

**Name of assignment or project:** Rehabilitation of a household waste dump in Bastia in Corsica

**Year:** 2006 – 2011

**Location:** Bastia, France

**Client:** Communauté d'Agglomération de Bastia

**Main project features:** Rehabilitation of the dump, including:

- Placing of 51,000 m<sup>3</sup> of semi-impermeable fill:
- Stormwater and leachate treatment
- Access roads
- Consolidation of the stream bed
- Landscaping

**Positions held:** **Project Director**

**Activities performed:** Complete design services and construction supervision: preliminary and detailed designs – assistance with works contracts – supervision of works implementation – organization, planning and coordination - assistance with acceptance procedures.

**Name of assignment or project:** **Construction of the Béziers 3 landfill**

**Year:** 2002 – 2007

**Location:** **Béziers, France**

**Client:** Béziers municipal council

**Main project features:** Construction of a landfill extension with capacity to store 1,200,000 t of household waste:

- Installation of a system for monitoring the radioactivity of ingoing waste
- Fitting of an active and passive safety barrier for a Class 2 landfill
- Leachate, stormwater and biogas management
- Landscaping following closure of the landfill cells
- Costs: € 8.7m
- Cost of works monitored: € 3.8m

**Positions held:** **Project Director**

**Activities performed:**

- Complete design services and construction supervision: preliminary and detailed design studies - assistance with works contracts - inspection of working designs - works supervision - assistance with acceptance procedures
- Production of statutory documents relating to classified facilities
- Production of the operational diagram

**Name of assignment or project:** **Rehabilitation of Béziers 1 landfill and construction of Béziers 2 landfill**

**Year:** 1998 – 2001

**Location:** **Béziers, France**

**Client:** Béziers municipal council

**Main project features:** Construction of an extension alongside the old landfill including stormwater, leachate and gas management.

Cost of works: € 6.1m

**Positions held:** **Project Director**

**Activities performed:** Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures

**Name of assignment or project:** **Rehabilitation of the landfill in Culhat**

**Year:** 1998 – 1999

**Location:** **Culhat, France**

**Client:** Syndicat du Bois de l'Aumône

**Main project features:** Rehabilitation of the landfill at Culhat:

- Rehabilitation of side slopes (2:1)
- Leachate and stormwater collection
- Biogas capture and burning
- Cost of works: € 2.6m

**Positions held:** **Project Director**

**Activities performed:** Complete design and construction supervision services: preliminary and detailed designs – assistance with works contracts – inspection of working designs - works supervision - assistance with acceptance procedures

**Other Projects:**

**Name of assignment or project:** **Moulin Saulnier hydropower plant project**

**Year:** 07/2017

**Location:** Noisiel, France

**Client:** COFELY Services – GDF SUEZ

**Main project features:** The project purpose is to build a small HPP on the site of an existing and decommissioned hydropower facility, located on a branch of the Marne River. The new HPP is a reinforced concrete structure to be created inside an existing side weir with the installation of a VLH type.

**Positions held:** Work Implementation Director on site

**Activities performed :** Feasibility study, Permitting documentation, design, selection of civil work execution sub-contractor, work management, supervision as turnkey contractor

**Name of assignment or project:** New city of Lusail (200,000 inhabitants)

**Year:** 2010 – 2015

**Location:** Lusail, Qatar

**Client:** Architecture Studio France (and Real Estate Lusail Development, Qatar)

**Main project features:** Urban development of a district near Doha (353 ha): walkways, earthwork for green areas, marina cantilevered over the sea, building foundations and architectural ornaments, watering, street lighting and lighting effects.

**Positions held:** Team Leader

**Activities performed:** Preliminary and detailed design studies, participation in tendering procedures and working designs.

**Name of assignment or project:** Measures to make safe the roof over the river Furan, and creation of a diversion canal

**Year:** 2004 – 2005

**Location:** Saint-Etienne, France

**Client:** Saint-Etienne municipal council

**Main project features:**

- Consolidation of the roof over the river Furan (built in the 17th century), collection of wastewater and stormwater, passage of river beneath the city centre (with 4-storey buildings on the surface), risks of failure, urgent action required
- Creation of a new underground channel beneath the city centre capable of handling 100-year flood discharges, the cover slab serving as an apron for the second tram line, including displacement of all networks

Cost of works: € 5.7m

**Positions held:** Team Leader

**Activities performed:** Complete design services and construction supervision: preliminary studies – preliminary and detailed designs – assistance with works contracts – works supervision - assistance with acceptance procedures.

**Name of assignment or project:** Construction 45 housing units (5 levels above ground) in Saint-Martin-d'Hères

**Year:** 1997 – 1998

**Location:** Saint Martin d'Hères, France

**Client:** Saint-Martin-d'Hères Dév.

**Main project features:** Architect: Triarche Mr Doyard.

**Positions held:** Structure Project Manager

**Activities performed:** Construction supervision services

**Name of assignment or project:** Construction of student residence "Marie Curie" in the Europole district in Grenoble

**Year:** 1996 – 1997

**Location:** Grenoble, France

**Client:** SAE Immobilier

**Main project features:** "Marie Curie" residence in the Europole district (Isère) - 152 rooms, subcontractor to SAEC.

**Positions held:** Responsible for working design studies

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** Restructuring of IRIGM, IREM in Saint-Martin-d'Hères – Public buildings on the University Campus

**Year:** 1997

**Location:** Saint Martin d'Hères, France

**Client:** Joseph Fourier University

**Main project features:** Restructuring of IRIGM, IREM in Saint-Martin-d'Hères – Public buildings on the University Campus

**Positions held:** Project Manager

**Activities performed:** Design services and construction supervision

**Name of assignment or project:** 3-span prestressed concrete bridge over the river Gresse in Vif

**Year:** 1997

**Location:** Vif, France

**Client:** Scetauroute

**Main project features:** Bridge over the river Gresse in Vif, 3-span prestressed concrete bridge.

**Positions held:** Project Manager

**Activities performed:** Design

**Name of assignment or project:** Construction of student residence "Marie Curie" in the Europole district in Grenoble

**Year:** 1996

**Location:** Grenoble, France

**Client:** SAE Immobilier

**Main project features:** Construction of 152 student rooms (8 floors above ground) at Europole, Grenoble (Isère). Engineer: Audrain - Geneva.

**Positions held:** Health & Safety Protection Coordinator, Level 2

**Activities performed:** Design and construction

**Name of assignment or project:** La Mure slaughterhouse

**Year:** 1996

**Location:** La Mure, France

**Client:** SMIME

**Main project features:** Capacity 300 t/year.

**Positions held:** Project Manager

**Activities performed:** Design services and construction supervision

**Name of assignment or project:** "Montellebello" residence in Lyon

**Year:** 1996

**Location:** Lyon, France

**Client:** SAE Immobilier

**Main project features:** "Montellebello" residence in Lyons – 172 rooms, subcontractor to SAEC (Isère).

**Positions held:** Responsible for working design studies

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** Gymnasium in Pont-de-Beauvoisin

**Year:** 1996

**Location:** Pont-de-Beauvoisin, France

**Client:** SIVU of Beauvoisin

**Main project features:** Gymnasium in Pont-de-Beauvoisin. Architect: Mr Catelan.

**Positions held:** "Structure" Project Manager

**Activities performed:** Design services and construction supervision

**Name of assignment or project:** Cafeteria on the A7 motorway near Valence

**Year:** 1996

**Location:** Service area near Valence, France

**Client:** Autoroutes du Sud

**Main project features:** Cafeteria on the A7 motorway near Valence (Drôme), subcontractor to Joubert

**Positions held:** Responsible for working design studies

**Activities performed:** Performance of working design studies on behalf of the civil engineering firm

**Name of assignment or project:** Installation of computer wiring systems at 28 tax collection offices in the departments of Isère, Loire and Puy-de-Dôme

**Year:** 1990 – 1996

**Location:** Departments of Isère, Loire and Puy-de-Dôme, France

**Client:** French Ministry of Finance

**Main project features:** Installation of computer wiring systems at 28 tax collection offices in the departments of Isère, Loire and Puy-de-Dôme.

**Positions held:** Project Manager.

**Activities performed:** Design services and construction supervision

**Projects before 1995 :**

France: 1995. Crest municipal council (Drôme). Sewage treatment plant in Crest. Main contractor: OTV (Rhône), subcontractor to Rampa. Responsible for working design studies.
France: 1995. Tournon municipal council (Ardèche). Sewage treatment plant in Tournon. Main contractor: Degremont (Rhône), subcontractor to Rampa. Responsible for working design studies.
France: 1995. SIERG (Isère). Extension of the drinking water network in the Grésivaudan valley, pumping stations in Crolles, Villard-Bonnot, Le Versoud. Design services and construction supervision. Project Manager "Structure".
France: 1995. DUCC (Savoie). Drinking water pumping station for the Isère plain in Saint-Jean-de-la-Porte (30 m deep drainage well and building). Design services and construction supervision. Project Manager "Structure".
France: 1995. Vif municipal council (Isère). Sports hall in Vif. Architect: Mr Heigeas. Design services and construction supervision. Project Manager.
France: 1995. APF (Paris). IEM in Eybens (Isère). Architect: Audrain-Geneva. Design services and construction supervision. "Structure" Project Manager.
France: 1995. ARPEC (Isère). 18 housing units (4 levels above ground) in Voiron. Architect: Arra. Design services and construction supervision. "Structure" Project Manager.
France: 1995. AREA/Scetauroute (Rhône). Cafeteria on the A43 motorway near La Baume d'Houston (Isère), subcontractor to Joubert (Drôme). Responsible for working design studies.
France: 1994 – 1995. Conseil Général (Isère). Steel footbridge over the road in Chambalud. Subcontractor to CG Debernardy. Responsible for working design studies.
France: 1994 – 1995. Pays Voironnais (Isère). Waste collection centre in Moirans. Design services and construction supervision. Project Manager.
France: 1994 – 1995. Saint-Martin-d'Hères Dév. (Isère). 58 social housing units (5 levels above ground) in Saint-Martin-d'Hères. Architect: Arche 5. Design services and construction supervision. Project Manager "Structure".
France: 1993 – 1995. DUCC (Savoie). 6,000 m <sup>3</sup> drinking water reservoir in Saint-Jean-de-la-Porte, 2 reinforced concrete circular tanks, valve chamber. Design services and construction supervision. Project Manager.
France: 1993 – 1995. DUCC (Savoie). Adaptation of incineration oven at Chambéry to comply with standards. Main contractor: Sogea (Paris). Assistance to the Owner.
France: 1993 – 1995. SACO (Isère). Oisans district wastewater pumping stations. Responsible for working design studies.
France: 1994. Conseil Général (Isère). Le Calloud secondary school in La-Tour- du-Pin - Redevelopment and extension. Architect: Mr Cazenave. Design services and construction supervision. "Structure" Project Manager.
France: 1994. Chatte municipal council (Isère). Fire station. Architect: Mr Massoud. Design services and construction supervision. "Structure" Project Manager
France: 1993 – 1994. Pays Voironnais (Isère). Wastewater treatment plant (39,000 PE) in Moirans. Main contractor: STEREAU (Paris), subcontractor to CG Royans Travaux. Responsible for working design studies.
France: 1993 – 1994. SIERG (Isère). 8,000 m <sup>3</sup> drinking water reservoir in La Tronche, 2 rectangular tanks, reinforced concrete valve chamber. Design services and construction supervision. Project Manager.
France: 1993 – 1994. Saint-Martin d'Hères Dév. (Isère). 44 social housing units (5 levels above ground) in Saint-Martin-d'Hères. Architects: Plexus and Rober Reichen (Paris). Design services and construction supervision. Project Manager.
France: 1993 – 1994. EDF CLI (Rhône). Administrative building (7 levels above ground) at a nuclear site in Saint-Alban (Isère), 5 000 m <sup>2</sup> . Architect: Willerval (Paris). Detailed design study and tender documents. Responsible for working design studies
France: 1993. Commune de Vif (Isère). Wooden footbridge over the river Gresse at Vif, design of the abutments on mini-piles, 30 m long. Design services and construction supervision. Project Manager.
France: 1993. Conseil Général (Isère). Bièvre trunk road. 6 reinforced and prestressed concrete bridges. Detailed design study and tender documents.
France: 1992 – 1993. Conseil Général (Savoie). Garages for the public works department in Entremont-le-Vieux. Architect: AVM. Design services and construction supervision. "Structure" Project Manager.
France: 1992 – 1993. SACO (Isère). Sewage treatment plant (69,000 PE) in Bourg-d'Oisans. Main contractor:

Degrémont (Paris), subcontractor to CG Citra. Responsible for working design studies.
France: 1992 – 1993. Parc National de la Vanoise (Savoie). La Femma refuge - Wood and metal construction at 2200 m altitude (transported by helicopter). Architect: AUM. Design services and construction supervision. "Structure" Project Manager.
France: 1992. Pays Voironnais (Isère). Waste collection centre in La Buisse. Design services and construction supervision. Project Manager.
France: 1992. Entreprises (Isère). Artificial rock-climbing wall in Sion (Switzerland). Responsible for working design studies.
France: 1991 – 1992. Villard-Bonnot municipal council (Isère). 1,500 m <sup>3</sup> drinking water reservoir, 1 circular tank, reinforced concrete valve chamber. Design services and construction supervision. Project Manager.
France: 1991 – 1992. Voreppe municipal council (Isère). Rehabilitation of the Caneton swimming-pool. Design services and construction supervision. Project Manager.
France: 1991. CENG (Isère). Wastewater pumping stations in Grenoble. Responsible for "Structure" working design studies.
France: 1991. Pays Voironnais (Isère). Wastewater pumping station in Moirans. Design services and construction supervision. "Structure" Project Manager.
France: 1990. SIERG (Isère). 800 m <sup>3</sup> drinking water reservoir in Brié, 2 circular tanks, reinforced concrete valve chamber. Design services and construction supervision. Project Manager.
France: 1990. Entreprises (Isère). Artificial rock-climbing wall in Milan (Italy). Responsible for working design studies.