



Aryan Tarh Mandegar Summary Profile

ARYAN TARH MANDEGAR (ATM) is a registered company specializing in Civil, Structural, and Architectural Engineering and design.

Established in 2014, ATM adheres to international design and drafting standards to offer high-quality deliverables to customers in a wide spectrum of industries including oil, gas, and petrochemical plants, industrial complexes, commercial buildings, and high-rise buildings.

The team comprises high-caliber professionals with domain expertise in their chosen fields. At your service are mechanical engineers, civil engineers, structural engineers, and architects, supported by engineering draftsmen and design and animation specialists.

Engineering Services

Structural Engineering Design

- ❖ Using industry-standard design and finite element tools, ATM conducts design and analysis for all types of residential and commercial buildings both RCC and Steel.
- ❖ Engineering, Analysis, Detail Design and Drawing Preparation for:
 - Open structures for pipe racks including steel structures, RCC and composite structures
 - Equipment supporting structures and shelters
 - Blast-resistant control and substation buildings
 - Vibrating machine foundations (pumps and compressors, turbines, and electrical motors)
 - Fixed-type equipment foundations (pressure vessels, process towers, and reactors)
 - Foundations for skids
 - Above-ground pipeline infrastructure (RCC sleepers, culverts, and pipe bridges)
 - Special steel pipe supports
 - Misc. Structural steel such as platforms, access ways, jump overs
 - Above-ground storage tanks foundation
 - Underground and above-ground RCC storage tanks, half-buried pits, and tanks
 - Box-type concrete cooling towers
 - Long-span hangars and warehouse-building structures
- ❖ Package Preparation to Hire Technical Services for:
 - Site and soil investigation scope of works
 - Seismic hazard studies and site-specific ground motion for seismic design
 - Ground improvement
- ❖ Procurement Services:
 - Material requisition and MTOs for structural steel
 - Anchor bolts and bolt installation templates
 - Sandwich panel cladding
- ❖ Construction and Fabrication Stage:
 - Shop drawing preparation for structural steel



- Shop drawing review and mark up

Civil Engineering

ATM covers the entire gamut of design & drafting services in civil engineering across industrial, residential, and commercial complexes. ATM caters to various geographies with tailor-made services and is backed by highly experienced civil engineers. Key services offered by ATM include:

- ❖ Scope of work for site surveying package
- ❖ Ground improvement studies
- ❖ Site grading study to minimize the cost of site preparation
- ❖ Preliminary rough grading drawings and site-level design
- ❖ Design of temporary and permanent access ways to site
- ❖ Geometric design of on-plot roads and streets
- ❖ Design for engineered embankments, flexible and rigid pavements
- ❖ Slope stability analysis and retaining wall design
- ❖ Drainage design including:
 - Hydrological and climatological data collection and analysis and flood mitigation study and design
 - Flood control design
 - Surface run-off study and drainage system design
 - Underground drainage systems
 - Chemical plant drainage networks including oily water systems, potentially oily water, blowdowns, and clean waters
 - Sanitary sewer networks and septic tanks
 - Composite underground drawings, 3d modeling, and coordination through Aveva PDMS

ATM uses Autodesk Civil 3D, Storm and sanitary design packages for design works.

Architectural Engineering

- ❖ Study of the physical, structural, and performance aspects of built environments for industrial, semi-industrial, and non-industrial buildings including admin buildings, canteens, dormitories, clinics, fire stations, and guard houses
- ❖ Area validation study and report
- ❖ Basic design for buildings
- ❖ Detail architectural design and quantity take-off
- ❖ 3d modeling
- ❖ BIM-based designs based on Revit packages
- ❖ Landscaping design for industrial and non-industrial buildings
- ❖ Planning and design for laboratories at chemical plants
- ❖ Architectural design of control buildings and substations

Contract Administration

In contract administration department, ATM provides contractual services to our esteemed clients by preparing following packages:

- ❖ Requisitions for civil construction materials such as anchor bolts, structural steel and special building material items such as cladding material, blast resistant doors
- ❖ Tender packages for civil and underground works
- ❖ Tender package for building construction
- ❖ Material take offs

Managing Consult

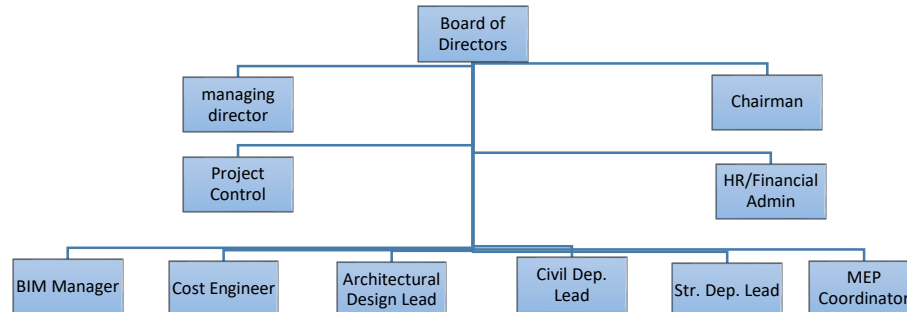
Apart from being your partner in engineering and design works ATM also caters its esteemed clients as managing consultants in civil/structural and building works. ATM has also been partnered to umbrella consultants in execution of engineering projects as CSB department.

The spectrum of our responsibilities includes:

- ❖ Assisting clients to effectively conduct early works such as site preparing works, soil investigation and seismic hazard studies.
- ❖ Preparation of drawings and technical documents to support obtaining permits
- ❖ Tender packaging works, technical evaluation of bidders
- ❖ Preparing design basis and annexes to E, EPC tenders
- ❖ Review of engineering documents, specification
- ❖ Verification of drawings per project design basis



Organization Chart

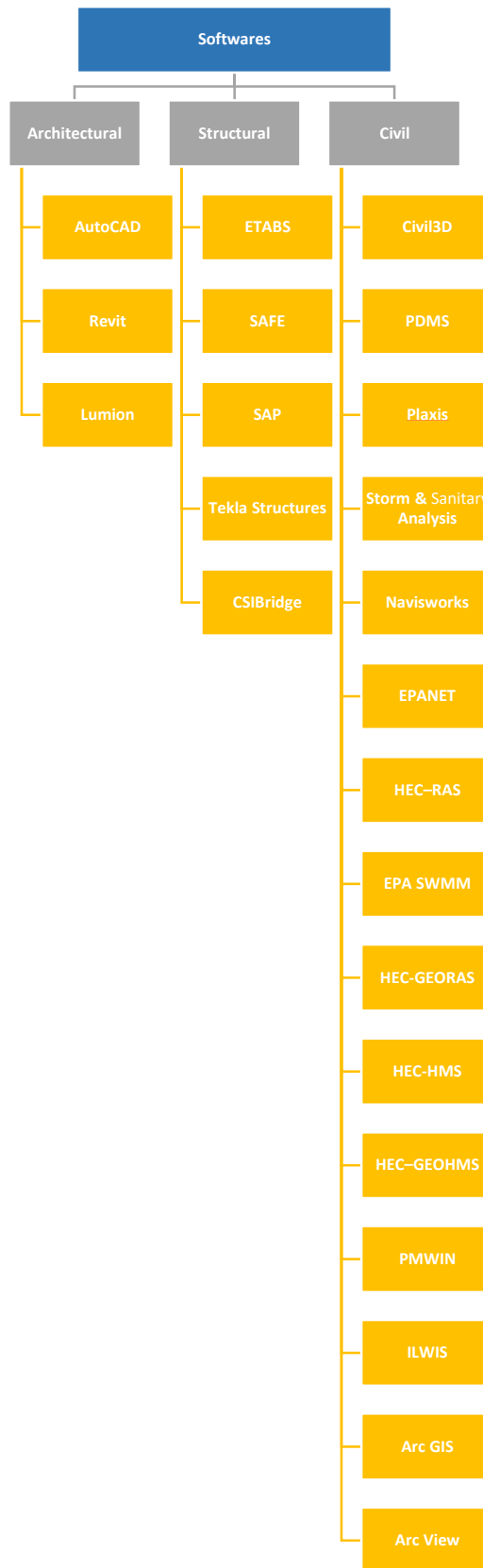


International Codes and Standards

ATM undertakes design works as per international codes and standards as follows:

- 1- IBC
- 2- ASCE 7
- 3- AISC (360,341,358)
- 4- ACI 318 and other publications from American concrete institute
- 5- API
- 6- NFPA
- 7- FEMA 356
- 8- AASHTO

ATM also uses Neufert for architectural design, and ASCE publications and guidelines in petrochemical industries.



ATM has developed ready to use tools for the design of foundations, base plates and connections, taking into considerations all the design code requirements and the appropriate checks

Summary of Completed and On-going Project

Project Name	Type of contract	Industry Sector	Civil Works	Structural	Architecture	Date
Farzanegan Oil Refinery	ENG	Oil/Gas	✓	✓	✓	2016~2020
Gheshm Utility		Oil/Gas		✓	✓	2015~2019
Silicon Wafer Factory	ENG	Industrial	✓	Foundation design only	✓	2019~2020
Mokran Water Intake Utility Centre and water transmission Pipeline	ENG	Utility/ Infrastructure	✓	✓	✓	2017~2019
PKT Medical Equipment Production Hall	ENG	Industrial		✓		2020
Sina, Methanol	MC	Chemical Plant	✓	✓	✓	2020~ On-going
Methanol Soroush	MC	Chemical Plant	✓	✓	✓	2020~ On-going
Dehloran Petrochemical	MC	Chemical Plant	✓	✓	✓	2019~ 2020
Precast Pile Production Hall in Abadan	ENG	Industrial		✓		2020
Assaluya Centralized Tank Farm	ENG	Oil/Gas/ Chemical	✓	✓	✓	2014~On-going
Bushehr Petrochemical	MC	Chemical	✓	✓		2015~2017
Demercaptanization Unit	ENG	Oil/Gas	✓	✓	✓	2014~2017
APG GUM Removal Tabriz Petrochem	ENG	Chemical		✓		2018-2020
Bandar Abaas Hospital	ENG	Commercial		Conceptual Design		2020
Siah-Kal Greenhouse Project	MC	Industrial		✓		2020
Rotana Hotels Isfahan	ENG	Residential/ Commercial		✓		2014~2016
Creek Harbour Tower Dubai	ENG	Residential/ Commercial		Concept and detail		2016~2018
PDH/PP Kangan	MC	Chemical	✓	✓		2020~ On-going
HDPE Kangan	ENG	Chemical	✓	✓		2020
Control Building of Kharg Project	ENG	Chemical		✓		2020
Sepehr-Jufair Oil Field	MC	Oil	✓	✓		2020~2021
Qeshm Oil Terminal	MC	Oil	✓	✓	✓	2020~ On-going
PDH/PP Mehr Petro Kimia Complex	ENG	Chemical	✓	✓		2020~ On-going



Kimia Sanat Mapna, Methanol	ENG	Chemical		✓		2021~ On-going
Eslam Abad Gharb, Methanol	MC	Chemical	✓	✓	✓	2020~ On-going
Golgohar Mining & Industrial Company Pilot Plant	ENG	Industrial		✓		2021~ 2020
River Engineering & Wetlands for Qom Province	ENG	Urban	✓			2018
Khamir Industrial Town Urban Drainage studies	ENG	Industrial	✓			2019
Flood Control System of Kormoun	ENG	Urban	✓			2017