

aarvee associates

Aarvee Associates Pty. Ltd.



Transport | Water | Urban | Mine | GIS

About us

Aarvee Associates Pty Ltd is a multi-disciplinary engineering design consultancy company. We are an ISO 9001, ISO 14001 and ISO 45001 certified organization taking pride in our Health, Safety, Quality and Environmental Management practices. We have successfully delivered over 50 projects in different infrastructure sectors.

Our unique delivery model involves using highly experienced experts in Australia along with our High Value Engineering(HVE) services using resources from Aarvee's HVE Centre in India. Over the past 10 years, we have perfected our delivery model to deliver projects consistently, on-time, within budget while maintaining high level of quality. This hybrid model of delivery enables us to deliver cost effective designs which are compliant to local requirements.

Aarvee Associates Pty Ltd is a wholly owned subsidiary of Aarvee Associates Architects Engineers & Consultants Private Limited, a multi-disciplinary engineering consulting company, established in 1989 located at Hyderabad, India. Aarvee has a global presence with branch offices in Tanzania, Khazakistan, Kenya and Mozambique.

We have an excellent track record of working on projects funded by international agencies such as World Bank, Asian Development Bank (ADB), Japan International Cooperation Agency (JICA), African Development Bank (ADB), New Development Bank, Asian Infrastructure Investment Bank and the EXIM Bank of India.



2500+ professionals located globally
10+ panel of design experts in Australia
17+ countries global presence



Our unique & proven delivery model

Providing competitive advantage to clients using the High Value Engineering Center in India

High Value Engineering (HVE)



Australian Design Leads | RPEQs | Chartered Engineers

Our highly qualified Australian Design Leads experienced in working with our offshore designers enables them to work with and certify the relevant design deliverables.



Project Manager at client's office for large scale projects

Having a project manager in Australia, deployed with client's team for larger projects, helps maintain seamless communication between the local team and HVE team.



Multi-disciplinary Market Leads + big team of designers for backend support

Our HVE team in India has delivery teams lead by sector experts along with project co-ordinators to ensure seamless communication and on-time project delivery.



Experience in Australia

Our HVE team is well-versed with Australian standards of design. Continual training, robust quality procedures - improved with every project ensure consistent quality with local compliance.



Commercial benefits with us

- Design/Drafting delivery with optional in-house relevant design certification
- Cost Effective: over 20% overall cost saving, if HVE resources are utilized for 50% of manhours
- Need based set up of team ensures no long term overheads in maintaining an idle team



The Aarvee Advantage

- Cost - effective
- Enhanced focus on quality - all teams are ISO certified in respective countries
- Large pool of resources, and quick scaling up of teams - long history of training resources
- Adherence to schedule - project management at both ends
- Resilient team - able to adopt changes quickly
- Mitigated risk of having to recruit large number of teams in short time
- Robust and transparent design process
- Dedicated teams for long term projects

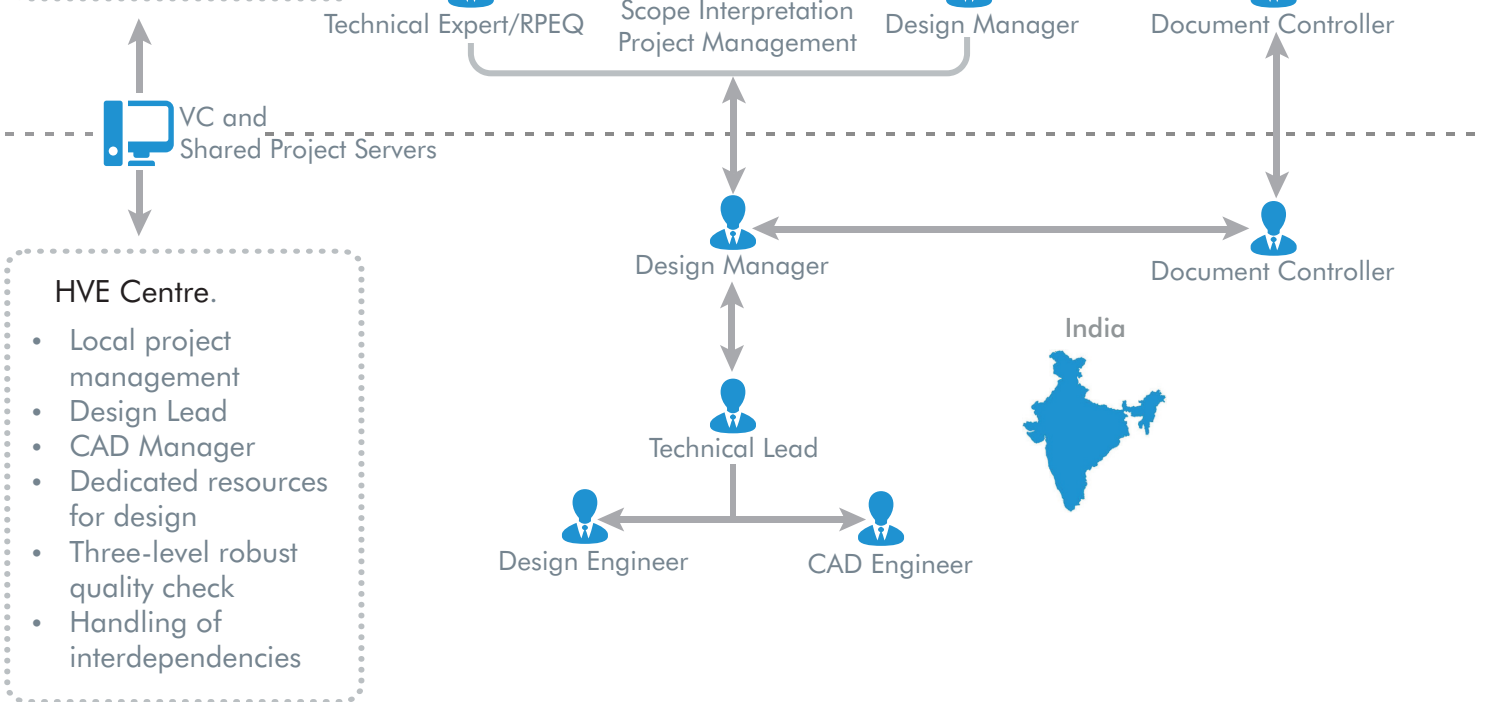


Key Differentiators

- Proven track record of successfully delivering projects through HVE model in Australia in strict timeframes & high quality, while meeting intermediate milestones
- Proven adaptability to different design codes and norms of Australia, with strong risk mitigation procedures
- Local presence to increase accountability and local compliance. Lean local team ensures highest commercial advantage to client. De-risk commercial exposures through our PI and PL
- Global experience in projects across sectors

Our HVE delivery structure

- Client interface office**
- Local interaction with the client
 - Dedicated manager
 - Quick response
 - Bridge between Clients, Technical Experts/RPEQs and Design Centre
 - Project and document control



- HVE Centre.**
- Local project management
 - Design Lead
 - CAD Manager
 - Dedicated resources for design
 - Three-level robust quality check
 - Handling of interdependencies

Design Software Tools

OPEN TRACK

AUTODESK® ADVANCE STEEL

AUTODESK® REVIT®

AUTODESK® ROBOT® STRUCTURAL ANALYSIS PROFESSIONAL

AUTODESK® INFRAWORKS®

AUTODESK® AUTOCAD® CIVIL 3D®

AUTODESK® AUTOCAD®

AUTODESK® NAVISWORKS®

AUTODESK® 3DS MAX®



OpenRail



OpenRoads



MicroStation



eWater



Catchment Simulation Solutions



rocscience



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CIRCLY





Services

Aarvee is a one-stop shop for infrastructure design and supervision services. Our services across all the sectors we operate in, cover the whole lifecycle of the project inception, delivery and maintenance.

- Feasibility&Conceptual Studies
- RFI/Construction Support
- FEED Studies
- As-built Drawings & Certification
- Detailed Design
- Asset Management

Transport Infrastructure

Transport and Transit related infrastructure is the lifeline of any region and we ensure that every project we undertake brings maximum value to the communities it serves - connecting people, goods and places. Our market-leading expertise spans across the full range of specialist engineering & design disciplines and advisory services.

- Road
- Metro Rail
- Rail-Heavy Haul/Passenger/High speed
- Light Rail
- Airports
- Multimodal Hubs

Support Services

Infrastructure design and construction is rapidly evolving with the support of cross-over technologies, improving quality and efficiency of processes. We work with the latest software and advanced tools that create photo-realistic model prototypes to manage intricate details at every stage, for clash detection and support common data points for project management with in-depth analysis.

- Geospatial Services
- Project Management
- BIM/3D Modelling
- Drafting Support

know more about our services





Services

Water

Population growth, coupled with changes in climate and environmental conditions, is creating new concentrated demands for effective sanitation, water supply and water distribution systems between rural and urban communities. Ensuring proper storage, utilisation and disposal is the need of the hour. We offer comprehensive services for all water related infrastructure requirements.

- Water Supply
- Flood Modelling & Studies
- Sewerage
- Sediment & Erosion Control
- Storm Water
- Irrigation
- Total Water Cycle Planning

Urban Infrastructure

Planning of cities and other urban spaces takes a lot of cross-discipline planning while not disturbing the local ecology. Our expertise ranges from planning of small communities to designing sustainable smart cities which are enhanced with use of latest in technology from traffic management to utility monitoring and are powered by renewables.

- Urban Planning
- Solar Power
- Smart Cities
- Buildings
- Intelligent Transport System
- Mass Rapid Transit

Other Infrastructure

- Mining (Non-Process Infrastructure)
- Power

know more about our services



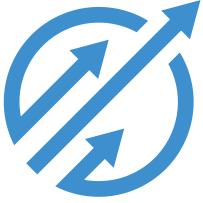
Summary of Experience



Client	Project
Bangladesh Railway	Consultancy Services for Detail Design & Tendering Services (Phase-1) and Construction Supervision
AECOM, Adani Mining Pty. Ltd	Carmichael Rail Project (CRP)
High Commission of India, Dhaka, Bangladesh	Consultancy Services for preparation of Detailed Techno-Economic Feasibility Study for 27.35 Route Km (30.001 TKM) Dual Gauge Line from Feni to India-Bangladesh Border
AECOM Singapore Pte Limited	Headway simulation and optimization of Alignment for the design phase of CMRL Phase 2
North West Rail Pty Ltd	Feasibility Study of Provisioning Yard
Adani Mining Pty. Ltd	Secondment of Civil & Signalling Engineers for Detailed design assignments
Adani Mining Pty. Ltd	Owner's Engineer Support
Seymour Whyte Constructions Pty Ltd	Quantity Material Take Off- Pacific Motorway(M1) Upgrade- Varsity to Burleigh
Adani Mining Pty. Ltd	Carmichael Rail Project (CRP)
Chennai Metro Rail Limited	CMRL-Phase-2 General Consultancy Services for JICA portion
Bowen Rail Company Pty. Ltd	Rail Maintenance Yard
Bowen Rail Company Pty. Ltd	TPN Connection
Seymour Whyte Constructions	Mudgeeraba to Varsity Lakes
Bravus Mining and Resources	RFI/As built Support- Carmichael Rail Project (200 km Rail line)

Project Duration		Mar 16 to Ongoing	April 17 to May 18	April 17 to Mar 19	July 19 to Ongoing	Aug 19 to Nov 19	Sep 19 to Mar 20	Dec 19 to Feb 20	Jan 20 to Mar 21	Feb 20 to Sep 20	Feb 20 to Ongoing	Feb 20 to Ongoing	Apr 20 to Ongoing	Aug 20 to Mar 21	Oct 20 to Ongoing
Phases	Concept														
	FEED														
	Pre-Feasibility (PES)														
	Feasibility (DES)				✓										
	Detailed Design	✓	✓			✓		✓			✓	✓	✓	✓	
	As-Built											✓	✓	✓	✓
Modelling	Operations Planning				✓										
	Rail Traffic Modelling, / simulation				✓										
	In Train Forces modelling				✓										
Engineering	Civil Engineering, Earthworks	✓		✓		✓		✓		✓	✓	✓	✓		✓
	Structures	✓		✓		✓		✓		✓	✓	✓	✓		✓
	Drainage / H&H		✓	✓				✓		✓	✓	✓	✓		✓
	Geotechnical Engineering			✓						✓	✓	✓	✓		
	Track Engineering	✓		✓		✓		✓		✓	✓	✓	✓		
	Sigs and Comms						✓				✓	✓			
	Crossings		✓						✓		✓	✓	✓		✓
Project Services	Project Management	✓						✓		✓		✓	✓		
	Cost Control										✓				
	Scheduling														
	Estimating	✓				✓			✓	✓					
	Construction Management							✓				✓	✓		
	Safety Management										✓	✓			

Summary of Experience



Client	Project
IL&FS Engineering and Construction Company Ltd	Consultancy Services for Concept design and detailed design consultancy for Rapid Metro Rail Gurgaon project (Mass Rail Transport System)
Adani Mining Pty. Ltd	Carmichael Rail Line
Calibre Global Pty Ltd	Carmichael Coal Mine and Rail
Adani Mining Pty. Ltd	Carmichael Railway - North Goonyella Branch Line (NGBL)
Adani Mining Pty. Ltd	Corridor Identification Study (Multi Criteria assessment) for NGBR
Adani Mining Pty. Ltd	Engineering services - Concept Design report for NGBR
Bangladesh Railway	Consultancy Services for Feasibility Study, Safeguard Policy Studies, Detailed Engineering Design and Tendering Services for Construction of Railway Line from Navaran to Munshiganj via Sathkhira
Worley Parsons Resources & Energy	Engineering services FEED report for North Galilee Basin Rail (NGBR)
Worley Parsons Resources & Energy	EPC Tender Support: North Galilee Basin Rail (NGBR)
POSCO E & C, Adani Mining Pty. Ltd	Carmichael Rail Project (CRP)
Adani Mining Pty. Ltd	Adani Aurizon Connective Rail Project- Alternate connection-SG/NG
Fulton Hogan	QR German & Kings Timber Bridge Replacement

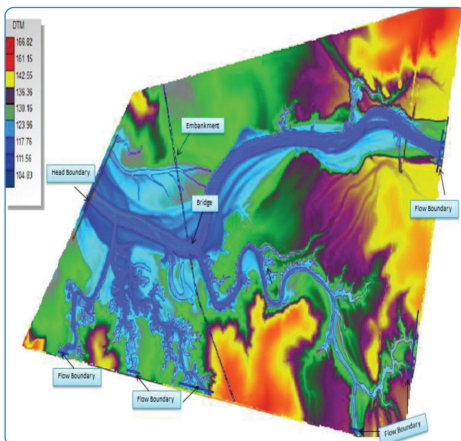
Project Duration		Jun 10 to Nov 13	Sep 11 to Feb 12	June 12 to Feb 13	Oct 12 to Apr 13	Dec 12 to Jan 13	April 13 to June 13	June 13 to Dec 15	Aug 13 to May 14	June 14 to Dec 14	May 15 to July 15	Dec 15 to Jan 16	Feb 16 to Apr 16
Phases	Concept	✓	✓		✓		✓		✓				
	FEED			✓	✓				✓				
	Pre-Feasibility (PES)					✓				✓		✓	
	Feasibility (DES)							✓					
	Detailed Design	✓							✓		✓		✓
	As-Built	✓											
Modelling	Operations Planning		✓		✓								
	Rail Traffic Modelling, / simulation												
	In Train Forces modelling												
Engineering	Civil Engineering, Earthworks	✓	✓	✓	✓					✓	✓	✓	✓
	Structures	✓	✓	✓	✓			✓		✓	✓		✓
	Drainage / H&H			✓	✓		✓		✓	✓	✓		
	Geotechnical Engineering			✓	✓								
	Track Engineering			✓						✓			
	Sigs and Comms		✓	✓	✓		✓		✓	✓			
	Crossings		✓	✓	✓					✓			
Project Services	Project Management						✓		✓	✓			✓
	Cost Control				✓								
	Scheduling				✓								
	Estimating			✓				✓	✓	✓		✓	
	Construction Management												
	Safety Management		✓	✓	✓		✓		✓	✓			

Key Projects Delivered

Carmichael Mine Access Road Upgrade Project



Location	: Queensland, Australia
Client	: Adani Mining Pty Ltd, Australia
Scope of Work	: Preparation of Design Report
Project Cost	: AUD 80M
Duration	: October 2014 - November 2014
Project Detail	: Adani Mining is proposing to develop thermal coal mine in North Galilee Basin, Central Queensland. For the effective operation of mine, suitable road link to the major regional centres of Townsville, Mackay and Rockhampton must be established. This project consists of design of 90 km long road between Elgin-Moray Road and Moray-Carmichael Road which is at present a rural unsealed road. Design works for hydrologic, hydraulic and structure design were undertaken.



Carmichael Rail Project (206 km Rail line)

Location	: Queensland, Australia
Client	: Adani Mining Pty Ltd, Australia, Bravus Mining and Resources
Scope of Work	: Detail Design, RFI/As built Support
Duration	: Feb 2020 - Sept 2020 October 2020 - Ongoing
Project Detail	: Detailed Design work including Civil, H&H, Alignment, Drainage, Geotech, Bridges, Culverts for 206 km of rail line and RFI Support to Client based on queries from Contractors; As built Engineering Support and Certification.

Key Projects Delivered

Pre-bid services for Hey River - Boyd Road

Location	: Queensland, Australia
Client	: NRW, Australia
Scope of Work	: Prebid services for Hey River-Boyd road - Design and Construct
Associated Firm	: Worley Parsons
Completion	: December 2014
Project Detail	: Design and preparation of BOQ for the following: <ul style="list-style-type: none"> • Road Alignment and Pavement Design • Pavement design • Hardstands • Catchment delineation and 1D modeling of all culverts along the road • Construction of water pond • Pavement Design of proposed airstrip

North Galilee Basin Rail (NGBR) Project



Location	: Queensland, Australia	
Client	: Adani Mining Pty Ltd, Australia	Adani Mining Pty Ltd, Australia
Scope of Work	: Concept Design	Front End Engineering Design
Associated Firm	: John Holland Pty Ltd	Worley Parsons
Project Cost	: AUD 1,800M	AUD 1,800M
Duration	: April 2013 - June 2013	August 2013 - May 2014
Project Detail	: A dedicated green field rail line to connect Carmichael Mine with Abbot Point Coal Terminal is being developed to provide an independent connectivity between Mine to Port. <ul style="list-style-type: none"> • Route Length : 382.4 km • Design Traffic : 100 MTPA • Loading Standard : 32.5 TAL • Passing Loops : 9 nos • Design Speed : 80 km/h for loaded trains; 100 km/h unloaded trains 	

Key Projects Delivered

Gaucamaya Express Project



Location	: Honduras
Client	: Aarvee Associates Architects Engineers & Consultants Pvt. Ltd Shama Capital partners LLC
Scope of Work	: Pre-feasibility Study Report
Project Cost	: USD 1.80b
Duration	: March 2015 - June 2015

Project Detail : The project includes a development of new tourist railway from a cruise port at Omoa to the largest Mayan historical site of Copán in the town of Copán Ruinás in Honduras country situated in Central America. The aim of the project is to provide a comfortable and safe rail journey for tourists with a scenic viewing journey en-route to Copan while improving the utilization of the railway by operating container and bulk cargo freight trains overnight.

- Route length : 226 km (Approx.)

Design Of Kings & German Timber Bridge Replacement



Location	: Queensland, Australia
Client	: Fulton Hogan
Scope of Work	: Detail Design
Duration	: January 2016 - June 2016
Project Cost	: AUD 4M
Project Detail	: Design and construction of 2 QR timber bridge replacements: <ul style="list-style-type: none"> • Kings Bridge (72m long) • German Bridge (15m long)

Key Projects Delivered

Luangwa Bridge on Luangwa River on Great East Road (T4)



Location : Zambia

Client : Zambia Road Authority

Scope of Work : Feasibility Study

Other Information : The Luangwa Bridge carries the Great East Road across the Luangwa River approximately 230 km east of Lusaka City. This cable-stayed bridge was built in 1968 and has a 9.8 m wide steel-reinforced concrete deck, composite with transverse floor beams; two, 42 m high, steel pylons and supported by coiled bridge cable stays. The main span is 222 m with approach spans are of 40 m each. The bridge is currently operational with only one heavy vehicle at a time with a maximum vehicle weight 55 tons traveling at a speed of 30 km/hr.

This Feasibility Study project has following objectives:

- Collection of analysis, designs and drawings of latest rehabilitation as available
- Carryout detailed inspection of the bridge
- Perform assessment of bridge condition and load carrying capacity
- Recommend possible technical solutions for bridge to be able to carry SATCC loading and expected increased traffic.

Extra Dosed Bridge Across River Narmada



Location : Gujarat, India

Client : National Highways Authority of India, New Delhi

Completion : December 2016

Scope of Work : Authority's Engineer

Other Information : This is a 6km long 6-lane highway which has one Major Bridge of of 1.344 km length and Span 1x96m+8x144m+1x96m. The Bridge is an extra dosed bridge across river Narmada and is one of the few extra dosed bridges in the country.

Key Projects Delivered

V.O.Chidambaranar Port Trust

Location	: Tuticorin, Tamil Nadu, India.
Client	: V.O.Chidambaranar Port Trust
Completion	: May 2019
Scope of Work	: TEFR for handling Dry Bulk Cargo
Salient Features	: <ul style="list-style-type: none"> - Mechanisation of NCB-III - Demand assessment, market study on cargo forecast - Engineering surveys and investigations - Initial Environmental Examination - Preliminary designs and project cost - Financial Analysis

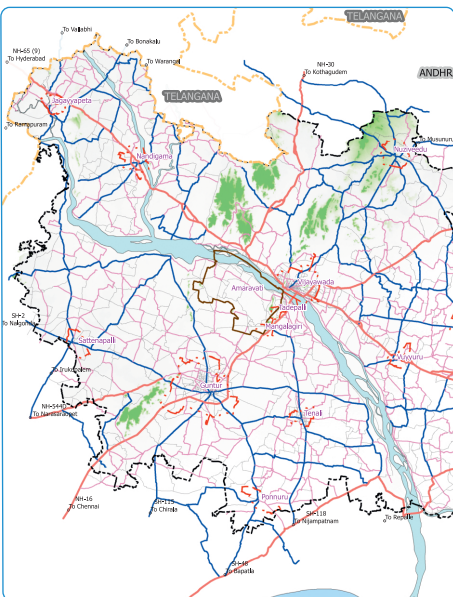


RORO cum General Cargo Berth at Kamarajar Port



Location	: Chennai, Tamil Nadu, India.
Client	: Kamarajar Port Limited
Completion	: 2021 *
Scope of Work	: Project Management Consultant
Salient Features	: <ul style="list-style-type: none"> Layout Assessment Option / Preliminary Engineering Tender Level Engineering Detail Design and issue of drawings for construction Review of Construction Methodology, quality assurance procedures Providing Engineering services during execution of work Vetting of as-built drawings

Comprehensive Traffic and Transportation Study for APCRDA



Location	: Vijayawada, Andhra Pradesh, India.
Study Area	: 8,603.32 Sq.km
Client	: Oriental Consultants Global Co. Ltd., (APCRDA)
Completion	: March 2019
Salient Features	: <p>The overall purpose of CTTS is to improve transport planning and implementation at all levels throughout the Urban Local Body/ Development Authority. The IAP is a first step in this process at the local level, focuses on small-scale transport improvements that can make a significant impact in a short time at low cost.</p> <p>The Immediate Action Plan (IAP) will help the Municipality take up transport improvements at priority locations identified by the Municipality and other stakeholders. The IAP will then be followed by the Urban Transport Plan (UTP), which will be a more comprehensive plan and programme for longer-term transport improvements in the Municipality and surrounding urban areas.</p>

Key Projects Delivered

Lot 3: Pabbo, Rhino Camp - Wadelai, Biiso & Toch



Location	: Uganda
Client	: Ministry of Water & Environment, Republic of Uganda
Completion	: December 2017
Scope of Work	: Feasibility Study & Detailed Engineering Service
Salient Feature	: Pabbo, Toch & Biiso Irrigation Schemes - Earth Dams & Concrete Dam/Weir and Canals & Distributory network for 500ha for each scheme. Rhino Camp - Wadelai Irrigation Scheme - Earth Dams & Concrete Dam/Weir Canals & Distributory network for 1000ha.

Hydrographic Survey & Sediment Analysis of TB Reservoir

Location	: Karnataka, India.
Client	: Tungabhadra Board, TB Dam
Completion	: July 2017
Scope of Work	: Hydrographic Survey & Sediment Analysis
Salient Feature	: - Conducting Topographic and Hydrographic Survey of Reservoir - Assess Present Elevation Vs Area and Capacity of Reservoir - Soil sampling to assess the Type, Pattern, Aerial Distribution and suitability of silt for re-use - Assessment of Quantity, Locations of Sediment Deposits - Detailed study on De-silting Measures and Sediment Management Plan



Kaleshwaram Project (Dr. BRAPCSS) - Package:6



Location	: Karimnagar, Telangana, India.
Client	: Navayuga - Patel - BHEL (Consortium)
Completion	: June 2019
Scope of Work	: Detailed Engineering Service
Salient Features	: Lift Irrigation Scheme.
Lifting Head	: 105.5m
Quantity	: 624 cumecs
Pump Capacity	: 7X125 MW (Francis Turbine Pumps)
Twin Tunnels	: 2X10m, 10km long each (D-Shaped)
Under Ground Surge Tank:	70m High

Key Projects Delivered

Project Management Consultant (PMC) to Implement Smart City Projects Prayagraj



Location : Prayagraj (Allahabad), Uttar Pradesh, India.

Client : Prayagraj Smart City Limited, Uttar Pradesh

Completion : October 2020 *

Scope of Work : Design, Develop, Manage and Implement Smart City Projects under Smart City Mission

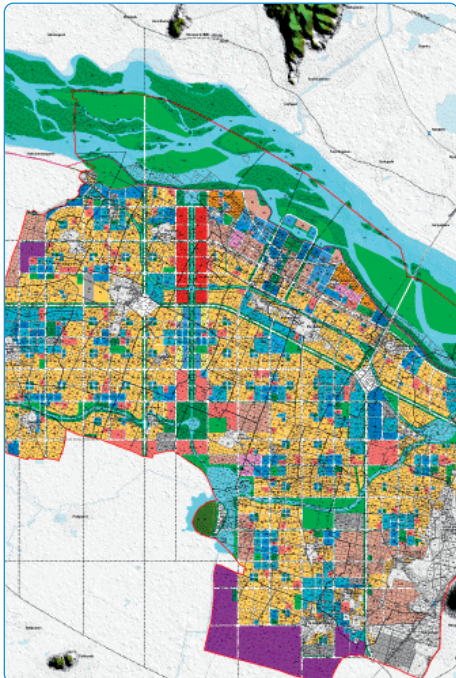
Other Information :

Cost of Area Based Development : 1670.84 Cr

Cost of Pan City Development : 568.64 Cr

Total Project Cost : 2239.48 Cr

DPR for Smart Infra for Amaravati, Andhra Pradesh



Location : Amaravati, Andhra Pradesh, India.

Client : Andhra Pradesh Capital Region Development Authority (APCRDA)

Completion : September 2019 *

Scope of Work :

- Smart Integrated Infrastructure Master Plan for sectors viz., Roads, Water Supply, Sewerage, Storm Water Drains, Solid Waste, ICT, Power, District Cooling, Safety & Security, Gas and Disaster Management
- Detailed Project Report for sectors viz., Roads, Water Supply, Sewerage, Storm Water Drains, Solid Waste, ICT & Power

Salient Features :

- Area : 217. Sq.km
- Water Supply Demand : 883 MLD
- Length of Pipeline : 1800 km
- Sewerage Quantity : 690 MLD
- Length of Sewerlines : 1950 km
- Solid Waste : 3820 MT
- Power : 2700 MW
- Roads : 1600 km

