

# ENGINEERING The FUTURE



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## LEADING EXCELLENCE



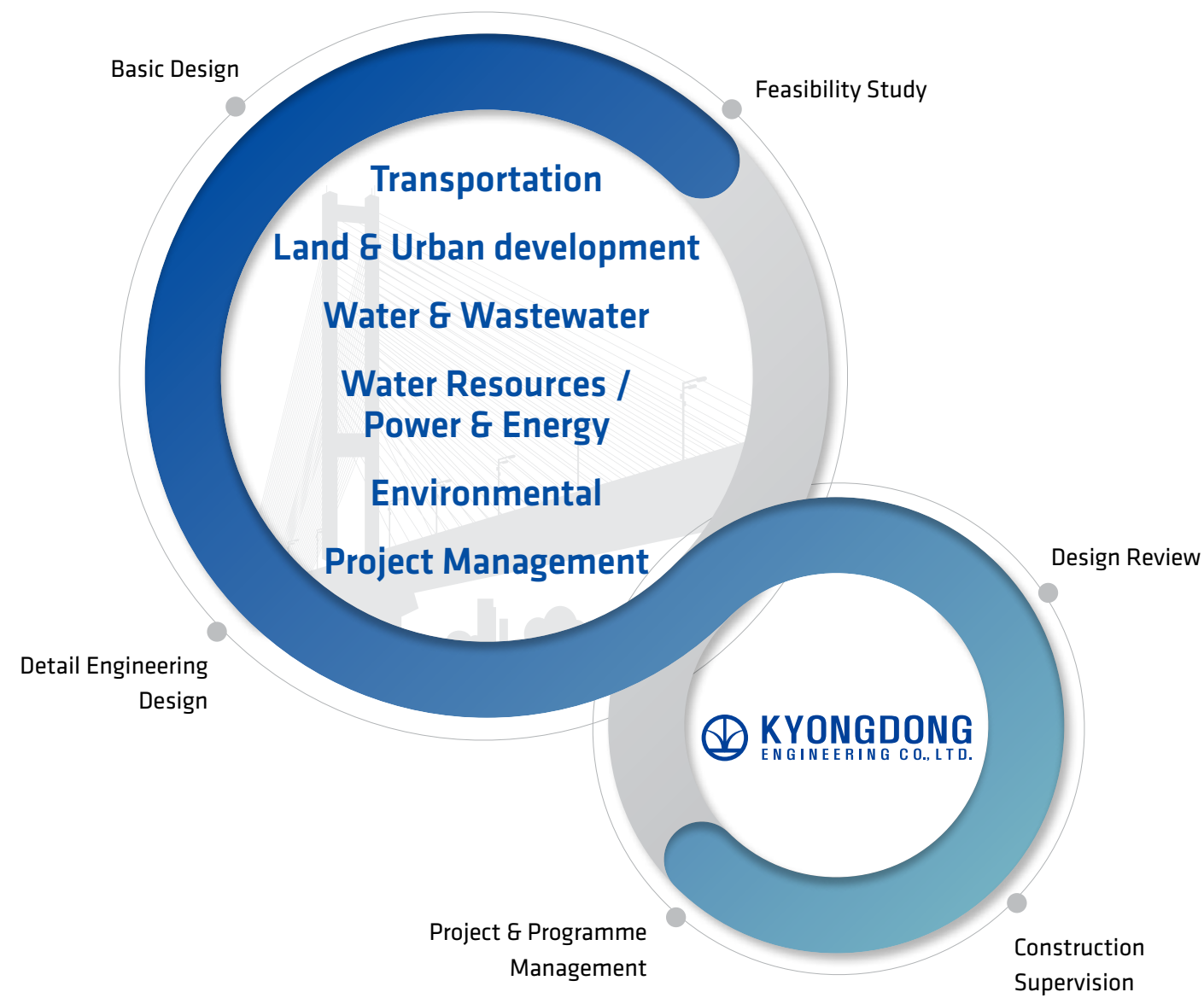
Kyong Dong Engineering Co., Ltd. was established in Republic of Korea, 1989. Since inception, KDEC has grown into a comprehensive engineering company with global competitiveness through continuous research and investment based on the industry's best and unique technology over the past 30 years. KDEC is a full service project delivery consultancy company offering integrated Feasibility Study, Basic and Detail engineering design, Planning, and Project Management services for road, transportation, urban and regional planning & development, water supply, drainage & sewerage, water resources planning, power & energy, and environmental service and is an international firm with over 600 professionals in more than 20 global project locations.

All employee of KDEC promise that we will do our best to reinforce the company's capabilities through challenge and innovation and to become a company that contributes to client and partner satisfaction and Corporate Social Responsibility.

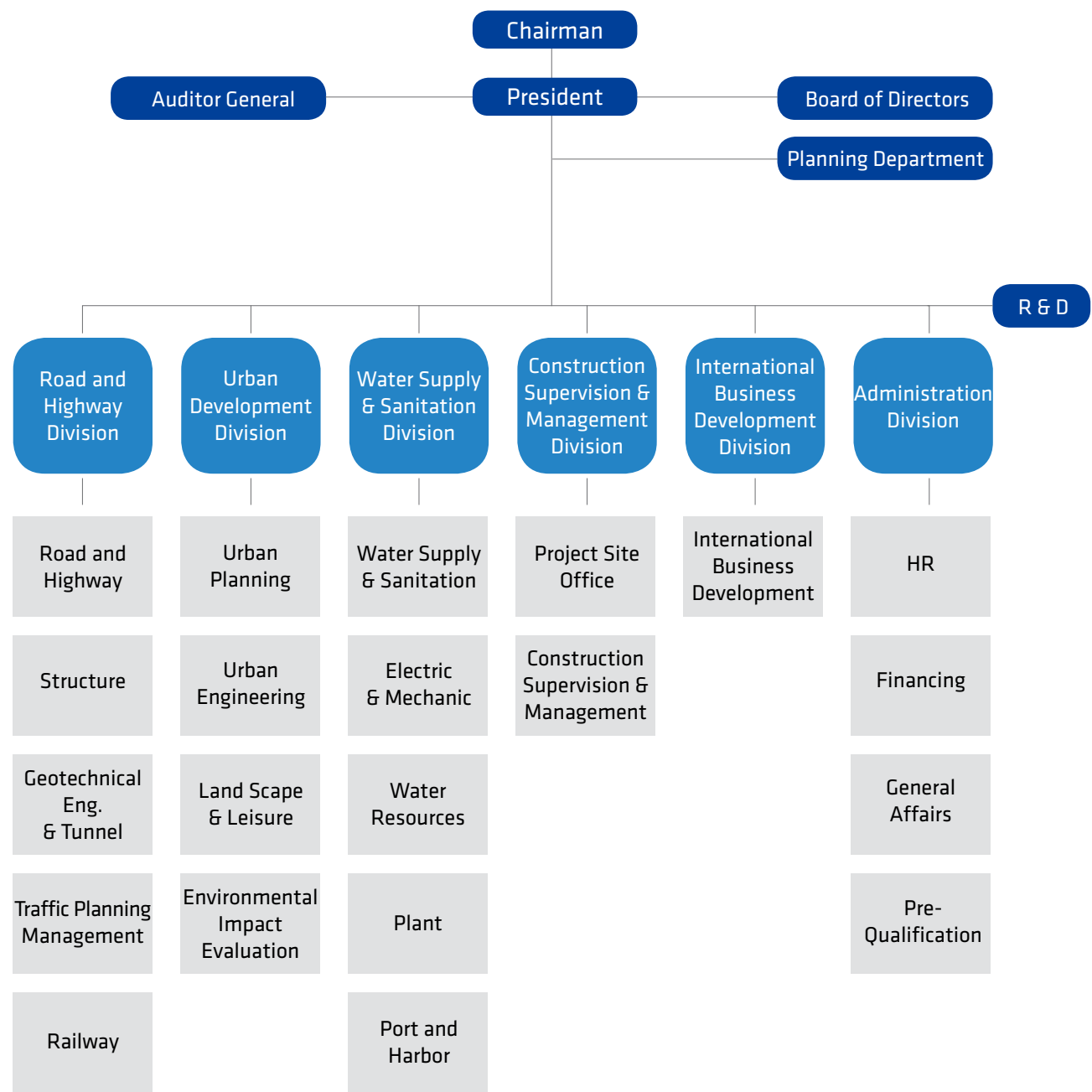
Thank you for your unwavering trust, interest and support.

Kang, Jae-Hong  
CEO  
Kyong Dong Engineering Co., Ltd.

Our Services



Organization





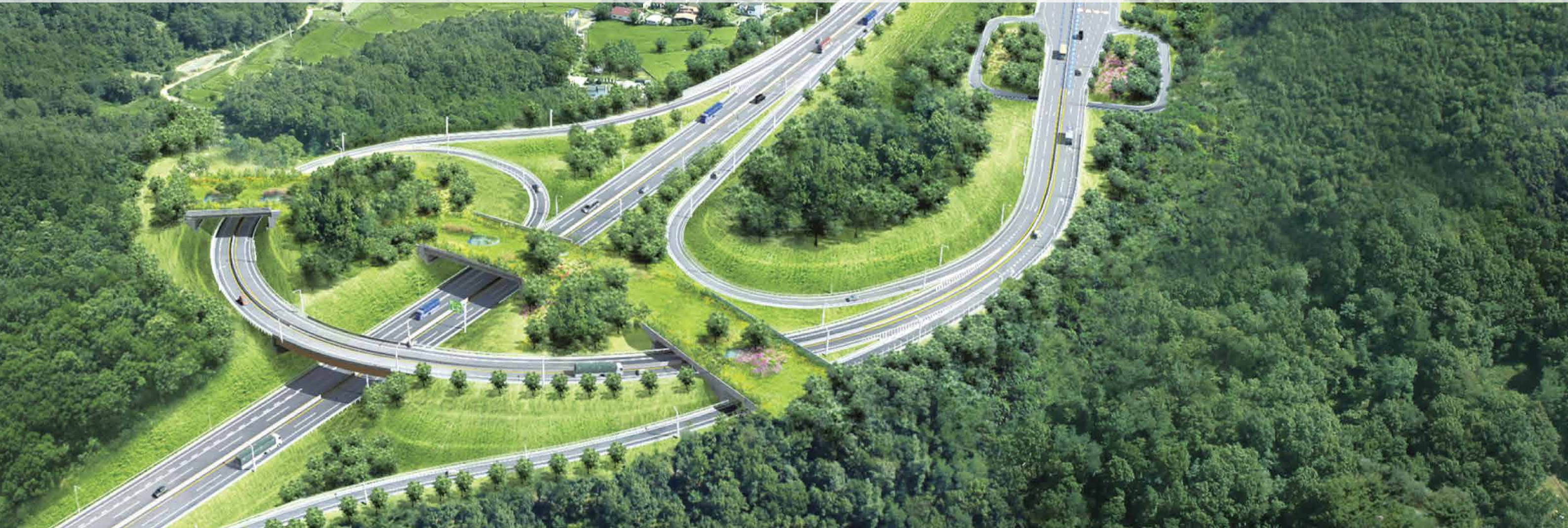
# Transportation Engineering Services

Kyong Dong Engineering Co., Ltd. has successfully carried out numerous road design projects, including highways and roadways in domestic and overseas countries. The various experiences and accumulated expertise are among the best in the world.

It is leading the advancement of technologies in the field of road, structure, and ground design, including tunnels, soft ground, and slope design that conform to the characteristics (properties) of bridges considering the surrounding landscape, including road design, stability, economy, and the surrounding area using smart technology.

## Highways

- Master plans, Preliminary Feasibility Study, Feasibility Study, and Basic design for the Highway, Urban Expressway, National and Local Road
- Basic and Detailed Design
- Turn Key, Design Alternative and Review for the private financed Highway



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1. Consultancy Services for Design Review and Construction Supervision for Bongdam – Songsan Expressway Construction Project under Public and Private Partnership (PPP) - Southern Bongdam Interchange
2. Consultancy Services for Design Review and Construction Supervision for Saemangeum South-North Expressway Construction Project
3. Access Road Construction for Yeongam ~ Haenam Tourism and Leisure type Business City
4. Consultancy Services for Design Review and Construction Supervision/ Inspection for No. 60 of Chuncheon – Yangyang Expressway Construction Project(East Hongcheon-Inje)



Structural

- Structural bridges planning and design
  - Road Bridge, Railway Bridge
- Planning and Design of underground structures - Metro, Underpass
- Creative special-type bridge design (long span) through turn-key and alternative design

- Design of temporary facility structures and special structures
- Design of electric power (conduit pipe) and cable tunnel
- Overpass planning and design



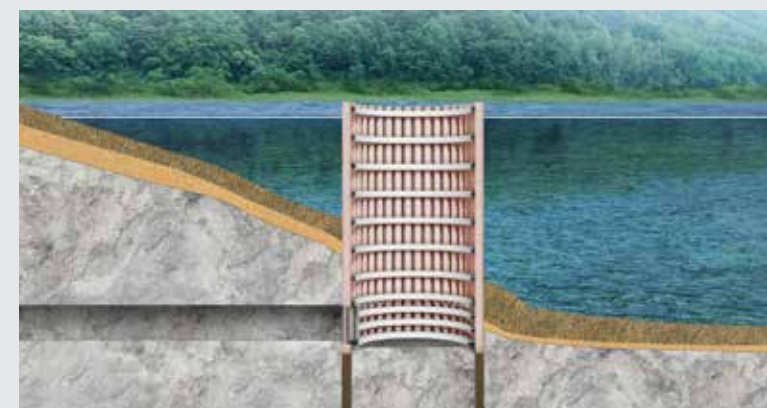
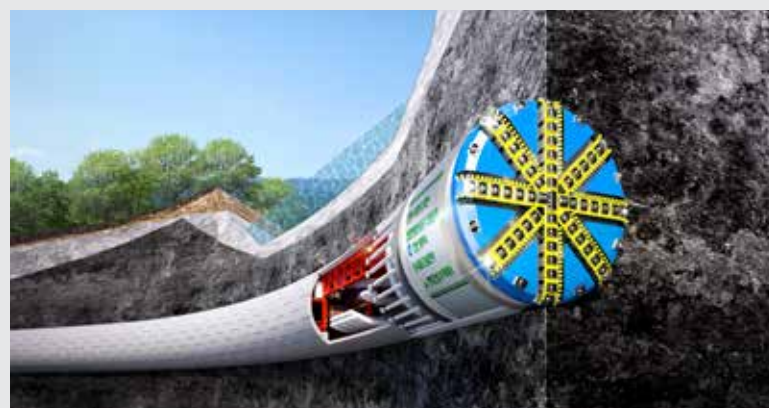
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1. Consultancy Services for Design Review and Construction Supervision for the Road Construction (Lot 2) in the Administrative City of the Daedeok Techno Valley
2. Consultancy Services for Detail Design for No. 117 of Sihwa MTV (West coast Bypass Construction Project)
3. Consultancy Services for Basic Design for Golden Glow Bridge and Outer Circle Ring Road Construction project in Sejong City
4. Consultancy Services for Feasibility Study for Salender Bridge Construction Project in Tanzania



## Geotechnical & Tunnel

- Tunnel / Underground studies
- Geological and Geotechnical Investigations
  - Tunnel and Underground Space Design  
(Road Tunnels, Railway Tunnels, Power Supply Tunnels, Waterway Tunnels, Undersee Tunnels, etc.)
- Underground cavity stabilization and Structure foundation design
  - Evaluation of soft soil properties and Stabilization Design / Countermeasure
  - Slope stability and Reinforcement Design
  - Landslide investigation and slope improvement design
  - Dam and Embankment design
  - Temporary shoring design
  - Evaluation of Underground Safety Impact by Excavation



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1. Consultancy Services for Detailed Engineering Design for No. 14 Hamyang – Changnyeong Expressway Construction Project (Lot 9) - Section Burim Tunnel #1
2. Consultancy Services for Basic and Detailed Engineering Design for Busan Eco Delta City (Phase 2, Lot 1) -Soft ground
3. Consultancy Services for Basic Design for Incheon Metropolitan Metro Line 1 Extension Construction Project (TK Project- Shield TBM Method)
4. Consultancy Services for Basic Design for Yeongcheon Dam Safety Reinforcement Project (Cofferdam)



## Traffic Engineering and Studies

KDEC provides optimized and comprehensive transportation system and countermeasures for traffic impact related means and operation of transportation facilities in accordance with the improvement of the transportation system in cities or regions and the development of new cities, housing and industrial complexes.

- Feasibility Evaluation of Public Transportation Facility Development Projects
- Preliminary Feasibility Study on the establishment of National Infrastructure
- Integrated corridor studies / management
- Intersection and roadway capacity analysis and design
- Urban transport system rehabilitation
- BRT planning, design, and operation systems
- Parking lot analysis and studies, including site circulation

- Traffic data collection and modeling
- Traffic impact analysis
- Traffic signal and stop sign warrant analysis
- Traffic signal design and interconnect
- Transit studies
- Vehicle and pedestrian inventories
- Traffic forecast and Analysis



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1. BRT System
2. Consultancy Services for BRT System Design between Sejong Administrative City and Daedeok Techno Valley
3. Traffic Impact Assessment for GTX (Great Train eXpress) Suseo Station Construction Project
4. Traffic Impact Assessment for GTX Seongnam Station Construction Project



## Land Development and Urban Planning Services

KDEC has extensive experience in designing large-scale projects such as urban master plan and management plan, urban development plan, housing & industrial complex plan and other diverse projects. We carry out complex process design such as urban planning and complex planning, water supply and river, bridge, etc. creatively and efficiently, and concentrate our efforts on expanding urban and complex projects in overseas countries.

- Regional and urban planning
- Erosion and sediment control plans and permitting
- Feasibility studies/master plans
- Land Development plans
- Newtown and rural development

- Landscape Architecture/Landscape plans
- Parks, recreation and open space planning
- School and campus planning
- Zoning requirements (special exceptions, variances, conditional uses, rezoning, etc.)



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1. Consultancy Services for Execution plan for the Research design of Administrative City Construction project
2. Design for Naepo New city development, district unit, and implementation plan change project
3. Design for Cheonan LG Household & Health care Future Industrial Complex Development Project
4. Consultancy Services for Basic & Detail Design for No. 117 of Sihwa Phase 2 (Songsan Green city) Landscaping Project



# Water, Wastewater and Waste Management Services

KDEC strives to transfer its (water and sewage business) technology to overseas markets for design of water supply and sewerage technologies accumulated in Korea.

## • Water

- Water demand management and feasibility study
- Master Plan for Water Supply
- Basic and Detailed Design of Water Purification and Drainage
- Survey of water supply facilities and preparation of report

## • Waste water

- Basic and Detailed Design of Sewage Management Facility
- Basic and final design of sewage and sludge treatment facilities
- Sewage treatment operation management



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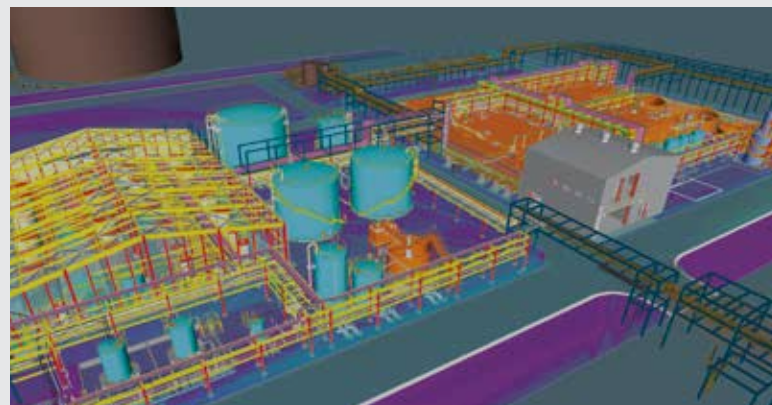
1. Consultancy Services for Basic Design for Wastewater Treatment Plant in Yongin Eco Town under PPP Project
2. Consultancy Services for Basic Design for the Waste/stormwater Quality recycling and Clean Energy Center in Sejong City
3. Consultancy Services for Basic and Detail Design for the Improvement and Expansion Project of Yongin Suji Respia
4. Consultancy Services for Detail Design for the Metropolitan Water Purification Facility Separation Project in Gumi City



## Water Resources Engineering Services

KDEC provides specialized water resources engineering services to clients in the private and public sectors, including river maintenance planning and design, levee recovery, flood management and hydropower modeling and analysis.

- Hydrologic and hydraulic analyses and design
- Watershed protection and restoration and disaster impact assessment
- River basin erosion and scouring protection
- River flow improvement and flood control
- Stream Basic plan and comprehensive plan to reduce natural disasters
- Comprehensive plan for stream readjustment
- Detail design of river and stream readjustment
- Reservoirs and dams



## Mechanical and Electrical Engineering Service

KDEC offers a plethora of services ranging from mechanical & electrical to water supply, power, and renewable energy, mechanical engineering and utility design. Our services include all aspects of Design services including concept planning, Design reports, Design drawings, Working drawing, Specification along with schedule of quantities, Cost, Estimates, Checking of shop drawings, Periodic site visit and helping in taking over the system after testing and commissioning.

Particularly, we provide a diverse range of commissions designing infrastructure to deliver power generated by diesel and renewable forms of energy. Contractors particularly appreciate our ability to integrate temporary and permanent works designs. Our clients include major utility companies, developers, operators and plant suppliers.

- Power plant facility design
  - Diesel / Gas Power Plant
  - Cogeneration Plant, Combined Cycle Power Plant
  - Environmental plant facility design
  - Eco-Incinerators
  - Waste recycling and reuse / resource facilities
- New renewable Energy Facility Design
- Industrial plant facility design
- Oil reservoir Design



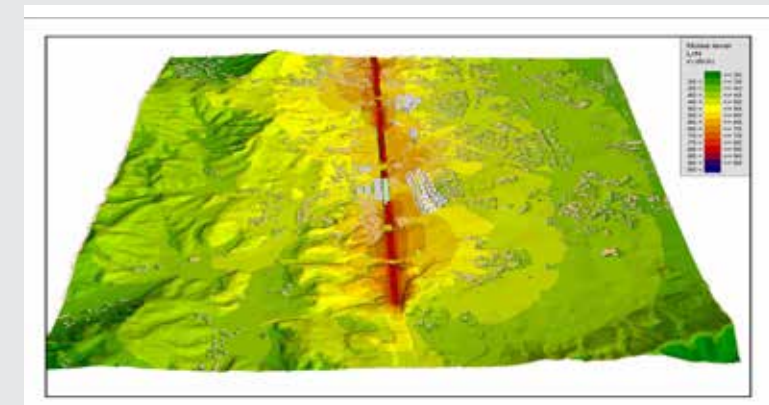
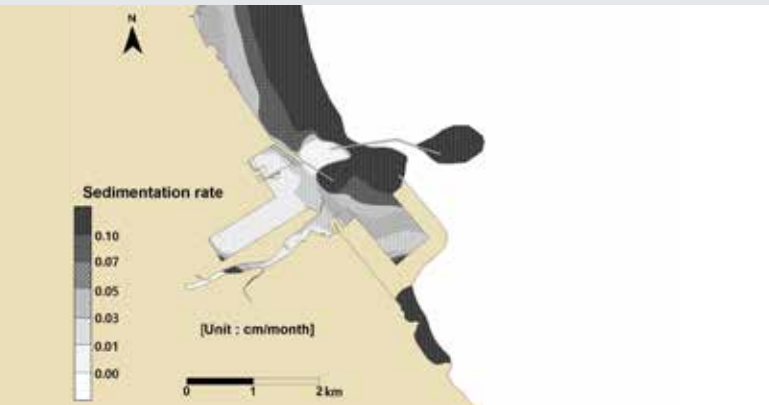
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1. Consultancy Services for Detail Design for flood control storage expansion "Bulgap Reservoir" Fast Track project
2. Design Review for Development of Techniques for Practical Use of Marine High-Cycle Biocarbon Production (BiSO) Plant
3. Consultancy Services for Basic & Detail Design for the Bonghwa Dam
4. Design for Wastewater Treatment Facility for LG Chem UT-CENTER
5. Consultancy Services for Design, Procurement Service and Supervision for Colombia Termonorte 93MW Dual Fuel Power Plant Project in Colombia



# Environmental Services

KDEC provides professional environmental experts to provide sustainable environmental services related to the construction of public and social infrastructure such as roads and land development etc.



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- 1. Environmental Impact Assessment for establishment of eco-friendly ecological river "Hwangguji River Environment Maintenance Project"
- 2. Environmental Impact Assessment for establishment of ecological network "Seoul Ogeum district Housing development Project"
- 3. Environmental Impact Assessment for dredging monitoring Project for the Naval port
- 4. Air Quality Diffusion Modeling for Seocheon Thermal Power Plant for the Closure
- 5. Modeling for the Road Noise Reduction Project "National Bypass Road #3"



## Project Management Services

KDEC provides Construction Supervision/ Inspection services for private and public projects such as site and utility construction, roadway construction, building construction, and highway/bridge/tunnel construction. Existing infrastructure inspection services are also provided. We have the ability to provide responsive, quality services to meet the needs of local governments, state governments, private developers and utility companies. Our seasoned construction managers, engineers and inspection staff are well versed in construction contract administration and compliance.

- Construction of Roads, Airports and their auxiliary facilities.
- Housing and Industrial complex construction
- Water supply service and Sewage Treatment Plant Construction
- Construction of Distribution complex and Leisure facilities
- Public facility, office building, multi-use facility construction



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1. Project Management site for the Construction of Bridge
2. Road surface inspection
3. Bridge Slab Reinforcement inspection
4. Quality Control for Dongbu Expressway Construction Project in Seoul





KDEC bring a unique, independent, focused technical engineering expertise to our clients who need expert, value adding and innovative solutions. By leveraging the wealth of expertise in our team in conjunction with knowledge gain through R&D, we are able to provide positive project outcomes for the management of risk and the development of infrastructure design solutions for all matters relating to the infrastructure.

Within our KDEC technology and research centers we constantly strive to improve our and services, to broaden their use and to develop new applications. In addition, with our outstanding capacities in research and development we can take on technology projects at the request of individual customers, who are faced by unusual challenges.

We have adopted a Quality Management Policy to support the development of a quality culture in which all staff assume responsibility for quality and engage in quality management at all levels and areas of the Company.

There is a clear focus on the Company's stakeholders, foster cross unit collaboration, exchange of 'best practice' and critical self-evaluation.

The Company's Quality Management Policy framework aligns the procedures and practices, and is embedded within all areas of the Company's activities.

The Quality Management Policy has been aligned with ISO 9001:2015 (Quality Management Systems) and ISO 14001: 2015 (Environment Management Systems)

## Innovation and Technology





## GLOBAL NETWORK

## An Internationally Trusted Partner

We work with a range of firms, both in South Korea and internationally, to create mutually beneficial partnerships that support our own business objectives and those of our partners. Based on shared values and expertise, our partnerships provide both the client and the firms with which we collaborate the opportunity to leverage additional support and enhance progress through shared knowledge, resources and capabilities.



Algeria



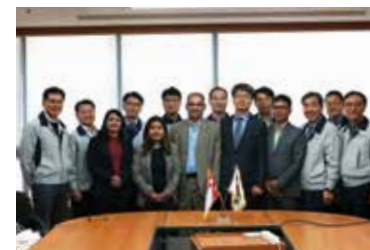
Tanzania



Indonesia



Republic of the Union of Myanmar



Nepal



Ethiopia



Republic of Cote d'Ivoire



Sudan