

SHENZHEN EXPRESSWAY COMPANY LIMITED

(A joint stock limited company incorporated in the People's Republic of China with limited liability) (Stock Code: 600548 (SSE) 00548 (HKEx))

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2018 SOCIAL RESPONSIBILITY REPORT The Board of directors of the Company and all members of the Board confirm that there are no false representations or misleading statements contained in or material omissions from this Report, and severally and jointly accept responsibility for the truthfulness, accuracy and completeness of the contents of this Report.



Stock Code: 600548 (SSE) Stock Code: 00548 (SEHK)

Introduction

We publish the annual Social Responsibility Report with an aim to regularly and systematically provide the information on fulfillment of corporate social responsibility by the Company to stakeholders such as the Company's shareholders, customers, employees, service providers and partners, and government authorities, non-governmental organizations and community, and hence strengthen the understanding and relationship between the stakeholders and the Company, and accept supervision from the society.

Reporting Cycle

Annually. This Report is the tenth Social Responsibility Report published by the Company.

Reporting Period

This Report covered the year 2018 (i.e. from 1 January 2018 to 31 December 2018). Taking into account the continuity and comparability of the information disclosed, some of the information is adjusted forward or backward properly.

Coverage

The Company and its subsidiaries.

Basis of Preparation

This Report has been prepared according to the requirements of the Guidelines on Preparation of Corporate Social Responsibility Report of the Shanghai Stock Exchange and with reference to the Environmental, Social and Governance Reporting Guide of The Stock Exchange of Hong Kong Limited. This Report focuses on the responsibility and practices of the Company in relation to product liability, employees, environment, community and other aspects.

Indicative Statement

The references to "Shenzhen Expressway", the "Company", the "Group" or "We" used in this Report represent Shenzhen Expressway Company Limited and/or its subsidiaries for identification purpose; the "Headquarters" represents Shenzhen Expressway Company Limited and its directly-managed subsidiaries in Shenzhen. All amounts are presented in Renminbi (RMB), unless otherwise stated within this Report.

Date of Approval

22 March 2019.

Form of Publication

This Report is available and can be downloaded from the website of the Shanghai Stock Exchange (http://www.sse.com.cn) in Chinese, the website of The Stock Exchange of Hong Kong Limited (http://www.hkexnews.hk) in both Chinese and English and the website of the Company (http://www.sz-expressway.com) in both Chinese and English. For further enquiries, please contact us at (86)755-82853411 (by fax) or ir@sz-expressway.com (by e-mail).

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Member of Shenzhen International Holdings Limited

Overview



Overview

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I. Social Responsibility Concept

The Company is principally engaged in the construction and investment of high-grade highways, which does not only meet the needs of society for rapid transportation, but also effectively facilitates the regional economic and social development. As such, it is the basic social responsibility of the Company to provide high quality products and thereby safe, speedy, cost-efficient and comfortable transportation services to the society.

To take note of the possible concerns of products arising from the process of design, manufacturing, delivery and use, and take active and responsive measures during these processes, so as to achieve the harmonic equilibrium between the enterprises' products, people and the nature.

While providing products and services and deriving profits, enterprises should respect the interests of all stakeholders and continue to show their concerns for the impact on the environment. Such concerns and respect not only come from the importance of stakeholders to corporate development, but they also come from the gratitude and return of enterprises to the society and the environment in which they rely on for existence.

II. Social Responsibility Statement

Committed to good corporate citizenship, the Company has incorporated the concepts of sustainable development and social responsibility into its daily operation and corporate culture. While achieving its growth, the Company assumes its responsibilities towards its stakeholders, such as its shareholders, customers, employees, creditors, service providers, the community and the environment. Our responsibility statement is as follows:





Environment and Resources

Shenzhen Expressway regards environmentally-friendly, recycling and low carbon operation as an important guarantee for corporate sustainable development, strictly complies with the Government's legal and regulatory requirements for green operation in its operation. The Company pays attention to the conservation of water and soil resources, advocates green operation, actively promotes application of innovative materials and technologies, and promotes recycling of resources. The Group's strategy in the five years between 2015 and 2019 has expressly stated the development path with urban infrastructure and environmental protection industry as the main target of its upgrade and transformation. With the implementation and progress of such a strategy, the Group has stepped into segments in environmental protection such as water environmental protection industry, the Group will be committed to facilitating operation and development of the environmental protection industry and endeavor to practice its social responsibility of environmental protection and building Beautiful China with real actions.

Social responsibility strategy of the Company--environment Rational utilization of resources and environmental protection to facilitate the actual usage of environmentally-friendly technologies and materials in stages such as daily management, project design and construction.

Shenzhen Expressway has incorporated its business philosophy of environmentally-friendly, recycling and low carbon into every stage and the whole process of its operation, strictly complies with the following laws, regulations and industry provisions such as Environmental Protection Law, Air Pollution Prevention Law, Solid Waste Pollution Prevention Law, Water Pollution Prevention Law, Environmental Impact Assessment Law, Regulations on the Administration of Construction Project Regarding Environmental Protection, Regulations on the Administration of Construction Project Regarding Environmental Protection in Guangdong Province, Regulations on Protection of Drinking Water Sources and Water Quality of Guangdong Province, Regulations on Prevention and Control of Solid Waste Pollution to the Environment of Guangdong Province, Regulations on Environmental Impact Assessment of Highway Construction Projects promulgated by the Ministry of Transport and Regulations on the Reduction and Utilization of Construction Wastes of Shenzhen Municipality, and has formulated respective systems, working procedures and operational guidelines in respect of each operational stage, so as to ensure the enforcement of such laws and regulations.

I. Green Operation



The Company views green transport and low-carbon operation as its basic management requirements and has formulated relevant pollution prevention and emission reduction systems or operational guidelines for each operation stage and has introduced smart equipment and information-based technology so as to enhance operational efficiency and monitor working process which will in turn reduce energy consumption and emission, prevent waste pollution to the environment and actively promote the recycling of waste materials.

Green office

The Company attaches importance to guiding employees to develop a sense of thrift and consciously practice economy. The air conditioning of the office shall be kept above 25 degrees. Office devices shall be set in energy-saving mode or turned off when unused for a long time so as to reduce standby energy consumption; while computers, printers and other office devices as well as water dispensers shall be turned off before getting off duty. The Operation Management Department also required our employees to be in strict compliance with relevant rules regarding saving water and electricity. A maximum amount for monthly electricity and water consumption is set for every person in the budget of each toll collection station, and an assessment is carried out on a quarterly basis. In daily office administration, new environmentally-friendly and energy-saving products shall be used whenever different kinds of lighting facilities are to be added or replaced. The Company has established an application and approval system for office supplies to ensure only necessary office supplies are procured and reduced waste. Degradable products were used as far as possible in terms of papers used for daily office operation and packaging materials, while food waste in canteens are recycled by qualified enterprises. The vehicle usage system was also reformed to reduce working energy consumption and emission. In 2018, the Group vigorously promoted the development of its information-based system to enhance management efficiency and to achieve systematic paperless office through information-based, segment-oriented and scientific management of business. In 2018, the Group recorded an annual office electricity consumption of about 29.38 million kw.h and an annual office water consumption of about 0.746 million tons.



Green operation

For operation and management of highways, the Company improved manual toll collection efficiency by strengthening trainings on toll collection process and the related skills, and measures such as setting up lanes for ETC automatic payment and installing self-service card issuing machines are adopted to improve the traffic efficiency. In 2018, the Group's "Shenzhen e Traffic APP Integrated Service Platform" ("Shenzhen e Traffic") with its own intellectual property rights was officially launched, which was the first to achieve senseless payment and actual operation in Guangdong Province. As at the end of the Reporting Period, senseless payment was launched in 6 expressways, including Jihe, Coastal, Meiguan, Shuiguan, Longda and Qinglian. By achieving mobile payment without stopping, traffic jam was reduced and traffic efficiency was enhanced, thereby ensuring highly-efficient use of road resources and facilitating the reduction of fuel consumption and gas emission of vehicles.

Throughout the years, only paper invoices could be issued for the toll collection of cash lanes in the expressway industry. After conducting in-depth study of related policies and multiple communication and negotiation with related government departments, the Company successfully issued the first e-invoice of MTC lanes on 27 June 2018. It was the first time that the e-invoice module is applied to MTC lanes in the domestic highway industry. It is expected that invoice cost of approximately RMB3.84 million can be saved every year.



■ Green construction

As for administration of engineering construction, the Company put emphasis on environmental monitoring, formulated technical specifications and construction administration procedures for each project, and made use of contracts to ensure construction contractors be abided by various rules and regulations and complying with all environmental regulations specific to the industry. For instance, as clean production is required during the process of construction, construction parties shall use commercial concrete and prefabricated parts as far as possible to reduce wastewater produced by construction and try to use advanced construction equipment whenever it is possible to reduce the discharge of oil-containing sewage. Domestic sewage or other sewage at construction sites shall not be discharged into municipal drainage pipelines or rivers before treatment, while wastewater and mud produced by construction activities shall be drained to the sedimentation tank or grease trap, from which the water recycled after treatment will be used for dust suppression at the construction site and the dried mud will be transported to the landfill for recycling. The recycled wastewater which is unutilized will be delivered by sealed sewage suction trucks to the municipal sewage treatment plant for centralized treatment. In order to reduce air pollution arising from construction, the Company strictly complied with Shenzhen Air Quality Enhancement Plan (SHENFUBAN [2013] No.19) and Administrative Measures for Dust Pollution Prevention and Control of Shenzhen, prohibited usage of diesel-fueled construction machineries that fail to meet the national emission standards and forbade burning of toxic, harmful and odorous substances at the construction site. Moreover, more stringent dust pollution control was implemented at the construction site by taking measures such as regular cleaning of equipment and construction site, sprinkling water, covering the construction broke bits, and setting up enclosure so as to effectively reduce dust pollution. With regard to construction wastes, the Company conscientiously complied with Regulation on Reduction and Utilization of Construction Wastes of Shenzhen, Measures on the Administration of Earth and Stone Works of Shenzhen and other relevant provisions, made plans in advance for comprehensive utilization, recycled some exploitable earth and stone as roadbed filler after treatment, and delivered construction sludge and broke bits to the designated spoil ground for recycling. For instance, during the course of construction of the Outer Ring Project, in order to solve the dust pollution problem at the construction site, the Company was in strict compliance with the requirements of the Proposal on Specific Monitoring and Inspection for Dust Pollution Prevention and Control of Shenzhen. The Company applied both real-time environmental monitoring equipment as well as manual inspection to supervise the construction, which were in strict compliance with processes for dust control, including road closure for construction, soil covering, cleaning of vehicles entering and leaving the construction site, sprinkling water on passages, using fog guns for dust control, centralized treatment and separation of mud, hardening treatment of passages, greening of slopes and sewage treatment and recycling in three levels.

In the course of construction of the Outer Ring Project, the Company required the construction party to strictly implement the "seven 100%" of dust control, namely the construction area must be 100% enclosed; 100% hardening treatment must be carried out over the construction site pavement; the vehicles entering and leaving must be 100% washed; the bare soil must be 100% covered or greened; 100% water sprinkling for dust control must be carried out in dust-diffusive construction sites; the entire contract section must ensure 100% installation of TSP automatic dust inspection system; site sand storage must be 100% covered. As of the end of the Reporting Period, the green net of the Outer Ring Project covered 2.41 million square meters of land, installed with 67 washing bays and 123 sets of TSP automatic dust inspection system, deployed with 181 fog guns, equipped with 56 water spraying cars, which has effectively controlled dust pollution at the construction site of highways and reduced impact on the environment for human settlement.

■ Green maintenance

For maintenance and administration of road assets, provided that same quality can be guaranteed, the Company preferred innovative energy-saving and environmentally-friendly products and green building materials. The Company has formulated technical specification documents such as Technical Specifications and Acceptance Criteria for Daily Cleaning Projects, Technical Specifications and Acceptance Criteria for Minor Repairs, to guarantee efficient and smooth rides and reduce vehicles' fuel consumption by conducting regular and frequent inspection on technical indicators of highways and providing scientific and appropriate preventive maintenance. In addition, the Company also attached importance to strengthening administration of vehicles carrying toxic and hazardous chemicals on highways by requiring such vehicles to ride in a specific period of time so as to reduce the possible adverse impact of leakage accidents.

In 2018, all relevant laws and regulations were duly observed, and the Group had not experienced any environmental pollution accident, nor had it been subject to any complaint, fine or sanction due to environmental pollution or violation of environmental regulations. The emissions generated by the Group's operations mainly arise from construction activities, which had been outsourced to construction contractors with specific qualifications. These contractors were obliged to engage in construction activities according to law (including control of emissions according to statutory requirements). Through strict implementation of contractual requirements, the Group has fulfilled its

duties of supervision on construction contractor by strictly implementing the contractual requirements. It has conducted regular inspections and assessments and carried out credit evaluations on contractors' contract performance to ensure construction to be carried out in compliance with laws and regulations. During the Reporting Period, the Group was not informed of any non-compliance with relevant laws and regulations by any of such contractors. In addition, the Group has no disclosable information about the emissions by such contractors.

II. Resource Conservation

According to the policies and requirements on environmental management of the Group, the Company proactively advocates the application of innovative technology, innovative processes and innovative materials, and has effectively saved resources and promoted the comprehensive utilization efficiency of resources through measures such as energy administration and reform of road maintenance technology.

The Company applies the concept of resource conservation in every procedure of its operating activities. In 2018, the Company delivered approximately 120m³ of waste generated from maintenance of road surface of Shuiguan Expressway to asphalt mixing station for recycling and reuse. 100% degradable planting bags were also used in most green conservation work of the Company for landfill and greening, and recycled water was used to water vegetation for the purposes of resource conservation and environmental protection. In recent years, in order to save electricity, the Company launched EMC contracted energy management and investment model for the main highway projects in Shenzhen, whereby road lamps and canopy lamps of toll collection stations were replaced with energy-saving LED lamps. In 2018, a total of 130 road lighting projects implemented in the sections directly managed by the Company in Shenzhen achieved significant results in both energy conservation and emission reduction, saving an aggregate of about 4 million kw.h of electricity and reducing CO_2 emission by approximately 3,000 tons. In addition, the Advertising Company of the Group carried out technical reform of energy-saving LED system for the lighting system of outdoor bill boards and installed solar power lighting system for certain advertising poles with long wires and high energy consumption. The electricity consumption was reduced by about 62.3kwh in 2018. The energy-saving LED reform project for the lighting in 21 single tunnels along Qinglian Highway was completed by the Company in 2018. The Company has saved energy and effectively reduced operational and management costs by implementing energy control measures.

The Company has been committed to promoting the application of innovative materials and innovative processes. In recent years, the Company has conducted relevant researches on preventive maintenance technologies in joint efforts with industry experts and has successfully applied hot-in-place recycling technology to highway maintenance and reconstruction, which has yielded positive results. Compared with traditional processes, the hot-in-place recycling technology has many advantages, including less resources consumption, less investment, less traffic disruption and short lead time. Through immediate access to on-site materials, this technology can make use of waste asphalt mixtures to the largest extent to save a large amount of gravel stone materials and asphalt, thereby mitigating damage to the ecological environment from stone material exploitation, as well as conserving the occupied land resources from stone material exploitation and placement of piled waste asphalt mixtures. Meanwhile, this technology can reduce the impact on abandoned sites and their surrounding environment. As the transportation distance has been shortened, the transportation volume has been reduced and so as the carbon emission. For instance, in 2018, crack-repairing technique and new CAP heat-sewing materials were fully adopted in repairing 2,580m of Shuiguan Expressway. Comparing with the traditional potting material, this new material enjoys a shorter heating time, which simplified the construction process, reduced interference on the traffic and mitigated the air pollution stemmed from scorching of traditional joint-fillers. With features such as no chipping, anti-cracking, complete sealing along cracks, enhanced road safety, energy-saving and environmentally friendly, such material reduced frequency of large- and medium-scale road maintenance, thereby not only lowering the operating costs but also help protecting the environment.

Other resources used in the Group's operations were mainly used in construction activities, which had been outsourced to construction contractors with specific qualifications. These construction contractors were obliged to engage in construction activities according to law (including the management of resources utilization according to statutory requirements). The Group has fulfilled its duties of supervision on construction contractor by strictly implementing the contractual requirements. It has conducted regular inspections and assessments and carried out credit evaluations on constructors' contractors to be carried out in compliance with laws and regulations. During the Reporting Period, the Group was not informed of any non-compliance with relevant laws and regulations by any of such contractors. In addition, the Group has no disclosable information about resource utilization by such contractors.

III. Reduced Impact on the Environment

As arable land, woodland and water sources may be occupied during the construction process of highways, which might affect the natural environment and the life of residents along the highways to a certain extent, Shenzhen Expressway pays much attention to the impact of project construction on the environment. The Company's concern over environmental protection is manifested in product planning, design, construction and management of highways:

At the stage of project line planning and design, the Company entrusts a third party with corresponding qualifications according to the requirements of industry standards to make special study on the environmental impact of the project and prepare an assessment report thereof to assess the possible environmental impact of the project on the areas along the line, and propose soil and water conservation, ecological protection and pollution prevention and control measures in the design and construction plan based on the scope and extent of adverse impact. For instance: **Rational use of land**: Select appropriate location of the highway in line with the local land planning, with a view to reduce occupation of farmland, arable land and economic forest and minimize demolition and relocation, and set up earth-retaining walls, revetments or viaducts based on economic and technological comparison in order to occupy less land and save land resources; **protection of water sources**: Routes of highways should be planned to avoid crossing water sources and not to occupy the drinking water sources of areas with concentration of urban resident, while well-designed drainage system for highways should be in place to avoid draining sewage into the water or soil on both sides of highways. Greening and other isolation protection measures are also necessary to protect the water sources from contamination.

At the construction stage, the construction contractors are required to strictly implement measures on greening, soil and water conservation, and pollution prevention. The earth needs should be satisfied first by the earth and stone in excavation section, and second by the earth in barren areas., with a view to protecting local vegetation and water resources, and the borrow pits should be taken into consideration together with local aquaculture and farmland irrigation and drainage. The damage of construction spoil to vegetation and its occupation of farmland should be minimized. Rational planning for reclamation or greening should be made so as to improve land regeneration resources. In order to prevent construction noise pollution, the Company took the implementation of relevant provisions seriously, including Environmental Noise Emission Standards for Construction Sites (GB12523-2011), Regulations of Shenzhen SEZ on Environmental Noise Pollution Prevention (revised in 2011), Regulations of Shenzhen on Administration of Construction Noises, etc. It also required the installation



of mufflers for construction machineries and transportation equipment, reasonable arrangement for construction sites and time and placement of noise barriers.

At the stage of road operation, the Company adopted preventive measures, such as external-soil spray seeding and grassing, side slope and slope angle grouting and dry building, for the soil and stone side slopes along highways, to prevent water loss and soil erosion. At the same time, the Company also valued the cultivation and conservation of the green belt along highways, and skillfully integrated green forest plants with noise insulation, dust proof and air cleaning functions into natural landscape in order to build ecological, environmentally-friendly and beautiful highways.



IV. Engagement in the Environmental Protection Industry

During the process of strategy execution in the five years between 2015 and 2019, Shenzhen Expressway has further decided that the main target of upgrade and transformation would be urban infrastructure and environmental protection industry upon the Company's assets (i.e. toll highways), with an aim to becoming an industry leader in terms of segments in environmental protection such as water environment remediation and solid waste treatment through cooperation with industry-leading enterprises, merger and acquisition of enterprises with advantages, independent innovation and operation and other methods.

To achieve this strategic goal, the Company has established Environmental Company and built a professional team responsible for expanding into the environmental protection businesses. After in-depth study and proving, Shenzhen Expressway made significant progress for expansion into the environmental protection industry in 2017, it acquired 15% equity interests in Shenzhen Water Planning & Design Institute Company Limited ("Water Planning Company") and 20% equity interests in Chongqing Derun Environment Company Limited ("Derun Environment") by way of equity investment, merger and acquisition. Water Planning Company is an institute for comprehensive water planning and design, which possesses A-grade qualifications in areas such as water conservancy industry and municipal water supply and drainage. Derun Environment has better technological advantage, scale advantage and regional competitive advantage in water treatment and waste incineration power generation. Through cooperation with branded enterprises in the relevant industries, Shenzhen Expressway would be able to start from a high starting point into the fields of water environment remediation, solid waste treatment and waste incineration power generation, thereby securing professional technological resources and opportunities for high quality project investment to achieve joint development.

Layout of the Environmental Protection Business



- Acquired 20% of equity interests in Chongqing Derun Environment Company Limited, through which it has tapped into the environmental protection industry from a high starting point, accumulated operation and management experience in environmental protection and obtained quality cooperation resources;
- -Subscribed for 15% of equity interests in Shenzhen Water Planning Company after the capital increase, through which it has obtained quality technological resources designed by the Water Planning Company, which has in turn provided professional foundation and cooperation resources for the Company.



- Focused on seeking investment opportunities in areas such as disposal of solid waste and hazardous waste, integration of environmental protection with sanitation and treatment of water environment, while conducting researches on and engaged in various investment projects;
- Actively explored the clean energy sector and conducted preliminary researches on the projects.



- Investigated and engaged in various macro environmental protection projects, proactively seek for merger and acquisition opportunities of quality equities and established strategic cooperation relationship with wellknown domestic enterprises to expand business resources;
- entered into contracts with Suez Group, France in July 2018 to establish a joint venture with a view to complementing the weakness of business of each other and strengthening the market competitiveness on a win-winbasis.

🗖 Mammen River Water Treatment

🗖 🛛 Investing in Water Planning Company 🧧 Investing in Derun Environment







🗖 Longli Waste-to-EnergyProject



With acceleration of speed of urbanization and industrialisation, a large amount of domestic sewage and industrial sewage was discharged into urban rivers, causing material impact on the social environment and quality of life. The Company commenced to engage in the Nanmen River Water System Comprehensive Treatment Project of Shenzhen-Shanwei Cooperation Zone in 2017. The main purpose of the project was to strengthen the capability of flood control and disaster mitigation of Ebu town in Shenzhen-Shanwei Cooperation Zone and ensure regional flood control safety, while achieving comprehensive treatment of the river ecological environment.

The Company has worked with professional design institutions to carry out detailed on-site explorations and researches on river distribution, mountains and landforms, functions of peripheral areas and buildings to formulate a comprehensive plan. In respect of design, the Company has taken the complementary effect and harmony between water resources utilization and the ecological environment of the peripheral area into comprehensive consideration, aiming to achieve the goal of flood prevention, prevention and control of torrents and geological disasters, at the same time reducing the damage of constructions on natural resources and environment, so as to maintain the natural form of river to the greatest extent. Expert groups have been engaged to carefully and comprehensively diagnose the cause of river pollution and formulate a systematic treatment plan in professional and practical manner, thereby achieving effective treatment through comprehensive measures such as ecological remediation, river dredging, elimination of internal and external sources of pollution and pollution source control. In 2018, the Nanmen River Water System Comprehensive Treatment Project has basically completed the river course treatment with work surface, which not only formed a comprehensive flood-prevention system for Nanmen river water system, but also effectively protected the areas along the river. Moreover, the conditions of the previously polluted rivers have been changed. With clear water and green grass along the river, the living environment of residents has been effectively improved.



During the Reporting Period, the Group also proactively conducted site visits and negotiations in respect of research and investment projects regarding treatment of industrial sewage and waste, sanitation integration and remediation of water environment. In conjunction with the regional expansion strategy, the Group will participate in comprehensive urban development and construction, thereby strategically expanding into the area of construction and operation of environmental protection projects such as environmental sanitation integration, solid waste integration, comprehensive water environment remediation and waste power generation, contributing to the growing of environmental protection business.



Quality and Services

Shenzhen Expressway is principally engaged in the construction and investment of high-grade highways. It is the Company's basic social responsibility to provide high quality products and thereby safe, speedy, economical and comfortable transportation services to the society. The Company has implemented ISO9000 quality control and management system in the whole Group and built quality and safe highway products by promoting institutionalized, systemized and informational quality control and management system. Besides, the Company keeps good technological conditions of highways during operation and management periods to ensure the quality and safety of the products and services provided.

During the process of construction and management, the Group required all its business departments to seriously study and implement relevant laws, regulations and industry provisions such as Highway Law of the People's Republic of China, Product Quality Law, Measures on the Administration of Highway Project Quality, Several Opinions on Strictly Implementing Highway Project Quality Responsibility System (JIAOGONGLUFA [2008] No. 116), Environmental Protection Law of the People's Republic of China, Technical Standards (Norms) for Highway Projects (Maintenance), Regulations on the Administration of Toll Highways, Measures on the Administration of Inter-network Toll Collection of Expressways of Guangdong Province, Inspection Management System of Guangdong Province Concerning Inter-network Toll Collection of Expressways of Guangdong Province (Trial), and Rules on the Operation of Inter-network Toll Collection of Expressways of Guangdong Province (Trial). During the Reporting Period, all relevant laws, regulations and industry provisions were duly observed.

I. Construction of Quality Highway Products

The Company has established the business process and quality control system covering pre-project planning, project design, project bidding, materials monitoring, construction and project operation. For every aspects of project operation, the Company will enter into relevant business contracts with its cooperating parties, supervise all responsible parties in performing their duties according to the terms of the contracts and ensure the quality and safety of construction projects through scientific quality management systems and technologies.

In order to ensure the safety and quality of the construction works, the Company placed strong emphasis on pre-project technical management. It will carry out site survey and conduct specific technical study and verification for the project so as to provide basic information to the designers. Besides, it will fully participate in preliminary work such as feasibility study, initial design and design of construction drawing, and make in-depth communication and discussion with the designers about the key issues of the construction project, so as to minimize design defects of projects and reduce safety risks during the implementation process.

During the tendering stage, the Company formulated the Procedures for Project Tendering Management (工程招標管理規程) and Procedures for Special Construction Technologies (專用施工技術規程) in accordance with the regulatory requirements regarding quality management and tendering and bidding management. The Company will review the qualification of potential contractors, strengthen its control over the quality of tender documents, and create appraisal and assessment records for the constructors with whom it cooperates, striving to select qualified constructors and establish long term cooperation relationship with creditworthy partners.

During the project management process, the Company treats contract management as the core and implements refined control over construction quality through measures such as system management, access management, construction procedure management, and standardized management. It implements quality management systems such as access management for equipment, access system for raw materials, owners' independent random inspection system, first construction recognition system, and trial construction system, so as to ensure accomplishment of quality goals. The above is mainly reflected in the following aspects:

Development of construction management measures: To provide assurance for the quality and safety of the construction works, the Company has prepared and strictly executed various management manuals including Procedures for Engineering Quality Management (工程質量管理規程), Procedures for Construction Safety Management (施工安全管理規程), Engineering Construction Organization Design Scheme (工程施工組織設計方

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案), Manual for Standardized Management of Engineering Construction (工程施工標準化管理手冊) and Manual for the Prevention of Common Quality Issues (質量通病防治手冊), with a view to ensure that the construction works comply with the requirements on quality, safety, cost, progress and environmental protection, etc.

Strict control over materials and equipment access: In order to ensure construction safety and quality, materials and equipment will be subject to access system. Intensive supervision shall be imposed for key materials including steel frames, steel strands, abutments and anchorages and the key materials approved shall be procured within the scope agreed in the contracts; other materials shall be subject to joint review by the supervision office and the management office. With an aim to forbidding fake and inferior products from entering into the construction entity, materials will be subject to monitoring throughout the whole process from access, entry, storage and use, during which the construction entity shall assume the supervision responsibility and safeguard the quality of materials in a pragmatic manner. At the same time, all machineries and equipment, construction tools, vehicles and ships will be subject to access management before entering into the construction site and entering will only be allowed after passing the inspection by the supervisor. During the use of the equipment, the supervisor should arrange the contractor to check its overall performance regularly. If any problem is found, the contractor should make timely rectification, and should not use such equipment until it passes inspection in order to ensure its safety and performance during use.

Implementation of project supervision system: In order to ensure the quality of projects, the Company strictly enforced project supervision system, launched materials pre-examination and access system, and implemented an acceptance system for formworks and steel frames and the aside supervision system for key processes. Each process or sub-project, upon completion, is subject to self-inspection \rightarrow independent inspection by supervision engineer \rightarrow carry out rework or remedy in case of non-conformity, and the next process or sub-project can only be commenced until the inspection is passed.

■ Implementation of "first construction inspection system": The Company fully implements the

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"first construction inspection system" by adhering to the principle of "prevention-oriented pilot trial". The Company will determine the best process and set an exemplary project by making comprehensive assessment on the indicators in respect of the process, technology and quality of the first construction work, which will serve as guidance for the subsequent construction works. During the construction process, the Company will timely strengthen special inspection to suppress deviation from the "first construction system" for the whole construction process, so that first construction work with deterioration of quality and change in management after commencement of large-scale construction work shall reconstructed. During the year, the Company strictly implemented the "first construction inspection system" for its all construction works, including reclamation of roadbed, pile foundation of bridges, pile cap, pier column, bent cap, cast-in-site bridge, cast-in-cantilever bridge, retaining wall and culvert.

Best equipment enhances quality: The Company advocates an idea of ensuring processes with equipment, ensuring product quality with processes, thereby enhancing overall quality by improving product quality. Outer Ring Project vigorously promoted construction mechanization and automation to advocate an idea of "Replacement and reduction of manpower through mechanization and automation". Currently, reinforcement bar processing plant is equipped with the standard set of three equipment including rolling machine, and some of the construction sections actively raised the level of mechanization by adding new equipment including large automatic cutting machines and automatic welding, so as to improve effectiveness and ensure quality. The prefabrication and hoisting of steel frames including pier column and bent cap in scale in processing plant will be promoted so as to improve the passing rates of steel frame separation and protection layer.

■ Strengthening management of information-based means: The Company collected and processed quality inspection data by information-based means, and improved the truthfulness and reliability of the data by actively using advanced equipment with convenient and automatic data collection and transmission. Currently, each section laboratory and concrete batching plant was installed with video surveillance and data collection system, the data of which could be adjusted and monitored through mobile APP on a real-time basis, with automatic alarming system in case of exceeding indicator limits. At the same time, video surveillance and stress sensing and alarming system were installed on lifting machines so as to monitor the real-time construction safety of viaducts and bridges to ensure construction safety.

In 2018, the Group took significant engineering projects such as Outer Ring Project and Coastal Project as vehicles to promote the application of innovative technology in construction projects. By monitoring the construction sites and special equipment, we have realized visualized demonstration and real-time monitoring of the production process, thereby providing effective support for production safety. By recording the information on thousands of general structures and engineering metals through QR code system, we have improved the efficiency of handling enquiries and enabled convenient data transfer for subsequent operation and maintenance. During the year, the Group also commenced tasks such as the development of a BIM consolidated management platform, business integration and preparation of technological standards. By promoting the application of the BIM consolidated management platform, the sharing and transfer of construction data and information in the whole life cycle of design, construction and maintenance will be realized, thereby achieving synergic management of multiple organizations including the entities responsible for building, construction and supervision, which will in turn enhance the production efficiency and reduce the consolidated cost.

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Quality and Services

II. Maintaining Highway Quality

The Company has been strictly adhering to the National Highway Maintenance Technical Specifications and Assessment Criteria. During the Reporting Period, the Group commenced multi-level and multifaceted inspections and examinations, conducted routine inspections, frequent inspections and regular inspections of the managed expressways, so as to ensure the safety of structures such as bridges and tunnels. The Company has been closely monitoring technical conditions of highways to identify and make corrections for highway damages as early as possible. In order to ensure that the highways traffic quality, the Company has formulated a mid-to-long term maintenance plan for each expressway mainly based on the 5-year maintenance system. The maintenance plan served as a guideline for the maintenance work in each year during the operation period, and was improved and amended based on the annual inspection result of the technical conditions of the highways.

Commencement of multi-level and multifaceted inspections and examinations



In 2018, the Company vigorously promoted the construction of intelligent monitoring system for major infrastructure, through which it can promptly and accurately monitor and predict the damages of major infrastructure such as slopes and bridges and achieve preventive maintenance in an accurate and scientific manner. This will help reduce cost and enhance efficiency and provide the public with transportation facilities that are safe and in good condition. By the end of the Reporting Period, the indices of technical conditions of each expressway managed by the Company were graded as excellent or good.

Quality and Services



Remark: Highway Technological Condition Evaluation comprises four parts, namely road surface, road bed, bridge and tunnel structure and roadside facilities, represented by MQI (Maintenance Quality Indicator), a highway technological condition index, and corresponding sub-indexes. It is classified into five grades, namely excellent, good, average, sub-standard and poor, where a project scoring 80-90 is good, and over 90 is excellent.

III. Enhancement of Service Quality

Sound efficiency of road use is an essential prerequisite and a guarantee to enhanced service quality of road traffic. Through the establishment of the management mechanism for maintaining smooth traffic during emergency by promoting intelligent traffic management and timely communication with customers through 24-hour customer service centre and reporting real-time traffic updates, the Company has boosted customers' satisfaction with its enhanced service quality.

1. Establishment of Smart Traffic Management System

With rapid development of information-based technology such as the Internet of Things (IoT), big data, and cloud computing, intelligent traffic has become the development trend of general management of modern traffic. In recent years, the Group has commenced cooperation with professional research institutions and technical teams to actively promote the establishment of comprehensive smart traffic management system, and realized systematic management over various administrative modules such as full surveillance, big data monitoring and analysis, conduct and dispatch and post-administration assessment so as to improve traffic information release and effectively guide the traffic and evacuate traffic flow.

During the Reporting Period, the Group signed a strategic cooperation framework agreement with Baidu Netcom Science and Technology Co., Ltd. The two parties intended to integrate resources, carry out extensive cooperation in smart traffic, smart environmental protection, and information-based upgrade of the Company to jointly promote intelligent transportation infrastructure construction, management and services. During the Reporting Period, both parties have applied artificial intelligence (AI) in the strategic consultation and planning of projects, during which AI has been applied in scenario planning based on engineering segment and operation segment. The Group has been deeply exploring the application research of intelligent booths and promoting the research of unattended lanes solution and has commenced pilot schemes.

In late June 2018, the Group's "Shenzhen e Traffic" with its own intellectual property rights was officially launched, and it was the first to achieve senseless payment and actual operation in Guangdong Province. As of the end of the Reporting Period, the construction of 486 senseless payment lanes on six expressways, including Jihe, Coastal, Meiguan, Shuiguan, Longda and Qinglian has been completed. The launch of senseless payment will remarkably improve the efficiency of traffic flow as well as the experience of drivers and passengers.

The Group's next move will be to focus on exploring and researching the inter-connection between "Shenzhen e Traffic" APP and transportation applications such as public car park, public transport, and metro to further expand customer application scenarios and offer momentum to intelligent traffic management system, while providing customers with differentiated services and assisting them to resolve key problems related to urban development and livelihood such as urban traffic congestion and driving safety.



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2. Establishment of Emergency Management Mechanism

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The Company established the management mechanism for traffic-flow evacuation and contingency responses during rush hours and emergency to maintain safe and smooth traffic of the roads, and has been revising and improving the mechanism continuously based on the actual circumstances. The management mechanism covers emergency and contingency responses to various situations including, among others, peak hours on festivals and holidays, road accidents, construction and extreme weather conditions. The mechanism can guide the traffic and evacuate traffic flow through systematic management over various administrative modules such as traffic flow forecast, emergency resource allocation, level-by-level response and control, standardized operation and problem-solving guidelines, business training and drilling, travel guidelines and information release, evacuation of traffic flow during rush hours, conduct and dispatch and post-administration assessment. The Company will make reasonable adjustment and allocation of emergency resources during major festivals and holidays, and actively arrange media interviews for publicity and release of warning information to ensure smooth transportation during peak hours. The Company will also conduct post-festival assessment to continuously enhance the efficiency of maintaining smooth traffic during emergency.



Sound emergency insurance system, processes and guidance on action

In order to timely deal with traffic accidents to save lives and safeguard the property of customers, the Company has established the sound service mechanism for road rescue, including compilation of Procedures for Processing Road Rescue Information to ensure a fast and efficient emergency mechanism, setting up a unified rescue hotline and erecting signage on each station and section, scrolling display of phone numbers on traffic information boards every day for convenient contact for drivers and passengers, strengthening joint action with traffic police, highway departments, and rescue units to ensure that once being notified, our staff will promptly arrive at the accident site to render rescue to ensure the personal safety and safeguard the property of customers. In 2018, the customer service centre handled 15,727 rescue cases, amounting to an average of 43.1 cases per day and representing an increase of 22% over last year. The number of cases includes 5 major accidents, and successfully removed about 13,860 vehicles by towing involved in accidents/out of order, and it takes 14.4 minutes on average to arrive at the scene.

On 16 September 2018, super typhoon "Mangkhut" landed in Guangdong. The typhoon was destructive and caused the most severe impact on Shenzhen in 20 years. The Company paid close attention and activated emergency proposal immediately to unify deployment and implement level-by-level. By noon on that day, the Company closed the highways under its management. After the typhoon departed, the Company immediately organised and commenced emergency and road clearing tasks overnight, and all traffic was resumed by noon on the following day. Since no major accidents or staff casualties occurred on sections managed by the Company, the Company safeguarded the life safety of drivers and passengers and successfully completed the disaster relief tasks.

3. Establishment of customer service channels

The Company has set up a customer service centre mainly responsible for information collection and release, emergency operation and arrangement, road rescue, customer complaint management, and customer satisfaction survey. The Company also used the customer service centre as an information hub to set up a multi-level communication platform for the purpose of listening to customers' concerns, defining the responsibilities of collection, response, analysis and handling of information and continuously improving the communication mechanism.

Information Management and Release

In order to ensure the safe and smooth flow of traffic at the managed sections and stations, and enable

drivers and passengers to have a better traffic experience, the Company's customer service center kept close contact with toll collection stations, highway departments, rescue and traffic police departments, etc., and made use of service hotline, traffic information boards, road broadcast, SMS, Weibo, WeChat, etc., to inform drivers of traffic information and provide traffic guidance in a timely manner, achieve efficient collection, recording, sorting and publishing of various information and implement emergent scheduling and support according to the actual situation. During 2018, the customer service center of the Company released approximately 16,000 pieces of different types of traffic information, up 53% over last year. Through timely information exchange, the Company has helped drivers and passengers to select reasonable travelling routes to improve efficiency of handling emergencies and road use.

■ Mechanism for Handling Customer's Complaints

The Company has established customer complaint handling mechanism, with adherence to the working principle of "replying every complaint and correcting every error". If any customer's demand cannot be satisfied on site or via telephone, the Company's customer service center will, according to the sources and categories of information, assign the handling responsibilities to specific departments which will conduct investigation on the incident, make a preliminary response within 24 hours and give the final reply after completion of incident handling. The customer service center should closely track the handling results, and do a good job of customer feedback; the Company's office and leaders should be informed of related media reports or major complaints as early as possible, and the Company will handle complaints according to policies, regulations and related business management norms.

The Company announced telephone hotline, official Weibo account and WeChat public platform to the public for consultations and complaints in order to offer timely response to customers' comments, handle complaints, and consistently summarize previous experience to continuously improve and enhance the service quality. In order to effectively provide drivers and passengers with accurate road information, the Company provides trainings to the staff of the customer service center in relation to road networks on an ongoing basis, so that they are familiar with the distribution of the sections managed by the Company, the road network within Guangdong province and in the surrounding provinces and cities. On one hand, the Company provides drivers and passengers with detailed driving guidance for their convenient travel; on the other hand, the customer service consultation hotline also offers great help to drivers and passengers when they travel.

Item	2016	2017	2018
Consultation via phone	572,000 times	427,000 times	404,000 times
Complaints regarding the operation	705	927	1,500
Total annual complaint rate	0.466/100,000 vehicles	0.535/100,000 vehicles	0.835/100,000 vehicles
Among which: reasonable complaint rate	0.039/100,000 vehicles	0.052/100,000 vehicles	0.017/100,000 vehicles

Consultation and Complaint Statistics Table of Customer Service Center

In 2018, the Company continued to improve the Cases and Analysis on Operation Complaint of Shenzhen Expressway, which provides a summary and review based on specific cases, solutions, highlights and relevant bases and delivered to each operating unit to ensure standard and consist handling of on-site complaints and problems by the toll stations in order to help improving the operation management and service quality. Social Responsibility Report 2018

o Quality and Services

■ Customer Satisfaction Survey

In order to timely understand customers' needs and continuously improve customers' satisfaction, the Company formulates the customer satisfaction survey plan every year, organizes assessments according to the plan, and carries out targeted survey on customers' opinions and demands. In 2018, the Headquarters of the Company organized customer satisfaction surveys primarily on road users by distributing questionnaires and calling for feedbacks via phone. According to the statistic results of the survey, the overall customer satisfaction index of the Company was 85.6 (2017: 84.5), which has continuously remained at a relatively high level.



Caring for the Staff



Caring for the Staff

People have always been the key element in promoting the development of Shenzhen Expressway and an essential part of the core competitiveness of Shenzhen Expressway. Shenzhen Expressway is committed to the principle of legal and equal employment and strives to create a cultural atmosphere of "honest and diligent, joyful working, harmonious and mutually-benefitted" to provide a safe and healthy working environment for the staff, and continuously promotes the appreciation of human resources to build up a desirable career development platform for the staff. The Company also introduced a management concept of "let the staff share the achievements of the Company's development" in order to achieve a harmonious win-win situation between the interests of the staff and the interests of the Company.

I. Assurance of Staff's Rights and Interests

During the Reporting Period, the Group strictly complied with the provisions of relevant laws and regulations such as the new Labor Law, Labor Contract Law, Regulations on the Implementation of Labor Contract Law of Guangdong Province and Law on the Protection of Minors, and formulated a number of internal systems in accordance with the laws, in order to effectively protect the legitimate rights and interests of employees and build up a good labor relation.

Equal Employment Opportunity

The Company pursues the concept of long-term employment with gender equality, equal pay for equal working conditions, and prohibition of employment of temporary labor, as well as employment of minors and forced labor in any manner. Adhering to our corporate human resources philosophy of "embracing diversification and maintaining an inclusive and open attitude", we will not treat candidates differently because of gender, ethnicity, geographical region, cultural background and other factors during recruitment of staff. In 2018, the Company's signing rate of labor contracts with its staff amounted to 100%, and there is no illegal dismissals. In 2018, the Company and its subsidiaries had a total number of 4,967 employees, of whom 2,278 were female employees, accounting for approximately 46% of the total number of staff, 1,045 were management and professional staff, while 3,922 were toll collection staff. The Company strictly abided by the government's legal requirements for labor time, and introduced the "Staff Attendance and Leave Management Measures" and other normative systems. Paid annual leave system has been implemented to protect the staff's rights to obtain normal workload, rest and leave according to the laws.



In 2018, the Group's overall staff turnover rate was 31%, as shown in the table below:

Breakdown of Departed Staff		Number of staff	Staff turnover rate (%)	
As per gender				
Among them:	Female	840	16.91%	
	Male	700	14.09%	
As per age				
Among them:	30 or below	1,433	28.85%	
	31-40	70	1.41%	
	41-50	31	0.62%	
	50 or above	6	0.12%	
As per region				
Among them:	Guangdong Province	405	8.15%	
	Other areas	1,116	22.47%	

Statistics table of the Group's staff turnover rate in 2018

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Remuneration and Benefits

The Company has formulated the Measures on Staff Remuneration and Benefit Management based on the Company's actual conditions and pursuant to the statutory requirements and market trends. The staff remuneration and benefits include position-linked salary, performance-related bonuses and statutory and corporate benefits, which are subject to the principle of "salary is determined based on position, and salary varies with position", and are determined according to the market value of the respective position and the overall performance of the respective employee, which are guided by the strategy, market trends and performance, taking into account of both internal and external fairness. In 2018, the Company implemented its remuneration adjustment plan again for toll collection staff, with an average increase of 3.5%. This marked the eighth consecutive year in which the Company increased the overall remuneration level of toll collection staff in order to effectively protect the rights and interests of staff and share with them the Company's operating results.

Pursuant to the relevant provisions of the Social Insurance Law, the Group has participated in an employee retirement benefit scheme (social pension insurance) coordinated or organized by the local government authorities and a housing provident fund plan, and has maintained contribution to various protection plans such as basic medical insurance package, work-related injury insurance, unemployment insurance and maternity insurance for its staff. Besides, the Company has also made regular contribution to the corporate annuity fund (supplementary pension insurance) for its management staff, thereby building up a long-term trust between the Company and its staff. In 2018, the Headquarters of the Group's total payment of social insurance such as pension and medical insurance amounted to RMB7,460,000, housing provident fund amounted to RMB5,980,000 and corporate annuity fund amounted to RMB6,650,000. By the end of 2018, the Group had a total of 58 retirees who had all handled retirement procedures with Shenzhen or local social insurance authorities.

Caring for the Staff

II. Safety and Health

Production Safety

Adhering to the production safety approach of "safety first, double prevention, systematic protection, responsibilities delegation", the Company has always regarded staff health and safety as the core of its safety management. During production and operation, the Company conscientiously implemented Production Safety Law and other relevant laws and regulations. During the year, the Company and each of its subsidiaries have been fully implemented production safety standardization. Pursuant to the requirements of production safety standardization, the Company has further enhanced its systems and pushed ahead with the establishment of double prevention mechanism. Study on legality and compliance have been carried out, and various basic works for safety management such as safety inspection and assessment, safety training and emergency drill have commenced, so as to ensure the timely emergency response measures are in place to prevent and control production safety accidents. In the aspect of project construction and management, in accordance with the requirements of "three simultaneous", the Company emphasizes safety management from the beginning of tender, clarifies management responsibilities and special terms through contract means and links it with the successful bidder's assessment, reward and punishment. The contractor and the supervisor were required to establish sound safety assurance and management systems at all levels to control safety hazard sources, develop specific measures, regularly organize special inspections on the safety management of major hazard sources of projects, in order to prevent accidents and ensure the safety of production and construction in all aspects. In terms of operation and management, the Company adopted the model of building "Safety Model of Toll Collection Stations" as a guideline for safety management of front-line units. Meanwhile, through developing the rules and regulations for safety operations and enhancing real-time control, the Company has reduced and avoided work-related injuries of the staff.

In 2018, the Company organized 4 company-level inspections, 5 special inspection, over 10 departmental inspections and 1,800 toll collection station (construction project) level inspections; it also organized 168 emergency drills, covering fire, vehicle accident, object strike, food poisoning and other types of accidents. In 2018, in order to improve the safety awareness and management standard of employees, the Company organized 5 company-level safety trainings, including training on major responsibility of production safety for the Company's senior management, and organized more than 540 safety trainings at all departments and subsidiaries. In addition, the Company put great efforts to carry out construction of safety culture and organized several safety cultural activities respectively including the second Shenzhen Expressway safety production forum, billboard design campaign for safety production, and field trips to DuPont Company for safety learning, etc., which were innovative, high participation and effective. In 2018, the safety production situation of the Company remained stable and there was no safety production liability accident that involved severe injuries throughout the year.

Occupational Health

The Company attaches great importance to the occupational health of its staff. In order to improve the safety of the working environment of its staff and prevent the outbreak of occupational diseases, the Company regularly identified the sources of danger and environmental factors to control risk factors, such as scientifically designed toll collection station islands, installed safety protection devices, distributed corresponding labor protection products to operators and high standard protective masks to construction workers, and selected ergonomic environmental-friendly office facilities for employees. "Mini Medical Kits" were distributed to front-line staff members to provide them with free first-aid services. In high temperature season, the Company issued high temperature subsidies to employees, and provided free drinks to front-line staff. The Company also installed air conditioners, water heaters and other equipment in single staff and front-line staff's living quarters to improve staff



accommodation conditions.

The Company organizes physical check-up for all its employees and actively maintains personal accidental injury insurance for them every year. The labor union of the Company established "Mutual Fund for Staff's Critical Illness and Personal Accidental Injuries" to enhance staff's ability to protect themselves against diseases and accidental risks. For employees injured during a work-related accident, the Company puts great efforts to rescue and provide treatments and strictly follows the Regulation on Work-related Injury Insurance (工傷保險條例) and other relevant legal regulations to ensure that medical treatments and economic compensations will be received by the employees. During the year, the Company invited certain experts to host first aid trainings to teach our staff how to use Automated External Defibrillator (AED) and conduct Cardiopulmonary Resuscitation (CPR), aiming to convey knowledge about medical and health care to the staff and improve staff's self-care ability in daily life. Each labor union and its branches of the Company have strengthened their supervision over food hygiene in staff canteen. Meanwhile, special attention has been paid to improving the working conditions.

III. Promotion of Staff Development

The Company has established a staff performance administration system and a multi-level training system, which are customer-oriented and aim on business improvement, to motivate our staff to unleash potential and to offer a platform for talented and virtuous employees to fully showcase their talents. In 2018, the Company issued the "Opinions on Enhancing Talent Development of the Company" (《關於加强公司人才建設的意見》) and suggested a "1+N" talent development system. The system focused on the planning for core human resources, which would be supported by a number of systems and programs such as "Hundred Talent Recommendation Program" (百人引進計劃) and "Specialized Talent Development Program" (專項育人計劃), and clarified the direction of talent recommendation and development of the Company in the next three to five years. In 2018, the Company also revised its "Administrative Measures for Election of Management Members" (《管理人員選拔管理辦法》) and further improved the management members election mechanism, thereby systematically ensuring the sustainable development of the Company and its employees.

Career Development

By developing and implementing Measures on Employment Administration (聘用管理辦法) in accordance with relevant requirements, the Company adheres to the market-oriented talent introduction mechanism, and recruits staff through campus recruitment, recruitment from talent market, online recruitment, etc. The Company puts more focus on developing and selecting talents within the enterprise. In accordance with the professional capacity and performance of the staff based on key position quality models, the Company selects outstanding employees to expand the talent reserve and provides them with corresponding vocational guidance and training in order to develop talent reserve for the Company. During the year, a total of 140 front-line employees of the Company were promoted through open competition and have become new driving forces for the Company's development.

Besides, the Company also values the career development of front-line employees and has supported them to enhance their various professional abilities such as qualification upgrade and skill training. For toll collection staff who has been working with the Company for more than five years, the Company also offers re-employment incentive fund to provide more opportunities and choices for their career development. During 2018, the Headquarters distributed re-employment incentive fund in a total amount of RMB457,000 to 70 employees. The Company helped 64 toll collection staff sign up for the "Dream Programme" and assisted 32 students to obtain tuition subsidies.

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Staff Training

The Company has developed Measures on Training Administration (培訓管理辦法) in accordance with training requirements. The Company offers diversified vocational training for its staff to enhance their comprehensive qualification and ability to discharge their respective duties through various means such as lectures given by experts, internal specialized training, experience sharing, and position experience. The Company has established a multi-level training system and arranged four main categories of training courses which include "Administrative Capabilities, Business Skills, Administrative Skills and Basic Skills" according to position features and employees' needs with combination of the Company's development strategies. During 2018, the Headquarters and its various departments organized 32 training seminars totaling 5,404 hours for an aggregate of 386 employees. The annual cost paid for education and training amounted to approximately RMB1,366,000. The training courses with wide range of content and extensive information were attended by many employees, which greatly enhanced their business skills. Meanwhile, by promoting attendance to academic education and qualification examinations, the Company provides certain amount of subsidies or incentives for the employees participating in such academic and professional qualification examinations to encourage their ongoing study and improvement.

IV. Caring for Staff Life

The Company advocates happy work and happy life. It capitalizes on various resources to launch cultural and sports activities that are good for physical and mental health of employees and enrich their cultural life after work. For instance, the Company arranged various courses and seminars for employees to participate in during their spare time, including yoga, Tai Chi, badminton, basketball, photography and others, and holds activities such as tug of war for the Chinese New Year, Run for Fun, talent show, Operation Cup basketball game, badminton match, table tennis match, hiking competition, theme group day activities, youth gathering and singing contest. During the year, the Company also launched an activity named "Five Small innovation" (五小創新) and collected 59 innovative works. In addition to rewarding the employees for their innovative and practical quality, certain innovation technologies and products have been applied in practical work and have delivered positive economic and social effects. Through those rich cultural and sports activities, the Company helps its employees to maintain their work-life balance, leading them to pursue a wonderful and enjoyable life.



Social Responsibility Report 2018

Mutual Development

Shenzhen Expressway adheres to the philosophy of exerting oneself to drive mutual development of the society, and continuously improves the partnership management system in a bid to grow with its working partners. It also advocates integrity and self-discipline, carries forward the righteousness through the establishment of a sound anti-corruption mechanism, and guides leaders and staff to establish a correct outlook on life, values and power, so that our staff will work diligently and commit to the development of the Society. In addition, under the condition that market principles are followed, the Company works with the government to support regional economic development and actively engages in charitable activities, striving to contribute to social harmony, stability and sustainable development.

I. Win-win Co-operation

Supply Chain Management

As a company specialised in the operation of toll highways, supply chain management is not the main driver for sustainable development of the Company, but we regard all co-operating parties in the value chain (including materials and equipment suppliers, construction contractors, design companies, supervisory authorities, consulting firms, intermediary advisors, etc.) as our working partners. The Company never deems itself as a superior, nor does it give up its stances, rights or interests even when it is disadvantaged. The Company seeks to grow with its working partners. In this connection, it formulates policies such as Measures on the Administration of Procurement (《採購管理辦法》) and Implementation Measures for Testing and Evaluation of the Performance of Suppliers (《供應商履約試 評價實施辦法》) and improves procurement management-related processes and strengthened the supervision of the quality of engineering materials on a continuous basis. The Company also establishes a database of qualified suppliers and project constructors through assessment evaluations of their performance with a view to reducing quality risk of procurement along the supply chain and creating a quality supply chain. At the same time, the Company complies with business ethics and earnestly fulfills the contracts signed with its working partners. It also strives to interact positively with all co-operating parties in the value chain and provides support to the working partners to facilitate their work so as to achieve our mutual work objectives.



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Promoting Industry Growth

For highway construction and maintenance management, the Company has continuously explored and applied new materials, new technologies and new processes, commissioned industry experts to conduct specific technological studies and technical projects, and made certain important scientific achievements. In recent years, certain pioneering research results of the Company have been included in industrial standard documents by relevant industrial departments, marking our active exploration and contribution to the advancement of the industry. In 2018, the Company continued to launch studies on transportation and intelligent expressway on a project basis, as well as a number of scientific project

research such as Yanba Highway Renewable Thermal Energy Demonstration Project (鹽壩公路 地熱再生示範項目), Coastal Expressway Bridge Protection Plan (沿江高速梁保護方案) and project regarding investment top limits. During the year, the Company was awarded a First Class Prize in technological advancement (科技進步一等獎) by Guangdong Highway Association (廣東省公路協會) for its research on key technology in relation to construction of Coastal Expressway.



Communication and sharing are important channels for accomplishing mutual advancement. In order to share our experience and achievements, Shenzhen Expressway has been proactively participating in discussions and exchanges with the industrial peers and relevant technology research institutions. We also maintained an open attitude and extended our warmest welcome to industry partners visiting our Company for exchange. In 2018, the Company received 38 groups of external guests and discussed the development opportunities and challenges of the industry, operation and management concepts, and technological achievements with these industry partners, thereby achieving mutual advancement with them.

■ Interest of Creditors

The Company pays high regard to the protection of the legitimate interests of our creditors. It consistently adheres to stable financial strategies and maintains a reasonable level of indebtedness, debt structure and a relatively high debt repayment capability. In 2018, the debt-to-asset ratio, interest coverage multiple and EBITDA interest multiple of the Company were 52.46%, 5.54 and 7.21 respectively, with each financial indicator remaining at a sound level. Meanwhile, the Company continued to strengthen its credit construction and maintenance, and maintained a sound credit record by timely repayment of the principals and interests for various debts such as its bank loans and bonds. The Company was classified as strategic or key co-operating client by several banks. In 2018, the Company maintained the credit rating of AAA for domestic entities, the existing investment grade ratings for international entities, and the existing grade ratings in respect of follow-up debt credit rating for various bonds issued by the Company. Relying on its stable cash flow, sound capital structure and good credit history, the Company has established and maintained good credit relationships with creditors.

II. Integrity and Risk and Prevention and Control

Integrity education and risk prevention and control are the keys to combat corruption and advocate integrity within the Group. The Group has included honest practice education into the standardised training system of the management personnel, requiring all of them to study and put into practice the

spirit of the 19th National Congress of the Communist Party of China and seriously study the relevant laws and regulations such as Anti-corruption Law of the People's Republic of China, Anti-Money Laundering Law of the People's Republic of China and Tendering and Bidding Law of the People's Republic of China. Besides, the Group regulates the behaviors, integrity and ethics of all staff through its Staff Manual, Staff Reward and Incentive Measures, Anti-fraud Work Regulations, etc. Standing on the highland of promoting a culture of integrity, the Group encourages its management and staff from all levels to bear in mind the concept of combating corruption and upholding integrity and put it into action by means of education through simulation of cases, organization of various integrity education lessons and special auditing exchange activities. The rules of the Company such as Anti-Fraud Work Regulations clarifies the areas of focus and division of responsibilities regarding anti-fraud work, the prevention and control of fraud, and the whistle-blowing, investigation, handling and reporting procedures of fraud cases. The Company's Audit Committee, Audit Department and Discipline Inspection and Supervision Office have set up independent tip-off telephone hotline, tip-off e-mail and tip-off box respectively, which have been published on the Company's internal and external websites, as channels for all the Company's staff and stakeholders to reflect and report the violation of professional ethics by the Company or other staff, or the existence of any suspected fraud cases.

In 2018, the Company signed letters of responsibility on improving the CPC Party's working style and building a clean government with management personnel at middle level or above, and established mechanisms for the division, supervision and evaluation of responsibility with a view to strengthening anti-corruption awareness and responsibilities of the management personnel. In addition, the Group's Party Committee launched various types of discipline education activities to enhance the promotion and learning of the 19th National Congress Report of the Communist Party of China and the establishment of a clean party for all party members. Moreover, we organized tests on basic knowledge of honest practice to strengthen the integrity and law-abiding awareness of the party members. The Group's Party Committee also strived to strengthen the awareness of honest practice, job responsibility and risk prevention of employees at key positions by various means, such as organized two large scale education training under the themes of honest practice and discipline, held lectures given by major leaders of the Party Committee in respect of integrity in the Party, engaged external professionals to give talks on integrity and anti-corruption education and arranged viewing of admonitory education films. Furthermore, the Company also invited contractors to participate in integrity education and enter into integrity agreements so as to strengthen contractors' integrity awareness.

During the year, with a view to strengthening the inspection of front-line operation and supervision on procedures on a continuous basis, the Company successively conducted disciplinary interviews and researches on 13 toll stations and 4 subsidiaries. In addition, the Company's Discipline Inspection Commission carried out alert talks on integrity with 10 staff during the year, as well as supervised the tendering and bidding process (link) of 45 engineering and procurement projects in aggregate. In June 2018, the Group issued the Manual for Integrity and Prevention and Control of Risks in Engineering Construction Projects of Shenzhen Expressway (《深高速工程建設項目廉潔風險防控手册》), which has strengthened the Company's control over integrity and risks involved in the course of construction projects. The project management office of the construction division organized monthly trainings on integrity education for the employees, while the engineering department of the Group conducted quarterly reviews on the progress of integrity education of the project management office, so as to prevent the violation of laws and disciplines through systems and discipline. In 2018, there were no lawsuits of corruption brought against the Company or our employees.



III. Support of Social Development

The Company upholds the mission of "Construct and Manage Quality Expressways and Enhance Social Transportation Efficiency" and holds itself accountable for fulfilling such mission. Over the past twenty years, the highway investment, construction and operation projects of the Company have not only satisfied the transportation needs of the society, but also made positive contributions to regional economic development and social progress. The Company has completed the construction and investment in highways with a total value of over RMB10 billion in Shenzhen and its surrounding areas, and the expressway network developed by the Company has become an essential route facilitating the economic development and cultural exchange in the regions. As a public product, besides having the characteristics of "safe, speedy, economical and comfortable", expressways shall also assume the social functions of supporting national planning on regional economic and industrial policies and enhancing regional transportation capacity.

In 2018, the tax payment of the Company and its subsidiaries amounted to RMB680million in total, making appropriate contribution to national and local financial revenue. During the year, the Company continued to earnestly implement the farmer-benefiting "Green Passage" policy and the policy of free travel of small-sized passenger cars during festivals and holidays introduced by the government. In addition, the headquarters of the Company offered 1,670 jobs to the society in 2018. When recruiting toll collection staff, the Company has introduced a policy of giving priority to the applicants from underdeveloped regions. By working and living in Shenzhen, the toll collection staff can improve the financial position of their families. Moreover, the policy provides a platform for delivering new thoughts and new concepts, which has in turn promoted the employment in these regions and supported regional development.

IV. Dedication to Charitable Activities

While pursuing corporate development, the Group has always paid great attention to the demand for societal development in underprivileged regions so as to contribute in promoting economic development in such regions. In 2018, the Group continued to provide poverty alleviation aid to Xinmin Village, Heyuan City, Guangdong Province, its designated aid-receiving region, and donated RMB980,000 to the village during the year to facilitate infrastructure construction in the village, develop agricultural economy and help poor households to cope with their needs for livelihood. The Party Committee branch of Shenshan Company, a wholly-owned subsidiary of the Group, organized and participated in a number of harmonious building activities in Shenzhen-Shanwei Cooperation Zone, including kicking off the volunteer service campaign of "Simple Reading Café Volunteers" (簡閱書吧 義工), and donating 530 books to the central primary school in Ebu Town, Haifeng County. During the vear, the Company also provided continuous aid of RMB54,000 to 12 employees in financial difficulty with a view to effectively solving their practical difficulties. The labor union of the Group continued to perform well on basic tasks such as membership management, collection of membership fees, fund-raising for and management and utilization of mutual fund during the year. We have raised RMB133,000 in total for the mutual fund during the year, and dedicated over RMB26,000 to assist employees suffering from serious illness.

The Group encourages its investees and staff to participate in social charitable events, show care for vulnerable groups, and try their best to help the groups in need. At present, the Group has a total of 250 registered volunteers of Communist Youth League and over 400 registered volunteers of the Party. They are enthusiastic about public welfare and contribute to society with practical actions, including actively participating in traffic dispersion activities, book-collating activities in the municipal library,



blood donation, visiting orphanages and the elderly living alone, forest cleaning and other volunteering activities. During the year, party members of the headquarters launched voluntary road clearance and cleaning activities after the attack of the typhoon "Mangkhut". Each of the volunteers of the Party has contributed 40 hours of volunteer service during the year. In 2018, the Advertising Company provided a number of complimentary advertising spaces in an effort to proactively supporting and assisting Shenzhen City Administration Bureau and China Highway & Transportation Society (中國公路學會) to carry out promotion of public welfare activities.

Conclusion

Conclusion

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Harmonious internal and external environment are essential for the steady and healthy development of an enterprise; and noble corporate deeds can also help improve its competitiveness. Therefore, while going through sustainable development and providing great returns to shareholders, Shenzhen Expressway is also committed to being a responsible corporate citizen. Since 2009, the Company has completed the preparation and publication of the annual Social Responsibility Report before April every year, with a view to strengthening the understanding and connection between the stakeholders and the Company, and accepting supervision from society. The Social Responsibility Report of this year places emphasis on reporting the responsibilities and practices of the Company in relation to environment, products, employees, the community, etc. For information about the Company's sustainability responsibilities, corporate governance and shareholder returns, please refer to the relevant content in the Company's 2018 Annual Report.

The rapid growth of population and social development, resource shortage, environmental degradation, ecological crisis and other issues have aroused considerable concern worldwide. Implementing comprehensive environmental remediation and strengthening ecological civilisation construction have become the mainstream of social progress. At this stage, Shenzhen Expressway is clearly positioned as a "construction and operation service provider for urban and transportation infrastructure". On the basis of toll highways, Shenzhen Expressway has decided that the main target of upgrade and transformation would be urban infrastructure and environmental protection industry with investment and financing being the important means to realise its strategies, with a view to forming an industrial structure of synergic development among highways, environmental protection and urban infrastructures. By deeply engaging in the environmental protection and remediation industry, it hopes to promote harmonious development of human society and the environment through practical actions, earnestly fulfilling its corporate social responsibility.

Shenzhen Expressway will continue to adhere to the concepts of honesty and faithfulness, with a view to realising sustainable development of the Company through scientific operation as well as innovation. We will also continue to take into account the respective interests of shareholders, creditors, service providers, customers, employees, the government and the community to achieve harmonious and mutual success between the Company and the stakeholders within our reach. We hereby express our gratitude to all sectors of society and all stakeholders of the Company for their consistent support, understanding and assistance towards the Company. We look forward to your company and support in the future development of Shenzhen Expressway!

Feedback and Contact Information

Shenzhen Expressway takes your opinions on its corporate social responsibility work and this Report seriously. If you have any opinions on or suggestions for this Report, please fill out the following feedback form and return to us by post, fax or e-mail. We would like to express our deepest gratitude for your valuable opinions!

Please provide your personal information if you are willing to do so:

Name: Telephone:		
	Name:	Telephone:

Company: _____

E-mail: _____

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