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## 18 Desmond Tsoi: Implementing the Group's sustainability strategies through construction

The United Nations established the Sustainable Development Goals in 2015 as a call to action to protect the environment and build sustainable cities and communities in tandem with economic development. Sun Hung Kai Properties has committed to engaging the related goals since 2019. Desmond Tsoi, General Manager of the Group's Construction Department, said that in order to create sustainable, quality living space for its employees and the community, the Group, as a responsible property developer, is committed to careful planning, adopting eco-friendly construction methods, and optimizing the environment and safety level on construction sites. The Construction Department actively integrates new ideas, creativity and technology into the construction process to drive the Group's continuous improvement in sustainable development.

### Pursuing sustainable development through five priority pillars

The Group's sustainability strategy is built on five priority pillars – the Environment, People, Customers, Supply Chain and Community – enabling the Group to create long-term value for all stakeholders. In terms of the environment, the Group has been introducing sustainable building elements in new projects and actively improving the environmental performance of its existing buildings. Regarding the supply chain, green procurement policies have been formulated to guide the purchase of materials in nearby areas, whenever possible, to reduce carbon emissions from transportation, with sustainability performance a key consideration in the selection of suppliers. In addition, family-

friendly employment policies have been put in place to encourage a good work-life balance among staff. As part of its commitment to Building Homes with Heart, the Group delivers quality products and services to its customers while caring for the community by leveraging its expertise.

Specializing in building properties, the Construction Department plays an important role in implementing the Group's sustainability strategies in different areas. Desmond said it takes the concerted effort of the entire Group to step up its corporate ESG performance. As far as construction is concerned, extra investment and consideration are required to introduce eco-friendly building elements. "For example, the installation of a sewage recycling

system is constrained by the site area, so a tailor-made design is necessary for the system to function effectively. Fortunately, our senior management is more than willing to invest, and our colleagues are happy to take on extra work and apply new technologies. As a result, the construction process has become more environmentally friendly." He revealed that the Construction Department is planning to introduce 'Enertainer' to reduce the use of traditional diesel generators to further reduce noise and improve air quality on work sites.

### Striking a balance between development and conservation

The Construction Department gives priority to minimizing resource consumption and impact on the environment during the construction

“ Sustainable development definitely requires more resources and careful consideration. Thanks to senior management's support and increasing recognition from our staff and workers, the Group's Construction Department has continuously improved its ESG performance. 要推动可持续发展，无疑要投放更多资源和心思。除得到管理层支持，同事以至工友都愈发认同相关理念，使集团建筑部在ESG的表现不断进步。”

process. In the Group's project in Shap Sze Heung, for example, solar panels were installed to generate renewable energy, which provides electricity for the on-site offices and can be sold to an electricity company. The Department also strikes a balance between project development and environmental conservation when planning the construction workflow. Desmond explained, "To preserve giant native twin trees in the Shap Sze Heung project, our landscaping division partnered with our associates and subcontractors to adopt leading-edge technologies in the tree transplantation process. A large number of mobile sensors were installed to monitor the real-time health of the trees; and for the first time in Hong Kong, an integrated double self-propelled modular transporter was used for the move, which significantly reduced labour, time and safety risks." The project won the gold award in the CIC Sustainable Construction Award and received the silver award in the Innovative Safety Initiative Award in 2020, reflecting widespread recognition by the industry.

### Leveraging innovative technology to improve efficiency and reduce consumption

In recent years, the Group has deployed new methods, including Building Information Modelling (BIM), to substantially enhance the precision of project design and construction efficiency. Desmond said, "Since we adopted BIM, we have increased our construction efficiency with less waste. It has helped us achieve remarkably improved environmental performance in our projects." The Construction Department has also utilized other innovative construction methods, such as the extensive use of prefabricated steel reinforcing bars and a new method of leveraging turntables to install a dual-use bridge weighing 638 tonnes. These methods have resulted in increased work efficiency and reduced resource consumption.

### Developing intelligent construction sites

Employees are the Group's valuable assets. To improve the environment and safety level on work sites, the Construction Department recently spearheaded the

intelligent transformation of construction sites, including the integrated commercial development at 98 How Ming Street, Kwun Tong. In addition to introducing virtual reality training to heighten workers' safety awareness, the Department collaborated with SmartTone to develop a solution, named 'SmartWorks', to make site operations more efficient and to better protect workers. The solution equips workers with smart helmets, which integrate Internet of Things (IoT) sensors and GPS tracking, allowing workers' attendance records, as well as their real-time health condition, to be closely monitored on-site. The smart helmet also has an emergency button that can trigger an SOS signal either automatically or manually in case of an accident to ensure workers' safety.

To achieve the goal of zero accidents on construction sites, the Group has established a safety management system and conducts regular external audits, covering the Real Estate Developers Association of Hong Kong (REDA), ISO 45001:2018, and the Factories and Industrial Undertakings (Safety Management) (F&IU). "We also carry out routine internal inspections, and various safety award schemes are in place to recognize project teams with outstanding safety performance," said Desmond. "We believe that healthy competition will help us continuously improve site safety."

### Safeguarding workers' well-being amid the pandemic

At the start of the COVID-19 outbreak, the Group swiftly took a series of measures to protect the safety and health of its employees. For example, the Group successfully purchased surgical masks from overseas when there were insufficiencies in Hong Kong early last year, and distributed them to employees, workers and people in need in the community. Apart from stepping up cleaning and disinfection on all work sites, the Construction Department set up individual rest and dining spaces and installed temperature sensors, while providing alcohol hand sanitizers and other disinfecting supplies.

At present, all site employees and workers must hold valid proof of a negative COVID-19 test result,

and they are required to undergo temperature checks and fill out health declaration forms before entering the sites. Desmond said, "If a confirmed case is found, work on the site will be suspended at once, virus tests will be arranged immediately for all employees and workers on the site, and thorough disinfection will be carried out. The site will not resume operations until a negative test result for all workers has been obtained."

### Valuing talent cultivation and creativity

The Group's Construction Department places great emphasis on nurturing the younger generation through a wide range of training and apprenticeship programmes. To provide practical work experience for young people, more than 100 construction-related students from universities and other tertiary institutions were recruited last summer to take part in internships in the Department. Desmond pointed out, "The differences between theory and real-world practice are often a conundrum for graduates. Through systematic training and apprenticeships, we hope that the apprentices will gain valuable practical experience and learn how to communicate and work with their colleagues and other workers. During the training, mentors regularly monitor the progress of the apprentices and maintain close ties and communication." According to Desmond, the extra effort and time colleagues have invested are worthwhile because the participants highly treasure the learning opportunities, and over 90% of them are interested in working in the Group after graduation.

He remarked that continuous improvement is not only part of the Group's corporate culture, but also a core belief in the Construction Department. The construction teams have actively participated in the Group's annual Quality Raising and Work Safety Suggestion Schemes with innovative solutions, many of which have been deployed in various developments. "The Group supports innovation by investing considerable resources, and the construction teams enjoy taking on challenges with a strong pursuit of excellence. The more job satisfaction our colleagues get, the greater sense of belonging to the company they develop," he said.

## 蔡旭文：借建筑实践集团可持续发展理念

联合国于2015年通过了“可持续发展目标”（Sustainable Development Goals），鼓励发展经济的同时，也致力保护环境及构建可持续城市和社区，新地亦于2019年起积极实践相关目标。集团建筑部总经理蔡旭文表示，作为负责的地产发展商，集团一直通过完善的规划、采用更环保的建筑方式，以及优化工地的环境和安全水平，为社会、以至每位员工创造可持续发展的优质生活空间。建筑部积极将新思维、创意及科技融入施工层面，推动集团在可持续发展方面不断向前迈进。

### 五大范畴推动可持续发展

集团的可持续发展策略建立于五个核心范畴，包括环境、员工、顾客、供应链和社群，务求为所有持份者创造长远价值。环境方面，集团将可持续建筑元素注入新项目，同时积极改善现有物业的环境表现。在供应链方面，集团制定绿色采购政策，尽量选用邻近地区生产的物料，以减低运输时产生的碳排放；并在挑选供货商时，以他们在可持续发展的表现，作为重要考虑条件之一。此外，集团一直推行友善雇主政策，助员工在工作与家庭生活之间取得平衡；同时本着“以心建家”的精神，为顾客提供优质的产品和服务，并积极运用自身专长关怀社群。

建筑部作为物业施工部门，在集团于各范畴落实可持续发展策略时担当重要角色。蔡旭文称提升企业的ESG水平，需集团上下齐心配合。以施工为例，要引入环保建筑元素，便需要投放额外的

资金和心思。“例如设置污水循环系统，由于受到地盘面积影响，需要度身打造设计，才能发挥效益。庆幸管理层十分愿意投放资源，同事也乐意为此承担额外工作，并引进各种新技术，令我们的施工过程愈加环保。”他透露，建筑部正计划引入净能柜（Enerainer），以减少使用传统柴油发电机，未来将进一步降低工地的噪音和提升工地空气质量。

### 发展与保育取得平衡

此外，建筑部在施工期间以减少资源消耗和对环境干扰为前提，例如为集团位于十四乡的项目安装太阳能板，所生产的可再生能源不仅足够供应现场办公使用，还可以将电能售予电力公司；在规划施工流程时，建筑部亦致力在项目发展与环境保育之间取得平衡。“为保育十四乡项目内的一棵巨型连理树，我们的园艺组与联营公司及分判商，引入多项新科技协助移

植树木，包括安装大量移动传感器，以实时监测树木；更破天荒在香港首次运用两组高端遥控自行式及组化运载工具，大大减少搬运人手和时间，并降低安全风险。”此项目在2020年“建造业议会可持续建筑大奖”中获得金奖，并夺得“2020创意工程安全奖”银奖，广受业界认同。

### 借助创新科技 提升施工效率以 减少耗费资源

近年集团引入崭新技术，包括“建筑信息模型”（BIM），使项目设计更为精准和施工效率大幅提升。蔡旭文表示：“引入BIM后，施工效率提高，减少浪费，令项目的环保效益明显提升。”此外，建筑部还采用其他创新建筑方法，例如广泛使用预制钢筋、以崭新方法利用转盘安装重达638吨的两用桥梁等，提升工作效率，减省资源消耗。



According to Desmond (third left), mutual trust in a team comes from open communication and solving problems together  
蔡旭文（左三）认为团队中的互相信任，来源于坦诚沟通和一同解决问题

Solar panels were installed in the Group's project in Shap Sze Heung to generate energy, which provides electricity for the on-site offices and can be sold to an electricity company  
集团为十四乡项目安装太阳能板，所生产的电能不仅足够现场办公使用，还可以售予电力公司



The Group's successful transplantation and preservation of giant native twin trees in the Shap Sze Heung project demonstrates how to strike a balance between development and conservation  
集团成功搬迁和保留十四乡项目的一棵巨型连理树，印证发展与保育能取得平衡

### 工地智能化

集团一直视员工为重要资产，为提升现场工作环境和安全水平，建筑部近年致力推动“工地智能化”，其中包括观塘巧明街98号综合商业发展项目。该项目除引入虚拟现实安全训练，强化工友相关意识，更与数码通合力研发“SmartWorks智安建”系统，提升工地营运效率和保障工友安全。SmartWorks专为工人而设的智能头盔，配合物联网（IoT）传感器及GPS追踪技术，可实时掌握工友出入工地的记录及健康状况。智能头盔同时设有紧急按钮，若工友发生意外，可自动或手动发出求救讯号，有效保障他们在工地的安全。

另外，为达至工地“零意外”，集团制定安全管理系统，并定期进行外部稽核，稽核范围包括香港地产建设商会（REDA）、ISO 45001:2018及工厂及工业经营安全管理规例（F&IU）安全稽核。“我们同时会进行内部常务巡查，又设立多个安全奖项，表扬安全表现杰出的项目团队，希望借着良性竞争，鼓励员工持续提升工地安全水平。”

### 疫情期间保障工友健康

在新型冠状病毒疫情之初，集团迅速采取多项措施，以保障雇员的安全及健康。例如去年初香港出现“口罩荒”，集团便积极四处搜罗医疗级口罩，免费

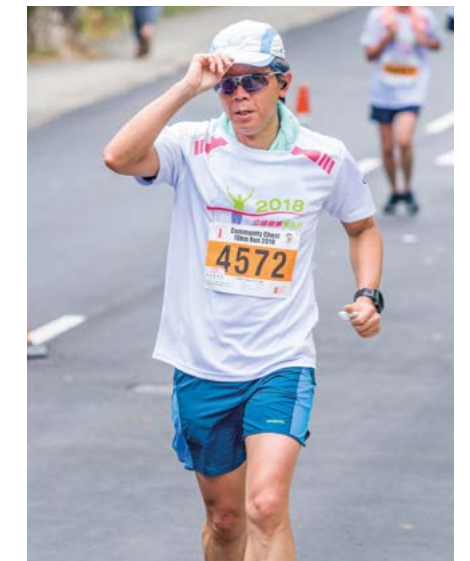
派发予员工、工友及社区人士。建筑部亦于各工地加强清洁消毒，并增设独立休息及用餐区，以及设置探热器和酒精洗手液等消毒用品。

现在，所有工地员工及工友均必须持有有效阴性检测证明，而进入工地前也需测量体温及签署健康申报表。“倘若出现确诊案例，工地立刻暂停运作，并实时安排全体员工及工友检测，以及进行全面消毒，直至取得阴性报告后才重启工地。”

### 重视人才培养 鼓励创意

集团建筑部一直致力通过不同培训和学徒计划，栽培年轻一代。去年暑假更招募逾百位修读建筑相关课程的大专院校学生，到集团建筑部实习，为年轻人提供实战经验。“毕业生常遇到的问题，往往是书本理论跟实际工作有落差。所以我们希望通过系统化的培训，配以师徒教授模式，让学员尽量吸收实战经验，并学会如何与同事和工友沟通共事。培训期间，师傅会定期跟进学员的进度，加强彼此间联系和沟通。”蔡旭文称虽然同事要付出额外精神和时间，但一切也是值得，因为学员都十分珍惜学习机会，其中逾九成人更愿意毕业后能重回集团工作。

他表示，“与时俱进”不仅是集团的企业文化，也是建筑部的工作信念。集团内部每年均举办“提升质量及工作安全意见奖励计划”，建筑团队都会积极参与，努力钻研创新技术，其中不少新概念已应用到工程之上。“集团支持创新，并愿意投放资源，建筑团队亦喜欢接受挑战，力求进步。同事在工作上得到满足感，对公司自然更有归属感。”



Desmond likes to balance his busy work life with sports  
平日工作繁忙的蔡旭文喜欢以运动来减压