

COUNTRY COMPARATIVE GUIDES 2024

### The Legal 500 Country Comparative Guides

## Japan CONSTRUCTION

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This country-specific Q&A provides an overview of construction laws and regulations applicable in Japan. For a full list of jurisdictional Q&As visit **legal500.com/guides** 

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### JAPAN CONSTRUCTION



### **1.** Is your jurisdiction a common law or civil law jurisdiction?

Japan is a civil law jurisdiction with a unified court system. The courts can exercise some discretion to achieve an equitable outcome, but Japan does not have separate equity courts. A court may grant specific orders in a multitude of circumstances, and pre-emptive injunctions are available. Parol evidence is generally admissible.

# 2. What are the key statutory/legislative obligations relevant to construction and engineering projects?

The key statutory obligations applicable to Japanese construction and engineering projects are mostly provided by the Civil Code, the Construction Business Act and the Act on Architects and Building Engineers.

The Civil Code provides standard rules applicable to construction/engineering agreements. Parties may agree on special conditions in most respects that differ from the standard rules.

The Construction Business Act prescribes many requirements applicable to certain construction/engineering works. For instance, the Act requires any person who will carry out the works that are subject to the Act to obtain a license from a governmental authority. It also provides certain rules to protect an owner and a subcontractor, including the requirement that the construction/engineering agreement for the regulated works contains certain required particulars.

The Act on Architects and Building Engineers requires any person who will conduct certain design works or certain construction supervisory works to obtain a license from a governmental authority.

### 3. Are there any specific requirements that

### parties should be aware of in relation to: (a) Health and safety; (b) Environmental; (c) Planning; (d) Employment; and (e) Anticorruption and bribery.

(a) health and safety;

The main statute that regulates industrial safety and health is the Industrial Safety and Health Act. Also applicable are several cabinet orders and ministerial ordinances ancillary to the Act. These rules generally require employers in all industries to comply with the minimum standards for preventing industrial accidents set forth in the Act, and to endeavour to ensure the safety and health of workers in the workplace through establishing a comfortable working environment and improving work conditions. In accordance with the Act, the government has issued a number of guidelines and notices that employers of construction workers should take note of in carrying out construction works.

Among the detailed rules set forth in the applicable regulations, the Act requires employers to, for example, (i) appoint a safety officer and other certain managers and committees responsible for the health and safety management, (ii) provide necessary training to the safety officers and other employees, and (iii) take certain measures necessary to prevent dangers or the health impairment of workers.

In the context of construction projects, these safety and health regulations are, in principle, rules that contractors (i.e., an employer of construction workers) must comply with. However, the Act also requires a project owner as an orderer of construction works to comply with certain rules, such as giving consideration not to impose any conditions that may impede performing safe and healthy work in terms of construction methods, period and others.

(b) environmental issues;

Depending on the types of construction projects, there are numerous environmental regulations that the parties

should take into account. The major environmental issues relevant to typical construction projects are noise (e.g., the Noise Regulation Act); air pollution (e.g., the Air Pollution Control Act); water pollution (e.g., the Water Pollution Prevention Act); vibrations (e.g., the Vibration Regulation Act); contaminated land (e.g., the Soil Contamination Countermeasures Act); asbestos (e.g., the Industrial Safety and Health Act and the Asbestos Disorder Prevention Regulation); other hazardous substances and waste (e.g., the Waste Management and Public Cleansing Act and the Construction Material Recycling Act); and energy efficiency measures (e.g., the Building Energy Efficiency Act).

Besides the national-level statutes, prefectural or municipal-level regulations may impose more stringent requirements than those set forth in the national-level statutes.

#### (c) planning;

The major regulations relevant to planning are the City Planning Act and the Building Standards Act, and many other national-level and prefectural- or municipal-level regulations are relevant to the planning of construction projects.

The City Planning Act sets forth general rules of zoning with respect to lands, and requires any person or entity to obtain permits in respect of certain types of developments, including construction of buildings, in relation to certain categories of lands.

The Building Standards Act stipulates detailed rules and limitations of building construction. If a building is constructed not in compliance with the Buildings Standards Act or other building standard regulations or conditions attached to permits under the Building Standards Act, the owner of the building, constructors, landlords, manager, or occupier of the building's site may be subject to governmental orders mandating demolition, relocation or prohibition of the construction or any other necessary measures to remedy the noncompliance, failure to comply with which may lead to the imposition of certain criminal sanctions.

#### (d) employment; and

The Labor Standards Act, the Labor Contracts Act and other employment regulations are applicable. Some important aspects relevant to the construction sector are, *inter alia*, the following:

• Employment of foreign construction workers generally requires the appropriate visas. The temporary denial of new entry of foreigners due to the COVID-19 pandemic has ended.

- Under the Japanese labor regulations and court precedents, an employer has an extremely limited capacity to dismiss its employees. The Labor Contracts Act provides that, with respect to non-fixed-term employment contracts, an employer's dismissal will be treated as an abuse of rights and invalid if the dismissal lacks objectively reasonable grounds and is not considered to be appropriate in general societal terms. Stricter rules apply to a fixed-term employment contracts, where an employer is prohibited from dismissing its workers until the expiration of the term of the relevant employment contract, unless there are unavoidable circumstances.
- In light of the recent trend of "work style reform,"management of employees" working time is becoming increasingly critical in each industry sector. Under the recently enacted amendment to the Labor Standards Act, even if the labor management agreement between an employer and certain labor unions or representatives of employees (the so-called "36 agreement") is in place, overtime hours generally cannot exceed 45 hours per month and 360 hours per year. The labor management agreement may provide special rules for additional overtime hours with respect to busy months (up to 6 months). However, in general, the overtime hours cannot exceed 720 hours per year, must be less than 100 hours/month, and be an average of 80 hours for a certain period (any holiday worktime also counts toward such 100/80 hours). These new rules are already applicable to all industries including construction sector, provided that 100/80 hours restriction above is not applicable for recovery or restoration businesses in the case of natural disasters.

(e) anti-corruption and bribery.

The Criminal Act criminalizes the provision and receipt of bribery to and from a governmental officer. The Political Funds Control Act prohibits companies from make donations to individual politicians in relation to the political activities, and establishes strict limitations regarding donations to political parties.

#### 4. What permits/licences and other documents do parties need before starting work, during work and after completion?

#### Are there any penalties for noncompliance?

At all stages of construction, a contractor must hold a construction business license under the Construction Business Act, and an architect must hold an architect license under the Act on Architects and Building Engineers. Those who engage in construction works or design works without these licenses may be subject to criminal penalties.

In addition to the above licenses for contractors and architects, the procedures below are required under the Building Standards Act for each construction project.

#### Before starting works:

In most cases, a construction permit (i.e., a confirmation of the building plan) must be obtained by owners before starting construction works. The owners are responsible for submitting the application for the construction permit. Typically, the architect or design firm retained by the owner will submit the application on its behalf. Additionally, the owner must submit a notice of commencement of construction works to the governor of the relevant prefecture.

#### During works:

The owner must have the works inspected by the relevant local government authorities or certified inspection organizations during the construction period after the completion of certain works specified in the Building Standards Act and local regulations. The owner must apply for a certificate of interim inspection within four days after completion of these specified works. After the interim inspection is completed, a certificate of interim inspection works can be resumed.

On completion:

A final inspection is required on completion of the construction of the building. The owner must apply for a building inspection within four days after completion of the works. If the building passes the inspection, a certificate of completion is issued.

### **5.** Is tort law or a law of extra contractual obligations recognised in your jurisdiction?

Tort law is recognized in Japan. Most construction claims are contractual claims, but it is common for a claimant to make contractual claims, together with tortious claims. Whereas a relationship between an owner and a contractor may be regulated under the agreement between them, there is typically no contract between a contractor and a buyer who has contracted for development works from an owner. The buyer usually has to make a tortious claim against the contractor except where the buyer assumes the construction contract from the owner.

### 6. Who are the typical parties to a construction and engineering project?

An owner and a construction company or joint venture comprised of multiple construction companies are the primary parties involved in a typical construction and engineering project. A prime contractor (known as the general contractor) who is a counterparty to the owner frequently uses several subcontractors or suppliers at multiple tiers, each of which is assigned a part of the construction works. Owners may contract with a single general contractor with respect to the entire design, engineering and construction works. However, in traditional construction projects, such as building construction projects, owners often retain a separate design/engineering professional (e.g., a design office) for the architectural design works and construction supervisor (may be the same design office) who is responsible for ensuring consistency between the design (and drawings) and the actual construction works on behalf of the owner. Construction managers and/or project managers are often retained by owners, especially in large, complicated construction and engineering projects.

### 7. What are the most popular methods of procurement?

Traditionally, the most common public procurement arrangement is a competitive bid based on price only. However, recently, bids based on the price as well as other aspects of the bidders' proposals have been on the rise for larger projects particularly in the PPP/PFI field.

While public construction projects initiated by public sectors are typically arranged through bidding, procurement arrangements may not be conducted by bid in private construction works.

Design and construction works have been separately conducted by different entities. However, design and build works carried out entirely by the same entity have become increasingly popular.

It is less common for owners to enter into many construction contracts with the various contractors for

each category of construction works. Owners usually prefer to execute a construction contract with one prime contractor to seek single point responsibility.

## 8. What are the most popular standard forms of contract? Do parties commonly amend these standard forms?

Japan has several types of contracts that have been drafted by industry associations and are widely used as templates.

For public construction projects, a standard form of contract prepared and published by the Central Council for Construction Business is often used.

As for private construction projects, a standard form contract prepared and published by the Private Associations of Architects and Contractors (*minkan* (*nanakai*) rengou kyoutei kouji ukeoi keiyaku yakkan *iinnkai*) ("Standard Form Private Construction Contract") is frequently used.

For design works and construction supervisory services, there is a model agreement drafted by the Private Associations of Architects (*shikai rengou kyoutei kenchikusekkei kanritou gyoumu itaku keiyaku yakkan chousa kenkyuukai*). Further, there are design and construction contracts drafted by the Japan Federation of Construction Contractors (*nihon kensetsugyou rengoukai*), and model domestic plant construction contracts published by the Engineering Advancement Association of Japan (*enjiniaringu kyoukai*).

Traditionally, FIDIC is not as popular in Japan as it is in some other jurisdictions, but it is being increasingly used for certain projects such as complex ones involving a foreign owner or constructor.

### 9. Are there any restrictions or legislative regimes affecting procurement?

There are no substantial restrictions or legislative regimes that would affect private construction procurement.

With respect to any procurement arranged by the government, in contrast, the Public Accounting Act requires public officers to, in principle, carry out a tender process (i.e., a bid) prior to entering into a sale and purchase, lease or other types of contract. The rules for public procurements, including the eligibility of bidders, are prescribed in the various statutes, ordinances, guidelines and notifications published by the relevant authorities, as well as tender guidelines for the specific project.

### **10.** Do parties typically engage consultants? What forms are used?

It is not always common for consultants to be engaged in construction projects, but in the case of large and complex projects, construction managers or project managers are sometimes involved. There is no typical contract form for engaging consultants.

### **11. Is subcontracting permitted?**

Partial works (not whole works) may be subcontracted. The Construction Business Act provides, on the other hand, that a contractor is not permitted to subcontract their construction works in whole to another person or entity unless the contractor obtains the prior written consent of the owner in the case of certain exempted construction works. Other non-exempted works may not be subcontracted in whole to another person or entity even if the consent of owner is obtained.

### 12. How are projects typically financed?

Most private civil engineering and construction projects are financed by commercial banks and other licensed moneylenders by corporate finance or sometimes nonrecourse financing arrangements.

Under the Japanese real estate system, as buildings are recognized separate estate from the land thereon, the ownership of the buildings under construction is typically vested in the contractor until the full payment of the contract price by the project owner who is normally a landlord or lessee of the land. In practice, the owner pays the contract price to the contractor in instalments as certain milestones of the project are achieved. Based on this practice, both owners and contractors commonly procure corporate finance respectively for a single construction projects.

In some instances (e.g., private building development projects or certain PPP/PFI projects), the ultimate project owners (i.e., sponsors) sometimes elect to use a special purpose vehicle for the construction project, which procures project finance or real estate finance in the form of non-recourse/limited recourse loans or bonds from commercial banks, together with equity investment by sponsors and, in some cases, shareholder loans/bonds.

### 13. What kind of security is available for employers, e.g. performance bonds, advance payment bonds, parent company guarantees? How long are these typically held for?

Performance bonds are often used in public construction projects that require deposits or other collateral to ensure the performance of the contractor. Performance bonds can take various forms to the extent permitted under the applicable laws, such as deposits, letter of credit, guarantees or insurance. On the other hand, for private construction projects, performance bonds are uncommon except for projects in which international sponsors/constructors are involved, and construction fees are paid in several instalments in proportion to the progress of the construction works, and the payment will be completed upon completion and delivery of constructed works.

Please note, however, that when a construction contract includes provision for advance payment of all or a part of the contract fees, the owner may request the constructor to establish a guarantor before the advance payment is made in accordance with the Construction Business Act. If the constructor does not establish a guarantor despite such request, the owner may refrain from making the pre-payment regardless of the provisions of the contract as the Construction Business Act allows it.

### 14. Is there any specific legislation relating to payment in the industry?

The Civil Code provides that a construction fee must be paid simultaneously with delivery of the completed works, but it is merely a pro-forma rule that may be tailored upon agreement between a contractor and an owner under a construction contract. The payment schedule varies depending on construction works and bargaining powers of contractor and owner.

The contractor may have a statutory possessory lien until construction fees are completely paid. It is also possible to register a statutory lien over the real estate that is subject to construction works before starting the works.

In order to protect a subcontractor, the Construction Business Act prescribes that the contractor must pay sub-construction fees to the subcontractor within certain legally mandated deadlines.

### 15. Are pay-when-paid clauses (i.e clauses permitting payment to be made by a contractor only when it has been paid by the employer) permitted? Are they commonly used?

Pay-when-paid clauses are possible with certain exceptions, but are not widely used. The Construction Business Act requires the primal contractor to pay construction fees corresponding to the completed works to its subcontractor as early as possible, but no later than one month from the primal contractor's receipt of the fees from the owner. Further, a certain large-sized primal contractor engaging certain small-sized subcontractors are required, in principle, to pay the construction fees to the subcontractor within 50 days of the subcontractor's offer to deliver the works that is made after the primal contractor's inspection, irrespective of whether the primal contractor has been paid by the owner.

### 16. Do your contracts contain retention provisions and, if so, how do they operate?

Under the Civil Code, in principle, an owner must pay the construction fee to the contractor in exchange for delivery of completed works after the full completion of the works, unless otherwise agreed. However, (i) if the contractor cannot complete the works due to reasons attributable to the owner, the owner must pay the construction fee in full; and (ii) if (a) the contractor cannot complete the work due to reasons not attributable to the owner, or (b) the construction contract is terminated before the completion of the works, the owner must pay part of the construction fee in proportion to the benefits the owner obtains upon the delivery of the completed portion of the works. Therefore, depending on the reason for the contractor's failure to deliver the fully completed works and the extent of the benefits obtained by the owner from the partially completed works, the owner has the right to refuse part of the payment of the construction fee.

#### 17. Do contracts commonly contain delay liquidated damages provisions and are these upheld by the courts?

Construction/Engineering agreements very commonly contain liquidated delay damages clauses. The details of the clause vary from case by case.

Liquidated delay damages clauses are generally upheld by the courts in Japan provided that they do not violate public policy. Where the amount payable by a breaching party under the clause is too high compared with similar projects and taking into consideration facts such as whether the damages incurred by the non-breaching party have been recovered and other relevant factors, the courts may hold that the clauses are invalid, but this is extremely rare.

### **18.** Are the parties able to exclude or limit liability?

Under Japanese law, parties are generally permitted to agree on an exclusion or limitation of liability, although, in some rare occasions, there may be a general risk that courts will find that agreement to be void as contrary to public policy.

The Standard Form Private Construction Contract does not provide a limitation of liability clause. This is partially due to the general rules of compensation under the Japanese Civil Code, where an indemnified party is entitled to claim for compensation only to the extent that there is a reasonable causal relationship between the indemnifying party's act or omission and the indemnified party's damages (i.e., no punitive damage will be recognized).

In contrast, in certain types of construction projects such as plant development projects and renewable energy projects, parties frequently agree to a limitation of liability provision, which typically caps the contractor's maximum liabilities or excludes loss of profits and other consequential or indirect losses.

# **19. Are there any restrictions on termination? Can parties terminate for convenience? Force majeure?**

Under the Civil Code, each party to a construction contract may terminate the construction contract in the following situations unless the non-performance of the counterparty is due to reasons attributable to the terminating party, even if such termination is not expressly set out in the construction contract unless the parties have specifically relinquished such termination rights in the contract:

- i. if the terminating party demands the counter party to perform its obligations under the construction contract by specifying a reasonable deadline and the counter party fails to perform such obligations by such deadline, as long as such non-performance is not immaterial;
- ii. if the counter party's performance of the entire obligation is impossible;

- iii. if the counter party clearly manifests the intention to refuse to perform the obligation in its entirety;
- iv. if the counter party's performance of a part of the obligation is impossible (or if the counter party clearly manifests the intention to refuse to perform such part of the obligation) and the purpose of the contract cannot be achieved with only the performance of the remaining part of the obligation;
- v. if, due to the nature of the construction contract or a manifestation of intention by the parties, the purpose of the construction contract cannot be achieved unless the obligation is performed at a specific time on a specific date or within a certain period of time, and the counter party fails to perform its obligation at that time or before that period expires; or
- vi. if the counter party does not perform its obligation and it is obvious that the counter party is unlikely to perform its obligation to the extent necessary to achieve the purpose of the construction contract even if the terminating party makes the demand by specifying a certain deadline.

The parties to the construction contract may agree to a termination clause in the construction contract. For example, the Standard Form Private Construction Contract has a detailed termination clause, which includes the owner's termination right where the owner may terminate the construction contract as necessary by sending a written notice to the contractor in which case the owner is required to compensate the contractor for any damages arising due to the termination.

As for force majeure clauses, while the exact scope of force majeure events is not specifically defined under the Civil Code, the concept of force majeure does exist and, therefore, if a party defaults due to a force majeure event or any other reason not attributable to the parties, such party may be released from the performance of such obligation in default (except for a default of monetary obligations) depending on the situation. Under the Standard Form Private Construction Contract, the contractor is entitled to terminate the construction contract if the contractor suspends the construction work due to a force majeure event, and such suspension period is no less than one-fourth of the construction period or 2 months.

### 20. What rights are commonly granted to third parties (e.g. funders, purchasers,

#### renters) and, if so, how is this achieved?

In general, under the Civil Code, contracting parties only are entitled to claim contract rights. For instance, a subsequent owner of building may not generally make a contractual claim against a contractor.

However, in practice, when the owner sells the building, the right to demand that defective works be cured, which the owner has against the contractor under the construction contract, is sometimes assigned and transferred to the purchaser. The purchaser (i.e., the subsequent owner) is then entitled to claim the contractual right against the contractor.

#### 21. Do contracts typically contain strict provisions governing notices of claims for additional time and money which act as conditions precedent to bringing claims? Does your jurisdiction recognise such notices as conditions precedent?

The Standard Form Private Construction Contract does not expressly provide a strict time bar in order to claim an extension of time and/or additional costs. If the contract does not so express, the courts will likely hold that such notices are not conditions precedent to make claims for additional time and costs.

### 22. What insurances are the parties required to hold? And how long for?

Under the laws, a contractor is required to hold (i) insurance that covers contractors' employees during construction, and (ii) insurance for defects in newly constructed houses used for human habitation for at least ten years from the delivery of such houses if the contractor has not deposited funds to cover such defects with the relevant governmental authorities.

In addition, under construction contracts, a contractor is generally required to have certain types of insurance. For example, under the Standard Form Private Construction Contract, a contractor must maintain fire insurance and construction insurance during construction.

23. How are construction and engineering disputes typically resolved in your jurisdiction (e.g. arbitration, litigation, adjudication)? What alternatives are

#### available?

Court litigation is the most common method in Japan used for resolving construction and engineering disputes. Although there are no special courts for construction and engineering disputes, district courts in Tokyo and Osaka have a special section for construction disputes.

Prior to proceeding with court proceedings, parties sometimes use alternative dispute resolution (ADR). Construction Dispute Commission is an ADR body established pursuant to the Construction Business Act.

For international projects, arbitration under the rules of the Japan Commercial Arbitration Association (JCAA), Singapore International Arbitration Centre (SIAC) or International Chamber of Commerce (ICC) is sometimes used as an alternative.

#### 24. How supportive are the local courts of arbitration (domestic and international)? How long does it typically take to enforce an award?

Japan recognizes foreign arbitral awards pursuant to the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards, and its courts will enforce foreign arbitral awards, as well as domestic arbitral awards, in accordance with the Japanese Arbitration Act (the "Arbitration Act").

Under the Arbitration Act, regardless of whether the seat of the arbitration is inside or outside of Japan, a final arbitral award will be recognized by the competent Japanese courts except on certain limited grounds, inter alia, (i) where a petition filed in the arbitration proceedings relates to a dispute that may not be subject to an arbitration agreement pursuant to the provisions of Japanese laws, (ii) where the petitioner was unable to file a defence in the arbitration proceedings, and (iii) where the content of the arbitral award is contrary to public policy in Japan. A party who wishes to enforce an arbitral award, which must be recognized by the courts as above, is required to obtain an execution order from the competent court, in order to apply for enforcement of a foreclosure or other compulsory enforcement procedures pursuant to the Civil Execution Act.

The Arbitration Act prescribes the procedures for procuring the execution order. In most cases, the time typically required for the grant of an execution order may be between several months to over a year.

### **25. Are there any limitation periods for commencing disputes in your jurisdiction?**

Under the Civil Code, other than the items subject to a specific statute of limitations period (*jyoseki kikan*) (i.e., claims for defect liability as described below), the general statute of limitations period (*shoumetsu jikou*) for claims under construction contracts is (i) 10 years from the date on which the claimant is no longer facing any legal impediments from making such claim (e.g., completion of the construction work), or (ii) 5 years from the date on which the claimant becomes aware of the legal right to make such claim, whichever is earlier.

On the other hand, the specific statute of limitations period (*jyoseki kikan*) for owners' claims against contractors for defect liability (i.e., liability due to nonconformity of the subject matter of the work with the terms of the contract in respect of kind and quality) is 1 year from the date on which the claimant becomes aware of the legal right to make such claim.

26. How common are multi-party disputes? How is liability apportioned between multiple defendants? Does your jurisdiction recognise net contribution clauses (which limit the liability of a defaulting party to a "fair and reasonable" proportion of the innocent party's losses), and are these commonly used?

Multi-party disputes are common where a construction contract is executed among three parties or more (e.g., where there are two or more owners/contractors), and such parties have an interest in issues in question arising from the agreement. However, for example, where the construction is carried out through subcontracting (i.e., the owner has no contractual relationship with the subcontractor), it is not extremely common for the owner to sue the contractor as well as the subcontractor because the owner would have both contractual (or tortious) claims against the contractor, and it would be practically difficult to satisfy the requirements for the owner to make tortious claims against the subcontractor.

Net contribution clauses are sometimes included in multi-party agreements. In practice, where there are two or more contractors who are jointly involved in a construction project, the contractors seek such clause. However, the owner is often reluctant to agree to its inclusion.

# 27. What are the biggest challenges and opportunities facing the construction sector in your jurisdiction?

The Japanese construction industry has suffered from a shortage of young and/or skilled labor mainly due to the decreasing birth rate and aging population, and the work environment of the construction sector has become more severe than other industrial sectors. The government has made efforts over the years to gradually loosen the restrictions on hiring foreign workers, which may be traditionally stricter than those in other jurisdictions, but high bars still remain against inviting and employing foreign workers.

An improvement of the work environment (e.g., the Japanese government has enforced an upper limit of overtime working hours since April 2024 to reduce the number of overtime work hours and increasing wages), enhancement of educational and training programs for employees, and the introduction of IT technology are important initiatives to address the shortage. Construction companies will inevitably be required to face and address these industrial challenges, which may increase their labor costs and capital investment in plant and equipment.

# 28. What types of project are currently attracting the most investment in your jurisdiction (e.g. infrastructure, power, commercial property, offshore)?

Renewable energy-related facilities, such as offshore wind power generation facilities, and data centres are attracting new investor interest. Demand for luxury residential properties and large-scale commercial buildings in urban areas (such as the Greater Tokyo Area) are strong.

### 29. How do you envisage technology affecting the construction and engineering industry in your jurisdiction over the next five years?

Since the number of construction workers has been gradually decreasing in Japan, the remaining workers have become busier and busier, which in turn has led to the work of the construction industry being less attractive for young workers. New technologies will be required to cope with the labor shortage.

For example, autonomous unmanned construction systems (e.g., vibration rollers, breakers, cranes and the like) will be increasingly used for various construction works. Drones or other robots will supervise construction works. Paper works such as daily/monthly/annual construction reports, which may be bothersome to workers, will be digitalized and managed through a cloud system.

Advanced technologies related to ICT and AI techniques will lead to more automatic and autonomous control, which will also contribute to a reduction in demand for workers.

# 30. What do you anticipate to be the impact from ongoing supply chain issues and the escalation of material costs over the coming year?

Many Japanese contractors are struggling with the continued disruptions in the supply chain and the price fluctuation including the depreciation of Japanese yen. If the construction contract is a fixed lump-sum contract, the contractors may not claim for additional costs due to disruptions in the supply chain or the price fluctuation unless any specific remedies (e.g. escalation clause) are provided in the construction contract.

The Central Council on Construction Contracting Business<sup>1</sup> published an interim report (*Chu-kan Torimatome*) in September 2023<sup>2</sup>, which addresses what measures should be taken to make the construction industry sustainable. The report refers to the possibility of amending the Construction Business Act to achieve appropriate risk allocation through the transparency of the relationship between the owner and the contractor, such as:

- a. resolution of inequality between the owner and the contractor:
  - the contractor would be required to provide any risk information to the

owner when providing the estimate; and

- contingent expenses would be required to be explicitly provided in a construction contract: and
- b. how to manage price fluctuations should be explicitly agreed in a construction contract;

The report also mentions that a Japanese form of an open-book or cost-plus-fee type of contract should be prepared to make the relationship between the owner and the contractor transparent.

In order to manage the continued disruptions in the supply chain and the price fluctuation, it often occurs recently during the negotiation process that the contractors request for including the escalation clause in the construction contract. Also, although a fixed lumpsum contract is still one of the types of the contract which are widely used, other types of contract, such as an open-book or cost-plus-fee type of contract, have come to be utilized. Such types of contract would be useful not only for the contractors to manage the continued disruptions in the supply chain and the price fluctuation but also for the project owners since it makes how the contract price is calculated transparent and makes the aggregate amount of the contract price lower than the fixed lump-sum price (which tends to be higher than the actual cost since the contractors tend to include any possible costs into its estimate).

#### Footnote(s):

<sup>1</sup> A body established in the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in accordance with Chapter VI of the Construction Business Act (Act No. 100 of 1949)

#### 2

https://www.mlit.go.jp/policy/shingikai/content/00163103 0.pdf

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