



# Effectively Structuring and Managing Design-Build Projects

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# Factors Involved in Selecting the Form of Contract

- **(a) Design-Bid-Build / Stipulated Price**
  - Procedure and overview of process
  - Advantages
    - Traditional and familiar structure
    - Fixed price at tender
    - Detailed control of design
    - Design team impartial
    - Competition to improve efficiency and quality

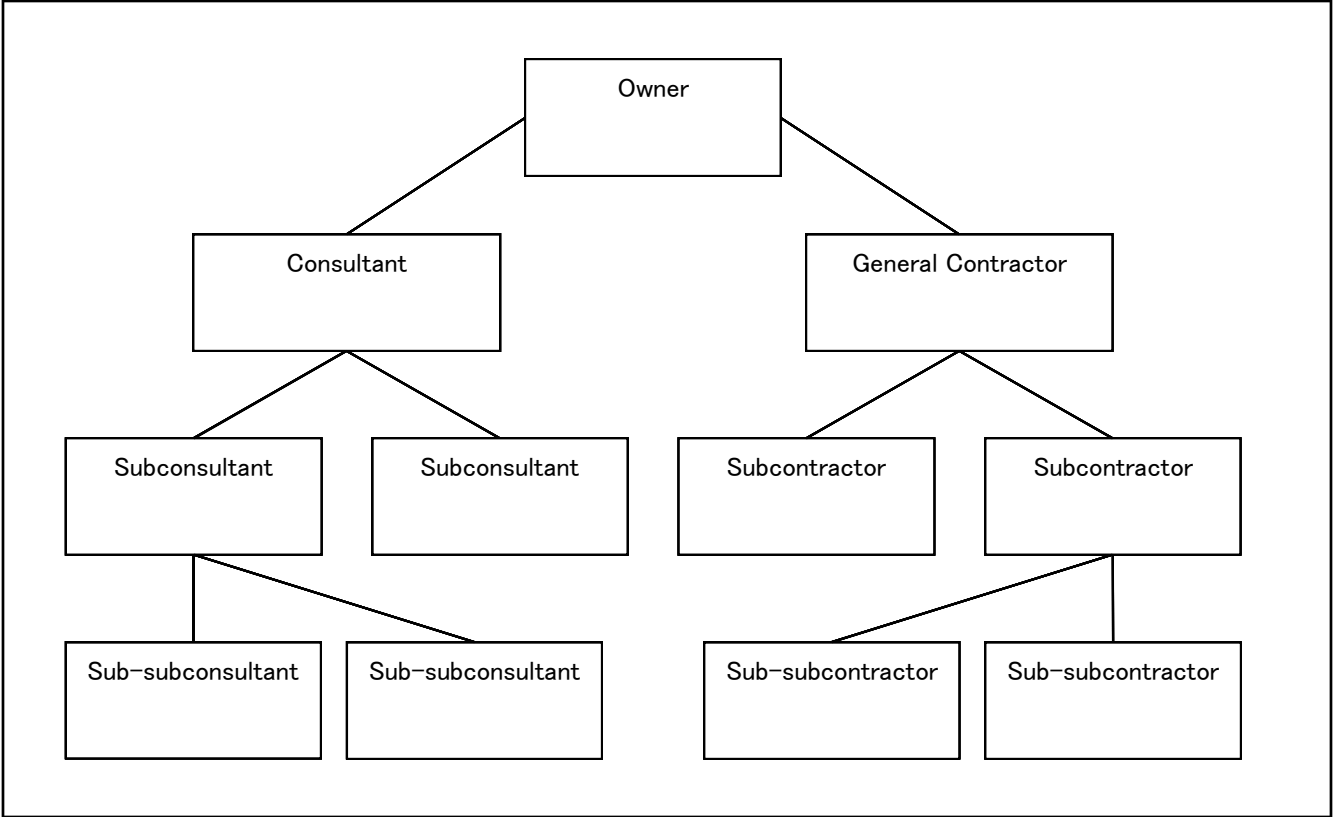
# Factors Involved in Selecting the Form of Contract *(cont'd)*

## – (a) Design-Bid-Build / Stipulated Price

### – Disadvantages

- Extended project schedule
- Less conducive to teamwork
- Owner takes risk of design coordination

# Design-Bid-Build/Stipulated Price Structure



## – (b) Design-Build

– Procedure and overview of process

– Advantages

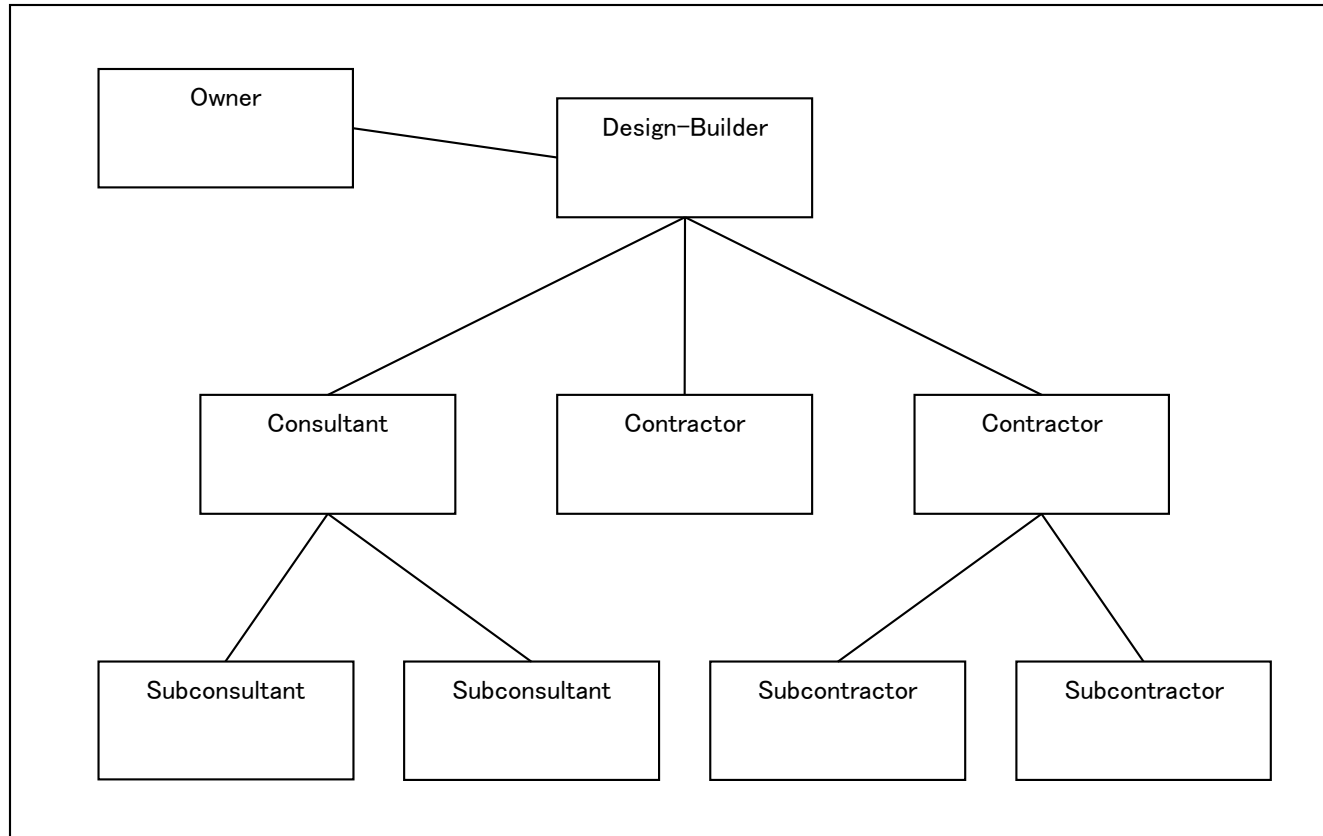
- Project speed and expedited timeline
- Communication and single source accountability
  - Reduction in the number and severity of conflicts between the design and construction entities
  - Possible to agree on fixed price contract for entire project
  - Possible advantages when negotiating project financing as project has lower risk of cost overruns once price established.

## – (b) Design-Build

### Disadvantages

- Owner does not maintain direct control over design detail.
- Difficult to accurately price a project before design has been fully completed.

# Design-Build





# Running An Effective Design-Build Tender Process

- Principles for The Proper Use of Design-Build
  - Selection Process
  - Remuneration
  - Intellectual Property at the Proposal Stage
  - Standard contracts
  - Request for Proposal (RFP) Documents

- What to Include in a Design-Build Tender Proposal
  - Scrutinizing project details, plan to prepare deliverables
  - Address each specification of owner as listed on the RFP
  - Less is more: checklist of all required submittals, criteria, and timelines. Do not add excessive volume
  - Attend pre-proposal conferences and ask questions
  - Exhibit listing what is not included in the package of deliverables: excellent check for completeness.
  - Include several items that help the team stand out
  - High quality, visually appealing package
  - Owners looking for “best value” solution for their project

- Role of The Consultant
  - Owner's advocate consultant
  - Design-builder's consultant

# Risk Management and the Allocation of Risk in Design-build Tenders

## – Significant Risk Factors

### – Owner

- Financial Risk
- Clarity of project definition
- Problems with documents
- Unknown site conditions
- Lack of Control over Design Process
- Lack of Control over Construction (e.g., use of materials)

# Risk Management and the Allocation of Risk in Design-build Tenders *(cont'd)*

- Significant Risk Factors
  - Design-builder
    - Liable for overall failure of the design or any construction defects
    - Usual construction project risks
    - Change orders

- **Strategies and Best Practices for Risk Management**
  - Pre-contract period
  - Understand Canadian competitive bidding law
    - *Ron Engineering*
  - Clarify owner's expectations early
  - Disclose evaluation criteria in the RFP
  - Alternative Dispute Resolution
  - Select design-builder with care

- **Strategies and Best Practices for Risk Management (*cont'd*)**
  - Strong Documents
  - Strong Relationships (trust, reputation)
  - Competent construction solicitor
  - Assigning risks to third party: insurance and bonding

# The Standard Form Design-Build Contract

- Pros and Cons of Standard form contracts
  - Pros:
    - Lower transaction costs
    - Known risk allocation
    - Faster process
  - Cons:
    - Potentially inappropriate risk allocation
    - Not project specific
    - Key points may be missed



# The Standard Form Design-Build Contract *(cont'd)*

- CCDC Design-Build Stipulated Price Contract, Document 14 (2000)
  - Risk allocation
  - Analysis

# Effective Management of Design-Build During Construction

- Owner's responsibilities
  - Inspection to ensure compliance with contract
- Design-builder's responsibilities
  - Project management models
  - Hiring and review of subcontractors
- Construction Manager
- Program Management



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