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A member of the **Pettifer Group**

The Engineering and Construction Contract

Darlington Borough Council Scrutiny Committee

JCT and NEC3 Contracts An overview

Keith German and Damian Jowett

Programme

- Introduction
- A brief History of the JCT
- JCT in use
- Rethinking Construction
- ECC/NEC Principles
- ECC/NEC in use
- Summary
- Q & A

Introduction

- clarus consulting
- Briefing
- Basis of presentation
- The Darlington Culture
- Contract selection
- Open discussion

Introduction

- Clarus consulting
 - History
 - Locations
 - Services
 - Sectors
 - Group Companies
- ECC Experience
- Darlington Pedestrian Heart

Introduction Background

- Engaged to provide independent report on Pedestrian Heart
- First Darlington EEC contract
- Identified some concerns with regard to contract set up
- Outcome
- Presentation request

Introduction – Basis of presentation

- Practical guidance
- Overview and key issues
- The principles behind ECC
- Interactive
 - **What is the Darlington Culture?**
 - **How will this impact on the Contract**
 - **What options exist**

JCT Form of Contract

- Joint Contracts Tribunal
- Established in 1932
- Popularity
- New 2006 suite of contracts
- Linked to procurement objectives

JCT Options

- Procurement Methods
- Scale of contracts
 - Traditional
 - Design and Build
 - Management

JCT Traditional

- Lump sum or Measurement
 - Design and Construction separated
 - Full documentation
 - Competitive Tender – lowest price
 - Client controls design
 - Longer timescale
 - Reasonable cost certainty
 - Variations
 - Risks apportioned – Client carries a level of risk

JCT Design and Build

- Contractor takes design responsibility
- Single or two stage
- Level of information = level of risk
- Shorter timescales
- Price certainty
- Variations
- Single point responsibility

JCT Management

- Unusual in LA context
- Management Contracting or Construction Management
- High risk
- Low cost certainty
- No obligation on the contractor to meet programme.

JCT – The choice

- Type of project
- Scope and scale of the works
- Client control
- Accountability
- Appointment method
- Cost certainty
- Programme
- Risk
- Change
- Long term intent

JCT Principles

- Standardisation of tendering
- Competitive tendering
- Lowest price?
- Single or one-off contracts
- Contract administration
- Variations
- Risk Allocation
- Valuations and certification
- Liquidated and Ascertained Damages

JCT Observations

- Flexibility
 - Legal
 - Divisive ?
 - Fair and Equitable
-
- Does it aid the delivery process and achieve its objectives.

JCT - Range of contracts

- Traditional – Lump Sum
 - Standard Building Contract with Quants
 - Standard Building Contract without Quants
 - Intermediate Building Contract
 - Intermediate with Contractors design
 - Minor Works
 - Minor Works with Contractors design
- Traditional - Measurement
 - Standard Building Contract with Approx Quants
 - Measured term Contract
 - Prime Cost Building Contract

JCT Range of Contracts

- Design and Build
 - Major Project Construction Contract
 - Design and Build Contract
- Management Forms
 - Management Building Contract
 - Construction Management Appointment
 - Construction Management Trade Contract
- Partnering
 - Framework Agreement – Non-Binding
 - Framework Agreement - Binding

Rethinking Construction

- Latham and Egan
- Reading Construction Forum
- “The UK Construction Industry, at its best, is excellent. Its capability for difficult and innovative projects matches anywhere in the world”
- “Low profitability, low investment, safety concerns and low ambition leading to a deep concern that the industry is under-achieving”

Rethinking Construction - Background

- 1997
 - 30% of customers dissatisfied with price, time, quality and response to defects.
 - 30% of major clients dissatisfied with consultants performance, design, innovation and levels of service.
 - Clients want greater value
 - A need to reduce capital costs and improve quality
 - Life Cycle costs
 - Better integration

Rethinking Construction - Objectives

Committed Leadership

Customer focus

Integrated processes and teams

Quality

Commitment to People

A New Approach

- Client Engagement
- Customer focus
- Partnering
- Best Value
- Life Cycle Costing
- Sustainability
- Standardisation
- Benchmarking

Task Force Targets

- Costs reduced by 10% per annum
- Programme reduced by 10% per annum
- Predictability increased by 20% p.a.
- Defects reduced by 20% p.a.
- Accidents reduced by 20% p.a.
- Productivity increased by 10% p.a.
- Turnover and profits increased by 10% p.a.

Keynote Message

- INTEGRATION
 - Product
 - Project Implementation
 - Partnering through the supply chain
 - Production of components
- LEAN THINKING

Enabling Improvement

- Training
- Safer working Environment
- Design for Construction and Use
- Standardisation
- Long Term Relationships
- Reduced reliance on tendering
- Measurement

NEC/ECC Form of Contract

- The NEC Engineering and Construction Contract
- 3rd Edition
- A Family of Contracts
- Designed to address the recommendations of Rethinking Construction and Constructing the Team

"I Warmly commend the NEC Contracts to Clients and the whole supply chain as a genuine modern tool for best contractual practice"

Sir Michael Latham

NEC3

- 3rd Edition launched in 2005
- The only Contract that addresses all 13 recommendations of the Latham report
- Use is now widespread across the Industry
 - Procure21
 - Heathrow T5
 - M60 Motorway
 - London 2012 Olympics

clarus experience

- Endeavour High School - £15m
- Isaac Newton School - £3.7m
- Sheffield Teaching Hospitals – 7 projects - c£40m
- Bristol Schools - £30m+
- Leeds Teaching Hospitals - £5m
- Darlington Pedestrian Heart -£7m

Founding Principles

- Foresight applied collaboratively mitigates problems and shrinks risks, and
- Clear division of function and responsibility helps accountability and motivates people to play their part.

Objectives behind the ECC

- Flexibility
 - Type of work
 - Design responsibility
 - Procurement options
- Stimulus to good management practice
 - Forward looking
 - Clear roles and responsibilities
 - A Project Management tool
 - Collaborative
 - Aids Partnership Working
- Clarity and simplicity
 - Plain English
 - Less complex – fewer clauses
 - Organised structure of contract

Why use this Contract

- Cultural fit
- Modernising Construction
- Suits procurement objectives
- Fair and equitable
- Establish long term relationships
- Establish Partnering at the core of relationship
- Instigate good Project Management techniques

What about Design?

- Design responsibility
 - Client 100%
 - Contractor 100%
 - Anything in-between
- Defined in the Contract Data
- Can be varied by agreement

New terms

- Project Manager
- Supervisor
- Construction Partner
- Working Areas
- Early Warning
- Compensation
- Target Contracts
- Share - Incentivisation
- Contract Data and Works Information

Main Contract Options

- A: Priced contract with activity schedule
- B: Priced Contract with bill of quantities
- C: Target contract with activity schedule
- **D: Target contract with Bill of Quantities**
- E: Cost Reimbursable contract
- F: Management contract

Secondary Options

- X1 Price adjustment for inflation
- X2 Changes in the law
- X3 Multiple currencies
- X4 Parent company guarantee
- X5 Sectional completion
- X6 Bonus for early completion
- X7 Delay damages
- X12 Partnering
- X13 Performance Bond
- X14 Advance Payment to the *Contractor*

Secondary Options (cont.)

- X15 Limitation of the Contractor's liability for his design to reasonable skill and care
- X16 Retention
- X17 Low Performance damages
- X18 Limitation of Liability
- X20 Key Performance Indicators
- Y(UK)2 The Construction (Design and Management) Regulations 1994
- Y(UK)3 The Contracts (Rights of Third Parties) Act 1999
- Z Additional conditions of contract

Procurement and principles

- Single or two stage tendering
- Negotiation
- Traditional or Design and Build
- Management

- Open Book
- Shared objectives
- Current and up to date
- Incentives for improved performance
- Can include damages

Good Practice

- Two stage
- Best Value Procurement
- Qualitative Assessment
- Risk and Benefits Share
- Use of Standard Forms
- Early Warning
- KPI's
- Partnering Charter – Collective objectives
- Issue Resolution

Risk and Benefits

- Provision for sharing in the risks and benefits
- Construction Partner incentivised to reduce costs
 - Upside - i.e. 25% of savings to an agreed limit, 50% of savings above that limit.
 - Downside – i.e. 50% of additional costs up to agreed limit but nothing above.
- Construction partner incentivised to complete early by sharing in cost savings.
- Liquidated Damages?

Core Clauses

- General
- The *Contractor's* main responsibilities
- Time
- Testing and Defects
- Payment
- Compensation events
- Title
- Risks and Insurance
- Termination

General – Key Points

- Parties and named individuals
- Programme and dates
- Contract data
- Definitions – working area
- Communications
- Early Warning

Contractors responsibilities

- Providing the Works
- The Contractor's Design
- Using the *Contractor's* design
- Design of equipment
- People
- Working with the *Employer* and Others
- Sub-contracting
- Other responsibilities

Time

- Starting, Completion and Key Dates
- The Programme
- Revising the programme
- Access to and use of the Site
- Instructions to stop or not to start work
- Take over
- Acceleration

Testing and Defects

- Tests and Inspections
- Testing and inspection before delivery
- Searching and notifying defects
- Correcting defects
- Accepting Defects
- Uncorrected defects

Payment

- Assessing the amount due
- Payment
- Actual Cost
- The Contractor's share

Compensation Events

- Compensation events
- Notifying compensation events
- Quotations for compensation events
- Assessing compensation events
- The *Project Manager's* Assessments
- Implementing Compensation Events

Compensation Events

- Challenges conventional practice
- Endorsed by JCT
- Benefits
 - Greater control
 - Greater knowledge of financial position
 - Alternative quotes for time and/or cost

Title, Risks and Insurance

- Employers Title
- Employers Risks
- Contractors Risks
- Insurance Cover

Termination

- Provisions
- Reasons
- Procedures
- Payments

Clarus observations on use

- Requires active management
- Not suitable for lowest cost tendering
- Lends itself to two stage
- Demands completed design to minimise risk
- Forward assessment of variations can be Frustrated
- Longer time developing target cost ensures more realistic target with greater probability of all parties satisfactorily achieving their objectives

Useful websites

- www.newengineeringcontract.com
- www.nhs-procure21.gov.uk/content/home/home.asp

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