

A13 Widening

Commercial Case

January 2017

Thurrock Council



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1 Commercial Case

1.1 Introduction

In 2013 a Feasibility Study (see Appendix A) and Project Procurement Strategy (see Appendix B) were prepared by contracted third-parties on behalf of Thurrock Council (TC) to consider the procurement options available to TC for the proposed widening of the A13 between its junctions with the A128 and the A1014.

Based on consideration of the Critical Success Factors (CSFs), constraints, risks and opportunities, particular to TC, the procurement strategy made recommendations as to an appropriate procurement route with which to proceed to detailed design & construction contracts.

The total project out-turn scheme cost estimate, based on cost to date, tender prices, estimates received during the preliminary design phase, adjusted for project risk, inflation and optimism bias is £81.2million.

TC has secured private funding from DP World, and will secure the remaining funding from the Department for Transport (DFT), via the South East Local Enterprise partnership (SELEP). £5m of development funding has already been granted to Thurrock along with £1.4m from DP World. Further funding will only be provided following approval of the project Business Case.

1.2 Output Based Specification

Thurrock's Transport Strategy 2013 -2016 is based on five overarching objectives of:

- Tackling congestion;
- Improving air quality and addressing climate change;
- Delivering accessibility;
- Providing safer roads; and
- Facilitating regeneration.

It aims to:

- Deliver accessibility improvements both where deprivation is most apparent and where significant levels of growth need to be accommodated sustainably; and
- Tackle congestion by focusing interventions on where congestion and poor journey reliability are having the most adverse impact on quality of life and on economic productivity and competitiveness.

This will mean tackling congestion as a priority around strategic employment sites, employment growth locations (much of the Thurrock Urban Area and London Gateway), and on the routes that provide access to strategic employment and ports, especially for freight traffic

The outcome of the project is to increase capacity along the A13 Stanford-le-hope Bypass and to assist with the expected increased traffic flows from the M25 to the new London Gateway development via the A13 and the A1014. The project will complete a D3AP standard carriageway from a point approximately 600 metres east of junction 30 of the M25 at a railway overbridge, to the A1014 junction. The A13 Widening project will tie in with the existing three lane section of the A13 to the west of the junction with the A128 (Orsett Cock).

To deliver this outcome the project will procure a Detailed Design Consultant whose primary output will be to deliver the 'for construction' design for the project, along with securing all remaining approvals to allow the construction of the project to be carried out.

A Contractor will also be procured for the project, at the same time as the Detailed Design Consultant. The Contractor's primary output will be to deliver the construction works in accordance with the 'for construction' design. Other outputs from the Contractor will be to provide input to the Detailed Design process including construction sequencing, traffic management and construction methodology; to aid in securing all necessary approvals for the project, to carry out the design of temporary works and to perform the role of Principal Contractor under the Construction and Design Management Regulations 2015.

The detailed specifications for these works were developed during the Preliminary Design phase by the Preliminary Design Consultant, and formed the Scope of Works and Works Information for the contracts.

Powers to acquire land and to carry out works are included in the London Gateway Port Harbour Empowerment Order 2008.

1.3 Procurement Strategy

This procurement activity has been done in accordance with the councils Contract Procedure Rules and Constitution (see Appendix C), and also in line with the Public Contracts Regulations 2015.

The Thurrock Council Cabinet Meeting of the 5th of November 2014, considered the A13 Widening scheme and confirmed by Decision 01104331 (point 61 in the minutes) the following:-

The Council voted and agreed the following resolutions:

1. That it be authorised the Director of Planning and Transportation, in consultation with the Leader of the Council, to enter into an agreement with The London Gateway Port Limited (D P World) to make provision for, amongst other things, the Council to act as agent for D P World ("the Harbour Authority" under the Harbour Empowerment Order 2008) in carrying out certain, identified, works required for the widening of the A13.
2. That it be authorised officers, if required by the Department for Transport ("DfT"), to enter into an Agreement with the DfT with respect to funding to be provided by the DfT.
3. That the carrying out of a tender process for a contractor to undertake the A13 final design and works be approved.
4. That authority be delegated to the Director of Planning and Transportation, in consultation with the Leader of the Council, to award a contract for consultancy services for the delivery of the A13 Widening Detail Design Package and other relevant design work.
5. That authority be delegated to the Director of Planning and Transportation, in consultation with the Leader of the Council, to award a contract for final design and works for the A13 widening.
6. That the carrying out of a tender process to identify a contractor for the removal of flora and fauna as necessary and/or appropriate, be approved.

7. That authority be delegated to the Director of Planning and Transportation, in consultation with the Leader of the Council, to award a contract for the removal of flora and fauna.
8. That it be authorised officers, where necessary, to enter into contract(s) with Utility companies, for the diversion/protection/removal of utility installations subject to terms and conditions being approved by the Chief Finance Officer and the Head of Legal Services.
9. That it be authorised the Director of Planning and Transportation, in consultation with the Leader of the Council, subject to terms and conditions being approved by the Chief Finance Officer and the Head of Legal Services, to enter into any other contract(s) which is/are necessary for works to be carried out, in advance of the main widening works.

The Project to tender for the design and build of the A13 widening was assigned the unique reference number of PS/2014/849. Furthermore a Form B (Commissioning Report) (see Appendix D), covering PS/2014/848, 849, 850 and 851 for a total cost of £90M was duly authorised and signed in accordance with the Councils Contract Procedure Rules.

1.4 Sourcing Options

As part of the Concept Phase of the project, Thurrock Council utilised a Third Party Consultant to develop a Procurement Strategy (see Appendix B) for the project. The outputs from this identified the most effective solution for the procurement of the contracts, which would provide suitably experienced and skilled delivery teams, while also meeting EU procurement requirements was via a framework solution.

The Procurement Strategy assessed several different framework solutions for the project taking into account Programme, Competitiveness and Flexibility. As a result of this assessment it was identified within the strategy that the Highways England Collaborative Delivery Framework (CDF) would be the most suitable.

Agreement was reached with Highways England to procure the detailed design contract through the CDF Lot 1 and construction contract through the CDF Lot 3a, with a Collaboration Agreement (Appendix E) between Thurrock Council and Highways England established.

The Highways England CDF is based on the NEC3 suite of contracts. Through discussions carried out within the project team, including input from Thurrock Council's procurement and legal teams, it was identified that the most suitable form of contract for the Detailed Design was the NEC3 Professional Services Option C Contract, with the NEC3 Engineering & Construction Contract Option C most suitable for the Construction Contract.

Option C – Target Cost was chosen for the Detailed Design & Construction works as it includes a pain/gain type incentive, which will encourage a robust price against which the tenderers can deliver. The Pain/Gain percentages will be set with the aim of incentivising the delivery of the works under the Target Price, thus aiming to minimise any risk to the Employer.

Requirements for works and services outside of the primary requirement were tendered/competed using the Thurrock Council's contracting procedure rules via the most appropriate route of compliant competition.

Although Thurrock Council has limited experience of procuring works of the size and complexity of the A13 Widening in its own right; the Council has individuals working for it who have worked for other larger public and private sector organisations who have been involved in the procurement, commissioning and management of such works.

Thurrock Council have contracted external consultants, Atkins to establish scheme feasibility, Mott MacDonald Ltd, to provide project management procurement and commercial experience throughout the duration of the scheme; and have URS Infrastructure and Environment Ltd (AECOM) as Preliminary

Designer and Employers Engineer, responsible for developing contracts for the procurement of the Detailed Design Consultant and Contractor.

Between them, Thurrock Council, Atkins, Mott MacDonald Ltd and URS Infrastructure and Environment Ltd (AECOM) bring considerable experience covering not just the procurement of works contracts, but also the on-going management, administration, and supervision of them.

1.5 Payment Mechanism

For the A13 Widening scheme it is proposed to utilise the Highways England CDF Framework for the procurement of the Professional Design & Engineering Services (Lot 1) and for the Construction works (Lot 3a).

The CDF Framework is based on the NEC3 suite of contracts and as such the design contract will be from the options covered by the NEC3 Professional Service Contract (PSC) and the construction contract from the options provided as part of the NEC3 Engineering & Construction Contract (ECC).

The CDF Framework includes payment related clauses that will be maintained in the production of the Detailed Design & Construction Contracts.

This section of the business case will separately cover the payment mechanisms for the Detailed Design and Construction Contract.

1.5.1 Detailed Design Contract

The standard payment mechanism information within the NEC3 PSC Contract is found in Core Clause 5 – Payment.

Additionally, the Main Option Clauses, Option A (Priced Contract with Activity Schedule), C (Target Contract), E (Time Based Contract) & G (Term Contract) contain further clauses covering specific payment requirements.

For the Detailed Design Contract, it was decided to utilise NEC3 PSC Option C Contract with the subsequent inclusion of Payment Clause 50.4 – Assessing the amount due.

Secondary Option Clauses, X, Y, and Z-Clauses covering Payment, for inclusion in the Detailed Design Contract, Contract Data, were identified during the production of the Detailed Design Contract by the Preliminary Design Consultant and agreed with the Client.

1.5.2 Construction Contract

The standard payment mechanism information within the NEC3 ECC Contract is found in Core Clause 5 – Payment.

Additionally, the Main Option Clauses, Option 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) contain further clauses covering specific payment requirements.

For the Construction Contract it was decided to utilise NEC3 ECC Option C Contract with the subsequent inclusion of Payment Clauses 50.6 – Assessing the amount due, 52.2 Defined Cost, 54 – The Activity Schedule, 65 – Implementing Compensation Events & 93 – Payment on Termination.

Secondary Option Clauses, X, Y, and Z-Clauses covering Payment, for inclusion in the Construction Contract, Contract Data, were identified during the production of the Construction Contract by the Preliminary Design Consultant and agreed with the Client.

1.6 Pricing Framework and Charging Mechanisms

1.6.1 Detailed Design Contract

The Contract uses the NEC3 PSC Option C Contract which includes Clause 54 – the Consultant’s Share. This introduces use of the pain and gain percentages against a target price, which can only be varied via the Implementation of Compensation Events. These percentages have been set with the intention of incentivising the Consultant to deliver the detailed design works to the target price, providing certainty of price for the Client. The specific percentage values and ranges were agreed during the Preliminary Design phase.

1.6.2 Construction Contract

The Contract uses the NEC3 ECC Option C Contract which includes Clause 54 – the Consultant’s Share. This introduces use of the pain and gain percentages against a target price, which can only be varied via the Implementation of Compensation Events. These percentages were set with the intention of incentivising the Contractor to deliver the detailed design works to the target price, providing certainty of cost for the Client. The specific percentage values and ranges were agreed during the Preliminary Design phase.

Additionally, the Contractor will commence on the project at the same time as the Detailed Designer. As a result, it is possible that any Value Engineering proposals that are submitted and accepted as part of the design, and which have a measurable benefit in terms of cost and programme, may result in a share of the saving by the Contractor.

1.7 Risk Allocation and Transfer

1.7.1 Funding

The funding of the project is to come from two sources, the Department for Transport (DfT) and DP World.

The funding provided by DfT will be based on the forecast Out-turn Scheme Cost (OSC), the value of which is covered in the Financial Case.

This funding is in addition to £5m of LGF funding that has already been provided by DfT through the Local Enterprise Partnership for the development of the scheme, which will include:

- Preliminary Design
- Development of the Business Case
- Surveys and associated traffic management costs (Topographical, Environmental, Pavement Condition, Drainage Condition, etc.)
- Land Costs (acquisition, access payments, fees, etc.)
- Other Development phase costs

The funding provided by the DfT will be provided via the South East Local Enterprise Partnership (SELEP), who has advised they will bear no risk regarding the project costs.

DP World will be providing funding, the value of which is shown in the financial case

The above identified funding is the maximum funding that is available for the scheme from DfT and DP World and as such any overspend against the finalised Target Cost will fall to Thurrock Council to fund. Consequently Thurrock Council has sought to transfer as much risk as is reasonably possible to the Detail Design Consultant and Contractor as is reasonably possible and has made appropriate risk allowance.

1.7.2 Detailed Design Contract

The allocation and transfer of risk to the Detailed Design Contract was finalised during the Preliminary Design phase, considering the works carried out by the Preliminary Designer and the works that remain to be completed.

1.7.3 Construction Contract

The allocation and transfer of risk to the Construction Contract was finalised during the Preliminary Design phase, considering the works carried out by the Preliminary Designer and the works that will be carried out by the Contractor.

The Construction Contract will be tendered at the same time as the Detailed Design Contract, and will require the Contractor to work collaboratively with the detailed design consultant, while they produce the finalised Construction documentation with the aim of reducing the Construction costs below the tendered price.

The following risks have been transferred to the Contractor completely or in part as explained below:

- 1) Contractor Performance – this is managed via the pain gain percentages.
- 2) Weather– although this could be a Compensation Event in the Contract within defined criteria
- 3) Performance of sub-contractors– this is managed via the pain gain percentages, in that any failure to perform will be at the Contractor's risk if they over-spend.
- 4) Failure to secure approvals for works– unless TC as Employer does not give an 'Acceptance' when it is required for a reason not in the Contract.
- 5) Any temporary works
- 6) Contractor Designed works
- 7) Additional 3rd Party Claims for which the Contractor is at fault
- 8) Price inflation– the estimates provided by the Contractor included an allowance for Inflation. Anything additional is at the Contractors risk under the pain/gain arrangement

1.8 Contract Length

1.8.1 Detailed Design

The Detailed Design Contract assumed a duration of approximately 130 calendar days commencing on 01/02/2017 with a completion date of 31/10/17. This will need to be amended to take account of the anticipated timing of a decision on funding which will not be before mid-February 2017.

The winning Consultant's tender programme will be taken into account when finalising the Contract Length which will include sufficient additional time for any delays to the programme or additional scope of works required by the Employer.

The Detailed Designer will additionally provide design support during construction which will commence from completion of the detailed design on until completion of the construction works.

1.8.2 Construction

The Construction Contract assumed a start on 01/02/17 with a completion date of 31/12/2019. This includes both Construction and Handover. This will need to be amended to take account of the anticipated timing of a decision on funding which will not be before mid-February 2017

The winning Contractor’s tender programme will be taken into account when finalising the Contract Length which will include sufficient additional time for any delays to the programme or additional scope of works required by the Employer.

1.9 Contract Management

The Scope of Works for the Preliminary Designer includes the Management and Supervision of the Detailed Design and Construction Contracts following Award.

The Preliminary Designer will move to the role of NEC3 Project Manager and Supervisor during the detailed design & construction phases of the project and will be responsible for:

- 1) Monitoring the performance of the Detailed Designer & Contractor
- 2) Reviewing the quality of all deliverables submitted to the Employer for approval, by the Detailed Designer & Contractor
- 3) Providing advice to the employer in regards to Contract Administration (Compensation Events, Payment of Invoices, etc)
- 4) Production of the Contract Documents for the procurement of the Detailed Design & Construction Contracts
- 5) Supervise the Construction of the works by the Contractor

The procurement timetable for the Detailed Design & Construction Contracts is shown in **Table 1.1**. It has been updated to take account of the anticipated timing of a decision on funding.

Table 1.1: Procurement Timetable

Task Name	Start	Finish
Issue Tender Documents	Fri 29/07/16	Fri 29/07/16
Deadline for Tender Queries	Fri 29/07/16	Fri 23/09/16
Tender Response Period – Detailed Design	Fri 29/07/16	Thu 13/10/16
Tender Response Period – Construction	Fri 29/07/16	Wed 12/10/16
Evaluate Tender Submissions	Fri 14/10/16	Wed 30/11/16
Prepare & Place Award Notification	Fri 17/02/16	Fri 17/02/16
Alcatel Standstill Period	Fri 17/02/16	Mon 27/02/16
Issue Stand-still Letters & Feedback Reports	Fri 17/02/16	Fri 17/02/16
Stand-still period	Fri 17/02/16	Mon 27/02/16
Award Contract (Detailed Design & Construction)	Tue 28/02/17	Tue 28/02/17

The programme of works covering the Detailed Design & Construction is shown in **Table 1.2**. It has been updated to take account of the anticipated timing of a decision on funding.

Table 1.2: Programme for Design and Construction

Task Name	Start	Finish
Concept Design Phase	Mon 11/05/15	Fri 30/10/15
Preliminary Design Tender Period	Mon 02/11/15	Thu 28/01/16
Preliminary Design Phase	Tue 09/02/16	Fri 29/07/16
Detailed Design Tender Period	Fri 29/07/16	Thu 13/10/16
Construction Tender Period	Fri 29/07/16	Wed 12/10/16
DfT Review Processes leading to Full Approval and SoS sign-off	Fri 16/12/16	Thu 16/02/17
Detailed Design - Contract Award	Tue 28/02/17	Tue 28/02/17
Construction - Contract Award	Tue 28/02/17	Tue 28/02/17
Detailed Design Phase	Tue 28/02/17	Tue 31/10/17
Construction, Commissioning & Handover	Tue 28/02/17	Mon 30/09/19
Handover	Mon 30/09/19	Tue 31/12/19
Maintenance Period	Mon 30/09/19	Wed 30/09/20

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Appendix A. Feasibility Study

Appendix B. Procurement Strategy

Appendix C. Contract Procedure Rules and Constitution

Appendix D. Form B (Commissioning report)

Appendix E. Thurrock Council & Highways England Collaboration Agreement