

# Built Environment Directorate Business Plan 2012

## Project 30

### Value For Money Review 2012

Blackpool Council



## 1.0 Purpose and scope of this report

The delivery of the Project 30 highway maintenance and repair scheme is a key investment plan by Blackpool Council to generate a beneficial effect on both the need for future investment in this major asset and also a social and economic improvement which will be realised by the residents and visitors using the highway network.

It is recognised that in order to maximise the effect of the £30m expenditure, every effort must be made and every opportunity should be taken to invest the money wisely and drive the maximum value for money.

An overriding question which needs to be asked when considering a project of this type is does it represent value for money and how?

The aim of this report is to show that the cornerstone of Project 30 is to give Blackpool's citizens an economic and cost effective method of maintaining their asset and to demonstrate that at each step in the delivery of the scheme, value for money is being gained.

This report will focus on two specific areas of the project:

- A comparison of what benefit has been derived out of delivering the work using the Civil Engineering Capital Highways Framework Partnership already in place, against the option of having procured the work using a newly tendered arrangement;
- An assessment of the benefits which have been gained during the delivery of the project and whether this demonstrates value for money.

Some of the benefits are distinct however, there are many benefits which overlap.

The report will also explain why investing in a major maintenance programme now represents value for money against continuing with the previous approach of underinvestment leading to an increased index of deterioration.

## 2.0 Background to Project 30 and why this represents a value for money approach

Blackpool's highway network is the Council's largest asset (valued at nearly £700m) and is vital to the functioning of the town, it is also the Council's most expensive asset to maintain and Blackpool has, in common with other Council's, under invested in maintenance over many years. This has resulted in a gradual but accelerating deterioration of the network which hinders the operation of the town's economy as well as failing to provide the sort of service and street environment which residents demand. Further consequences of the deteriorating network are a large number of costly insurance claims resulting from tripping and slipping accidents, and a constant pressure from residents for reactive repairs that deal with immediate cosmetic and safety problems but that fail to cure long term structural decline.

Project 30 seeks to interrupt the current cycle of decline in the condition of our roads by early large scale targeted investment aimed at restoring the overall condition of our carriageways and footways to a state where they can then be proactively maintained in an overall "steady state". The aim is to achieve this by prudentially borrowing against existing relevant budgets to raise the funding necessary for this early investment, whilst still leaving sufficient funding in those budgets for existing ongoing proactive maintenance.

The key to improving the value for money of road maintenance is knowing and understanding when and how to intervene. By considering a road surface over a whole life cycle, it is possible to select the best time to intervene. This will maintain the road condition and preserve the road surface in an economically viable way.

The common approach of carrying out a maintenance scheme once a pothole has occurred, is in fact too late for properly keeping the pavement in good serviceable condition, but is a practice borne out of the decades of underinvestment nationally. Once this deterioration is clearly visible, the damage to the fabric of the pavement will already have begun. These layers are very susceptible to rainwater runoff and exposure to direct traffic loadings which take their toll on the pavement life. Repair of these underlying layers is both cost prohibitive and very demanding on natural resources. If the underlying layers of the pavement are properly protected by bound and sealed surfaces, these can provide a good solid foundation for many decades and upwards of half a century. Periodically replacing the upper layers of the pavement at the correct time is a cost effective way to maintain the integrity of the road and can prevent the requirement to reconstruct the entire pavement.

With a high volume of maintenance required in the Blackpool area, there is an economy of scale in undertaking all of this work in one programme. There are administrative costs associated with the organising of, mobilisation and demobilisation of contractors to carry out highway maintenance works. These costs, shared across a larger programme of work will reduce the overall administrative cost. A well organised, well planned and efficient operation of works does also provide value and can effectively increase the amount of work which can be gleaned out of a budget. Project 30 has been programmed in a way which represents a highly efficient method of delivery. Non-material costs for highway maintenance such as the traffic management, contract supervision, transportation of plant and labour are reduced by combining the work in geographic areas which under a smaller reactive programmes would, by financial necessity, have to be carried out in isolation, each carrying these alone and adding to the overall cost of the work.

*In monetary terms, it has been estimated that by undertaking the work now, the forecast saving in maintenance costs are approximately £150m over a 25 year period.*

### **3.0 Comparison of the benefit has been derived out of delivering the work using the Civil Engineering Capital Highways Framework Partnership against re-procuring.**

Project 30 could have been procured using a new contract specifically prepared for this work. However, it was felt that the existing contract arrangement already operating was the best choice to deliver the work. It is important to understand whether this has represented the greatest value for money.

There are several areas which must be considered.

#### **3.1 Scope of existing Framework Partnership**

The existing Framework was procured using a 3 stage competitive process, based on both finance and quality, and the successful contractors were selected on the basis of being the closest aligned with the needs of Blackpool Council for Highway works. The work within Project 30 does fall within the scope of the existing contractual arrangement. The framework does make allowance for any works to be competitively tendered however, the contractors on the Framework are civil engineering and surfacing contractors and it is likely that in any new highway maintenance contract, these bidders would have featured at the forefront of the selection process. It is highly possible that a new tender process would have resulted in the same contractors being selected. It was felt that the benefits which were already being realised through the framework from these contractors could be built upon by including the Project 30 work.

The existing partners provided free technical and financial advise in developing the business model for Project 30 and assisted in scoping out the works to help obtain project approval. If it had been decided to tender the works, it is likely that a conflict of interest would have existed for the partners who may have declined or been prohibited from giving this assistance under fair competition rules. The Authority would have had to make a number of financial assumptions reducing the confidence in the business model.

Had all the Project 30 work been removed from the scope of the existing Framework Partnership, along with the absence of other Capital Projects and a reduced Local Transport Plan Programme, the level of input of work could have rendered the arrangement ineffective and would not have enabled the contractors to meet the partnering ethos and sustainability needs as set out during the selection stage.

#### **3.2 Procurement process**

The project involves a programme of four years of highway maintenance the detailed scope of which has been developed collaboratively with the contractors involved. In order to enable the scheme to be priced under tender conditions it would have been necessary to develop the scope to sufficient detail to enable contractors to fully understand the requirements of the contract and price accordingly. It is estimated that this could have taken up to six months for the full Project 30 team to undertake the detailed survey investigations required and to draft the information into a format which the contractor could price. Alongside the schedule for the work, several months could have been needed to draft the contract documentation to enable the tender process to be fully robust. Following appointment of a contractor, there would be a mobilisation period perhaps up to two months to enable the contractor to establish the supply of plant materials and labour for the work and to get in place all the necessary pre-construction documentation including the contract.

The value of the work would have required the selection process to comply with the OJEU competition rules. It would not be unusual for the whole selection process to take up to twelve months from March 2011 to appoint the contractor/s.

The direct cost to undertake this process would have been the cost to employ the Project 30 team for up to a year which would have been borne by the project.

*In monetary terms, the annual forecast cost for administering the team is approximately £190k.*

The indirect cost for this would be any increase in labour rates and material costs for work associated with the project life being extended by a year.

*In monetary terms, it is estimated that approximately 50,000 tonnes of bituminous materials are being laid in the project each year. The average annual increase for bitumen in recent years has been approximately £2.50 per tonne. This would equate in materials to £125k additional cost.*

*The labour cost for works is estimated at around 40% of the total construction cost which equates to around £3m per annum within the project. The annual labour rate increase varies, but has been around 3.75%. This would equate to around £112.5k additional cost.*

### **3.3 Tender Strategies**

The purpose of undertaking a new procurement process would be to create a different contract mechanism under which the work would be governed. Much single stage tender processes have a focus on financial competition.

It is acknowledged that it is likely that a financial submission would be received which would be lower than the target costs which are being received through the course of the work. However, it is also understood that significant effort would be made by successful contractors to increase the profitability of the work through variations/compensation events and the likelihood of changes in the scope of the works would afford these opportunities. Tendering costs for prospective works are high for contractors and many tendered contractors are managed by Quantity Surveyors, whose role is to maximise the income from these contracts. It would be no surprise that the actual final cost of the works could be 10% to 15% higher than the tender price through contractual claims, but ultimately higher than the price being paid under the current arrangement. The key to this increase though is that the additional monies paid would be bolstering the contractors profit margins rather than being invested in the work.

*In monetary terms, as an example, a tender value received of £27.5m on the works valued at £30m would seem economic value to the authority, however, if an uplift of 15% is applied, the final price paid would be approx. £31.6m. The budget for the work is £30m, thus the scheme would require a reduction in either specification or work of around £1.6m.*

There is the potential that a contractor appointed on price could look to achieve the specification of the work with the minimum effort and without offering any additional benefit. This could result in attempts to 'cut corners', unreasonably pressure sub-contractors on price or 'flood' the client with claims for additional costs in the hope that some, if not all, were accepted. This contractual approach encourages a contractual relationship in which there is a lack of trust and less willingness by both parties to work collaboratively to achieve the objectives of the contract. A contract in which relationships are strained can demand a high percentage of the time of the

clients team in dealing with 'problems' and contractual issues rather than being spent on focussing on achieving the aims and objectives of the work schedule and there is very little opportunity to gain added value.

*In monetary terms, if 25% of the team's time is absorbed in dealing with this difficult relationship, the lost cost under the contract would be approx. £47.5k. per year resulting in £190k abortive staff cost. This cost does not include any payments due to contractors for the claims which are valid.*

Under tendering circumstances, rates are built up through the elements of work, a margin for profit and overhead and also a percentage uplift to cover any unforeseen costs which the contractor may have missed in preparing the submission. This contractors risk contingency is payable whether the risk is realised or not.

Tender strategies are also used by the client. In order to avoid an 'overspend' situation allowances are made for unforeseen circumstances. The value of these contingencies can be as high as 10%, which will be held in reserve until the works are complete. Effectively budget estimates for work are prepared which include this margin and will remain linked to the work until completed. These 'reserves' are not held in the current delivery mechanism, and work is priced on a basis of actual cost, therefore are available to be invested in work at an earlier stage.

### **3.4 Allowable rate increases**

It is likely that a tendered contract for the four year programme would have incorporated a percentage allowance for cost increases each year. Within the Framework, both contractors have offered these cost increase as an efficiency saving to the Authority, effectively absorbing cost increases. Industry accepted increases are indicated to be between 3.5% and 4.0%, which equates to approximately 5.6% on the labour and plant employed on the project.

*In monetary terms, based upon an average project expenditure of £7.5m per year, this represents approximately 5.6% of £3m (labour and plant costs), effectively £168k increase on the cost of the work each year.*

### **3.5 Sub-contractor fees**

Under the framework, it was stipulated that where works were sub-contracted to other partner organisations or subsidiary contractors, there should be a reduced or zero fee applied on top of the sub-contractors own price. Under a tender contract this practice known as fee-on-fee and applies to all sub-contracts and supplies.

*As an example of cost, on a sub-contract value of £1m, the sub-contractors overhead and profit could be £120k based upon 12% profit and overhead. The main contractor will then apply his own profit and overhead to this £120k. If the main contractors profit and overhead margin is 12%, this would be a further £14.4k. Over the life of the contract, if an estimated 50% of the work is sub-contract, this is a fee-on-fee of £216k.*

### **3.6 Programme flexibility**

The Project 30 scheme has benefited from being able to flexibly programme the works in collaboration with Partner Contractors and traffic management colleagues. This has enabled contractors to adjust construction schedules to meet resourcing availability and the authority to adjust the traffic management to reduce the impact

upon the network. Flexible programming has also enabled the project to react to requests from elected members, officers and members of the public.

Early contractor Involvement in developing the programme has assisted the delivery to become the most efficient that it can be. The contractors have been pro-active in engaging with the programme and offered opportunities to the Authority to improve on productivity through rescheduling.

Under tender conditions, had a programme been issued for tendering purposes, this would be used as a base programme and potentially additional costs would be incurred for any changes which were made to that base.

The focus of the programme development is to achieve delivery on time and within budget, in many instances, in the shortest possible time whilst working with maximum efficiency as a balance. Where a programme is developed using only the clients perspective, often the shortest possible time is used to develop the programme which is not always the most efficient or cost effective way of working.

Significant financial benefit has been realised through reduced costs for haulage of plant and materials between sites and to avoid abortive costs on small material loads. Early in the project, it was highlighted that through programming a number of sites to operate concurrently, where unforeseen delays occurred on one site, for example through exposed utility defects, materials delivered to site were able to be diverted to other sites rather than be put to waste. These delay costs can amount to several thousand pounds per day in material, labour and plant and are borne by the client. Where work on a site has been completed within a few hours of a day on one site, the team have moved over to adjacent streets to continue work and improve productivity. There would be no incentive on a contractor to avoid these costs on a fixed tendered programme.

It is estimated that the savings made through this practice have realised approximately two days per month and reduced wastage by an average of two tonnes of materials per day, equating to approximately £95k per year on the scheme.

### **3.7 Scope and Specification flexibility**

The treatment survey undertaken in 2010 provided information to support the business case for the project. This survey is used as a base for the delivery of the scheme and a financial guide. However, the actual treatments specified have been developed as the scheme progresses, enabling changes in condition over time to be responded to by the scheme. The specification is developed in collaboration with the contractors with a focus on whole-life cost and providing the optimum spend against design life for the individual streets. There is an added value of having the contractor's technical input to the design of the work who bring a wealth of technical expertise which assists in identifying exactly where the work should be targeted. The development of the specification has a high focus on the technical requirements and quality output rather than a purely cost driven specification. The combined effort's of the contractor's and client's design team ensures that value for money is inherent in the scheme.

During the construction phase, where investigations identify that an element of the work is unnecessary, for instance where underlying construction layers are sound but have been included in the specification for the work, it is removed. The trust which exists between the contractor and client enables the contractor to make these decisions on the spot based upon a genuine desire to deliver value for money. The contractor understands that there is no need to undertake this work, as the savings are likely to be reinvested in further necessary work identified in the scheme.

It is estimated that the reduced volume of material used could be as much as 1000 tonnes annually which is valued at approximately £70k per year.

### **3.8 Cost certainty**

Project 30 works are priced using a system called Target Costing. A target cost is prepared by establishing the scope and specification of the work required, which is then converted to a price based upon the time, labour, plant and material required to deliver this. The contractors do this preparation on behalf of the client which provides a realistic estimate of the cost. The client's team scrutinise the Target cost and challenge areas which are felt to be incorrect, over-estimated or inefficient. Incentives are used to encourage the contractor to work more efficiently and thus make savings to the Authority for which the contractor receives a share. If the contractor works inefficiently and costs exceed the Target because of this, they share a burden of this cost. Under other contractual arrangements, the whole cost would be borne by the client, which would be subject to overhead and profit. This encourages both parties to work together to match or beat the Target and thus provide a high level of cost certainty.

### **3.9 Contractor support**

Under a tendered scheme, the client would provide documentation to support the scope and specification for the work, the contractor would then re-check all of this information to ensure it was correct. Through the framework, the collaboration has been taken a step further than would normally be done in that a significant reduction on drawings but also the joint scoping enables the contractor to provide prices directly, removing the need for a Quantity Surveyor. In the approach being taken, all this information is generated in one pass, thus saving both duplication in time and money.

When undertaking construction operations, there are often unforeseen circumstances which occur. Under traditional contractual arrangements, as these events arise, the contractor would await instruction on how to deal with these which can lead to delays and costs for standing time. The trust which exists between the parties in the Framework Partnership enables the contractor and client to swiftly resolve these events with a view to keeping costs to a minimum.

The ethos of the parties working on Project 30 is of 'one team', with a single goal of delivering the most cost effective and beneficial programme of maintenance to achieve the objectives of all the parties. Often, discussions around tasks required result in the contractors own resources being offered to assist thus reducing the demand on the Authorities own resources. Much of this collaboration is added value, however, it is important to understand that these benefits are a direct result of the way in which the Framework is operated and would not likely be gained through a price focused contract.

The contractors undertake resident letter drops in advance of the works, provide a community engagement officer through the traffic management team to maintain a communication link with residents and businesses. The traffic management team also provide detailed drawings for traffic management which are jointly agreed between the teams.

*In monetary terms, it is estimated that the support provided by the contractors would equate broadly to an additional two members of staff. Over a four year period the cost of employment would be approx. £240k.*



### 3.10 Dual contractual arrangements

The creation of a new contractual arrangement would have resulted in there being two sets of contractors to manage. The work which continued to be delivered under the Framework would have needed managing, and in parallel, all the Project 30 contractors would have its own independent management. A different contractual arrangement could lead to significantly higher administration demands alongside the existing framework.

It is likely that this would have been managed by the same team and would have placed additional time pressures on this 'thin client' organisation.

*The cost of the effect of the team being unable to properly manage the two parallel contracts due to time demands is not easily quantifiable in monetary terms, however, the result would likely be a scheme which was unresponsive to change requests and potentially giving a low level of customer satisfaction.*

### 3.11 Traffic Management

The Authority has a responsibility to ensure that construction works are carried out in a safe manner. Under its contracts, the Authority conditions the contractor with the responsibility for managing the works safely on site and controlling temporary traffic management and indemnifying the Authority against third party claims in the event that an incident occurs. The contractor, in return receives payment for undertaking this duty. A contractor in pricing for this risk will assume the highest level of management required to keep the site safe, whether or not this level is actually provided for all of the works.

Under the Framework, a common-sense approach has been taken to dealing with this risk. Where the highest level of management is required, it is applied and paid for, however, if by agreement a reduced management is considered appropriate, a cost saving is given to the Authority.

As an example, if the scheme was considered a high risk, it is likely that there would be a need to provide 'out of hours' traffic management supervision at the site which costs approximately £1600 per night. As a reduced operation it has been agreed that a standby/call out service is adequate which costs approximately £180 per night.

*If the highest level of management had been applied over the life of the contract, this element would cost approximately £1.536m. In reality, around 95% of the work is carried out using the standby service, thus providing a value saving to the project of approximately £1.363m.*

#### **4.0 Assessment of the benefits in addition which have been gained during the delivery of the project.**

Many of the value items raised above do cross into the area of added value and have only been generated through the collaborative approach taken by the parties to the Framework. There are a number of benefits which have not been included in the above.

##### **4.1 Target Cost savings**

Through the target cost system of pricing the works, the efficient working of the contractors has resulted in reduced cost on work exceeding £160k.

##### **4.2 Local employment and investment**

As part of the Framework, contractors have been encouraged to look for opportunities to employ the workforce locally and to use local suppliers wherever possible. To date, 18 people have been locally employed by Cox's and a further 4 by Tarmac, not including Blackpool's own workforce, as a direct result of the work from Project 30. Many of these employees had little or no construction experience prior to the project and have been given training, health screening and personal development programmes. Training programmes have included Traffic Management, Street Mason, Civil Engineering, JCB operators and New Roads and Street Works Act operatives.

A new office, workshop, training and storage facility has been created in Blackpool to service the contract which has enabled George Cox to reinvest 78% of the money spent under their works with local suppliers and businesses.

##### **4.3 Rate reductions and preferential rates**

The rates which Tarmac apply to materials under the Framework are reduced as a result of applying their own internal material transfer costs, as opposed to the market commercial rate. This has been shown to be approximately £2.50 per tonne than other contract rates applied in the North-West region. This reduced rate will save approximately £280k over the life of the project.

Due to the increased volume of work which has been able to be undertaken by Tarmac under the framework through the inclusion of the Project 30 scheme, they have reduced their overhead rate from 8.5% to 7%. This saves £54k per year of the project.

In order to continue to drive efficient working throughout the project, Tarmac have increased the gain share in favour of the Authority. Effectively, a larger proportion of the savings made can be reinvested in work under the project. The forecasted additional monies which will be available as a result of this will be £54k per year.

George Cox have driven down many of the rates provided within their pricing structure through improved efficient working and negotiated supply chain due to increased volume of work. The actual value is not easily quantified but on a sample equated to approximately 3% reduction in cost.

#### **5.0 Conclusion and recommendations**

It can be seen that there have been, and continue to be, significant benefits gained from both the method and mechanism of delivery of Project 30 which demonstrate value for money. It is true that delivering the project through other means may have provided some of these benefits, through the efforts made by the teams involved.

However, it is widely accepted within both the contractor's organisation, the council's contract management structure and by others in the highway industry that the collaboration through this work has been innovative and exemplary in the way the teams have embraced the delivery of a cost effective, efficient and value for money project.

It is recommended that the project continue to be delivered through the partnered framework arrangement and the teams continue to drive value into the scheme.

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