Evaluation of delays in technical approval of UK Highways Act s.278 projects

Abstract:
This paper attempts to address the causes of delays to the legal and technical approval processes involved in the creation of agreements authorising works to public highways under s.278 Highways Act (1980) specific to Warwickshire County Council, UK, and whether the type of contract (JCT or NEC) or s.278 agreement (minor or major) has any tangible influence. A series of questionnaires and interviews were carried out on a sample group of individuals including designers, developers, construction lawyers, and council engineers with extensive industry experience in relation to s.278 legal, technical, construction and adoption processes. The results revealed the key causes of delays, and therefore the barriers to prompt and efficient approval processes, as the lack of communication between developer and local authority, inexperienced developers’ engineers, poor quality drawings, and insufficient information in the local authority’s design guide. These key factors are discussed and recommendations are provided to tackle these issues.
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Act section 278 projects

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Keywords

s.278 agreement, Joint Contracts Tribunal, New Engineering Contract
1. Introduction

The sustained increase in the UK population causes the demand and need for new housing and
associated infrastructure to rise commensurately. Because of the increasing demand, the
requirement for housebuilders to develop and access their sites quickly increases. Such demand
drives developers to request for early approval to access their schemes to enable development
to commence quickly. Indeed, the whole development programme pivots around the site start
date. Permission to begin always requires technical approval from the relevant council’s
highway authority.

Highway legislation has changed significantly over the last 100 years. Since the first Highways
Act (1835) there have been seven revisions, leading to the Highways Act (1980). A notable
change was the introduction of the Compulsory Purchase Act (1965) enabling local authorities
to possess and purchase land compulsorily. This facilitated new road junctions to be formed,
even where the Local Authority required third-party land to be included. However, this process
can be lengthy and expensive so is used relatively infrequently. Often, road and junction
improvements are implemented by developers as enabling works to access their new scheme.
The Local Authority can then specify certain criteria that developers must meet before technical
approval is granted. All connections to existing adopted highways are governed by agreements
under Section 278 (s.278) of the Highways Act (1980) which describes “an agreement between
the Council and Developer which describes proposed modifications to the existing highway
network to facilitate or service a proposed development”. An s.278 agreement can only be
entered into if the local (highway) authority is satisfied it will be beneficial to the public.¹

Upon technical approval being granted, a Joint Contracts Tribunal (JCT) or New Engineering
Contract (NEC) is used to form the legal agreement between the Local Authority and the
Developer. The Institution of Civil Engineers (ICE) describes NECs as a “series of contracts
designed to manage any project from start to finish”. Similarly, JCT contracts aid the process of delivering a building project by setting out the duties of all the parties within the process and their obligations to one another. These contracts form the basis of the developer’s responsibilities before the new access becomes adopted. Currently, there appears to be a lack of guidance concerning NEC and JCT contracts, their associated advantages, disadvantages and relevance to the s.278 technical approval process. Furthermore, the existing literature and guidance concerning formulation, management, and implementation of s.278 agreements is scarce, causing ambiguity and misunderstanding for those involved in the s.278 process, and hence potential delays in the process.

This paper attempts to address the main issues faced during the s.278 technical approval process specific to Warwickshire County Council (WCC), whether the type of contract (JCT or NEC) or s.278 agreement (minor or major) has any tangible influence, and to what extent the Local Authorities’ views on the process align with those of a variety of housebuilders and development solicitors. It suggests how some local authorities might improve this area of service provision, through enhanced communication and collaborative working. It also demonstrates the significant role of the developers in the s.278 process and how their performance can influence the time to attain technical approval.

2. Literature review

2.1. JCT and NEC contracts

A key question of this research was to discover the importance of JCT and NEC contracts in relation to the s.278 technical approval process. The JCT, first published in 1931, is the UK’s principal building contract. The NEC, launched in 1991, also has a design capable of international use, showcasing a choice of governing law and language. In contrast to the more
traditional contracts, having the formal and technical language which is often hard to
understand, the NEC avoids the use of complex legal terminology and is also written in plain
English and present tense.

The way in which each contract deals with ‘costs’ and ‘early warnings’ influences the
preference of the type of contract used. JCT contracts do not include a proactive early warning
procedure and generally rely on the provisions in the contract to deal with issues when they
occur. Therefore, costs for ‘extra-over’ compensation events are not accurately quantifiable
and rely on the original contract. Conversely, within an NEC contract, early warning provisions
involve the maintenance of a risk register and place obligations to notify each party if a relevant
issue occurs and to attend and cooperate at a risk reduction meeting. The NEC contracts allow
for flexible and clear allocation of risks in contracts.\textsuperscript{3} The definition of ‘compensation event’
in the NEC contract, stated in Clause 60 of NEC3 standard form of contract, entitles the
contractor to additional payment and time as compensation for the effect of events on the price
and completion time of the project if the event is not resulted from the contractor’s fault\textsuperscript{4}. The
adoption of NEC contracts in highways and transportation projects by Hampshire County
Council allowed for fast agreement of compensation events, valuations, and time extensions.\textsuperscript{5}

In JCT contracts a master programme is submitted after the contract is executed with no further
requirements to submit revisions, whereas in NEC contracts a more detailed programme of
works is required to be submitted on a regular basis as determined by the employer. This
detailed programme allows for monitoring progress and management of early warnings and
compensation events.

A way to lessen costs incurred by developers or contractors throughout the s.278 process could
be achieved while going through the technical approval process. If the designers, developers
and contractors gained a clear understanding of the potential project risks from the outset and
ensured the drawings reflected these constraints, foresight would help reduce the implications of costly late discoveries. This would improve the cost and time predictability, reducing favouring an NEC or JCT contract. Early project risk identification minimises unexpected late expenditures and delays. It must be mentioned here that the WCC only uses s.278 Agreements under NEC contracts, despite developers’ preferences (who participated in this study).

The Developers’ Guide to Highway Works Agreements and Part XIII, Financial Provisions within the Highways Act (1980) clearly outline that all costs are borne by the developer. Section 278(1) of the Act enables a developer to enter into an agreement with the Highway Authority for works it has the authority to execute, subject to the Developer paying all relevant costs. Section 278(2) confirms the Highway Authority can recover all costs associated with s.278 works. Section 278(3) states that the developer must pay for work maintenance. This is further evidence proving that the developer must bear any payments arising from such highway improvements. This further reinforces why some developers prefer JCT over NEC contracts. The type of the contract may therefore be considered as a potential factor causing delays in technical approval of s.278 projects.

2.2. Major and minor s.278 agreement

The current literature available regarding s.278 agreements for WCC is limited in its specifics. In terms of defining the differences between major and minor agreements, the Developers’ Guide to Highway Works Agreements states; “This guide is specific to standard s.278 highway works where the execution of the highway works will have a significant impact on the day-to-day operation of the public highway either during the construction of the works or upon completion of the development. Typical examples are where roundabouts, traffic signals, or significant temporary traffic management are proposed”. While an assumption can be made that the above definition describes a ‘major’ s.278 agreement, WCC admit they have not
formally distinguished between major and minor agreements, nor the timescales associated. WCC have not published definitions and advice to clearly distinguish the differences between what constitutes a major or minor s.278 agreement. Other councils such as Hampshire County Council clarify what they classify as minor or major s.278 agreement. For instance, according to Hampshire County Council,7 “Projects involving traffic signals, structures or permanent Traffic Regulation Orders will not be suitable for an s.278 minor works check. For larger or more complex schemes a full s.278 agreement will be required”. Overall, it can be said that major works which are deemed to have a significant impact on the highway network, both in terms of construction, and when completed and open to the public, require major s.278 agreements, whereas, minor s.278 agreements are more suitable for minor works which do not have a significant impact to the highway network. Hampshire Council have also produced a checklist and two-step design check process. Once this process has been completed a detailed design check will be required. Their s.278 minor works checklist presents examples of drawings required for a submission. These include street lighting details and calculations, passenger transport facilities, arboriculture reports, tree protection measures, cycle and pedestrian facilities, etc. These lists clarify what is expected of the developer and designer. WCC lack a similar process and documentation, often being unclear as to what is expected of a developer and designer for a detailed drawing submission. This can lead to delays in obtaining technical approvals, especially for those inexperienced with WCC’s processes. Despite the above, WCC have a series of standards that experienced engineers work with. However, this presents an obstruction for those inexperienced in WCC’s method of working. Other local authorities such as Hampshire and Wolverhampton Councils have clearer lists specifying requirements to obtain technical approval, specific to major or minor agreements. WCC cross-check all designs against a set of standards known as Design Manual for Roads...
and Bridges (DMRB). Within this document, all design specifications to obtain technical approval are discussed in line with Eurocodes. For instance, the section ‘geometric design of major and minor priority junctions’ clarifies the process and definition behind what constitutes a major or minor junction. The classification subsequently influences what agreement each development will fall under. Subjectivity still exists as the council’s engineer decides the major or minor classification. Furthermore, the design document referred to is extensive with many sections, which can often be hard to simplify. WCC could help by producing a similar simplified document for developers and designers to use as this provides clarity of what is required for designs and lowers the risk of technical approval delays.

2.3. Current guidance and timescales

To fast-track the agreement to obtain technical approval, the Department for Transport’s Guidance on s.278 agreements, suggests; “Developers contemplating an s.278 agreement should make an early approach to the appropriate agency contact to open preliminary discussions”. The Design Guide to Highway Works Agreements provides a similar statement, however, it infers a meeting is useful rather than a necessity; “If required, he or she may request a meeting at a mutually acceptable time and location with an appropriate County Council Officer and/or Engineer to discuss such matters”.

Developers seeking fast technical approval should initiate contact with the Local Authority as soon as possible and organise meeting(s) to discuss and gauge their requirements. Issues highlighted early in the process give the developer and designer time to ascertain and resolve problems before the site starts. Early engagement also reveals the council’s specific drawing requirements.
Often developers will pursue technical approval upon receiving planning permission. However, it is prudent to engage with the council early in the process before the grant of planning permission. The Department for Transport’s Guidance states that; “In most cases, they will follow the grant of planning permission, though occasionally it may be appropriate to prepare an agreed document before the planning permission stage”. If drawings are prepared thoroughly for planning permission (for example a ‘reserved matters’ application) one could form a robust set of drawings, and ascertain the requirements and wishes of the Local Authority facilitating faster technical approval.

2.4. S.278 Challenges

Many local authorities have considered disaggregation of the client and the design service function of the highway authority, perhaps in response to compulsory competitive tendering, and with the aim of better controlling the costly design services, competing with the private sector, and thus generating more income. The experience in Liverpool City Council (LCC) suggested that such division caused fragmentation among the engineering specialists involved in the s.278 process, leading to poor coordination and management of certain schemes, and consequently an increase in both costs and delays for developers. A review of the challenges with the s.278 system revealed that the highway authority was facing difficulties in coordinating between the technical service provider (the hired design specialist) and planning authority in terms of engineering requirements, as well as ensuring the design checks are carried out by competent and experienced engineers. From the developers’ perspective, a lack of effective cooperation and coordination between the different departments within the local authority and the consequent conflict of decisions, as well as having to deal with too many people and departments within the council were the main reasons causing delay and increased costs. The LCC established a new system in 2003, called ‘in-house’ designs, in which the
local authority undertakes all aspects of the highway improvement works (under Section 278 of the Highways Act) and the developer is responsible for paying the incurred costs to the highway authority. This approach removes the risk of poor developer performance in the design process since managing the design process becomes the local (highway) authority’s responsibility. This new system is deemed efficient in minimising delays in the technical approval process. However, the challenge was managing the developer’s expectations in terms of cost, time, and quality, requiring early engagement and communication with the developer.

From the above discussions, it appears that a lack of clear guidance concerning a set drawing list to adhere to for formal submission, as well as a lack of engagement with the council early enough in the process, are the main causes of delays to s.278 agreement approval. Other factors such as inefficiency of the developer or designer, delayed payment of fees, lack of council’s resources and the council engineer’s level of experience and availability to review an application, are investigated in the following sections. These factors were identified based on the literature review, the authors’ experience of engaging with WCC for s.278 agreement approval, and informal consultation with other professionals engaged in s.278 projects. Table 1 provides a summary of the potential factors causing delays in s.278 technical approval.

<table>
<thead>
<tr>
<th>Category</th>
<th>Potential factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>Type of contract (NEC or JCT), minor or major s.278, size of the s.278 work</td>
</tr>
<tr>
<td>Developer</td>
<td>Lack of effective communication between the developer and the council, lack of developer’s early engagement with the council, size of the developer organisation, poor quality of the design drawings, designer’s slow response to the council’s queries, less efficient and less experienced developer’s legal representation, delayed payment of fees</td>
</tr>
<tr>
<td>Local Authority</td>
<td>Lack of appropriate support and effective communication from the council team, lack of clarity on the required documents and drawings, council’s limited resources and legal representation to review and process applications in a timely manner</td>
</tr>
</tbody>
</table>

Table 1. Potential factors causing delays in technical approval of s.278 projects
Third-party | Landowners being non-co-operative

3. Methodology

3.1. Questionnaire

A questionnaire was designed as the main tool for data collection in this research. The participants involved were carefully selected based on their extensive industry experience as well as experience with s.278 agreements. The data set of respondents included construction lawyers (3), designers (19), adoption specialists (2), housebuilder engineers (9) and WCC employees (5). This selection allows for the representation of a wide range of views and that any potential selection bias is avoided. Based on the literature review and a pilot study, 10 primary variable indicators were assessed, namely poor quality drawings, poor communication between the council and the developer, size of a developer organisation, type of agreement (minor or major), designer’s slow response, size of the s.278 works, third party involvement, inexperienced developers’ engineers and legal representation, local authority’s limited resources, and the type of contract (JCT or NEC). This formed the basis for the design of 15 closed (objective) questions.

Initially, the Likert scale, a five-point frequency scale including 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree), was adopted to give the questionnaire simplicity. However, to ensure respondents would answer the set questions, and to obtain analysable data, an amendment was made to the Likert scale and the ‘neutral’ option was removed. As suggested by Naoum, the questions were made brief and precise to minimise the possibility of skipping the questions. Furthermore, the questions were designed in such a way as to ensure that they did not assert blame towards any party, such as the council or designers. Respondents could react negatively and subsequently answer the questionnaire
defensively and subjectively meaning discovery of the actual issues arising out of the technical approval process would remain undisclosed and produce distorted or even invalid responses. The respondents remained anonymous to preserve confidentiality, adding to the validity of the questionnaire and the study itself. The accuracy and reliability of the responses to the questionnaire might be influenced by personal bias and an attempt by the respondents to keep privacy. To address this issue the questions were considered to be predominately closed questions, which have been made as objective as possible. However, two open-ended (subjective) qualitative questions were also set to allow respondents to suggest any ideas or feelings towards the s.278 process, real causes or problems behind the s.278 delays to approval, and potential solutions to solve these problems. Table 2 illustrates the discipline and number of closed and open-ended questions used in the questionnaire. The questionnaire was subsequently pilot-tested on a focus group of 7 highly experienced professionals to assess the questionnaire’s effectiveness, quality and wording of questions, and coverage of the research themes. Overall, positive feedback on the questionnaire was received and minor suggested amendments were applied.

Table 2. Discipline, type, and number of questions in the questionnaire

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Question Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer performance (technical drawings)</td>
<td>Closed</td>
<td>3</td>
</tr>
<tr>
<td>Local Authority directed questions</td>
<td>Closed</td>
<td>5</td>
</tr>
<tr>
<td>Law-based/contractual questions</td>
<td>Closed</td>
<td>4</td>
</tr>
<tr>
<td>Developer directed questions</td>
<td>Closed</td>
<td>3</td>
</tr>
<tr>
<td>Additional questions</td>
<td>Open-ended</td>
<td>2</td>
</tr>
</tbody>
</table>

3.2. Data collection

The questionnaire was launched through Coventry University’s online survey platform and the link to the survey was distributed among the target participants via email and social media.
platforms (e.g. LinkedIn). In line with standard Coventry University ethics practice a participation cover letter was produced. This cover letter outlined the purpose of the survey, assured participants of the confidentiality of the provided information and responses, and made participants aware of their right to withdraw at any point. As stated by Hogg et al., sample sizes greater than 25 or 30 are about the correct number of questionnaires required for a valid and accurate questionnaire response rate. Given the focus of this research being on the WCC, a large number of respondents with experience on s.278 agreement was not possible. Of the 41 questionnaires distributed, 38 were returned, representing a 93% response rate. All returned questionnaires were valid as they included all necessary information. An inaccuracy value ($I$) of 16% was obtained using the $I = 1/\sqrt{N}$ correlation suggested by Naoum where $N$ is the number of participants or sample size. Interestingly, all questionnaires were returned by designers, housebuilders and adoption specialists. All but one questionnaire sent to the Council were returned. On the whole, Council staff seemed to be very engaged and interested. Out of three questionnaires sent to construction lawyers, only two were returned. This low response rate was ameliorated through one-to-one interviews with specific questions targeted at the legal process.

3.3. Interviews

A series of unstructured interviews were conducted to obtain opinionated suggestions and an insight into the subject area which are not easily obtainable via the questionnaire or similar quantitative data collection methods. The combination of questionnaires and interviews increases the reliability of data and reduces the likelihood of biased conclusions. A total of 10 interviews were conducted with a range of industry professionals across all disciplines, namely Local Authority (WCC), housebuilders, designers, construction lawyers and adoption specialists. According to Guest et al., a saturation percentage of 80% can be achieved from
the results of 6 interviews, and with 12 interviews the saturation percentage can even reach 90%. Saturation is ‘the most frequently touted guarantee of qualitative rigour offered by authors’ \(^ {14}\) and is often used as a criterion to discontinue data collection.\(^ {15}\) All the selected interviewees were affiliated with large to medium-sized companies and were highly experienced with the construction process and contractual agreements, in particular s.278 agreements specific to WCC. Questions were focused to provoke discussion and to gain individual opinions to whom the questions were asked. Interviewees were asked to express their opinions on the ease of understanding the legalities around the s.278 agreements, and whether the type of legal agreement has any impact on the speed of obtaining technical approval. Furthermore, the interviewees were asked to comment on whether the developer’s relationship, effective communication, and early engagement with the council, as well as the knowledge, competency, and experience level of the developer’s designer, in particular their familiarity with s.278 agreement process, are influential in obtaining a speedy technical approval. The council’s capacity and resources to operate and communicate effectively, their guidelines on drawing requirements, and their potential plan for improving their s.278 agreement approval process formed another theme of the interview questions.

4. Results

4.1. Analysis of closed questions

Figure 1 presents the respondents’ views on the effect of poor-quality drawings on technical approval delays. All respondents unanimously believed that poor drawing quality can delay technical approval. Local Authority responded the highest with 100% of their employees strongly agreeing that the fault of slowed technical approvals lies in poor drawing quality. The next highest respondent category was designers, where 70% strongly agreed.
Figure 1. Effect of poor-quality drawings on the technical approval delays

Figure 2 presents the respondents’ views on whether technical approvals could be sped up if communication between the council and developers were faster. All but one of the respondents agreed with this statement. The only disagreement was expressed by one of the designers. Housebuilders responded the highest with 88% of their employees ‘strongly agreeing’ that the fault of slowed technical approvals lies in poor communication between themselves and the council. The responses to this question appear to be reliable, as the question was not directed at either the council or the developer. The next highest respondent category was designers, where 60% strongly agreed.
Figure 2. Faster communication between council and developer speeding up the technical approval process

Figure 3 presents the respondents’ views on the influence of the size of an organisation on the speed of obtaining technical approval. As is shown, 68% of respondents disagreed and 8% strongly disagreed that the size of the organisation had any impact on the speed of gaining technical approvals. However, this was not an undisputed response as conflicts have been noticed with 18% agreeing and 5% strongly agreeing that the size of the business has an impact.

Through some of the open questions within the questionnaire, developers and designers justified their responses by stating that they believed larger house builders had more resources, hence, possessing a greater ability to answer council queries. Conversely, designers and the local authority believed the size of a developer was not necessarily a contributing factor for the delay, more that fault lay with an individual, hence explaining the results collected here.

However, the size of the developer could have other effects. For example, larger developers may have more in-house resources to appropriately deal with applications. Equally, their size could lead to those in management relying on their engineers to ensure drawings are
satisfactory without review. Therefore, drawing errors may go undiscovered until after council
comments are returned.

![Figure 3. Effect of the size of an organisation on the speed of obtaining technical approval](image)

As a general perception, one may say that the s.278 legal and construction process could be
sped up if it was constructed under a minor s.278 rather than a major s.278. However, this
should not imply that to save time, projects should be categorised as minor rather than major
(regardless of size) to reduce the processing and approvals time as it would contradict quality
control and procedural guidelines. Figure 4 presents the respondents’ views on this. As it is
shown, 55% of the respondents agreed and 18% strongly agreed that the process is quicker
whilst perusing a minor s.278 agreement rather than a major agreement. This was met with
65% of designers either strongly agreeing or agreeing and all of the developers agreeing in the
same manner.

There was a relatively split decision within the council with 40% strongly agreeing and 60%
disagreeing. The questionnaire was sent to both the major and minor highway departments
within the council thus explaining the variation of results. When analysing the other results
24% disagree and 3% strongly disagree that the type of agreement influences the speed of approvals. The largest spread of answers came from designers. Out of the 20 responses, 5% answered strongly agree, 60% agree, 30% disagree and 5% strongly disagree. A reason behind this discrepancy could be attributed to a designer not having worked on a major s.278 thus far in their career, despite 5+ years’ experience. Notwithstanding there being a range of results within each respondent category the majority (73%) overall agreed that the type of agreement influences the time to obtain technical approval.

Figure 4. Effect of the type of agreement (minor or major s.278) on the speed of obtaining technical approval

Figure 5 presents the respondents’ views on the effect of designers’ slow response on obtaining technical approval. Overall, 89% of the respondents agreed that slow responses from the designer can attribute to slow technical approval. Interestingly, the remaining 11% who disagreed with this statement were all designers themselves. In contrast, all the council respondents expressed their strong agreement with this statement. In conclusion, the
respondents’ views demonstrate that slow technical approval can be attributed to a designer’s inefficiencies or slow responses.

Figure 5. Designers slow response causing technical approval delays

Figure 6 presents respondents’ views on the effect of the size of the s.278 works on technical approval delays. This was one of the more divisive responses with overall 63% agreeing and 37% disagreeing. One fairly consistent factor was that 80% of the council disagreed that the size of the s.278 works directly affected the approval process. Interestingly, later conversations with certain council members inferred that if the works are larger, there are more drawings to review, causing a potential delay in approvals (see Section 4.3). All housebuilders expressed their agreement with this statement. It is reasonable, therefore, to conclude that the size of the works may have an influence, but that other factors may have a larger impact on causes of delays to approval.
Figure 6. Size of the s.278 works having an impact on the technical approval delays

Figure 7 presents the respondents’ views on whether the local authority (council) communicate quickly and efficiently. Overall, 82% of the respondents believed that there is a lack of effective communication between the developers and the council. Not surprisingly, all of the Local Authority respondents believed they communicate effectively with clients. This could be construed as a biased response, as the respondents who await Local Authority technical approval and are dependent on efficient responses all disagreed in some form. Interestingly, all of the adoption specialists also shared the same view as the Local Authority. The adoption specialists’ views might be a result of mainly dealing with councils to get schemes adopted, which is a relatively smaller task to complete in comparison with obtaining the technical approval on s.278 agreements.
Figure 7. Local authorities communicate quickly and efficiently

Figure 8 presents the respondents’ views on whether agreement signing can be prolonged by other land owners, who are party to the agreement, being non-cooperative. 95% of the respondents expressed their agreement with this statement. It is clear that from these findings one can confidently state that an agreement signing can be delayed by third-party involvement. Minimal conflicts have been noticed with only 5% of the respondents disagreeing that the agreement process can be held up by a third-party involvement.
Figure 8. Influence of third parties on delaying the agreement

Figure 9 presents the respondents’ views on whether the signing of the s.278 agreement could be delayed by less efficient and less experienced developer legal representation. 79% of the respondents believed that developers could have better legal representation to avoid delays in obtaining technical approval. By contrast, 21% disagreed that legal representation had any impact on the approval process. Only 25% of the construction lawyers agreed with this statement, allowing one to conclude that 75% of construction lawyers believe the delays to be associated elsewhere in the process. All adoption specialists and 88% of housebuilders believed that legal representation could improve the speed of the process.

One reason for the signing of agreements being held up might be due to anomalies within the agreement itself. For example, a company, who are party to the agreement, could change their name whilst drafting the s.278 agreement meaning new engrossments need to be agreed upon and re-signed by all parties, all the while, elongating the process. While this question is more associated with the s.278 process post grant of technical approval, it was proposed to ascertain where flaws could be identified in the process.
Figure 9. More efficient and experienced developer’s legal representation speeds up technical approval.

Figure 10 presents the respondents’ views on whether the local authority (council) do as much as they can to assist their clients with the s.278 agreement. Overall, 61% of the respondents disagreed with this statement. It is evident that the Local Authority do believe they assist their clients to a satisfactory level with all respondents either agreeing or strongly agreeing. 88% of the housebuilders and 65% of the designers believed the local authority are not acting quickly and efficiently. Whether this can be owed to the council’s limited resources or the developer’s inability to engage early in the process will be discussed through the findings of the interviews.

Figure 10. Local Authority provide sufficient support to developers perusing s.278 technical approval.

Figure 11 presents the respondents’ views on the effect of developers’ poor performance on the technical approval delays. 92% of respondents either agreed or strongly agreed that delays can be associated with poor developer responses. Interestingly, housebuilders seemed to
answer this question objectively and 88% agreed or strongly agreed that delays could be associated with their poor organisation or planning.

Figure 11. The developer’s poor performance, planning, and organisation cause technical approval delays

Figure 12 presents the respondents’ views on whether an inexperienced designer could cause delays in obtaining s.278 approval. This was the most conclusive response, from all questions posed in the questionnaire. 97% of the respondents either agreed or strongly agreed that an inexperienced designer could be at fault when trying to ascertain technical approval. This could result in many design resubmissions to the council, resulting in delays. The 95% positive response from the designers admitting that the delays could be attributed to their lack of experience, proves the objectivity and reliability of the survey results. The technical drawings produced by an inexperienced designer may not meet the council’s requirements, leading to further delays as also shown in Figure 1.
Figure 12. Inexperienced Developer’s designer causes technical approval delays

Figure 13 presents the respondents’ views on whether WCC’s s.278 approval process is easy to follow and understand. Overall, 82% of the respondents believed that the WCC’s process is straightforward. Most notably 80% of the Local Authority, who deal with the s.278 agreements on a daily basis, strongly agreed with this statement. Similar responses were received from the designers where 85% of the respondents believed that WCC’s process was easy to follow. There is an even split for housebuilders with 50% agreeing and 50% disagreeing. Observation of such responses could be attributed to the respondents’ experience within WCC’s s.278 process as those who stated their disagreement ranged in industry experience of 5 to 25 years.
Figure 13. WCC’s legal s.278 process is easy to follow and understand

Figure 14 presents the respondents’ views on Local Authority having limited legal representation and resources to review all applications. 84% of the respondents either agreed or strongly agreed that the council have limited resources and legal assistance to help progress s.278 applications, leading to applications not being processed and approved in a timely manner. However, the majority of the council (80%) had a different view and believed that they have sufficient resources and are responding within a reasonable timescale.
Figure 14. WCC’s limited resources cause technical approval delays

Figure 15 presents the respondents’ views on whether the type of contract used (JCT or NEC) influences how quickly technical approval can be obtained. Overall, 63% of the respondents agreed that the type of contract influences obtaining technical approval. All of the Local Authority respondents disagreed that the type of contract has any bearing on the speed of obtaining technical approval. This might be due to the fact that WCC only use NEC contracts, as discussed in Section 2.1. 40% of the designers and 50% of the adoption specialists also shared the same view.

Figure 15. The contract type causes technical approval delays

A ranking of the causes of technical approval delays based on the survey findings is given in Table 3. It is observed that the main causes of delays in s.278 agreement technical approval lie on the developer’s efficiency and performance e.g. in producing accurate design drawings, effective and timely engagement and communication with the local authority, and legal representation. The type of contract and s.278 agreement do not seem to have a tangible effect on the speed of obtaining technical approval.
Table 3. Classification and ranking of the main causes of delays in s.278 technical approval based on quantitative results

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause of the delay</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor technical drawings submitted by the designer</td>
<td>Developer</td>
</tr>
<tr>
<td>2</td>
<td>Inexperienced designer</td>
<td>Developer</td>
</tr>
<tr>
<td>3</td>
<td>The developer’s slow and ineffective communication with the council</td>
<td>Developer</td>
</tr>
<tr>
<td>4</td>
<td>Non-cooperative third-party landowners</td>
<td>Third-party</td>
</tr>
<tr>
<td>5</td>
<td>Developer’s poor organisation and planning</td>
<td>Developer</td>
</tr>
<tr>
<td>6</td>
<td>Designer’s slow response to the council’s comments</td>
<td>Developer</td>
</tr>
<tr>
<td>7</td>
<td>The council’s limited resources and capacity to review applications</td>
<td>Local Authority</td>
</tr>
<tr>
<td>8</td>
<td>The council’s slow and ineffective communication with the developer</td>
<td>Local Authority</td>
</tr>
<tr>
<td>9</td>
<td>Developer’s less efficient and less experienced legal representation</td>
<td>Developer</td>
</tr>
<tr>
<td>10</td>
<td>Type of s.278 agreement (major or minor)</td>
<td>Contract</td>
</tr>
<tr>
<td>11</td>
<td>Type of contract (NEC or JCT)</td>
<td>Contract</td>
</tr>
<tr>
<td>12</td>
<td>Size of the s.278 works</td>
<td>Contract</td>
</tr>
<tr>
<td>13</td>
<td>Lack of sufficient support provided by the council</td>
<td>Local Authority</td>
</tr>
<tr>
<td>14</td>
<td>Size of the developer</td>
<td>Developer</td>
</tr>
<tr>
<td>15</td>
<td>Difficulty in understanding and following the WCC’s s.278 agreement process</td>
<td>Developer</td>
</tr>
</tbody>
</table>

4.2. Analysis of open questions

The two open questions were introduced to give each respondent a chance to give their thoughts and suggestions on the issues associated with the s.278 technical approval process that were not addressed in the questionnaire. In the first question, the respondents were asked to express their views on what could be the cause of delays to technical approvals. In the second open question, the respondents were asked if they were aware of any failures in the agreement process.

By review, many of the respondents had similar ideas on issues relating to the s.278 technical approval process. All of the answers raised were valid points and reasons behind potential
delays in obtaining technical approval. Some of the respondents highlighted the facts such as
the Local Authority being under-resourced, poor developer performance, inexperienced WCC
engineers, and lack of a drawing checklist and unified protocol in WCC for reviewing the
documents as the main causes of delays in obtaining technical approval which were already
addressed in the questionnaire.

A few suggestions were made by the respondents on issues which were not covered within the
questionnaire or the interview questions. For instance, a few scenarios were mentioned where
the council believed that they owned the land and subsequently entered into the agreement with
the developer, later the land was identified to be owned by another council or third party
subsequently causing delays. Lack of joined-up thinking between the internal council
departments and delayed payment of fees are the other factors raised that could potentially
result in an elongated technical approval process.

4.3. Analysis of interviews

From the general questions, the interviewees mentioned that the technical approval speed is
often based on region to region rather than the size of the developer. It was also suggested that
developers could engage earlier in the process. Furthermore, progressing a series of
agreements, for example, an s.184 (which allows installation of a vehicle crossing over footway
and verges) and an s.278, concurrently can halt progress. It was also suggested to integrate the
planning and technical approval teams so that upon granting planning only minor changes will
be required to obtain technical approval.

The Local Authority mentioned that changes are due to the Warwickshire Developers’ Guide
but only concerning s.38 (adoption of new residential highway roads within a development),
not the s.278 guidance. The council commented on this and agreed that specific guidance

should be released about specific requirements for drawings in relation to s.278 agreements. It was also highlighted that the ‘Option A’ within the NEC contract drives drawings to be accurate and can elongate the approval process. Another interview with WCC employees revealed that “the reason for using this form of contract is to enable the council to give their contractors more certainty regarding the works information and this should mean that there is more certainty on the costs, which should be to the benefit of the developer”.

Local Authority accepted and attributed their delay to approving drawings, due to the potential future liability of road ownership, more so than the lack of staff. They specified that their number one priority is to ensure that the adopting council are not going to be left with a long-term liability, hence why caution is exercised when technically approving drawings. This further reinforced a recurring theme in relation to the quality of the developer’s employed designer. To streamline this process, if the council approve the employed designer, it could lead to fewer comments and faster approval being granted.

From interviews with legal professionals, it was inferred that WCC are under pressure and under-resourced, reinforcing a running theme throughout this study. Yet a fresh concept brought to light through such interviews was the notion of ‘Planning Performance Agreements’. These are government-led schemes, where the developer agrees to pay additional fees and the planners or council give assurances that planning permission will be delivered by a certain date. This should expedite applications, however, there is limited accountability if the council or planners do not achieve the set targets. Subsequently, the developer could be short-changed and still no further forward with their application or technical approval.

The construction lawyers interviewed stated that there is “no hard and fast rule” in relation to the size of the developer and their subsequent technical approval success rate. When asked about the agreement they collectively agreed that it is easy to understand, to those well versed
in the process, yet conceded that the s.278 agreements are not written in plain English and inferred that this could cause delays. A proposal put forward was to have a country-wide s.278 agreement, to standardise the process across the country with the intention for it to be written in plain English, making the agreement more user-friendly. For this to take effect it would need to be a government lead initiative and could take time. Table 4 outlines the key findings of the interviews mapped against the objectives of the study.

Table 4. Mapping interview findings against research objectives

<table>
<thead>
<tr>
<th>Category</th>
<th>Potential factors causing delays</th>
<th>Interview findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract</strong></td>
<td>Type of contract (NEC or JCT)</td>
<td>This is not considered a cause of delay in attaining technical approval.</td>
</tr>
<tr>
<td></td>
<td>Type of s.278 agreement (minor or major)</td>
<td>“Option A” within the NEC contract necessitates detailed and accurate drawings that may elongate the technical approval process. However, this is a benefit to the developer and should not be seen as a negative factor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>s.278 agreements are not written in plain English and may not be easily understood by less experienced designers and planners, potentially causing delays in technical approval.</td>
</tr>
<tr>
<td><strong>Developer</strong></td>
<td>Lack of effective communication and early engagement with the council</td>
<td>This is considered as one of the major causes of delays. Early engagement with the council and timely response to the council’s queries can speed up the technical approval process.</td>
</tr>
<tr>
<td></td>
<td>Size of the developer organisation</td>
<td>This does not seem to have a tangible impact on the speed of the technical approval.</td>
</tr>
<tr>
<td></td>
<td>Less efficient and less experienced developer’s designer</td>
<td>This is considered as one of the major causes of delays. The quality and accuracy of produced drawings reduce the number of comments by the council engineer and the timescale for technical approval.</td>
</tr>
<tr>
<td><strong>Local authority</strong>&lt;sup&gt;(Council)&lt;/sup&gt;</td>
<td>Lack of appropriate support and effective</td>
<td>Council engineer’s experience, prejudice, subjectivity, and bias can cause delays during the application review process.</td>
</tr>
</tbody>
</table>
communication from the
council team
Lack of clarity on the
required documents and
drawings
The council’s limited
resources and legal
representation
This is one of the major contributing factors to
technical approval delays. WCC should
provide specific guidance on drawing
requirements in relation to s.278 agreements.
The delays in processing applications were
attributed to the potential future liability of
road ownership, rather than the lack of staff.
The provision of the Planning Performance
Agreements scheme can expedite applications.

5. Discussion of the results

The literature review determined the NEC contract showcases the need to understand all
constraints early in the process, but the reason why this occurs was unclear. The interviews
revealed that although the NEC contract’s ‘Option A’ forces the council to ensure accurate
drawings are detailed, and this may elongate the approval until the council is satisfied the
developer has adhered to the requirements, this fact should not be considered as a negative
issue, as contractually it is better to have accurate drawings to avoid difficulties during the
project. Therefore, the requirements of Option A within the NEC contract are not considered
as a cause of delay in attaining technical approval.

The WCC design guide was highlighted as insufficient for a developer to submit a sophisticated
drawing pack which WCC would consider acceptable for technical approval without issuing
comments. For example, Warwickshire’s Developer’s Guide could be updated to state they
require a fire tracking drawing, then specify the drawing size and supply the relevant vehicle
size to track. The WCC acknowledged the design guide needs alteration to enhance the s.278
guidance.

Subjectivity is referenced in how the approval is left to a council individual. Their prejudice
could cause an application to go through extensive revisions triggering delay to a planning
permission or technical approval. This can be attributed to the engineer’s experience in reviewing the submission. Individual bias can arise when another council engineer reviews the same application. They could request other amendments. To overcome this issue, it would be beneficial for WCC to employ more engineers (if possible) to progress the applications and to issue a fully detailed design guide, listing all of the drawings and requirements that could significantly reduce council comments and subsequently enhance time to turnaround technical approvals, provided the developer’s engineer is competent. However, employing more engineers prompts the question as to whether the newly employed engineers at the Local Authority work to the same standard or pace. The desire to issue fast approvals may cause bias as to whom the proposals went to within the Local Authority, causing a majority of applications to be dealt with by one engineer. This repeats the same issues, as one engineer would be overworked and the other may not gain the relevant experience to work on applications effectively.

A recurring theme is also the lack of engagement and an inexperienced designer, further highlighting how integral the designer’s role is in obtaining fast approval. Developers could better brief and supply existing information to their designers to reduce revisions. This study has discovered it often depends on the industry experience, the familiarity of working with that particular Local Authority and understanding its particular requirements. The provision of the in-house design by WCC, as discussed in section 2.4, could be beneficial to eliminate the poor developer performance in the design process, and hence significantly speed up the technical approval process.

Through interviewing Local Authority and housebuilders, it came to light that while a faster planning procedure may assist in obtaining a quicker planning permission it does not always necessitate the same to obtain a technical approval. This can be owed to highway planners and the technical approval team reviewing the scheme in varying levels of depth. While the
highway planners will still drive developers to ascertain the majority of requirements, such as establishing horizontal deflections and traffic calming measures, it is the technical approval team that has to ensure these are designed correctly. The council’s technical team will require sufficient details to ensure the scheme will be built correctly and will not become a liability to the adopting council.

As ascertained within the results (Figure 4), developers have a preference for minor s.278 rather than major s.278. This can be attributed to fewer drawings, usually resulting in a faster grant of technical approval. However, it also provides the developer with the ability to use their own chosen contractor, giving greater control over costs, onsite timescales and deliverability.

6. Conclusions

This study aimed to identify and analyse the causes of delays in the s.278 agreement approval process, and to propose solutions and recommendations to improve the process. The following conclusions can be drawn:

- There is a need to have a standardised list of drawings and documents that the WCC require from a developer for a technical approval submission, with the associated standards referenced.

- Before any submission, developers should gain a clear understanding of the council’s requirements. This could be achieved by organising meetings with the council to discuss the first draft of produced drawings.

- The scheme can progress to a technical approval faster under a minor s.278 agreement due to the fewer drawings to review and, in most cases, lower complexity. However, this should not imply that projects, regardless of their size, should be categorised as minor rather than major so a faster technical approval could be obtained.
An improvement in the level of communication within the local authority’s departments as well as with the developer can significantly reduce the delays associated with the s.278 technical approval process.

Further investigations should be undertaken across other councils to see whether the same themes occur and if this would influence the ability to have a standardised set of s.278 requirements across the UK.

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