Stakeholder Management in Heritage-Related Transportation Projects

Planning to Fail or Failing to Plan?

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1   Introduction

Transport planning is a multidisciplinary practice that has detached from other traditional branches of engineering to more successfully integrate with other disciplines. It is therefore arguable that transport planners are no longer 'lone' professionals. They ought to partake in multidisciplinary exercises to execute projects; working alongside private and public initiators of plans and projects, political bodies at national, regional and local levels and other affected stakeholders, including the wider public. The interaction between these different participants needs to be facilitated by the practice of stakeholder management – a core project management skillset that is especially significant when undertaking large transport infrastructure projects.

From a planning perspective, the regeneration of historical centres occurs either with the aim of improving environmental and living conditions, to capitalising on heritage assets to revitalise the economy of the city. In both cases, transport planning needs to be considered to integrate the modern needs of mobilising people, whilst still considering the higher political sensitivity of the heritage-related site. Transport in this context does not only need to deliver enhancements of infrastructure, but also act as the 'catalyser for change' of the social, environmental, economic and physical environment through transformational development of the districts (Erkul et al, 2016).

From a project management perspective, the regeneration of historical centres requires a cross-collaboration of numerous professionals to mitigate the societal and spatial impacts imposed by such projects. At the centre of this collaboration is the multidisciplinary nature of heritage-projects, and the conflicting objectives stakeholders rightly bring to the discussion.

Since these large infrastructure projects are necessary to integrate modern mobility, what are the project management solutions employed to engage with the historical and cultural requirements of the site whilst delivering the project? and who is to engage with the stakeholders involved? This paper will explore the topic of stakeholder engagement in the specific context of transport planning projects set in heritage environments in order to answer these questions.

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2 Objectives

As projects become more complex and collaborative, stakeholder management gains significance which requires specialised stakeholder management professionals to lead the process. However, this process is often constrained not only financially, but by a lack of understanding from fellow project team members.

The aim of this paper is *to increase the understanding of the role undertaken by the specialised stakeholder manager and the importance they play in engaging with the public as it is argued that stakeholder management can shape the perception of success in the delivery of complex transport infrastructure projects.*

The paper uses various methods to interrogate the stakeholder engagement process and the role of stakeholder managers, including a stakeholder interview exercise for a selected case study (the A303 Stonehenge Road Tunnel Project) in **Section 4**. In smaller transportation projects, stakeholder management may be undertaken by the lead transport planner, or other project team members, supplementary to their day-to-day project activities. In large-scale projects however, stakeholder engagement specialists often lead stakeholder-interfacing tasks, *which is the fundamental reason as to why transport planners need to collaborate with stakeholder management specialists*. The interviews undertaken as part of this study focused on stakeholder engagement specialists.

The paper will consider one case study in detail but findings from other case studies will be considered in the conclusions since projects are unique endeavours. The additional case studies and a wider literature review will also be considered in the Proposed Stakeholder Management Strategy in **Section 5**.

The final strategy highlights the role stakeholder managers and transport planners should play in each stage of the project to ensure appropriate engagement is being undertaken throughout the project. The strategy also highlights barriers potentially impeding successful implementation of a robust stakeholder management strategy.

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3 Literature Review

The following paper focuses on projects set in areas of high cultural heritage. Cultural heritage here is defined as 'historical traces such as archaeological and architectural monuments and sites and cultural environments' (Tonnesen et al, 2014:3125). Culture is regarded as one of the factors contributing to sustainable urban development and affects urban inhabitants and their well-being.

Both transport and cultural heritage are therefore highly relevant in local authorities' strategies aiming to increase urban attractiveness. Consequently, the idea of 'managing' the townscape of historic urban centres has emerged as a phenomenon from 'preserving' particular historical buildings in countries that regard planning as a distinct practice. For example, in the English Planning System, the problems of preservation, restoration and conservation – of not only historical buildings but also historical townscapes – have long been recognised (Salter, 1984).

In other countries where planning is less regulated, uncontrolled developmental growth in historical centres has negatively impacted the urban morphology. Most historic sites are not designed for modern mobility needs due to factors which include topography, traffic circulation impacted by narrow or informal streets, and pedestrian circulation due to narrow or non-existent pedestrian routes (Carvahlo et al, 2012). The new demands generated by modern needs (such as adaptation of new land uses and the intensive movement of people and vehicles), coupled with uncontrolled growth, can compromise heritage environments.

3.1 The Planning Framework

Historic preservation values inform transport planning practices differently depending on the rate of development and different cultural contexts.

In countries which have witnessed rapid development for example during the industrial revolution in England, the post-oil boom in the Arabian Gulf States, or the rapid suburbanisation following the spread of private vehicles in the US, the impact of urbanisation was often so great as to totally submerge earlier townscape forms or to divide existing communities to make way for mobility corridors. The understanding of processes which created historic towns were neglected. In the case of England, 20th century legislative laws recognised planning as a practice that protects those historic townscapes. The regulations developed with time to include tools for public consultations and engagement with stakeholders. In the US, an Executive Order (EO) on Environmental Stewardship and Transportation Infrastructure Project Reviews was signed in 2002, where environmental reviews address historic preservation issues.

In contrast, countries in central and eastern Europe experience a lower rate of development due to the effects of industrialisation and slow assimilation into the built fabric. In other parts of the world, there is a much stronger tradition of studying urban form and understanding the importance of historical townscapes as 'objectivations of the spirit' of the society living and working in them.

3.2 Identification of Stakeholders

A planning framework, being influenced by historic values, sets out the tools needed to ensure Stakeholder Engagement (SE) and public perception are considered in complex projects. Given the heightened political and social sensitivity of heritage-related planning projects, SE is needed to secure the buy-in from the interested groups, as they influence the perception of success of the project.

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The representatives of the interested groups in a project are named as the project's stakeholders. A generic map of stakeholders includes the following parties for any planning-based project:
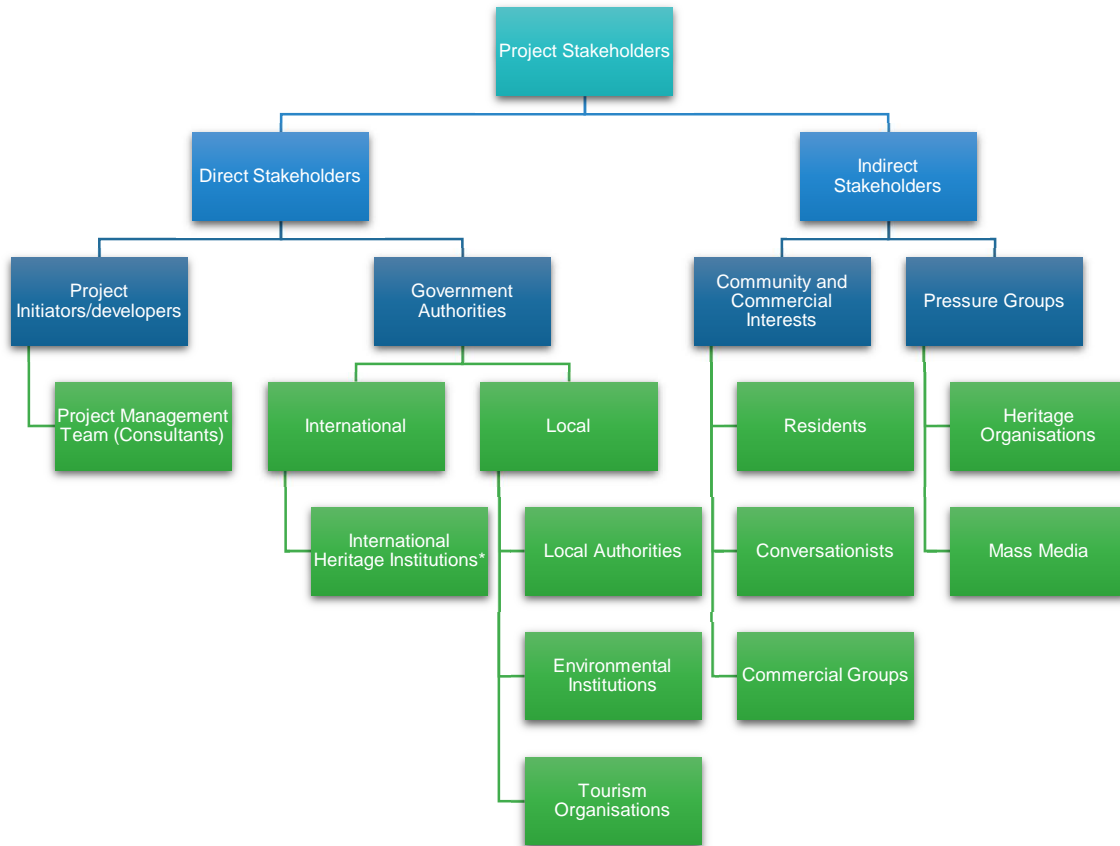
Figure 1: Generic Map of Project Stakeholders
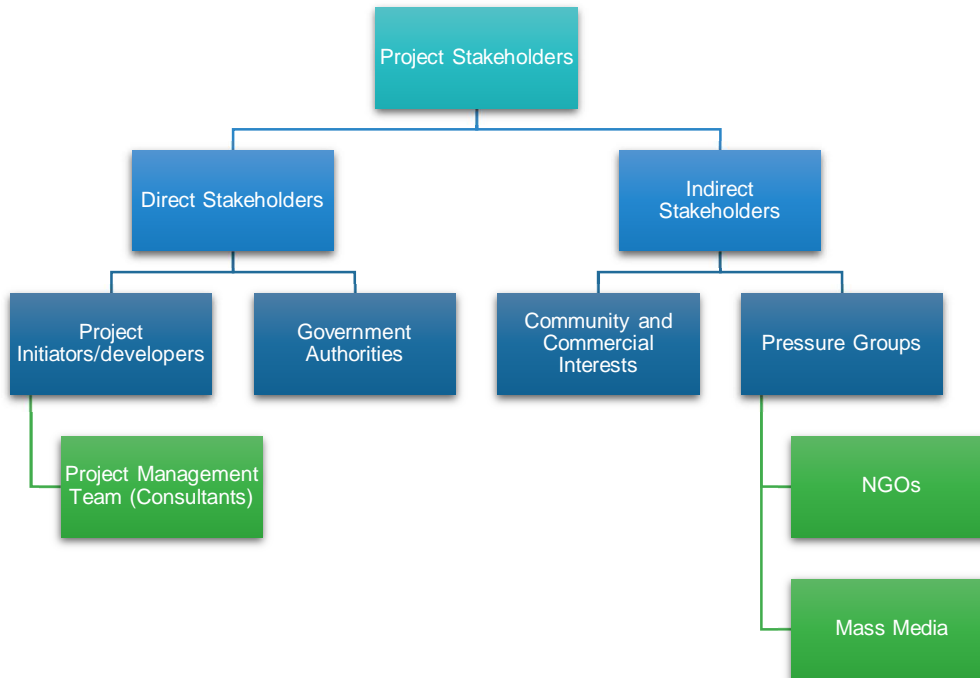
The Association of Project Management states "Stakeholders are important influential resources and should be treated as potential sources of risk and opportunity within the project." Therefore, a clear understanding of the role, influence and power of each stakeholder is paramount throughout the life cycle of a project. The main purpose of engagement is to gain a transparent decision-making process with greater input and feedback from affected stakeholders. At the pre-project applications, SE provides planning projects with the opportunities of identification of potential opposing ideas that can be used for the improvement of project concept and design and reduce conflicts (Erkul et al, 2016).

The literature on stakeholder theory is at conflict when it comes to categorising project stakeholders, however, a frequent classification is grounded on priority (Fassin, 2008), or power (Dill, 1975; Freeman & Reed, 1983). Moreover, Agle et al (1997) offered a classification based on the attributes of power, legitimacy and urgency. Furthermore, Clarkson (1995) distinguishes between Primary and Secondary stakeholders.

If we are to consider the specific issues created by heritage-related concerns, it is perhaps not adequate to categorise stakeholders by hierarchy (as proposed by Clarkson, 1995). Instead, the terminology used by Frooman (1999) is more precise in this instance; firstly, direct stakeholders – those with a direct (and contractual) relationship with the project - and indirect stakeholders – those who have an indirect (and non-contractual) impact on the project.

In transport planning projects set in heritage context, a stakeholder map might include the following:

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Figure 2: Stakeholder Map for a Heritage-related Transport Project

* Involvement is dependent on the status of the heritage site, scale of the transportation project, or both.

Heritage-related projects pose unique challenges to a field that is already challenging. Arguably, at the core of every heritage-related project is the concern that the outcome will not satisfy the expectation of all stakeholders. This is often the case, given that expectations are divisive in the first place.

Therefore, engagement with stakeholders should differ in methods and level of engagement depending of the project phase. The project phases are:

1. Project Inception
2. Project Planning & Appraisal
    – Optioneering & Design Phase
3. Project Delivery
    – Construction Phase
    – Project-closing Phase

Stakeholders are ideally identified during the project inception stage but are continuously shifting throughout the planning and delivery stages of the project. Stakeholder management is then necessary to identify the changes in stakeholders and manage communication with them.

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3.2.1 Stakeholder Management

The importance of stakeholders in relation to the execution of successful projects has been identified by numerous studies, most recently by Molwus (2014), Collinge (2016) and Waghmare (2016), among many others. According to Waghmare (2016), a project manager's primary task is to ensure that a project "consider[s] and gratifie[s] a variety of stakeholders" (Waghmare, 2016).

Bourne (2005), suggested that effective stakeholder management aims at increasing the perception of project success. Indeed, in the heritage field, stakeholder management holds even a higher importance. Hajialikhani (2008) suggests that a "systematic and structured stakeholder management procedure" allows the conversion of negative influences into positives, in the realm of the conversation of a heritage related project. The process also mitigates influences from both ends of stakeholder structure; by balancing views of, for example, "uninformed people" associated with a project, or "highly expert" individuals.

Importantly, Perovic (2015) further opens a debate of a lack of stakeholder expertise in the heritage field. To address this debate, the strategy in **Section 5** aims to give a brief insight on what is needed from stakeholder experts in the heritage field by drawing on knowledge from the interviews in **Section 4** and case studies in **Appendix A**.

3.2.2 Project Success

De Wit (1988), among others, identified two distinct categories of success; project success (measured against project objectives) and project management success (measured against the 'scope triangle' of Cost, Quality and Time).

It is clear from the above analysis that for complex and potentially controversial transportation projects, other factors to project success should be considered, the primary ones being public perception and stakeholder views.

Baker et al (1983) suggested C/Q/T should not be measures of success, and instead suggested performance as a greater indicator. Furthermore, Verma (1995) specifically identified communication, teamwork and leadership as necessary components to meeting project objectives. Crawford (2002) further stated that a high level of stakeholder 'satisfaction' is essential for project success.

Having reviewed the literature, it is therefore appropriate to consider the success or failure of a heritage-related project considering the following measures in addition to the achievement of project objectives (cost, value, time), which are:

– Satisfaction of the Client/User
– Perception of failure and/or success amongst external stakeholders.

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4   Case Studies

The case studies section considered projects in various stages of completion. The sample of projects from various countries have been studied to briefly identify the key practices in how SE is currently being undertaken. As the literature review uncovered, a strong stakeholder management process is vital for the perceived success of a project and this has been observed through the case studies contemplated for further research.

Details of the case studies can be found in **Appendix A** of the report.

Figure 3: Considered Case Studies
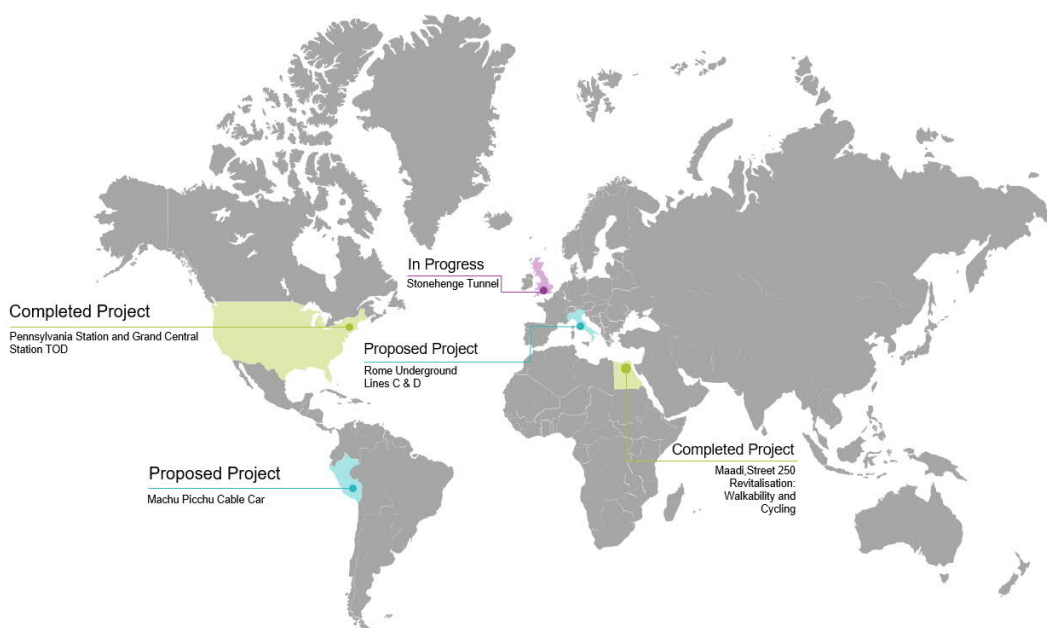
Stakeholder interviews have been carried out to understand how the current process of SE is conducted. From the list of projects considered for the paper, the A303 Stonehenge Road Tunnel Project was chosen due to its in-progress status and abundance of information, as well as willingness of stakeholders to contribute to the research.

The interviews have been used to understand the stakeholder engagement process from a specialised stakeholder managers' perspective. Direct quotes were subtracted to describe the project and the process involved with SE **(Section 4.1)**. The interviews also informed the Proposed Stakeholder Management Strategy **(Section 5)** until the Optioneering and Design Phases, as the selected project for the case study is still in progress.

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4.1 A303 Stonehenge Road Tunnel Project

The proposal to improve the A303 by means of a two-lane carriageway was first proposed in 1994 and unveiled 1999. This was met with stakeholder scepticism from the outset; its closeness to the UNESCO World Heritage Site (WHS) caused concern to the National Trust and smaller pressure groups. The revised plan issued in 2002 and subsequent public enquiry did not seem to appease concerns, and the project was withdrawn in 2005 and abandoned in 2007.

The scheme resurfaced in 2014 when a Member of Parliament assured that any improvements to the A303 'must' consider protection to the UNESCO site. In 2008, the Planning Act proposed changes to the laws and public consultations became mandatory for large infrastructure projects. In addition, the Complex Infrastructure Programme (CIP) was established in 2014 within Highways England (HE) to create a focus to manage and deliver large and complex infrastructure projects. It was through these new tools that the incorporation of stakeholder engagement in earlier stages of the project became possible.

Interviews have been carried out with the following groups and individuals to understand what role specialised stakeholder managers play in heritage-related transport projects:

Interview	Role in Project	Purpose of Interview
Highways England – Complex Infrastructure Programme	Client	Project Owner
AECOM	Technical Consultant	Delivery Team (joint venture with MACE and WSP)
Wiltshire Council	Stakeholder	Local Authority
Stonehenge Alliance[1]	Stakeholder	Pressure Group

4.1.1 Project Appreciation

Table 1: Project Appreciation

| Project Definition | Eight sections of the A303 / A358 / A30 have been identified as requiring improvement to provide a high-performing dual carriageway between London and the South West. Out of the eight sections, three have been included within the current Road Investment Strategy (RIS), with the remaining five schemes to be prioritised in the next two RIS periods.

The Stonehenge scheme would create approximately 8 miles of dual carriageway between Amesbury and Berwick Down. |
|---|---|
| Project Objectives | The scheme had 4 objectives, which whilst not specifically mentioning stakeholder engagement, couldn't be achieved without it[2] |
| Promised Benefits | 1. Transport: creation of a high-quality expressway between London and the south west, contribution towards better traffic conditions, and reduction of through traffic using local roads
2. Economic growth: provision of benefits to regional economy
3. Cultural heritage: contribution towards the enhancement of the WHS by improving access to and within the site
4. Environment and community: provision of positive legacy to communities and the environment[3] |

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[1] An Interview was organised with Stonehenge Alliance, however the responses were not received and therefore not included in the paper. Opposition views were captured from other interviews through the "Stakeholder, and Concerns" sections of the interviews.

[2] Interview with Wiltshire Council, 19/11/2018. *Appendix A*.

[3] Client Scheme Requirements, Public Consultation 2017 Online Document

Project Concerns	-	Impact on the world heritage site, as the dual carriageway cuts through the site. Opposition questioned why the road couldn't be designed around the periphery.
	-	Impact on the local environment, construction, and environmental concerns.
	-	Meeting community expectations and the delivery of promised benefits.

Source: Stakeholder Interviews, Appendix A

4.1.2   Influence of Heritage Values on the Project

The status of the heritage site determined the stakeholders involved in the project, whose feedback then influenced the documents produced and the preferred option design. Some of the stakeholders involved include:

1. International heritage organisations such as ICOMOS and UNESCO;
2. Local heritage organisations such as National Trust, English Heritage and Historic England;
3. Interest from archaeological and heritage communities;
4. Interest from the Pagan and Druid communities, and local residents.

The following examples demonstrate how the project was directly influenced by the aforementioned stakeholders:

proposed to address the problem of this road running within 60m [right across the world heritage site [by setting] engagement to incorporate the Heritage bodies views including a specific working group to feed direct feedback to the project team. As a result, several national and international heritage bodies were aware of the project and had the opportunity to comment"

"[There] were site visits for UNESCO's world heritage team to look at the proposals and the scheme, to talk to HE and the local heritage bodies. they reported on these missions and HE were required to respond"

"Amendments were performed to the scheme due to comments from heritage groups. For example, the location of one of the tunnel portals was moved partly down to feedback from heritage groups, and the design of the road in the western part of the world heritage site and the entrance's exit of the tunnel at that end. The options were influenced (among other things) by the heritage bodies".

Interview with AECOM, 30/11/2018.
Appendix A.

"*A case in point [is] around the Blick Mead area which has attracted a lot of the media attention despite not being part of the scheme. HE wanted to listen very closely to the arguments and reassure that the scheme is not going to impact that. Contact has been made [with] one of the archaeologists who have been a particular proponent to protect the Blick Mead area. The team has met with him and have always engaged and answered his questions as best we can. Whatever issues are raised by stakeholders we will always do out best to respond to them and their concerns*"

Interview with Highways England, 26/11/2018. *Appendix A.*

4.1.3   Stakeholder Engagement Influence on the Project

The key areas of influence stakeholder engagement had on the project are as follows:

1. Planning Act (2008) making public consultations mandatory for large infrastructure projects[4];
2. Planning Act (2008) Section 42 and Section 47 informing the stakeholder list for large infrastructure projects[5];
3. CIP within HE: dedicated stakeholder engagement positions and a communications team for the project[6];
4. Budget secures (e.g. £300k for council from cabinet)[7]

These tools have influenced the stakeholder engagement process as follows:

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[4] Interview with AECOM, 30/11/2018

[5] Interview with AECOM, 30/11/2018

[6] Interview with Highways England, 26/11/2018

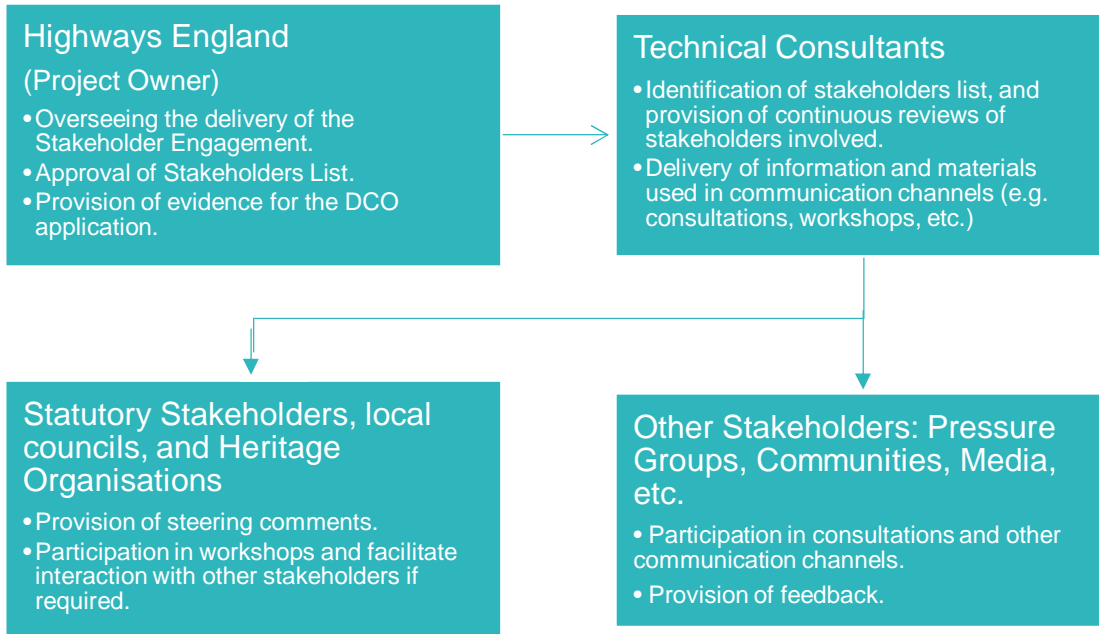[7] Interview with Wiltshire Council, 19/11/2018

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Table 2: Stakeholder Engagement Process

Project Phase	Project Tasks	Stakeholder Engagement Process
Project Inception	A303 feasibility study announced as part of the Autumn Statement	
Project Planning and Appraisal (Pre-application Phase)	Scheme included in the Roads Investment Strategy	
	Route options assessed	• Regional team within HE led early Stakeholder Engagement • External technical consultant identified initial Stakeholder List • Engagement started with Local Authorities and land owners. • Engagement with heritage organisations and delivery of 3 ICOMOS/INESCO (over the course of 3 years*)
	Non-statutory consultation on route options	• CIP team involvement initiated, appointment of internal heritage consultants, broad, structured engagement with stakeholders • Detailed engagement with stakeholders started and encompassed a wide range of stakeholders including: the heritage and archaeological communities, Pagan and Druid communities, local residents, land and business owners, local authority and surrounding areas, statutory stakeholders
	Preferred route announced	• External technical consultant reviewed and updated stakeholder list according to Section 42 and Section 47 of Planning Act[8]. • Reviewing and updating the list of stakeholders affected.
	Statutory consultation on proposed scheme	• Feedback from stakeholders influencing design amendments
	Supplementary consultation	• Feedback from stakeholders influencing design amendments
Development Consent Order (DCO) Phase	DCO Application Submitted	
Project Delivery (Implementation Phase)	Start on site	2021 (planned)

Source: Stakeholder Interviews, Appendix A

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[8] Interview with AECOM, 30/11/2018

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Figure 4: Main Stakeholder Management and Engagement Roles

Highways England
(Project Owner)
- Overseeing the delivery of the Stakeholder Engagement.
- Approval of Stakeholders List.
- Provision of evidence for the DCO application.

Technical Consultants
- Identification of stakeholders list, and provision of continuous reviews of stakeholders involved.
- Delivery of information and materials used in communication channels (e.g. consultations, workshops, etc.)

Statutory Stakeholders, local councils, and Heritage Organisations
- Provision of steering comments.
- Participation in workshops and facilitate interaction with other stakeholders if required.

Other Stakeholders: Pressure Groups, Communities, Media, etc.
- Participation in consultations and other communication channels.
- Provision of feedback.

4.1.3.1   Engagement Methods

The engagement methods below were available for the Design Phase of the project leading to the examination. They are varied and some tailoring is required for each stakeholder type.

All Stakeholders

- Project Website
- Public Consultation (information boards, technical reports) and meetings
- Appointment of the right specialist or professional to respond to comments or concerns

Targeted Stakeholders

- Workshops
- Site Visits

Once the examination is complete, engagement will be ongoing and will be adapted for the following stages of construction and implementation. By then a real impact will be made on people's journeys in that area and the project team becomes more visible and therefore more regular and detailed updates are required.

- Efforts will include:
  - Accurate, timely updates using digital platforms to understand and be able to influence the progress the project is making, the next steps, and how the project is expected to impact existing journeys during the years of the construction.
  - Working with the community forum to help them understand the benefits to the wider community.
  - Communication can be on a weekly basis rather than an infrequent newsletter, meaning smaller bits of communication can be shared more frequently. Engagement and conversation is likely to be a two-way conversation rather than just pushing information out.[9]

4.1.4   Why is stakeholder engagement key in large infrastructure projects (in the UK)?

Perhaps a more general question is what drives decision making in controversial projects? When asked that question, the answer was compliance with policy considerations rather than the number of vocal critics[10]. This process of engagement is designed in accordance with the tools[11] provided within the planning framework.

The stakeholder engagement process is important to show evidence that various views, concerns and comments were considered to refine the design proposal(s). This evidence is required at the examination stage of the project, when submitting the planning application. If the evidence is satisfactory, then the application is accepted for consideration. However, that does not guarantee provision of planning application consent.

In regard to the A303 Stonehenge Tunnel project, the stakeholder engagement process has taken a more detailed approach following the identification of the preferred option. It has been able to deliver 3 consultations, including a supplementary one, and has engaged with as many stakeholders as necessary to provide evidence for the examination process. If more detailed engagement is essential, policy requirements need to reflect that in the tools provided within the planning framework. Otherwise, other budget priorities would impact the capacity to undertake stakeholder engagement tasks.

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[9] Interview with Highways England, 26/11/2018. *Appendix A.*

[10] Interview with Wiltshire Council, 19/11/2018. *Appendix A.*

[11] Discussed in **Section 3.1.3**

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5 Proposed Stakeholder Management Strategy

The stakeholder interviews conducted, although specific to the A303 Stonehenge Road Tunnel project and the UK context, have given an insight into the stakeholder management processes currently in practice in a large typical heritage-related transportation project. The methodology identified the importance of a robust stakeholder movement process, and it was suggested that stakeholder perception constitutes significantly to perceived project success. When considering other heritage-related schemes globally (**Appendix A**), it is evident that more can be done to ameliorate stakeholder concerns to effectively identify and manage direct and indirect stakeholders.

An interesting realisation was that *large infrastructure projects generally act like 'closed systems' at the beginning stages of the project and that SE is often introduced when either options or a preferred solution have been identified*. This is one of the aspects that the Proposed Stakeholder Management Strategy addresses. It is suggested that SE is introduced at even an earlier stage (project inception) when no solutions have been identified. This contributes in having a more transparent and continuous conversation. Other aspects that the strategy addresses are the cultural factors potentially influencing engagement methods, and the barriers potentially impeding successful implementation of a robust stakeholder management strategy. Much will depend on the skill, experience and knowledge of the project team and stakeholder manager to mitigate these.

The Proposed Stakeholder Management Strategy is presented in the table below[12]. The proposed strategy is presented as a 'toolkit' for industry best practice, and not as a tool that will guarantee project success. It is also not suggested that project success cannot be obtained without SE, as it very much depends on the size of the project, the status of the heritage site, and the level of interest expressed by the different stakeholders.

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[12] The interviews (**Section 4**) informed the proposed strategy until the Design Phase of any given project, with the global list of projects (**Appendix A**) –and industry knowledge– informing the Construction and Project-Closing Phases of a project. The literature review has also informed and refined the toolkit in its various stages.

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Project Stage

Stakeholder Manager Role		Lead Transport Professional and Project Team	Barriers
	←→ Communication		
Stakeholder Mapping Exercise -Identification of stakeholders. -Analysis of stakeholder views and potential project interest. Account for PESTEL (Political, Economic, Social, Technological, Environmental, Legal) and cultural factors. -Mapping of stakeholder relationships (direct/ indirect). -Understanding priority – employ Interest and Predictability matrices.	**Project Inception**	Account for stakeholder management at project bidding stage. Invigorate stakeholder management role among project team members. Undertake competency assessment for the role. Appoint stakeholder manager.	Initial low understanding of the brief and scope creep. Stakeholder engagement strategy to be revised as project develops. Lack of resources to appoint a dedicated project stakeholder manager.
As a minimum, create a Responsibility Assignment Matrix (RACI Matrix), identifying who is 'responsible,' 'accountable,' 'consulted,' and 'informed'. Create a communication management plan and distribute among project team members. Communications channels should be set up at this stage and communicated to the relevant stakeholders. Communication methods need to be checked against PESTLE and cultural factors. Review project objectives against stakeholders' views and interest and identify risk items.	**Project Planning and Appraisal**	Maintain constant communication with stakeholder manager and inform of changes to project scope and objectives. Undertake a risk assessment that includes stakeholder-related issues. Explore different Transportation Modes (cultural factors influence travel behaviour). Record 'what', 'how' and 'when' decisions are made.	Misunderstanding of stakeholders. Lack of resources to implement stakeholder strategy. Weak stakeholder strategy due to inexperience of stakeholder manager. Communication management plan in place but not distributed or consulted by team members. Team members' view that a risk register should only include technical risks. Stakeholder manager's lack of project-specific knowledge.

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	Project Delivery		
Organise engagement sessions to inform and/or consult stakeholders. For larger programmes, it should be explored if statuary requirements are sufficient to meet the objectives within the communication management plan. Publicise engagement sessions extensively. Stakeholder manager to 'bridge' stakeholders' views and team members' project knowledge. Analyse early overall stakeholder perception. Are views generalised or localised? Overall negative stakeholder perception to be escalated as an 'issue'. Review stakeholder map and communication management plan routinely.	**Optioneering and[13] Design Phase**	Options appraisal to consider stakeholder perception as a benefit. Convince project owner that stakeholder perception is a project success factor. A 'do nothing' option to consider long-term impact to the end-user and the heritage environment. Identify and mobilise a suitable specialist to respond to queries. As identified in the communication plan, external communication may be via the stakeholder manager. Consider various design options as appropriate. Methodology in choosing recommended design options to be fed to the stakeholder manager.	Engagement sessions are not publicised, leading to low engagement. Engagement sessions are not sufficient to fully understand stakeholders' views. Consultations undertaken to inform, rather than 'consult.' Views of stakeholders consulted are not representative. Project team accepts an 'overall perception' that is not representative. Project team members unaware of consultation results. Stakeholder strategy not reviewed, leading to oversights moving forward.
Consultation results and project team considerations to be fully disclosed. Communication management plan to be revised to specify what information should be 'released' and when. High power/influence stakeholders to be monitored closely. High interest stakeholders to be kept informed.	**Construction Phase**	Project owner to create a RACI matrix for the construction works inclusive of stakeholder management tasks. Project team to communicate updates to stakeholder manager and project owner. Consult stakeholder manager about release of information e.g. press coverage, etc.	No definition of activities. Stakeholder management role overlooked. Changes to the programme/ scope not communicated to stakeholders as these are considered 'internal' changes. Uncontrolled release of information. Consultation results not disclosed fully as to not further publicise 'negative perception.'

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[13] Proposed: Move Optioneering and Design Phase to (Project Delivery) instead of (Project Planning and Appraisal). This way, engagement can be conducted with greater transparency

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Ensure mitigation measures are in place in accordance with the risk register prior to commencement of the works.

Stakeholder manager to communicate with the Principal Contractor e.g. attendance of monthly meetings, etc. For larger schemes, this could be a separate role – e.g. 'Client Relations Manager.'

Specify the need for a 'complaints/ queries' register to be administered by the Contractor and reviewed by the stakeholder manager.

Maintain channels of communication for stakeholders to communicate throughout construction phase. | | Project team to make stakeholder manager aware of the change control process.

Project owner/ manager to encourage (through contractual and non-contractual terms) transparency in the Principal Contractor and supply chain's stakeholder management strategy.

Project team to be engaged with the stakeholder manager to anticipate and mitigate design-related issued arising from stakeholders' views. | Perception that stakeholder engagement is no longer required as works have already started.

Perception that indirect stakeholders no longer pose a risk to the project.

Allocated budget for stakeholder management exhausted.

Budget for stakeholder management is re-allocated to activities where there has been overspend.

Principal Contractor and supply chain undermine stakeholder management efforts.

Project team and stakeholder management undervalue the supply chain's role in the stakeholder management process. |
| Stakeholder manager to request feedback of project benefits from the end-user.

Stakeholder manager to inform stakeholders of project benefits.

Stakeholder management to record 'lessons learned.' | **Project-closing Phase** | Project team to ascertain if projects objectives have been achieved. Project owner to ascertain if project benefits have been realised.

Project team to capture 'lessons learned' and make a case for these to become best practice. | Stakeholders are not aware of benefits and objectives realised, leading to negative perception.

Lessons learned are not shared. |

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6 Conclusions

This paper aimed to increase the understanding of the role undertaken by specialised stakeholder managers, and the importance they play in engaging with stakeholders as it can shape the perception of success of complex transport infrastructure projects. The paper looked at existing literature, global case studies and undertook a stakeholder interview exercise for the A303 Stonehenge Road Tunnel Project. The study of these examples helped in creating a Proposed Stakeholder Management Strategy that informs the roles played by both specialised stakeholder managers, and transport planning, in order to contribute to the perception of success in complex transport infrastructure process. The main realisations from this paper are:

- Transport planners are multidisciplinary professionals and ought to become more aware of stakeholder management processes. A lack of understanding of the stakeholder engagement field may contribute to a failure in planning. There are definite roles for transport planners to play in project management, but when it comes to stakeholder management in complex project environments, planners need to collaborate with the right specialists to lead the process.
- The case is made for stakeholder perception and satisfaction to be considered on the same lines as cost, value and quality. For this, the resources need to be in place, and the stakeholder manager must become a specialist role especially for large and complex projects. As a minimum, the responsibility of stakeholder management should be embraced by team members experienced and knowledgeable in the practice.
- The proposed Stakeholder Management Strategy addresses the following aspects:
  - Large infrastructure projects often act like 'closed systems' at the beginning stages of the project and that SE is can be introduced when either options or a preferred solution have been identified. The proposed strategy suggests that it is possible to engage with stakeholders even before a list of options is identified.
  - Cultural factors influence the type of stakeholder engaged in the project, and the methods to engage with them.
  - There are many barriers to effective SE; ranging from firstly, the slow-paced infrastructure environment, to secondly the level of awareness of stakeholder management represents value for money, to project owners (clients) not often being aware of the requirements, benefits and implications of stakeholder management.

Finally, it would be far-fetched to suggest that it all comes down to stakeholder management for all complex transport planning to be considered successful, but the evidence does suggest that good stakeholder management may contribute to a perception of success, which to many would inherently make a project successful.

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Appendices

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A. Global Case Studies Research

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Project Description

Machu Picchu Cable Car, Peru

Machu Picchu is a 15th-century Inca citadel, located in the Eastern Cordillera of southern Peru. The site was declared a Peruvian Historic Sanctuary in 1981 and a UNESCO World Heritage Site (WHS) in 1983. In 2007, it was also voted one of the New Seven Wonders of the World in a worldwide poll. Despite attracting tourists worldwide, Machu Picchu is notoriously difficult to access. Those visiting are required to employ a combination of public transport to reach the closest village to the WHS – Aguas Calientes (also known as the Municipality of Machu Picchu). Even from there, Machu Picchu's location on mountain ledge, a couple of hundred metres above the valley and river, still requires a lengthy trek.


In the past, buses were able to take visitors almost all the to Machu Picchu, but a series of landslides instigated a study which rendered the 1948 road 'near the point of permanent' collapse. This instigated a 'master plan' opened to international bidding to determine alternative routes to Machu Picchu. Subsequently, plans to construct a cable car were approved in 1990. UNESCO opposed the proposal and claimed that the WHS was not prepared for the influx of tourists that the cable car would deliver – the project subsequently came to halt. More recently, Machu Picchu Pueblo's mayor has brought back the plan, and insists that the cable car is to be built despite the central government and UNESCO's opposition. It is noted that in July 2008, the World Heritage Committee voiced concerns over deforestation, the risk of landslides, uncontrolled urban development and illegal access to Machu Picchu, this is to be added to a significant increase on tourist numbers as it is proposed that the cable car will be capable of transporting 3,500 passengers per hour. This differs dramatically with the current cap of two sessions for entering the sanctuary, each limited to 2,500 visitors. As an alternative, the Ministry of Culture, UNESCO and local NGO's are devising a monorail or elevator, which could be erected beyond the horseshoe bend of the river, and out of sight form the citadel above.

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Rome Underground Line C & D

Rome is one the most historically-gifted cities in the world. Once at the centre of global dominion during the peak of the Roman Empire, today Italy's capital has struggled to remain at the forefront of modernity. To some extent, it has succeeded to pioneer a new architectural 'Renaissance,' but this has come with criticism – in the lines that the new should not overcast the past. Authorities' have been blamed for inaction to protect even the most precious of heritage assets – such as the Colosseum – and lack of funds have certainly meant that the metropolis lags in public transportation efficiency. The creation of the Line C of the Rome underground, however, is set to align Rome's network in line with those of the other big European cities.
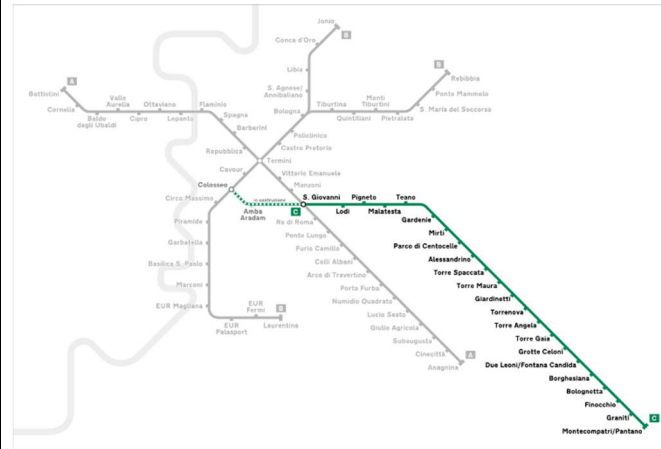
Line C crosses the city from North-West (Della Vittoria) to the eastern suburb, extending beyond the Grande Raccordo Anulare. The new underground is capable of carring 600,000 people per day with a capacity of 60,000 passengers during peak hours. The extension of line C towards the centre of Rome is under construction - from San Giovanni (interchange station with line A) to Colosseo (to interchange with the line B). This has certainly caused the most controversy given its proximity to several WHS and several more other sites of historical interest – still, there is not much evidence to suggest that stakeholders are discontent.

In 2013, a survey by the European Commission placed Rome last out of 28 EU capitals in a ranking for the efficiency of city services, and in 2015, Giancarlo Cremonesi, the president of the Rome Chamber of Commerce, denounced that "Rome is on the verge of collapse." Indeed, this has been exacerbated by the effects of Italy's longest recession since the Second World War. It is perhaps the case that Rome's need for major infrastructure investment supersedes, in this case, stakeholders' concerns of any possible damage to the heritage-related patrimony of the city - it is common knowledge that such projects can in fact promote economic growth.

Line D is another proposed line, shut down in 2012 but which has resurfaced again in 2018. The scheme is set to run from south-eastern Rome, pass through the city centre and reach the northern part. It is yet to be seen what stakeholders' perceptions of the scheme are when, again, it is expected to affect key historic infrastructure across the city. Arguably, as Rome's economic outlook improves, stakeholders will seek to address how these schemes affect the city, afar from improving well-needed public transportation, and quality of life.

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A303 Stonehenge Road Tunnel, UK

Stonehenge is the last of a series of circular structures on the same site aligned to the rising sun at the midsummer solstice. Its purpose is not known, although it has been suggested the site performed the function of a giant calendar. Stonehenge and its surroundings became a World Heritage Site in 1986. It is one of the best well-known landmarks in the UK, which archaeologists believe to have been constructed from 3000BC to 2000BC. The site is legally protected as a Scheduled Ancient Monument since 1982 and is currently managed by English Heritage.

The stretch of road running past Stonehenge to the A36 is a notorious traffic bottleneck; there have been various solutions sought within the last two decades, with the conversion of the A303 into a dual carriageway sought as a viable solution to ameliorate congestion and "unlock economic growth". The project has, since inception, been met with scepticism, with indirect stakeholders such as UNESCO and smaller NGO's concerned of the damage the proposed tunnel near the WHS could inflict on the site. Nonetheless, it was cost and a lack of a strong business case which ultimately kept delaying the project.

Nonetheless, early objection from indirect stakeholders did exert pressure, and in 2002 the government committed to spending an extra £30 million on the scheme to ensure that the tunnel section could be bored underneath – as opposed to cut and cover methods – and in 2014 the plans to invest were revealed. Even with some apparent compromise to safeguard the WHS, pressure groups have shown discontent in the lack of alternatives proposed; it is argued that the Stonehenge project ignores World Heritage Convention and that it does not solve transportation problems, as major roadbuilding is at odds with international commitments to reduce carbon-dioxide emissions from road transport. Nevertheless, English Heritage and National Trust have welcomed the proposed tunnel, 'myth-busting' some of the criticism and noting a priority to "care for and conserve Stonehenge for future generations." Despite over three decades at the planning stage, it appears that Stonehenge A303 scheme both attracts harsh criticism and praise from stakeholders, and a key question is whether earlier stakeholder involvement and management would have appeased objection, or whether a project of this scale should simply resign to the fact that opposition is unavoidable to a certain extent.

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Pennsylvania Station and Grand Central Station, USA

https://keithyorkcity.wordpress.com/2012/10/07/penn-station-the-greatest-architectural-loss-in-new-yorks-history/

There is perhaps no place in the US nation where historic preservation and transportation planning confront one another quite like New York City's great railroad stations – Pennsylvania and Grand Central (Hope et al, 2002).

Pennsylvania Station served as a transportation hub that was woven within the fabric of the community in Philadelphia. It was constructed in 1904 and was regarded as a masterpiece of Beaux-Arts-style construction. The loss of Pennsylvania Station occurred in 1962, where the announcement was made that the station would be demolished to make room for higher density and a new modern Madison Square Garden and Pennsylvania Plaza. The role of transport planners in this project setting was to substitute Pennsylvania Railroad for a smaller, completely subterranean station at no cost. Affected stakeholders such as residents and conservationists were not consulted throughout the process as the project was regarded as a necessity to boost the economy of the area at that time.

The loss of Penn Station did, however, spark new vigor into the city's emerging preservationist movement. When Grand Central Terminal was threatened in 1972, activists and city leaders rallied against the developers who wished to replace the landmark with another modern office block. Although the stakeholders were not consulted, stakeholders still found a way to engage with the event and influence the transport planning process.
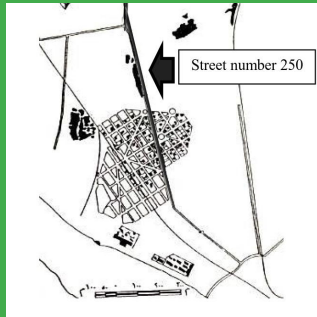

Penn Station in 1911

The steel skeleton of old Penn.
(Aaron Rose/MCNY)

Grand Central Station was ultimately preserved through its designation as a historic landmark and through historic preservation strategies such as the transfer of development rights (TDR). The rebirth of Grand Central Station stands as testimony to the positive outcome that can result from the active interplay between historic preservation and transportation planning.

In modern transport planning, evidence has been found that historic rail stations have an important role in community planning for public transport. Reuse of these stations can greatly boost the economic development needed to sustain transit and attract new riders. A concept titled Transit Oriented Developments (TOD) was coined to designate both historic and modern rail stations as dynamic gathering places for city transportation services and engines for economic growth. In the US, TDR is a valuable preservation and TOD tool, and allows the landmark owner to sell unused air rights to other sites.

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Maadi Street 250 Revitalisation: Walkability and Cycling Initiative, Egypt

Street number 250

Historically, Maadi is one of few planned green suburbs in the greater City of Cairo, known for its child-friendly and pedestrian-friendly streets. It is now considered as an urban heritage site of 20th century neighbourhoods due to its unique urban heritage of the early 1900s.

Unfortunately, roads now dissect the neighbourhood and the area serves as a rat-running route for cars, busses, taxi drivers, minibuses and toktoks (Abdullah, 2017). Maadi's landscape is also suffering from the diminishing pavements that have been replaced by wider roads for cars.

Nevertheless, Maadi still kept some zones with their original historical townscape making intervention possible in the affected parts of the neighbourhood.

In 2017, a grass roots movement was initiated by an NGO called *Sarayat El Maadi Occupation Union* to restore public life to Street 250, one of the main and oldest streets in Maadi. It is divided by three main intersections, starting by (1) Maadi Grand Mall Square, (2) Victoria square and ends up with (3) Degla square, as shown in the figure below. The initiative was conducted in the part between Maadi Grand Mall Square and Victoria Square.

Street 250's ample and tranquil design once duplicated as cycling and walking tracks for the residents. It has now lost its intimate scale and transformed to a mere service road devoid of public life.

The NGO planned walking and cycling interventions, notably by adding a 90cm cycling lane between (1) Maadi Grand Mall Square and (2) Victoria Square and widening the pavement to accommodate pedestrians.

The efforts were led by the NGO members in some coordination with the governmental authority (Maadi Municipality). There was a notable lack of involvement of from residents, and transport planners and urban designers. Although the initiative introduced groundwork in the area, the project was not successful as the necessary stakeholders and professionals were not present during all phases of the project. In addition, the success of bottom-up planning processes is dependent on the cultural context and the governance of the area. In this case, political support and buy-in was necessary for effective implementation of the measures, with a true political will to prioritise pedestrians and cyclists over vehicles.

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B. Stakeholder Interviews

A303 Stonehenge Road Tunnel Questionnaire – Highways England

Theme		Question	Response
Project Appreciation	**Project**	**Interviewee Background**	Sarah Walker is Highways England's Communications and Engagement Programme Lead across HE's Complex Infrastructure Programme (CIP).
		When did your involvement start with the project?	Sarah's Involvement with project came at the beginning of the options phase. However, some of the earlier work with Stakeholder engagement has been done in a different part of Highways England (the Regional team), then involvement of CIP started in January 2017. Sarah's Role: looks after all communications and stakeholder engagement for a total three projects (Stonehenge only being one of them) in the Complex Infrastructure Programme, which has the most high-profile, arguably controversial and potentially complex in the business. The role entails to establish a best practice programme for communications and stakeholder engagement for the Stonehenge Project.
		How many phases / stages were there to the project and when were stakeholder management introduced to the scope of works?	Stakeholder engagement and communications was introduced at a very early stage as soon as it was brought into the Road Investment Strategy. CIP was not involved from the very beginning, but there were some early stakeholder engagements before it came to CIP. In HE, stakeholder engagement and communications start at the earliest stages of every project even before there are a list of options or a decision on the route. It is critical to engage with stakeholders and learn from them throughout.

Theme		Question	Response
			During the engagement handover from the Regional team to the CIP team, plans already in place for a series of events along the A303 to showcase which schemes were going to be tackled on the A303 corridor of which the Stonehenge Road Tunnel was only one of them. That roadshow was rolled out to people to explain what the plans and high-level timelines are to help improve the A303 and ultimately, over a number of roads periods, make it a dual carriageway from start to finish.
		The project is multi-disciplinary by nature, how did that influence the project?	Some say this is a transport project with a hefty heritage overtone, but others would say that it is a heritage project with a hefty transport overtone!
			So the two go hand in hand, and our team has worked really closely with all the heritage partners alongside a broad range of stakeholders.
			From the early stages of engagement, the team was made aware of stakeholder organisations such as National Trust, English Heritage, Historic England. We were keen to build on existing relationships with them. Many of them already did know a lot about the project from its previous iterations and from their previous experience.
			CIP's first task was to sit with those external heritage experts and understand their concerns, explain to them the new timeline and process, and build understanding of the CIP team. Holding this relationship with them is the bedrock for the relationship for future years to come.
		How do heritage values influence the current transport planning practice?	On this project, there is not a single piece of the scheme which has not been influenced by the work our heritage experts and stakeholders.(both internal to HE, and from external stakeholder organisations Building strong relationships with heritage

Theme	Question	Response
		stakeholders and ll our stakeholders has enabled HE to work through man y challenges, and difficult times in the project where agreement on approach has not been able to unanimous.
		The views of the heritage partners have been critical to getting this scheme to this stage. From HE perspective, it was important to take the heritage partners and other stakeholders on the journey to develop the scheme.
		During the public consultations, which can be attended by anyone, there would have been experts from external organisations as well as specialists from within the team to participate in conversations with the general public about heritage issues. It was discovered during these public conversations that views on the heritage value of the scheme among the general public were very split. Some people would question what is special about building a dual carriageway in this location and raise questions about the time and money spent on this process. Whilst others would be completely against the consideration of building anything at a such a landscape (anything in it or under it).
		The views on the impact of the heritage element of the project are really diverse from one pole to another.
		The role of the internal heritage experts on the project was to conduct the analysis to provide sufficient evidence to rigorously demonstrate that heritage is being taken seriously. Its HE's role to listen to that feedback from external heritage advisors and experts at every stage and take it into account when and where appropriate. There have been changes to the scheme during the project to specifically accommodate requests by heritage organisations and to align with policy on the protection of world heritage sites.

Theme	Question	Response
Stakeholders	**Who defined the stakeholders? (council, project brief, exercise undertaken by you / your team?)**	Stakeholder were defined at the very early stages of the project (before CIP was involved) by an external consultancy (Mott MacDonald). They did some stakeholder mapping and early contact with stakeholders, drawing from previous knowledge of the scheme from a few years ago and it was updated from there. When the project came into CIP, there were previous stakeholder maps and stakeholder lists and they were already known to the project team. CIP continued with the stakeholder engagement and was able to build on it.
	Has the stakeholder management plan for the scheme been drafted in collaboration with other disciplines i.e. heritage consultants?	There have been changes to the scheme during the project to specifically accommodate requests by heritage organisations and to align with world heritage site policy.
	Have any stakeholders who haven't been identified initiate contact with the project team? (that you are aware of)	A case in point be around the Blick Mead area which has attracted a lot of the media attention despite not being part of the scheme. HE wanted to listen very closely to the arguments and reassure that the scheme is not going to impact that. A contact has been made by one of the archaeologists who have been a particular proponent to protect the Blick Mead area. The team has met with him and have always engaged and answered his questions as best we can. Whatever issues are raised by stakeholder we will always do our best to respond to them and their concerns.
Achievement	**What did the project achieve (from CIP perspective)?**	1) Developed the story of the need and the benefits of the scheme and tried to embed it in all our communications. 2) Rolled out 3 consultations, including the supplementary consultants 3) Delivered a very busy of stakeholder engagement programme across all of the different cohorts 4) Extensive communications activities and media opportunities where possible

Theme	Question	Response
		5) Liaised with DfT to get the necessary clearances to be able to communicate
	How is the project achievement perceived by the different stakeholders? And by you as a stakeholder manager?	1) We have tried our best take our stakeholders on the journey as well as they can at every stage of the project
		2) We acknowledge that there are stakeholders that will never be shifted from being opposers
		3) Have in many areas built a level of understanding of what the scheme is (particularly when the project moved from having two options to having one option)
		4) Explain to stakeholders that a single route was chosen and the associated decision process
		5) Updates for every single stage of the scheme so far and what is coming next
		6) Explanation of the Development Consent Order Process that is not generally understood by the stakeholders or the public (improvement from last time this project was tackled)
	At what stage were communications held with the stakeholders? 1. Engagement at planning phase **2. Engagement at design phase** 3. Engagement at construction phase 4. Engagement at operations stage 5. Engagement at decommissioning stage	Design phase (Optioneering phase) – project so far - Efforts included: public consultations (x3 including supplementary consultation) and workshops. Once the examination is complete, the upcoming stage is construction. By then a real impact will be made on people's journeys in that area and the project team becomes more visible. - Efforts will include: accurate timely updates using digital platforms to understand the progress the project is making, the next steps, and how its impacting their journeys during the years of the construction. Working with the community forum to help them understand the benefits to the wider community. Not only to tell an interesting engineering story, but about the heritage story and the landscape the project is trying to transform.

Theme	Question	Response
		- Ref whether we would be producing a newsletter, there is no commitment for a newsletter. That is just a format. The important thing is that we will be providing updates about progress on a number of different platforms, on and offline. Some of the platforms suggested are social media outlets such as twitter, or email updates as well as leaflets, letters and maybe newsletters where appropriate. - Communication can be on a weekly basis rather than an infrequent newsletter, this way smaller bits of communication can be shared more frequently. Engagement and conversation is likely to be a two-way conversation rather than just pushing information out.
Concerns	What were the main concerns raised? Was there a specific contact / timeline to address them?	1) Heritage 2) Impact of construction concerns 3) Noise 4) Air quality 5) Impact on land owners and property owners The efforts of the communications team have focussed on telling a story of heritage, community and environment rather than focussing solely on the transport aspect. The story is about the benefits to the South West: to the regional economy, about better journeys for holiday makers, for people trying to run businesses, for people trying to take their children on the school run, and reducing rat-running through the villages which suffer at the moment. We want to allay concerns about the scheme being taken forward.
Cultural Factors	Have you delivered stakeholder engagement in other countries? What are the cultural factors that you think influenced this project (if any)?	The status of the Heritage World Site attracts attention from international stakeholders. International queries and concerns were received, and CIP spent a considerable amount of time working with ICOMOS and UNESCO to build their understanding of the project. CIP presented evidence to a panel of three people from around the world from UNESCO and ICOMOS about the development of the scheme to build their understanding of our

Theme	Question	Response
		approach. And every year this scheme is discussed at the world heritage committee, HE takes this responsibility seriously at the same time trying to deliver the scheme on behalf of the UK government. This aspect is not unique to this scheme only, but to all schemes which have a heritage profile.
	Do we need to introduce transport consultants with a particular level of experience to this kind of project?	Yes, this is a very challenging project with the stakeholder management process. All the stakeholders have very diverse and subtly diverse agendas and goals and t is our job to try and understand the diversity of views and to find a delicate line to navigate everybody's sensitivities and requirements. This requires an experienced manager on the task (versus someone who is new to the stakeholder management process) as it requires a mature ability and a profound understanding of people's agendas. That makes it is very different from any other road scheme. Whilst every road scheme will take into account archaeology, this scheme is in a completely different league when it comes to that. And it takes a level of understanding to appreciate the criticality of the heritage element to the scheme.
	Do objectives set out at the start need revising halfway throughout the project (to reflect stakeholder engagement)?	The public consultation is a very useful tool for projects, and learn a lot on local people who have local insights or specialist insights and it is really valuable to get that feedback and to be able to refine the scheme and it is a really useful form for stakeholder managers as story tellers and communicators, it's a really useful opportunity to get out there on the ground and talk to people about the purpose of what you're doing.
	Is there a need for a dedicated team and budget to engage with stakeholders?	Budgeting and resourcing is a challenge as there is not always enough budget for the stakeholder engagement team to do what they would like (or need) to do.

A303 Stonehenge Road Tunnel Questionnaire – AECOM

Theme			Question	Response
Project Appreciation	Project		**When did your involvement start with the project?**	Tom leads AECOM's Stakeholder Management team in the UK
				AECOM joined the project team as part of a joint venture with WSP and MACE, won the contract to deliver the next phase of the Design Phase of the Stonehenge Project in Summer 2017.
				Before AECOM joining, the project had already been through 1 round of non-statutory consultations and a lot of on-going engagement.
			How many phases / stages were there to the project and when were stakeholder management introduced to the scope of works?	This is a scheme (or various forms of it) that has been in existence for about 30 years. There has been a number of different attempts to try and find ways to improve the road and to also reduce its impact on the world heritage site. There has been a lot of previous debate and engagement about different proposals.
				Stakeholder engagement started at the beginning of the project when HE first re-started thinking about this piece of road. Right from the outset HE has been looking getting stakeholders involved in the conversation about the development. It started at 2015 and 2016 when they first started looking at options, the options were then called route corridor options (high level, before looking at the one specific route and the design of that route). Engagement started with the Local Authority and major stakeholders and landowners at that point.
				As the options process was narrowed down and started to move towards a preferred route, then the project moved towards more detailed engagement and a phase of non- statutory consultation in early 2017. After that, AECOM ran a statutory consultation in early 2018 which then feeds into the final design (or informs the final design) that then went to the planning inspectorate.

Theme		Question	Response
		How does AECOM's role in Stakeholder Engagement differ from HE's role?	AECOM are the delivery partner to HE, or the technical consultant to HE. AECOM were responsible reporting to HE to the delivery of much of the engagement, and the statutory consultation in the lead-up to the submission of the application. AECOM were responsible for the delivery element: - Produced the strategy, - Came up with the development materials needed to inform people what the proposals were - Information and plans for the formal consultation and the notifications around it - Analysis of the responses - The production of a consultation report which has been used to support the application CIP team in HE were responsible for overseeing all of the work as they were the client.
		The project is multi-disciplinary by nature, how did that influence the project?	On infrastructure projects like this, there is a multi-disciplinary team because of the different elements from design to engineering, to environmental considerations . etc. The stakeholder function runs across all of those because they act like the link between the outside work and the project team and vice versa. Stakeholder managers need to understand from the environmental team and the engineers what the proposals are to be able to communicate that the local community, the heritage body, the landowners and other stakeholders in order to listen to the feedback and inform the specialists in the project team.

Theme		Question	Response
		How do heritage values advise the current transport planning practice?	On this project, the heritage bodies were an absolutely interested party and fundamental because of the world heritage sites and its important to the UK. Their views influence the following decisions: - How HE proposed to address the problem of this road running within 60m from the Stonehenge Monument (at its closest point) and runs right across the world heritage site ➔ engagement channels were set up to incorporate the Heritage bodies views including a specific working group to feed direct feedback to the project team ➔ as a result, several national and international heritage bodies were aware of the project and had the opportunity to comment Site visited for UNESCO's world heritage team to look at the proposals and the scheme, to talk to HE and the local heritage bodies ➔ they reported on these missions and HE were required to respond - Amendments were performed to the scheme due to comments from heritage groups. E.g. location of one of the tunnel portals was moved partly down to feedback from heritage groups, and the design of the road in the western part of the world heritage site and the entrance's exit of the tunnel at that end. The options were influenced (among other things) by the heritage bodies.
Stakeholders		**Who defined the stakeholders? (council, project brief, exercise undertaken by you / your team?)**	Stakeholders were diverse and included: - The heritage and archaeological communities that were interested in the Stonehenge Monument and the World Heritage Site - Pagan and Druid communities - Land owners potentially or directly influenced by the proposals

Theme	Question	Response
		- Local residents (villages, small communities, towns) likely positively affected by the project as the scheme proposed to remove one of the roads used for rat-running - Local Authority and surrounding Las - Statutory stakeholders: Environmental agencies, Natural England. Etc - Travelling public (common to all transport projects) – whether local traffic or SE/SW A303 users - Tourism and business groups as A303 links London and the SE/SW - Local MPs, Councillors - Media The methods used to talk to all of these stakeholders are different. The stakeholder list was defined by a different consultant at the earlier phase. AECOM then reviewed it and as always with these projects, the stakeholders change as the proposal and design change as different people are affected in different ways and as their opinions become more or less critical.
	Is there a process or guidance for stakeholder definition or engagement?	This is a DCO application (Development Consent Order application). There is are clear categories in Section 42 and Section 47 consultees. Under Section 42 (technical and statutory bodies) there is a prescribed list of people that the project must contact, which only became relevant at the stage of the project when AECOM got involved. The previous list of stakeholders list did not identify them as it was not the correct stage to get involved with them.

Theme	Question	Response
		A good stakeholder list needs to be continuously updated and evolved.
	Has the stakeholder management plan for the scheme been drafted in collaboration with other disciplines i.e. heritage consultants?	Yes, a stakeholder engagement strategy was produced and was written by the stakeholder team where feedback was sought from other teams within the project including heritage, ecology and environment, engineering, landscape and visuals in order to capture the audience they though were important to confirm the methods used to engage with them are correct.
	Have any stakeholders who haven't been identified initiate contact with the project team? (that you are aware of)	Not contacting the project team (AECOM) directly, but would contact HE (via the helpline number on the project website) or contacted the local LA's, local MPs or Council directors but a stakeholder database has been created to capture these comments.
Achievement	**How is the project achievement perceived by the different stakeholders? And by you as a stakeholder manager?**	From HE/project team perspective: • First measure of success: Submitting a compliance application to the Planning Inspectorate it being accepted for consideration • Ultimate measure of success: getting the project approved and building it Stakeholder elements to success: • Share views that getting it submitted is a success • Public consultation process where some of their views have been taken on board and influenced design amendments For some stakeholders, their measure of success is the project not getting consent due to their conflicting views with the proposals. Often opposition stems from little or no benefits being

Theme	Question	Response
		delivered to the local community, however in the case of this project there are a lot of local benefits being delivered but there are equally people with views that the road should not impact the world heritage site and that it should be taken around the perimeter. That option was also considered but was not deemed viable and the rational for that was documented and communicated.
Communication and Engagement	**At what stage were communications held with the stakeholders?** 1. Engagement at planning phase **2. Engagement at design phase** 3. Engagement at construction phase 4. Engagement at operations stage 5. Engagement at decommissioning stage	AECOM was involved during the design stage of the project. Details provided in the project appreciation section of the interview.
	Describe the communication channel throughout the project?	Various methods to present information, including: - Making information available on the project website - Workshops - Site visits - Presenting materials through the public consultation (information boards, technical reports) Various ways used to meet the needs of the different stakeholders. For example, for the technical heritage specialists, heritage specialists from the project team led the conversations. However, when speaking to the local community, a different method is taken by presenting at the local Parish Council for example. The presentation might be as technical but the reports are all there in case anybody wants them. Engagement is about listening rather than presenting. To seek feedback the methods were: - Meetings - Workshops

Theme	Question	Response
		- Formal consultation (asked questions and received responses (in writing/email/online)
Concerns	**What were the main concerns raised? Was there a specific contact / timeline to address them?**	There were a range of things including: - Impact on the world heritage site - Impact on the local environment - Visual impact of the viaduct bypass For better source of information, refer to the Public Consultation report or the executive summary which are available on the project website. The right specialists would be involved to address the relevant concerns.
Budget and Delays	**Who decides on the budget for the stakeholder engagement process?** **What is the percentage of the budget dedicated to the stakeholder engagement proves compared to the overall budget?**	Not sure, but in this particular project HE's commitment to delivering exemplar stakeholder engagement is commendable and spent a lot of time and money making sure the engagement is as strong as it could be. Examples include dedicating a budget to produce visuals and sound demonstrations for the consultation for people to see the current situation and how it would look/sound like after the proposal has been implemented. This in particular is not a requirement for the consultation but it gives a much better quality consultation. The visualisation are still available to view on the project website, however the sound demonstrations should be operated with special equipment and therefore they are not available online.
Cultural Factors	**Have you delivered stakeholder engagement in other countries? What are the cultural**	Tom has delivered various project nationally with different communities around the UK. For example, worked on an urban

Theme	Question	Response
	factors that you think influenced this project (if any)?	regeneration project in Tower Hamlet in London where the majority of the population was Bengali which meant materials had to be translated and the engagement was advertised differently by approaching the community's elders' group, and created a drop-in session in one of the buildings in the block. Need to understand the audience to tailor the engagement methods to their needs. For example, some sections of the community still have a male dominance in it and you can find that you need to communicate through certain elders or leaders in the community. The challenge is in trying to reach the people who don't naturally get involved in consultations or other engagement activities. There is always a level of tailoring to try and address different cultural, ethnic or age diversity for every project.
Lessons Learnt	**(Question not specific to the A303 Stonehenge Road Tunnel Project)** **Do you think transport planning and stakeholder engagement are being undertaken as two separate practices?**	Would like to think there is a level of integration and collaboration but there could be more. It feels like the early principle planning work has been done and the engagement is only started when there is a list of options. But there is always an opportunity to start much earlier in involving communities and grassroot when thinking about the problem from the outset, rather than just presenting several options to the problem. Ask people what would they like us to invest in, is it the support of working from home? Or investing in public transport infrastructure? or a new road? Or cycle ways? You can never have too much engagement, there is always an opportunity to have earlier engagement.

Theme	Question	Response
	What are the challenges or barriers to the stakeholder engagement process in transport planning projects?	The recognition as an important discipline in its own right, and that it is a skill and a specialist service that should be delivered by specialised professionals. - How you communicate with people - The ways they're allowed to communicate with you - How to deliver technical details to members of the general public Also, understanding the importance of the conversations you should have not only about what the project intends to do, but also about what the experts are thinking of doing.
	Additional comments	Consultations have only recently become a requirement of large projects when the Planning Act was published and that is a positive step in the stakeholder engagement process.

A303 Stonehenge Road Tunnel Questionnaire – Wiltshire Council

Theme		Question	Response
Project Appreciation	**Project**	**Describe the project based on your knowledge / involvement?**	The intention would be to create a high-performing dual carriageway between London and the South West. 8 sections of the A303 / A358 / A30 have been identified as requiring improvement to make this vision a reality. 3 have been included within the current RIS, with the remaining 5 schemes to be prioritised in the next two Road Investment Strategy (RIS) periods
			The Stonehenge scheme would create approximately 8 miles of dual carriageway between Amesbury and Berwick Down. It would involve a new junction at Countess (A345) and Longbarrow (A360), a 3km tunnel in the WHS, new carriageway in cutting in the WHS, a northern bypass around Winterbourne Stoke, a viaduct over the River Till, four green bridges and changes to Rollestone crossroads and the PROW network
		When did your involvement start with the project?	The Council's joint working with other Local Authorities and LIP's across the region and lobbying of government was instrumental in getting this scheme included within the current RIS period. Initially this project was supported by economic development, but in March 2016 the programme office was engaged to provide project management and co-ordination across the various council departments under Parvis's leadership as the Senior Responsible Owner (SRO)
		How many phases / stages were there to the project and when were stakeholder management introduced to the scope of works?	The project has gone through various stages, including looking at 60 historical routes, evaluation of better performing routes, non-statutory consultation, preferred route announcement, statutory consultation, supplementary consultation and Development Consent Order (DCO) application submission. This in our terms has all fallen under the pre-application phase and we have now transitioned into the DCO phase. The final phase will be implementation which will oversee the construction and operation if approval is granted
			Stakeholder management and engagement was introduced early on. An officer group was established in November 15, which initially met bi-monthly but was increased to fortnightly in May 18 (additional meetings were arranged at periods of high demand

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			i.e. during the consultations). Quarterly or as required councillor meetings introduced in November 15. Stakeholder Strategy Board established in January 16 and meets bi-monthly. Some working groups established from November 15, but majority launched in spring / summer 16. Route wide steering group established early and continues to meet periodically. Three missions with ICOMOS / UNESCO also held
		The project is multi-disciplinary by nature, how did that influence the project?	It's reflected in the scheme objectives and governance arrangements
	Client	Who was your direct client? Or did were the stakeholder engagement team part of a wider team?	From a Council perspective, the client was our elected members on behalf of the local community. From a personal perspective, it was Parvis as the SRO.
			Internal stakeholder management engagement and the wider engagement by HE was conducted as part of a wider team, but individuals had specific roles and responsibilities for these activities
Stakeholders		Who defined the stakeholders? (council, project brief, exercise undertaken by you / your team?)	For the project, these were identified by HE, with input from key stakeholders and statutory bodies. The Council also assisted with defining stakeholders to be targeted for the public consultations.
			Internally, we considered the scope of the scheme and the likely service areas / stakeholders who would need to be engaged. We used a RACI model to identify the type of engagement required for the various groups
		Is there a process or guidance for stakeholder definition or engagement?	The Council uses the RACI model for stakeholder analysis.
			Involvement in the project groups / forums was initially identified from understanding what the purpose / remit of those groups were and who would be best suited from our organisation to fulfil that
		Has the stakeholder management plan for the scheme been drafted in collaboration with other disciplines i.e. heritage consultants?	Haven't seen an overarching stakeholder management plan – aspect specific ones were prepared for consultations and UNESCO missions. The terms of reference for the various forums also served this purpose

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	Have any stakeholders who haven't been identified initiate contact with the project team? (that you are aware of)	Whilst, the stakeholders had previously been identified, they weren't necessarily engaged as actively as they could have been leading to some alterations / additions to the various engagement forums
		There have also been various contacts to the project team complaining about lack of sufficient information / engagement – mostly from detractors, potentially impacted communities or land owners
Objectives	What were the objectives of the project overall and were stakeholder engagement part of the objectives?	The scheme had 4 objectives, which whilst not specifically mentioning stakeholder engagement, couldn't be achieved without it
	How involved were the council in the identification process of the objectives?	The Council commented on the draft objectives along with other key stakeholders and some amendments were made
	Which stakeholders were responsible for identifying the objectives?	HE and DfT, with input from the Council and heritage organisations
Achievement	What did the project achieve (with / without stakeholders)?	Route identification, refinement, and DCO application submission and acceptance at current time
	How is the project achievement perceived by the different stakeholders? And by you as a stakeholder manager?	Important milestones are being reached, however some feel that the process is taking too long and just want it delivered now
		Others are frustrated at the lack of detailed information provided
		Some believe that the wrong scheme is being progressed
Importance	How important was the project for the livelihood of the area? Any (economic, social, political) gains?	Project very important for economic improvements and community enhancement. Strong support for scheme / A303 corridor improvement by Council's cabinet
	How was that importance relayed to the different stakeholders?	Briefing documents, meetings, presentations, one to ones, press releases, newsletters, reports
Budget and Delays	Was there a dedicated budget to engage with the stakeholders? And how important do you think that is?	Not sure about HE's budget but they have dedicated stakeholder engagement positions and a communications team for the project.
	Percentage of overall budget?	The Council secured £300k per annum from Cabinet for resources required to fully engage in this project. A PPA with HE to secure additional resources was unable to be secured during

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		the pre-examination phase although discussions to put such an agreement in place are now commencing.
		With resources as limited as they are in local government, a PPA agreement with HE during the pre-application phase would have been beneficial
	What dictates budget priorities from the Council's perspective?	The Council's business plan which covers a 10-year period
	It is common knowledge that cost and the strength of the business case are key elements driving a project forward – is it realistic to think that a project such as the A303 could be delayed / withdrawn should it be subjected to sufficient pressure from pressure groups?	Yes it's understood
		Project cost is likely to be a significant factor if history is to heeded
		Scheme could be denied development consent, but our understanding is that this would rest on compliance with policy considerations rather than the number of vocal critics
Communication and Engagement	**Aside from consultation (statutory or non-statutory), were there any other means to ascertain stakeholder's views of the scheme?**	Numerous working groups and meetings. Community forums and issue specific forums i.e. public rights of way. 3 missions with ICOMOS / UNESCO
	At what stage were communications held with the stakeholders? **1. Engagement at planning phase** 2. Engagement at design phase 3. Engagement at construction phase 4. Engagement at operations stage 5. Engagement at decommissioning stage	Planning phase
		We have been told that this will continue and obligations will be secured in application consent to enable Council to fulfil statutory obligations
	Describe the communication channel throughout the project?	Designated points of contact for specific areas, meetings, phone calls, emails, strategic engagement
Concerns	**What were the main concerns raised? Was there a specific contact / timeline to address them?**	Protection of WHS / OUV
		Environmental – flood and drainage
		Highways design
		Meeting community expectations and requirements
		It's ongoing – detailed design still to be developed

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	In your view, and considering all stakeholders in the project, what is the biggest challenge / project risk?	Achieving stakeholder requirements to acceptable level within budget Cost
	Objections from various stakeholders is expected from a large project such as the A303 scheme, particularly the stretch at closest proximity to Stonehenge WHS. Is it your opinion that opposition from stakeholders can be appeased by an earlier stakeholder management e.g. at project conception?	No, some positions will not change regardless of level of engagement Inclusivity is crucial as well is the provision of accurate and detailed information. Being shown how comments have been taken on board / addressed is also key
	Does the client appreciate the work behind the stakeholder management? Or is it a secondary task in their view?	It's seen as a necessary activity and therefore a requirement for successful delivery
Cultural Factors	**Have you delivered stakeholder engagement in other countries? What are the cultural factors that you think influenced this project (if any)?**	The Council participated in the UNESCO / ICOMOS missions with international advisors. Understanding of different legislative systems, language and terminology
Lessons Learnt	**What could the project have done differently? Based on your experience from other projects**	Consulted on more than one option – belief of preconceived outcome
	Do we need to introduce transport consultants at earlier stages of the project?	Yes, immediately after economic study to bring in transport planning
	Do objectives set out at the start need revising halfway throughout the project (to reflect stakeholder engagement)?	Objectives were revised through planning process (twice) – minor wording tweaks not wholescale amendments to outcome
	Is there a need for a dedicated team and budget to engage with stakeholders?	Yes, but equally need to interact with those with specialist knowledge as generalists don't necessarily know the detail

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