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**The Application of Project Management Principles to the
Development Approval System**

Author: Bassam Baroudi

School of Natural & Built Environments

University of South Australia (City East), North Terrace, Adelaide, South Australia, Australia.

Email: bassam.baroudi@unisa.edu.au Telephone: +61 08 8302 2234 Fax: +61 08 8302 2252

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The burgeoning discipline of project management is continually gathering interest from varied sectors around the world. Such interest has seen both its body of knowledge and processes applied to many diverse fields such as construction, defence, information technology, health, etc. In fact supporters of project management ideology advocate that all management systems should adopt a “management by projects” philosophy.

Development Approval (DA) systems have long been the means that council authorities regulate proposed building projects within their jurisdictions. The processes generally involve a collection of interrelated activities that act together to achieve the prime purpose of ensuring adherence to current development plans and building regulations. The management of DA processes could in many ways be treated as a project in its own right however this would probably be most evident within the assessment of larger scale developments.

The objective of the paper is to see how well project management principles apply to the DA system. The method used was to conduct a case study on a major suburban council located within Australia. A critical review of the nominated council’s DA processes was then undertaken in tandem with the application of project management principles to them. These principles included those embodied within the concepts of project lifecycles, processes and the nine bodies of knowledge as documented in the *Project Management Body of Knowledge* (PMI, 2004). It was also extended to include the “softer” (human) concepts not adequately covered in the aforementioned text.

It is the author’s contention that viewing the DA system from a project management perspective may provide a useful approach that may lead to improved outcomes within this area.

Key Words: Project Management, Development Approval (DA)

INTRODUCTION

According to the Australian Institute of Project Management it has a stated vision for “project management to be recognised as the preferred process for achieving objectives at all levels across industry, government and the community” (AIPM, 2006). The number of DAs (ie. planning and building consents) handled within Australia each year is significant with those reaching building approval stage totalling 55,368 in the 2004/2005 year (Richardson & Walsh, 2006). From that number 35.6% were non residential and generally require greater scrutiny and hence greater management. Thus the adoption of project management principles could aid in this cause. Harrison (1990) sees project management situations as having dynamic, ever changing relationships and complexities. Major DA submissions would certainly conform to such a notion.

Local councils basically work on behalf of their community of ratepayers. They serve the common good by giving the community appropriate institutions, social systems, and environments operating in a way that brings benefits to all people (Velasquez et al, 2004). In project management terms the ratepayers could be seen as the “collective client” being duly represented by elected council members. These officials must act in the public interest in the execution of their duties which includes setting the benchmarking criteria for DA processes. Morris & Hough (1987) have suggested that the number of people that are affected by a project would seem to be a matter of first importance. Such would infer that the design of a DA system might be strongly influenced by the politics of the day. It should also be noted that the aspect of private certifications for the building component is changing the way that council’s DA processes operate. This is where an accredited certifier checks the submitted documentation for compliance with the planning consent conditions, the Building Code of Australia (BCA) and any relevant Australian Standards (Hansen 2001). Such outsourcing can increase access to specialised skills, improve timing, strengthen core competencies and provide cost savings but it does have disadvantages such as the loss of skills, expertise and control and the "hollowing out" of the organisation (Langfield-Smith et al, 2000).

There would appear to be potential to improve development assessment processes across Australia. Such improvements could deliver considerable cost and time savings

to a wide range of stakeholders that are involved in the creation, assessment, and determination of development applications (DAF, 2005). Andrews et al (2006) found that a major factor attributable to organisational failure in local authorities was that of mismanagement in areas such as weak leadership and poor performance management. Thus it would appear valid to investigate whether current practices in respect to DAs could be enhanced by the application of project management principles. Such could be achieved by perhaps viewing a council's development department as the unit responsible for the "project management" of DA processes.

In viewing the development department as a "project management" unit a few general principles need consideration. Firstly, if "management is getting results through people" then change that to "achieving project goals with resources available" to provide a succinct characterisation of project management (Lock, 1994:3). Next, projects should ensure that all sections of work have scheduled start and completion points and the task to be accomplished is assigned to a single organisational unit (Kerzner, 1979). This will provide for the effective programming of DA activities and the production of clear lines of responsibility. Also a project plan should be devised which in its simplest form provides planning for all activities which make up the project (Lockyer & Gordon, 1996). Interestingly Williams (2002) suggests that in planning for development assessments a reduction of internal referrals needs to be implemented to reduce delays via mechanisms such as multi disciplinary assessment teams with allocated DA responsibility, cross disciplinary staff training (eg. using BCA) and dedicated fast track major development teams. Finally, note that during the execution phase the project manager should always ensure that all delegated tasks are satisfactorily monitored and controlled (Lock, 1994).

A publication that documents many project management principles is the *Project Management Body of Knowledge (PMBOK®)* (PMI, 2004). Such principles include those that are embodied within the concepts of project life cycles, process management and the nine bodies of knowledge. The PMBOK® illustrates the lifecycles of generic projects as having three phases: initial, intermediate, final. These phases are further broken down carrying a project through from early scoping to final approvals and handovers. It also identifies the project management processes such as that of initiating, planning, executing, controlling and closing. A major part of the

publication is dedicated to the nine bodies of knowledge. The knowledge areas address the project management concepts of scope, integration, time, cost, quality, human resources, communications, risk and procurement. The aforementioned project management concepts are further expanded within the case study section later in the paper.

Much of PMBOK®'s pages are filled with technical or process based information. As a result PMBOK® has been increasingly criticised as being too focused on the “hard” (technical) skills at the expense of the “softer” types (Gale & Brown 2003, Bourne & Walker, 2004; Zwikael & Bar-Yoseph, 2004). It is argued that the success of any endeavour is significantly influenced by the personal qualities displayed by individuals responsible for any particular outcome and as such this area should not be ignored. In project management these individuals are thought of as a team led by a project manager who is essentially the leader. It is the responsibility of the leader to provide an environment in which these people can achieve team or organisational objectives (McShane & Von Glinow, 2003). It should also be made clear from the project's onset where the ultimate authority and responsibility lies. All stakeholders must understand who is responsible for the project (Wysocki et al, 2000). So in essence the project manager's authority must be communicated to all project stakeholders. The project manager must also be able to deal with the many causes that initiate conflict. The sources of conflict are diverse, and include issues such as scarce resources, jurisdictional ambiguities, communication breakdown, personality clashes, power/status differences and goal differences (Daft, 1988). It could be suggested that the types of human issues that are typically found in traditional projects may also be found in DA processes and thus should be appropriately addressed.

Finally the aspect of “lessons learnt” is quite a familiar term within project management closeouts. Lessons learnt describes the study of past experiences that helps improve future outcomes, ie. in this case as applicable to the DA system. Denhardt & Denhardt (2002) describe the single most important aspect in leading change in local government today as the manager's capacity to learn. This is in respect to learning about themselves, their community, their organisations and their governing body. A quote by Rosenau (1998:295) succinctly expresses the importance of learning from one's experiences: “those who cannot remember the past are condemned to

repeat it.” This statement in few words highlights the significance of the lessons learnt concept.

The paper will now follow onto the research methodology, empirical findings and conclusions.

RESEARCH METHODOLOGY

The primary objective of this study is to research whether project management principles can be suitably applied to DA processes. The research methodology adopted was that of using a single major case study to investigate the topic. Others such as Chan (2000) and Jefferies et al (2002) have used similar methods in their research. Darke et al (1998) state that “single cases provide for in-depth investigation and rich descriptions” (p. 281). Their perspective supports using such a method to achieve the stated research objective.

The research was designed to follow a project management framework in line with many of the issues discussed in the paper’s introduction. The introduction was in effect a literature review that surveyed issues of relevance to this topic.

The case study was based upon a major suburban council located within Australia. The nominated council could be considered to be situated in a reasonably mature and developed area. To maintain confidentiality it is only identified as “the council” within all discussions. A critical review of the council’s DA system was undertaken by the researcher. This included an in-depth face to face interview with a senior “development department” representative with over 20 years experience in the area of DAs within that organisation. It also included researching the available council documentation in respect to its DA provisions. The results derived are essentially qualitative but suitable for the type of research undertaken. Note that qualitative studies can allow the researcher to express their own feelings and reasoning towards shaping the work (Ticehurst & Veal, 2000).

In summary the methodology adopted is felt to be appropriate for the research. Using the case study method provides a real life approach to events in a holistic manner that

provides the investigator with meaningful characteristics of the situation (Yin, 2003). Whilst the researcher acknowledges that a single case study approach may be “narrow” it still serves to provide an illustrative discussion on the applicability of project management principles to DA system processes.

PROJECT ORGANISATION & STAKEHOLDERS

The nominated council would appear to be similar to many local government municipalities. The type of organisation structure and where the development department fits in seems fairly typical. At the top it consists of elected members whose role is to set policy. Then there is the CEO who is responsible for the running of all council business followed by divisional managers and department managers that take care of dedicated areas. Under that there are team leaders, professional staff and general staff.

The development department concerned with managing the DA system has all planning and building staff in the one area. As discussed in the paper’s introduction the development department could be thought of as the actual “project management” department albeit in reference to DA assessments in the main. Thus the development department manager could be considered to be the “project manager” of the DA system. As such this person is in charge of managing all DA processes. Alternatively they could be considered to be the “program manager” which indicates that they run many “projects” in which case they would have designated team leaders reporting back to them. It is ultimately the department manager’s responsibility to plan, delegate, monitor and control activities so as to deliver the required outputs, ie. timely DA assessments and decisions.

The range of people that may be influenced by the council’s DA system would be typical of other such organisations. These were said to include building surveyors, planners, DA applicants, architects, engineers, builders, council officials, elected members, metropolitan fire service, heritage department, transport department and the community. These parties are generally referred to as the “project” stakeholders and can all be of critical importance at varying times during DA processes. Therefore the department manager’s (or team leader’s) skills in communications, stakeholder

relations and council politics are of utmost importance to the effective execution of DA processes and subsequent outcomes.

PROJECT LIFE CYCLE & PROCESSES

As expected the council's DA system contained many interrelated activities. The sequencing and duration of these activities generally forms its expected life cycle. The generic life cycle phases offered by PMBOK® are categorised into initial, intermediate and final. They can then be expanded to deal with particular project requirements. Within these phases the conceptual processes of initiating, planning, executing and closing are evident. Also note that at the end of each of these phases clear deliverables must have been obtained for the "DA project" to succeed.

The initial phase consists of instigating the processes, selecting the project team and scoping the project. Since the DA system is already in place the first process is instigated by the building client or their agent. This may be in the form of enquiries or making a planning/DA application. As previously stated the development department's manager or team leader will manage DA assessments via their selected team. As such having a designated person to manage the processes establishes a single point of responsibility that can be referred to. This person is responsible for scoping the assessment requirements and allocating staff to the DA "projects", ie. planning, building, health, etc.

The intermediate phase includes planning, providing baselines and monitoring progress. The documenting of a "project plan" indicates all activities required to adequately assess the DA applicant's documentation against the council's development plan and the BCA to ensure it meets all criteria and objectives. A baseline representing the time schedule can then be provided to ensure start and completion dates of the various activities are documented. The current situation relies on the assessing staff member's own time frame which would not appear to be adequate in terms of meeting DA timelines. A suggestion could be to adopt some form of documentation such as a visual scheduling chart. This would allow for the planning, communicating, monitoring and control of any particular DA application by the department manager/team leader.

The final phase is concerned with providing approvals and handovers. In DA terms this would be concluded once the building project meets development and BCA guidelines. Hence the applicant is informed that they have (or have not) got permission to start the works. This will closeout the “DA project” but it also takes into account what is expected of the applicant from there on. Thus post DA requirements such as approval conditions, inspections and certificates of occupancy are documented and communicated to applicants.

DAS & PROJECT MANAGEMENT KNOWLEDGE AREAS

The council’s DA system had many dimensions associated with it. Many of these dimensions would appear to carry significant relevance to the generic project management knowledge areas contained in PMBOK®. As previously discussed there are nine bodies of knowledge within this publication. The areas include project management concepts involving scope, integration, time, cost, quality, human resources, communications, risk and procurement. The following will discuss the council’s DA system in relation to these knowledge areas. It is only meant to be an illustrative overview of their application.

The DA department manager/team leader (or “project manager”) needs to understand what is needed in the assessment process to avoid unnecessary delays and cost. Project scope management is concerned with working out the extent of what is included in the project but also what is not. Scope planning is basically influenced by what is contained in the submitted documents, development plan, BCA and any other relevant legislation. A common tool used in project management is the Work Breakdown Structure (WBS) which identifies all major and minor deliverables in an appropriately documented visual form. Such could assist in the management of DA scoping as well as other areas.

DA applications, particularly those for major developments, are investigated to identify all the activities that need to be done so that they can be managed. The knowledge area concerned with project integration management addresses this need to identify, define and coordinate all activities. DA applications to the council were said to “sometimes involve 5 or 6 functions, other times only 1 and then anything in

between”. This was dependent on the nature of the project and how it fits in with the development plan. So if typically those functions require input from the people in planning, building, environment, health, heritage or engineering the designated responsible person who is running with that particular application or “DA project” has to integrate all the necessary activities.

The council’s time management is governed by legislation that says certain assessments have to be done within certain times depending on circumstances. It is noted that the development assessment’s schedule or lifecycle is quite commonly influenced by the development’s size and complexity although it was said that

“a simple tool shed could take 6 months... a 4 story building could take 3 or 4 weeks. It all depends on how it fits into the development plan.”

To ensure that a degree of time management is practiced a computer program that monitors and measures process times is used. Every time a particular activity is done on a project it gets logged on the computer and this program actually records who has had it and for how many days. Then it can be calculated to how many clock days various team members have had it as well as how long the applicants have held onto it. Thus it can be found out quite quickly where any problem lies. Such a system displays development department efforts to at least monitor and control the “DA project” times. It was noted though that pre-planning and documentation of schedules appeared to be non-existent and could be of some benefit in the process.

The cost associated with the DA system processes was admittedly not a big issue within this council. Project cost management would dictate that cost estimating, budgeting and control of resources is quite necessary for the success of any such endeavour. Whilst acknowledging the need of these requirements DA assessments are different to many other project situations in that the applicable fees generally do not cover the expense of all required processes. It tends to be more based on customer service and if the council gets “X” number of applications they need adequate resources to assess these. So if “DA projects” tend to make a loss who’s covering that? It would appear to be the ratepayer or the project’s “ultimate client”. In effect they are paying for the privilege of having such a community service. That is a service that controls development within their area.

The council's quality management system appeared to be existent though not formalised to any great extent. It was said that to assist with the DA process a guide had been devised. It consisted of checklists that were used as standard council practice. These cover a number of criteria that are looked at by the assessors to make sure that all items are being addressed adequately. The situation does not appear to come close to the PMBOK® requirements for quality planning, assurance and control that could be exercised in this department. In any case it was said that the council's system enforced consistency in how DA applications were checked and also made sure that all the main points were covered. It was also described as a form of risk management that minimises council risk.

The staffing of the DAs office was said to be based on historical records. These records allow the development department manager to have an idea of what levels are needed to do the work. Council's such as this one have the benefit of such records as they are basically involved with continuing work, ie. assessing DA submissions. Much of the work was said to be kept in-house. If they get a sudden influx of applications they then either employ casuals or engage private certifiers. Project human resources (HR) management discusses aspects of HR planning, team acquisition, team management and team development that would probably benefit this area. The council's HR management in respect to DA teams was admittedly lacking in strategic thinking. That was summed up by the statement:

“its not as if we've got any long term objectives of what we want to achieve... its more the other way around... It's more of a knee jerk – oh, we've got 5 guys, this is what they can do... any more can go out and that's it.”

Project communications management in PMBOK® is more based on processes and documentation rather than personal styles. Its knowledge in communications planning, information distribution, performance reporting and managing stakeholders would appear relevant. The council's computerised system mentioned earlier assists the department manager/team leader by indicating the persons handling an application and the dates. So if they want to find out where it is it can be looked up on the system. It also helps direct internal and external enquiries to the relevant person. The internal checklists mentioned earlier also communicate what has been done. Meetings were also held so as to discuss consistency in assessments. The general amount of internal

communication was said not to be particularly high with performance reporting appearing to be particularly low. The council's external communication is typically verbal, letter, facsimile or email depending on the situation. Final DA advisement is via a decision notification form that includes a letter sent out with a great deal of standard documentation which was commented on as being very "long winded".

With managing risk the council has adopted a prioritised system. On the checklists the riskiest items are always identified and checked first. Then the process works down to those that are the least risky. The following example was given. It is based around human safety (and perhaps legal liability). It was stated that

"if we get an industrial building we always make sure that we check fire safety and then the structural and then, you know, health and amenities which are not as important..."

The study revealed that risk management had been recognised as a major issue within this council's DA processes. Note that the example quoted above is more relevant to risks in respect to the development application's building aspects. It was said that in the planning stage items such as social, political and economic risks need appropriate assessment as well.

The procuring requirement of the DA system was found to be fairly limited within this council. Project procurement management is concerned with the acquiring of all goods and services outside of what the project team has to complete the work (PMI, 2004). The council generally has the required facilities and resources for the DA system to operate. They are already in place without the need to externally source them on a continuing basis. The only major procurement required by the in-house "project team" was found to be in the form of consultants. That includes private certifiers, planners, engineers, lawyers, etc. to assist with any particular DA process. Other than that general office equipment, computer upgrades, publications, stationary, etc. would make up the rest of the development department's procurement need.

The knowledge areas have shown to be generally quite applicable to the management of the DA system within this council. With that said there is room for further project management principles to be applied that would suit DA processes and potentially

provide system improvements. The areas discussed within this section have mainly been in relation to the more process based project management principles. The next section will summarise some of the “softer” human aspects involved in the project management of DA processes.

HUMAN FACTORS

As previously indicated there has been criticism of PMBOK® in respect to its low emphasis on the human factors required for success within projects. The discussion so far has been strongly process orientated. This section will touch on some vital human skills required in managing “DA projects”.

The aspect of leadership is critical to any manager’s drive for success. It was indicated earlier that it was quite common for the DA processes to be led by the council’s development department manager or nominated team leader. Even so it was found that the DA processes tended to be a little bit fragmented with everyone doing their own thing. It was acknowledged that the team members were very independent but the need for firm leadership was required “to pick up the threads”. The aspect of teamwork amongst staff faired reasonably well with everyone being organised so that they worked together quite smoothly. It was said that they were very teamwork oriented but at the same time they each had a lot of autonomy. So it seemed like the existing “project team(s)” operated reasonably well although leadership could perhaps be strengthened.

Personal communications within the office (and teams) appears to be of a good standard. It was said that most councils have serious problems between the building surveyors and the planners which could affect communications. Further stated was that planners have tended to run development departments so in some instances the building surveyors have thought that they were losing out. But it appeared that there was no such animosity in this council with everyone getting along. It was thought that the council did not have this problem as the department manager with ultimate responsibility for all DAs was neither a planner nor a building surveyor and as long as they managed the system appropriately there were no issues. Such a situation compares well with generic project management claims in respect to the managing of

varied project types not requiring in-depth technical knowledge of a particular area. So in essence the department manager basically runs both planning and building areas by making use of their managerial skills. They ensure that communication channels are kept open and also keep track of all DA applications. The aspect of interpersonal skills was also seen to be important particularly in relation to applicants such as clients, architects or contractors. It was stated that “if you can’t communicate with these people, you’re in trouble...”

Conflict situations were not seen as a current problem in the council. If there were any it would appear mainly in the area of time to get the DA out to the applicant. The biggest conflict area was acknowledged as being between the development department and the applicant in respect of turnaround times ie. “project” time management. There was no evidence of serious internal conflicts. This would appear to assist in team motivation that was described as being at good levels. This was said to be due to the council and department being seen as a good place to work for. It was also stated that motivation depends on how effectively the department manager/team leader (ie. “DA project manager”) manages the team coupled with their trust in individual members.

The aspect of creativity was raised with this suggested as being at a low level at the council. The reason was thought to be that the existing system was very much regimented. It would appear that there is scope for creativity in DA assessments most particularly in the planning areas due to the more subjective nature of it. The building team members were thought of as being more objective but even so it was said that they could express a form of creativity. That is because they are performance based so it does allow for building team members to come up with different solutions although it is limited.

Individual team member development appeared to be in existence but could be better. The council was apparently very reluctant to let staff get involved in anything that they perceived to be non beneficial to the organisation even though it was relevant to the work. Notwithstanding the competency of team members was thought to be of good standard with individuals having good knowledge in respect to their area of work which is important to any type of project.

The above discussion provides some insight into a variety of human factors that could influence the management of DA processes within this council. How well these softer aspects are managed could very well determine the degree of success encountered throughout the “DA project”.

CONCLUSION

This paper has set out to study the DA system of a typical suburban council and apply project management principles to its processes. As the case study unfolded it became very clear that the application of project management principles did indeed carry a large degree of relevance to DA processes. This was apparent in relation to the many key project management areas.

The DA’s “client” would appear to be the ratepayers that are represented through their elected members. These elected members govern what type and standard of development occurs within their community. The “project manager” was identified in this case as being the development department manager but that could easily be delegated to a designated team leader. Either situation produces a single point of responsibility which is necessary for the effective running of any project. The staff and consultants of that department are hence the project team members. The stakeholders of the DA system were found to be diverse in nature emanating from both internal and external sources which is quite typical of project situations.

The nature of development departments is that they are set up for a continued operation. This could be seen as being a “project management” office which in this case has the primary function of managing DA system processes. The processes that make up the lifecycle of any particular DA assessment are usually determined by the size and complexity of the development. What the processes have in common is that they all have definite start and end points which is critical to defining a true project. The nine knowledge areas documented in PMBOK® also appeared relevant producing a good template for best practice in the management of DA processes. This was evidenced by the high degree of applicability as summarised within that section.

Human factors that could influence the DA system were also illustrated. The softer aspects of project management such as leadership, teamwork, personal

communication, conflict, motivation, creativity, individual development and competency were all touched upon. This was done to ensure that a balanced approach was taken to investigating the council's DA system. The human factors as covered indicated that attention within this area would appear to be vital to the effective management of "DA projects". Thus good project management would demand that both technical and human skills are addressed appropriately.

Finally, the notion of "lessons learnt" appeared to be in motion within the council. It was found that a recent major incident involving human life highlighted that all people in the DA system needed to be more accountable for their actions. It was said that assessing any building project involves "many different individuals doing many different things". The problem, and hence lesson learnt, was that they were all working in a solitary way with no checks and balances in place. The abridged example shows obvious DA system shortcomings that a project management approach may remedy.

In concluding, the research has found that project management principles appear to have the scope for considerable application to DA processes. Hence further investigation into this area would appear valid. Such investigations could provide greater knowledge on how the application of project management principles can improve current DA systems.

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