

A Review of Importance of Construction Documents on Project Delivery

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Abstract: Building delivery requires the use of construction documents, usually referred to as construction drawings or blueprints. They offer a thorough set of guidelines that the construction team, which consists of architects, engineers, contractors, and subcontractors, should adhere to throughout the building process. This systematic literature review aims to examine the construction industry, and investigate the impacts of construction documents on project delivery by synthesizing and analyzing relevant scholarly research. The review identifies key findings, trends, and gaps in the existing literature, providing a comprehensive understanding of the subject. The review includes a selection of high-quality research articles, conference papers, and industry reports published within the last decade. The chosen articles were written and published between the years 2013 and 2023. The aim of this study is to investigate the impacts of construction document on building delivery. The results showed that the study was discussed more by researchers based on specification and cost, with literature review and quantitative research method being the most adopted approach to studies.

Keywords: Building Construction, Construction Documents, Building Delivery

I. Introduction

Building projects are distinctive and dynamic in nature, each with specific requirements for quality, time, resources, and so on. There is a growing demand for sustainable constructions in the modern day because urbanization and construction cannot be stopped. From planning through destruction, construction documentation has been established to be essential (Gangane, Mahatme, & Sabihuddin, 2017). Construction documents form the foundation of any project's foundation and it is including documents such as plans, drawings, specifications, etc. (Mohite, 2020). In addition, construction documents are crucial in successful building delivery as they serve as the guiding principles during the construction process (Abanda, *et al.*, 2019).

Buildings and other physical infrastructure projects typically include complicated and dispersed planning, design, and construction processes which calls for the input of numerous experts and non-professionals and result in onerous coordination requirements (Van and Tolman, 2023). Olanrewaju & Azeez (2015) mentioned that due to the inclusion of non-value-adding activities and processes in the supply chain leading to inefficiency and low productivity during building delivery process, there is need for every detail of the construction process to be detailed and specific and thus the need for proper construction documentation.

Project delivery method involves strategies employed by an organization or owner to plan and finance the design, building, use, and upkeep of a facility by entering into a contract with one or more parties or entities (Van and Tolman, 2023). Oluwaseun, (2013) mentioned that the project delivery system needs a variety of roles, standards, and defined processes in order to be able to have successful project completions without bridging the rights of stakeholders involved in the process. Literature has revealed that construction documents are another type of evidence that can be used to back up or refute claims. There are several stages to a construction project, and at each stage, one or more alterations are anticipated (Gangane *et al.*, 2017).

Furthermore, construction documents provide a detailed description of how the building should be constructed by outlining the materials, methods, and techniques required (Arain *et al.*, 2013). They are crucial as they are utilized to convey the technical information of a project, as well as the basis for future projects and client cost reductions, it can also determine if a project will be completed or not as they provide details on architectural and structural features, including plumbing, electrical, and mechanical designs. In many cases, construction documents are legally binding (Arain *et al.*, 2013 & Mohite, 2020). Riley *et al.*, (2017) corroborated that the documents provide the necessary information and specifications for contractors, builders, and other professionals involved in the construction project to understand and accurately execute the design.

Thus, this study is aim at establishing the different construction documents highlighted in literature with a view of establishing their impacts on project delivery. The review is targeted towards answering the following questions:

1. What are the different types of construction documents identified in literature?
2. Which of the identified construction documents (CDs) are mostly discussed in published literature?
3. What is the importance of identified construction documents on the delivery of construction projects?



II. Methodology

An interpretivist epistemological perspective was employed during the literature review for this investigation. (Page, 2020) assert that interpretivism is a widely used philosophical perspective in literature. This paper is a review article, which focused on identifying articles with information about different construction documents and the importance of construction documents on project delivery. The main keywords used in searching the “Google Scholar” database were “construction document”, “construction documentation”, “project delivery” and “construction delivery”. The appearance of these keywords in the title, abstract and full text make the article suitable for selection. The initial article search to locate articles from the database was limited to articles between 2013 and 2023 establishing a 10 years gap. This enabled recency and depth of knowledge in the area under review. Articles were not subjected to any region; they were selected from different region. About 103 articles were identified which addressed issues related to construction documents and project delivery.

To further streamline, emphasis was placed on articles that address specifically the aim of the study, thus the identified 103 articles were sorted identifying articles that focused on the “importance” or “impact” of construction documents on construction project delivery. This refined search resulted in fifty-one (51) articles as most appropriate which made up about 49.5% of articles identified from the search. The selected 51 articles were used for the purpose of this review. Furthermore, due to paucity of work specifically for identifying different construction documents available there was need to expand the scope of the work to include thirteen books which were also used in the review of the study. The results of the study were descriptively analyzed and presented using tables.

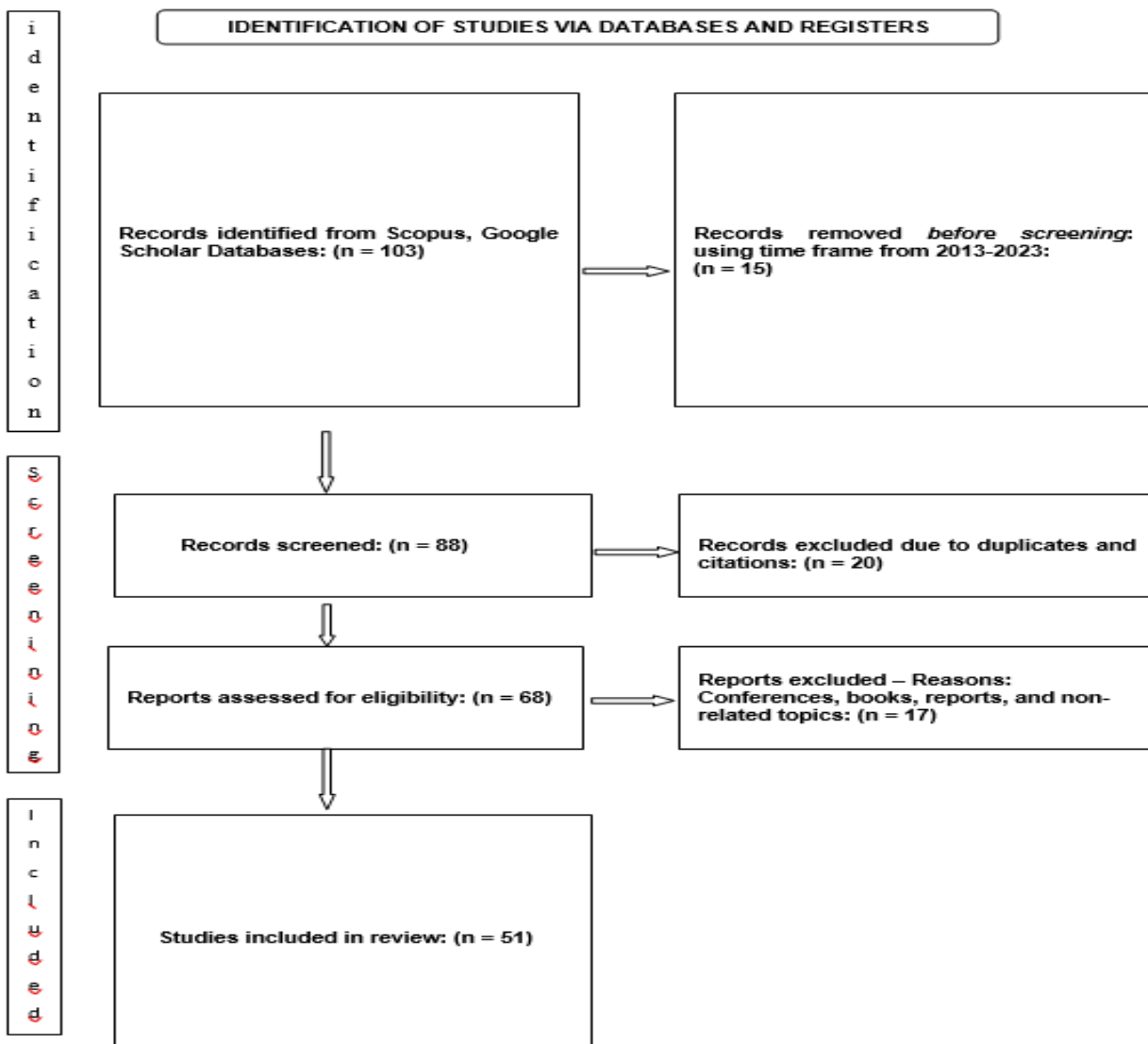


Figure 1. The method for choosing studies for the review was adopted from Page (2020).

2.1 Step 1: Initial identification of Articles

The literature on this topic was searched for using keywords in the databases of Scopus, Google Scholar, and Web of Science, with Google Scholar serving as the primary search engine. The search engine was used to look for the words "building construction," "Construction documents," and "building delivery." Through the use of keywords, 103 journal articles were found. The results were then filtered by setting the search period to only last ten years (2013–2023). This initial search therefore turned up 88 journal articles.

2.2 Step 2: Screening of Articles

Keywords on importance of construction documents on project delivery, the choice of high-impact journals, and a timeframe of ten (10) years were the three criteria used to retrieve 88 journals. 20 articles were eliminated after additional filtering to remove duplicates and citations. Finally, 17 further publications were eliminated manually by removing reports, books, conferences, and unrelated subjects. Since they undergo a less rigorous peer review process and seem to have little influence on research and practice, they were not taken into consideration (Lee, 2020). In the end, fifty one (51) articles met the criteria for this scoping review.

2.3 Step 3: Articles included for Analysis and Synthetisation

The chosen articles were evaluated critically using content analysis to extract relevant data. Part of this involved reading each article. As a result of this method, five (5) themes were identified, and they were compared to other research on the significance of construction papers for project delivery. The measures taken in the process used to conduct the content analysis provide no opportunity for bias. This is due to the review's use of an interpretivist approach, which ensured accurate, trustworthy, and objective results (Elharidy, 2008).

III. Presentation of Result

3.1. Identified Types of Construction Documents:

Construction documents serve as the contractor's manual from the architect. Through drawings and specifications, these documents detail precisely how the Contractor will translate the Architect's design into a built thing. In the 2017, 12th edition of Architectural Graphic Standards book by Dennis, Nina and James, They identified construction documents to include drawings, schedules, specifications, and other documentation necessary for construction. Construction documents are used to both get the design created and secure a building permit. While, Francis and Casandra in their 2020, 6th edition Building Construction book, illustrated construction documents as other written information that convey the design intent and provide instructions for the construction of a building. They serve as a contract document between the owner and the contractor, outlining the requirements and standards for the project. These legally binding documents specify in detail how the design will be constructed, including methods, materials, building systems, and components (Arain *et. al.*, 2013).

Every aspect of the building design is precisely described in the construction documents, both at big and small scales. The Contractor has the most complete understanding of the Architect's intent thanks to good construction documentation (Arain *et. al.*, 2013). Drawings and specifications are the two components of construction documents. The drawing documents includes the architecture, structural, mechanical, electrical, plumbing, landscape architecture, civil drawings and schedules while the specification includes architectural, structural specifications and the consultant specifications (Farah, Hani, & Ezzeddine, 2020). It is usually prepared in divisions where the contract language for the entire project team come first which includes the procurement and contracting requirements and general requirements (Farah, Hani, & Ezzeddine, 2020).

This implies that construction documents provide a comprehensive and detailed outline for the construction process, ensuring that all stakeholders have a clear understanding of the project requirement and can work together to bring the design to reality. It includes documents needed to get the construction done as well as the documents needed for building approval and permits.

However, tender documents and construction documents are related but serve different purposes in the construction process.

3.1.1 Construction Drawings

Construction drawings are a component of the entire documentation used for the construction itself, the employer-contractor agreement, and the tender process. The construction blueprints show in graphic form how the structure will be constructed. By illustrating a structure's measurements, construction materials, and other elements, it aids in the construction process and ensures that local authorities issue the project with the necessary permissions. (Petro Pöyhönen *et. al.*, 2017).

In further analysis by willy & Son (2017), construction documents are critical part of the construction documentation process, serving as a communication tool between architects, engineers, contractors and other stakeholders involved in a construction project. The author further expressed that, construction drawings are essential for ensuring the construction process is carried out efficiently, safely, and in accordance with the design specification an industry standards.

In another study by Kilmer (2012), construction drawings serve as a bridge between the creative vision of the architect and the practical execution of construction project. The drawings are used for obtaining building permit, cost estimation, procurement of

materials and actual construction. Chauhan (2018) explained that construction drawings serve as a legal and contractual document that outlines the project. BSI Group. (2019) mentioned that, contractor rely on construction drawings to carry out the construction work accurately and in compliance with the design intent.

The following are the construction drawings, including but not restricted to Architectural, Structural, Electrical, Plumbing, and Finishing drawings (Petro Pöyhönen *et. al.*, 2017).

- A. Architectural Drawings: This is a type of construction drawing that architects create. It offers a thorough view of a structure (Petro Pöyhönen *et. al.*, 2017). According to a study by Kensek and Noble (2015), clear and comprehensive architectural drawings contribute to effective communication and understanding of design intent, reducing the likelihood of errors and misunderstandings during construction. Dosumu *et. al.*, (2017) mentioned that the technical representation of a structure (or construction project) that belongs to the category of architecture is called an architectural drawing.
- B. Structural Drawings: A complete perspective of the structure or structures involved in the construction project is provided by this kind of construction sketch. Chauhan (2018) mentioned that these drawings ensure that the dimensions, positioning, and alignment of the structural components are correctly represented, minimizing errors and deviations during construction.
- C. Electrical Drawings: This technical drawing contains information about lighting, wiring, power, and communication circuits in commercial construction projects. Accurate electrical drawings are crucial to reduce errors and save time and costs during construction, as stated by Van Dyken Mechanical. Speer Mechanical emphasizes that these drawings also depict safety features, ensuring occupant safety and compliance with regulations. Furthermore, Construction Junkie highlights that precise electrical drawings minimize the risk of electrical hazards by providing guidelines for circuit sizing, grounding, and equipment selection. Additionally, Diaz (2016) notes that these drawings illustrate both external power grids and the internal wiring architecture, using standard symbols for components like circuit breakers, transformers, and wires. Finally, electrical contractors need software to streamline their work and leverage their expertise.
- D. Plumbing and Sanitary Drawings: as discussed by Diaz (2016) and Kerim Koc & Asli Pelin Gurgun (2022), depict the water pumping system, gas placement, sink types and sizes, pipelines, pumps, and drains. Accuracy in these drawings, as emphasized by BSI Group (2019), prevents errors, conflicts, and rework during construction, ultimately saving time and reducing costs. They also serve as vital documentation to demonstrate compliance with safety and hygiene standards, ensuring permits and approvals while safeguarding occupants. According to the New York City Department of Buildings (2022), contractors use these drawings to plan and execute the installation systematically, leading to an efficient construction process, reduced rework, fewer delays, and improved project timelines.
- E. Finishing Drawing: as explained by Diaz (2016), encompass a building's aesthetic elements, showcasing architectural components like ceiling shapes, flooring patterns, textures, and paint colors. Ching and Adams (2014) emphasize that these drawings effectively communicate design intent, reducing misinterpretations and errors during construction. McClean (2015) adds that coordination with detailed drawings ensures harmonious integration of different aspects in the building. Hensey (2016) underscores the importance of finish drawings as project documentation, serving as a historical reference for design and construction details, valuable for maintenance, renovations, or future expansions. These drawings capture decisions made during the design phase and provide a comprehensive record of the building's as-built configuration.
- F. Schedule: Accurate estimation and efficient management of quantities, as highlighted by Gould and Joyce, are crucial for streamlining construction and ensuring timely project completion. Larger construction projects often involve schedules of quantities and rates, also known as bill of quantities (BOQ), as explained by Kerim & Asli (2022). These schedules detail the supplies and labor required for the project, reducing the possibility of errors in contractor pricing due to the precise quantities and amounts, as noted by Sawn Killough (2022). C. Hendrickson further emphasizes that schedules of quantities and rates explicitly describe the project's scope of work, aiding in cost planning and control for the project owner. This enables the owner to plan their cash flow requirements as the project progresses. It's essential to consider project-specific factors for a comprehensive understanding of how schedules and quantities rates impact building delivery, as these effects can vary based on project complexity and scale. Professional expertise is crucial in assessing these impacts accurately.

3.1.2 Construction Specification

Construction Specification: Darrin (2017) mentioned that specification outline the desired attributes of materials, installation techniques, and finishing details, by clearly specifying quality requirements, specifications ensure consistency and help maintain high standards throughout the construction process, resulting in a better-quality final product. Also, Sullivan (2014) mentioned that Specifications serve as a link between the project design and the construction process. That, specification communicate the architect's or engineer's intent to the contractor and subcontractors, by providing detailed instructions on how specific design



elements, materials, and systems should be implemented, ensuring that the building is constructed as envisioned. In addition, Adewale, (2018) mentioned that specification documents are essential to any construction project and are the cornerstone of its success. In addition, U.S. Department of Transport, (2017) mentioned that specification must be clear, succinct, thorough, and consistent in order to successfully communicate needs.

The roles of specification on project delivery are numerous but not limited to the following;

- A. General requirement: Project Management Institute (PMI) explained that, construction specification to the foundational elements that set the frame work for any construction project. These requirements ensure that the project is executed efficiently, safely, and in compliance with the relevant standards and regulations. Kerzner (2017) further mentioned that, specification general requirements provides an overview of the project, its purpose, location, scope, and objectives, quality standards, permit and approval, materials and products and construction methods.
- B. Site works: Construction specification for site works are crucial component of any construction projects, as they provide detailed instructions and requirements for the execution of site-related activities (Sullivan 2014). The author further mentioned that, site works specifications typically begin with an introduction, which provides an overview of the project, its objectives, and references to key project documents such as the contract agreement and drawings. In another analysis by Koppelman (2016), site work specification address erosion control measures, storm-water management, and drainage systems. In another study by Schwalbe (2020), construction specifications can vary depending on the project’s location, size, and complexity. Therefore, it’s essential to tailor the specifications to the specific project requirements while ensuring compliance with applicable industry standards and local regulations.
- C. Finishes: Construction specifications for finishes in a building project are a critical aspect of the construction process. According to Schwalbe (2020), they define the quality, materials, and installation methods for various finishing elements within the project. Finishes serve both aesthetic and functional purposes in a building, aesthetic finishes enhance the visual appeal of a space, contributing to its overall design, while functional finishes provide durability, safety, and ease of maintenance. (Sullivan, 2014).

Table 1: Identification of Construction Documents (CDs) mostly discussed in Published Literature

S/N	Construction Documents	Number of Article with Evidence of Implementation	Ranking	Source
1	Architectural Drawings	6	1	Petro Pöyhönen et al., (2017) Keusek and Noble (2015) Dosunmu et., al. (2017) Zhang and Zhang and (2020) Love et., al. (2017) Bubshait et., al. (2019)
2	Plumbing & Sanitary Drawings	5	2	Diaz (2016) KePelim Gurgun (2022) rim Koc & Asli Pelim Gurgun (2022) BSI Group (2019), New York City Department of Building (2022)
3	Finishing Drawings	5	2	Cling F.D.K. & Adams, C. (2014), McClean, R. (2015), Hensey, M. (2016)
4	Electrical Drawings	4	3	Van Dyken Mechanical, Speer Mechanical, Construction Junkies, Diaz (2016)
5	Specification	4	3	Darrim, M. (2017) Sullivan, K.D. (2014) Bukola Adewale (2018)



				U.S. Department of Transport (2017)
6	Schedule of Quantities Rates	4	3	Gould and Joyce Kerim Koc and & Ashli Pelim Gurgu (2023), Sawn Killough (2022) C. Hendericks
7	Letter of Acceptance	4	3	Farah hani Ezzeddine (2023), Thomas, Keller & John Alison Dykstran Daniel S.Brennan
8	Agreed Variation	4	3	Rocket Lawyer (2023) The Legal Stop (2023) Odeh & Battaimah (2002) MBASA (2015)
9	Preliminary Design	4	3	Diaz (2016) Solomon & Frances (2020) Eric Thomas (2023) Petro Pöyhönen et. al., 2017
10	Structural Drawings	3	4	Chauhan, R (2018) Krishna & Khemlani (2016) Diaz (2016)

The most prevalent construction documents identified in this review, according to the analysis of the data in Table 1, is architectural drawings, whose implementation was discussed in 6 separate papers from diverse areas and nations. The finishing drawings, plumbing and sanitary drawings, which comes after architectural drawings, was covered in 5 different articles whereas electrical drawings, specification, schedule of quantities, letter of acceptance and agreed variation were reported in 4 articles each and 6 books. Preliminary Design was mentioned in 4 articles. Structural drawings was also mentioned in 3 articles while tender documents was sparingly identified as documents required for project delivery.

IV. Importance of Construction Documents in Project Delivery

According to the study by Zhang and Vairavamoorthy (2020), the author emphasizes the importance of accurate architectural drawings in achieving construction quality, reducing rework, and improving project performance. A study by Love et al. (2017) highlights the significance of coordinated architectural drawings in achieving construction efficiency, reducing clashes, and improving project outcomes. Bubshait et al. (2019) further mentioned the relationship between accurate architectural drawings and cost control emphasizing the significance of detailed information for effective construction planning and execution.

Krishna & Khemlani (2016) mentioned that structural drawings facilitate coordination and collaboration by illustrating how different building systems, such as the structural, architectural, mechanical, and electrical systems, interact and integrate with each other. In addition, Diaz (2016) mentioned that professional structural engineers create structural drawings with input from architectural designs. Krishna & Khemlani (2016) further mention that, the load-bearing components of the structure, such as steel beams, joists, framing materials, and so on, are highlighted in structural drawings. Structural construction drawings are distinct from other drawings, because they do not cover details like surface treatments, mechanical systems, or divider walls.

Construction documents were further analyzed to play a crucial role in project delivery. AIA (2017) mentioned that, to enhance communication and reduces the likelihood of misunderstandings during construction, all project stakeholders, including architects, contractors, and subcontractors must have a clear understanding of construction documents and project requirements. CSI (2016) expressed that, construction documents contain specific information that enables precise construction schedule. Realistic timetables can be created by contractors, assisting in project management and reducing delays. CSI (2016) further analyzed that

detailed information in construction documents allows for accurate construction scheduling, expressing that realistic timetables can be created by contractors, assisting in project management and reducing delays.

In a study by Dagostino (2015), building plans offer a recorded history of project choices and modifications, facilitating accountability and conflict resolution. Chapman (2012) opined that, detailed construction drawings provide a documented history of project decisions and changes, aiding in accountability and dispute resolution. Gould (2019) further expressed that, drawings make it easier to coordinate different construction features, such as structural, mechanical, and electrical systems, to make sure they all function together seamlessly. In support, Oakland (2016) mentioned that, detailed drawings make quality control easier and help ensure that the project fulfills the necessary criteria for quality.

4.1 Better Communication and Collaboration:

AIA (2018) mentioned that Construction documentation are essential for effective communication and teamwork, according to research by the American Institute of Architects (AIA). Construction documents provide a standardized format for conveying project information, ensuring that all stakeholders have access to the same information. This enhance project quality, boosts teamwork, and improves communication. According to Fisk and Reynolds (2017), adequate communication of construction documents plays a crucial role in the successful delivery of construction projects. Effective communication ensures that all project stakeholders are on the same page, resulting in improved coordination, reduced errors, and increased efficiency. The authors further analyzed clear communication of construction documents, such as drawings, specifications, and contracts, helps all parties involved in the project to have a common understanding of the project scope, requirements, and expectations. This clarity minimizes confusion and reduces the likelihood of errors or rework. In addition, Cooper & Chapman (2019), analyzed in their survey that, Clear communication of construction documents helps in ensuring that all parties involved, including architects, engineers, contractors, and subcontractors, have a shared understanding of the project requirements. It minimizes misinterpretations and reduces the likelihood of errors or rework.

4.2 Legal and Financial Protection:

ABA (2018) mentioned that poorly prepared construction documents can result in ambiguity or conflicting information, leading to disputes between the parties involved in the project. This can include disagreements over scope, specifications, quality standards, or contractual obligations. Such disputes may require legal intervention to resolve, leading to delays and additional costs. In addition, CMAA (2018) mentioned that, Construction documents must comply with local building codes, regulations, and industry standards. Poorly prepared documents may not meet these requirements, leading to potential legal consequences, such as fines, penalties, or the need for costly corrective actions. It was further reiterated that, when the project requirements or specifications are not adequately defined, changes may be requested or required during the construction process, resulting in additional costs and delays. Contractors may also submit claims for extra work, asserting that the documents were incomplete or contradictory. Dewberry (2020) further mentioned that Inadequate construction documents can result in defective or non-conforming work. If the documents fail to provide clear instructions or quality standards, contractors may not meet the required specifications. This can lead to claims of poor workmanship or breaches of contract, requiring legal remedies to address the issues.

In order to protect oneself legally and financially, construction documents are also crucial. They offer a transparent account of the planning and building process that can be utilized to settle disagreements and defend against legal claims (Construction Law Today, 2021). Construction records are frequently needed for insurance and financing reasons as well, giving lenders and insurers a clear picture of the project and its risks.

Loosemore & Raftery (2006), in their book, Risk management in projects, analyzed the impacts of effective communication of construction documents as it enables proactive risk management. By clearly communicating design intent, technical requirements, and quality standards, potential risks can be identified and addressed before they become costly problems during construction.

In the Handbook of Project-Based Management by Turner (2014), Good communication practices throughout the project, increased stakeholders satisfaction by including the effective sharing of construction documents, foster positive relationships among project stakeholders. When expectations are properly communicated and met, stakeholders are more likely to be satisfied with the project outcome.

It is important to note that these impacts can be mitigated by investing in thorough quality control processes, effective communication among project team members, and the use of standardized construction document templates and guidelines.

4.3 Quality Control:

Construction documents are essential for maintaining quality control during building. They offer thorough guidelines for materials and construction techniques, which can assist avoid mistakes and guarantee adherence to rules and regulations for buildings (Construction Executive, 2020). Construction documentation also serve as a foundation for quality control inspections, ensuring that the work adheres to project specifications. Woods & Singh (2011) mentioned that, the completion of a project is significantly impacted by high-quality construction documentation. By giving all project stakeholders clear, precise, and thorough information, they play a significant part in guaranteeing the effective completion of construction projects.



Also, PMI (2017) mentioned that well-prepared construction documents, such as architectural drawings, engineering plans, and specifications, provide a clear and concise representation of the project requirements. They help in avoiding ambiguity and misunderstandings, ensuring that all parties involved have a common understanding of the project scope, design intent, and specifications.

CSI (2018), illustrated construction documents as a means of communication between the project owner, architects, engineers, contractors, and subcontractors. When the documents are of high quality, they facilitate effective communication by conveying information accurately and efficiently. This helps to minimize misinterpretations, errors, and conflicts, leading to smoother collaboration among project team members.

Woods & Singh, (2011) further analyzed accurate and detailed construction documents enable more accurate cost estimation and budgeting. They provide the necessary information for contractors to develop precise construction bids and identify potential cost-saving opportunities. Additionally, Fisk et. al., (2000) mentioned that, a well-defined construction documents minimize the likelihood of change orders and construction delays, which can lead to cost overruns.

In a study carried out by Fisk et. al., (2000), good quality construction documents facilitate efficient project scheduling and sequencing. Detailed construction plans and specifications help contractors understand the construction sequence, identify critical paths, and plan resources accordingly. The author further analyzed that, good quality construction documents leads to improved project scheduling, timely procurement of materials, and effective coordination among various trades, resulting in better schedule management.

In addition, CII (1993) mentioned that construction documents serve as a reference for quality control during construction. They outline the required materials, construction methods, and performance criteria, enabling contractors to ensure compliance with the specified standards. The author further analyzed that, well-prepared construction documents include inspection and testing requirements, which help in monitoring and verifying the quality of work throughout the construction process.

4.4 Cost Control:

Abduh et., al. (2018) opined that, if the design is unclear or incomplete, contractors may need to make costly changes or adaptations during construction. Moreover, errors or omissions in the documents can result in rework, change orders, and claims, all of which can escalate project costs. CII (2015) further mentioned that, Incomplete or inadequate construction documents can compromise the quality and safety of the project. Contractors may not have sufficient information to properly execute the design, resulting in substandard workmanship, non-compliance with codes and regulations, or safety hazards.

Building Design + Construction (2021) further analyzed cost control to be very crucial on construction records. They offer thorough budgets and cost projections, assisting project teams in cost control and preventing overruns. Construction documents also serve as a foundation for change orders and other cost changes, guaranteeing optimal cost management of the project.

4.5 Construction Efficiency:

Construction Dive (2021). mentioned that construction efficiency requires the use of construction records. They give the building crew a thorough set of instructions to follow, lowering the possibility of mistakes and delays. The basis for sequencing and scheduling activities is provided by the construction documents, ensuring that the work is carried out effectively and on time. Loosemore & Raftery (2006), in their book, Risk management in projects, analyzed the impacts of effective communication of construction documents as it enables proactive risk management. By clearly communicating design intent, technical requirements, and quality standards, potential risks can be identified and addressed before they become costly problems during construction.

In the Handbook of Project-Based Management by Turner (2014), Good communication practices throughout the project, increased stakeholders satisfaction by including the effective sharing of construction documents, foster positive relationships among project stakeholders. When expectations are properly communicated and met, stakeholders are more likely to be satisfied with the project outcome.

In conclusion, the process of delivering a structure depends heavily on the construction documentation. They offer crucial data for coordination, legal and financial protection, quality assurance, cost management, and the effectiveness of construction projects. The construction process would be significantly more difficult and unpredictable without construction documentation, leading to inferior quality, higher prices, and more risk.

Table 2: Significance of Construction Documents

S/N	Significance of construction documents	Description	frequency	Ranking	Source
1	Construction	Ability to deliver products or services in	8	1	Construction Dive (2021), Loosemore &



	Efficiency	the most effective manner without sacrificing quality of work.			Raftery (2006), Diaz (2006), Krishna & khemlani (2016), CSI (2016), Dagostino (2015), Chapman (2012), Turner (2014)
2	Quality Control	Procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the clients or customer.	7	2	CSI (2016), Construction Executive (2020), Wood & Singh (2011), PMI (2071), CSI (2018), Fisket et., al. (2000), CII (1993)
3	Communication and Collaboration	The exchange of information to achieve a better understanding. Collaboration is the exchange of information and things to achieve the state of collaborative product.	6	3	AIA (2018), Fisk & Reynold (2017), Krishna & khemlani (2016), AIA (2017), Gould (2019), Cooper & Chapman (2019)
4	Legal and Financial Protection	Financial protection is the ability to respond in damages for public liability and to meet the cost of investigating and defending claims and settling suits for such damages.	6	3	ABA (2018), CMAA (2018), Dewberry (2020), Construction Law Today (2021), Loosemore & Raftery (2006), Turner (2014)
5	Cost Control	The practice of identifying and reducing business expenses to increase profits.	3	4	Abduh et., al. (2018), CII (2015), Building Design + Construction (2021)

The importance of construction documents has been highlighted via a broad viewpoint that includes but not limited to the five essential factors. Foremost among these is their role in enhancing construction efficiency, as they serve as the blueprint for effective project delivery without compromising quality (Krishna & khemlani, 2016). Diaz (2006) and Dagostino (2015), explains how construction documents enhance efficiency throughout the construction process by easing workflows, minimizing errors, and optimizing the utilization of resources. They achieve this by offering an extensive implementation road-map.

Another important criterion that comes into play is quality control, which emphasizes the function that the documents play in ensuring sure that the end result fulfills established requirements and standards. Construction documents enhance overall quality

control efforts by serving as the point of reference for consistency and applying quality standards through comprehensive specifications and instructions. (CSI 2018).

In addition, Gould (2019) mentioned that, collaboration and communication are essential, with construction documents acting as the basis for effective communication among the stakeholders. Coordination and comprehension are facilitated by thorough and understandable documentation, which promotes teamwork and synergy among parties involved in the project (Cooper & Chapman, 2019).

Furthermore, The provision of legal and financial protection is greatly aided by building documents. Turner (2014) and Dewberry (2020) claimed that these documents mitigate risks and safeguard the interests of all parties by establishing roles, defining contractual obligations, and guaranteeing compliance to legal and regulatory standards. They also provide vital proof in legal proceedings, assisting in the settlement of disputes and reducing financial obligations (Construction Law Today, 2021).

Finally, Abduh et., al., (2018) highlighted cost management as a crucial criterion and the importance of the documents in identifying possibilities for cost reduction, allocating resources optimally, and keeping an eye on project costs. Construction documents facilitate efficient cost management techniques by providing comprehensive cost estimates, timelines, and specifications. This guarantees that projects stay within budgetary limits and meet project objectives (Building Design + Construction, 2021).

In essence, the significance of construction documents lies in their multifaceted contributions to construction efficiency, quality control, communication and collaboration, legal and financial protection, and cost control throughout the project lifecycle. These documents serve as the foundation of project management and are essential to the accomplishment of successful project goals.

V. Recommendation

Here are some important recommendations for professionals and stakeholders involved in building projects based on the thorough discussion regarding the value of construction documents:

1. By acknowledging the crucial function of construction drawings as a channel of communication among professionals, effective communication should be given priority. Invest in tools and platforms that make it easy for people to share and collaborate on these papers, and establish standardized formats and protocols for sharing construction documents to guarantee that everyone in the team has access to the same information.
2. Laying a lot of emphasis on accuracy and quality. Give careful consideration to the accuracy and quality of construction documentation, especially architectural and structural drawings. Conflicts and expensive delays might result from mistakes or ambiguity. The stakeholders are urged to use strict quality control procedures when creating and reviewing these papers in order to reduce mistakes and inconsistencies.
3. Give electronic document management solutions more thought as a way to improve workflow efficiency and document accessibility. These systems can streamline the organization, sharing, and retrieval of construction documents, saving time and money. They also provide staff with the necessary training and tools to use electronic document management systems proficiently.
4. Utilizing standard forms of construction contracts and adhering to recognized industry norms will help to increase the precision and clarity of construction documents. This can lessen the possibility of disagreements and project delays, and When drafting contracts or agreements, get legal guidance or professional opinion to make sure they adhere to best practices for the sector.
5. Encourage a collaborative and teamwork-oriented environment among all project stakeholders. Recognize that the use of construction documentation as a shared knowledge base can improve the quality of projects, Encourage frequent coordination and communication meetings to make sure that everyone is on the same page and informed throughout the project's lifecycle.
6. Remain updated with technology developments in project management and construction documentation. In order to ensure that your staff is prepared to properly utilize new technologies, embrace innovations that can improve the creation, sharing, and management of documents. Invest in training and professional development as well.
7. Implement an organized document lifecycle management procedure. To preserve accuracy and legal compliance, make sure that documents are consistently updated, edited, and appropriately archived.
8. Communicate the importance of construction documents to all project stakeholders, including clients. Analyze in detail how these documents affect project success, cost control, and deadlines.
9. Establish a culture of continuous enhancement of processes for managing and creating documents. To increase effectiveness and reduce errors, regularly evaluate and improve these procedures.

By implementing these recommendations, construction professionals and stakeholders can optimize the role of construction documents, reduce risks, improve project outcomes, and contribute to the overall success of construction projects.

VI. Conclusion

Identification and Significance of Construction Documents.

In order to develop collaboration on a single platform for harmonizing tender documents, the first key issue that needs to be addressed is how Architectural Drawings should be properly communicated among professionals (Farah, Hani, & Ezzeddine, 2020). These tender documents provide essential details for bidders to respond to the procuring entity's needs, setting the stage for competitive bidding processes (Solomon & Frances, 2020). Architectural Drawings stand out as a crucial element among the 14 Construction Documents identified, directing the design process from conception to construction completion (Diaz, 2016). We will examine the challenging features of producing building drawings and how they come to be regarded as official records (Eric Thomas, 2023; Solomon & Frances, 2020). Furthermore, we will discuss the significance of other construction documents, including structural, plumbing, sanitary, and finishing plans, to clarify their functions in the building process (Diaz, 2016). For a project to be successful, structural drawings in particular are essential (Adewale, 2018).

Justifying the Significance of Construction Documents.

Poor-quality construction documents can lead to project delays, cost overruns, and disputes, drawing on findings from studies in Nigeria and the United Kingdom (Odeyinka and Yusif, 2014; Akintoye et. al., 2000). The result also reveal electronic document management solutions can improve document efficiency and accessibility while saving time and money (Eziyi et al., 2018). The role of construction documentation was emphasized in term of effective communication, teamwork, and project quality enhancement, as highlighted by the American Institute of Architects (AIA, 2018) and supported by Fisk and Reynolds (2017), by underlining the critical role adequate communication of construction documents plays in the successful delivery of construction projects.

Subsequent research on the role construction documents play in project delivery may concentrate on a number of important topics. These include carrying out case studies and empirical research on a range of construction projects, incorporating cutting-edge technologies such as artificial intelligence and building information modeling (BIM), investigating legal and regulatory issues, comprehending the viewpoints of stakeholders, creating education and training programs, taking sustainability and environmental factors into account, and looking at perspectives from around the world. Through examining these domains, scholars and professionals can augment their comprehension of the ways in which construction documents influence project completion and devise tactics to maximize their efficiency for favorable results.

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