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A Comparative Study on Dispute Resolution in Industry and the Departments of Transportation

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Abstract

Construction industry disputes are common, and the amounts in dispute generally tend to be high. Dispute Resolution (DR) helps the resolution of antagonisms between parties involved in the process. It can also be used interchangeably with conflict resolution when the conflicts are more profound and complex than disputes. Several DR methods can be implemented in construction projects. However, there are differences between the "industry" where arbitration is frequently utilized and the state Departments of Transportation (DOTs) where arbitration is not used as common. The reason is that DOT has an internal claims resolution process. When exhausted with an unacceptable result to the contractor, the contractor's only option to "appeal" the decision is to file suit against the DOT in the state's claims court. Several concepts have evolved to resolve claims on a relatively informal basis through early cooperative intervention. Standard practices in different states are seen under Negotiation, Mediation, Dispute Review Boards, Arbitration, and Litigation. This research provides a comparative study of arbitration and litigation on DOT projects among several states. The current dispute resolution methods utilized by various Departments of Transportation in the U.S. versus industry were examined with a particular focus on analyzing the use of arbitration and its outcomes compared to litigation. Arbitration can be more efficient in time and money, and therefore stands to be a valuable tool in dispute resolution for DOT construction projects; it is known that states function differently about arbitration resolution, but the need to analyze the variations exists if the industry is to identify a best practices approach that harmonizes the processes between the states and industry in the US.

Keywords
Disputes, Arbitration, Mediation, Negotiation, Litigation

1. Introduction

Arbitration can be a valuable tool to save time and money in resolving disputes concerning transportation construction projects and practices that differ between states. Therefore, this research is essential to investigating and identifying various types of practices across several state DOTs in the US. In the research, the differences between industry and DOT practices were investigated. The claim procedures are notorious for having complex and cumbersome requirements; short time limits for filing and documenting claims; penalties causing the claims to be waived if the contractor fails to follow the procedure strictly; with the process being deliberately biased in favor of the DOTs and structured to take a long time and impose a significant expense burden on the contractor when submitting the claim. The DOT claims process is viewed as a series of hurdles designed to discourage the contractor from making a claim. Failure to exhaust the DOT posture waives the claim and defeats the contractor's rights to sue the DOT in the state's claims court. Thus, the DOTs would be expected to oppose any action to enhance the process to deliver a more equitable result or allow the contractor less restrictive access to engaging the process. The research focuses on the differences between the DOT procedures and the "commonly accepted" mediation and arbitration process generally used by the rest of the industry. Since the feds are considering the use of ADR for federally funded DOT projects, this research aims to address if a similar shift has already started at the state DOT level or where individual states are in the process with the research question being whether the mediation /arbitration providing a better option than the current DOT practice involving litigation. The objective of

this research project is to investigate the utilization of Dispute Resolution methods in different states, including processes that DOTs use for the resolving disputes.

Various research work on dispute resolution and its standard practices in the construction industry. As with any contract between parties, disputes in construction are bound to occur. The traditional official approach to dispute resolution was directed through the judicial system, but parties have also sought ways to resolve disputes more amicable (Shrestha et al., 2017, 2019; 2022). Known as Alternative Dispute Resolution (ADR), methods include negotiation, mediation, and arbitration (Goldberg et al., 2012). There are also other forms of ADR, including minitrials and Summary Jury Trials (Stipanowich et al., 1996). Negotiation is a problem-solving process in which two or more participants attempt to reach an agreement on a disputed issue. Mediation is a process in which a neutral third party, called a mediator, assists people who have a dispute in resolving their differences to reach a compromise. Dispute Review Boards provide unique expertise that is kept up to date on the project to facilitate the timely and equitable resolution of disputes and claims in an effort to (1) avoid delays to the contract work; (2) minimize the expense of settlement; (3) avoid litigation, and (4) promote project partnering. Arbitration is a process in which a neutral third party, called an arbitrator, reviews all relevant items, including the contract documents, and produces a judgment. Litigation is the ultimate escalation on the DR scale, where the matter is put to trial through the public justice system. Dispute resolution methods have many levels of escalation. While negotiation and mediation aim to reach an amicable settlement between disputing parties, the resolution in arbitration and litigation is decided by an arbitrator or judge, respectively. Although similar and equally binding, arbitration differs from litigation in that it is a private process with little transparency and limited options to appeal. Arbitration initially developed as a consensual and non-binding dispute resolution process (Overcash, 2015), with “little or no discovery, motion practice, judicial review, or other trappings of litigation” (Stipanowich, 2010). However, as this dispute resolution method gained popularity and startedto be enforced through statutes, there was more pressure to develop standard arbitration practices with timeto align with the judicial process, including more extensive discovery and hearings (Stipanowich, 2010). Disputing parties may seek arbitration based on the perceived advantages over litigation, particularly regarding cost, speed, and privacy (Stipanowich, 2010). While arbitration has remained relatively popular, there is a criticism of the degree of cost and time savings it can provide (Kelleher & Smith, 2005). Particularly in the U.S., three trends are motivating the researchers to work on: 1) the legal workload is similar to litigation, 2) the more amicable and autonomous approach of mediation (mainly in construction disputes), and 3) the broad enforcement of arbitration in employment contracts and consumer/user agreements (Stipanowich, 2010). Claims arise when there are disagreements between the parties about the need for a change order or the cost of the change. In addition, the effects of disputes may cause new and more extensive arguments called Snowball effects, as seen in Figure 1 (Wallwork, 2003; Tazelaar and Snijders, 2010). Sarat (1984) lists a series of processes to be followed once a dispute arises, as seen in Figure 2.

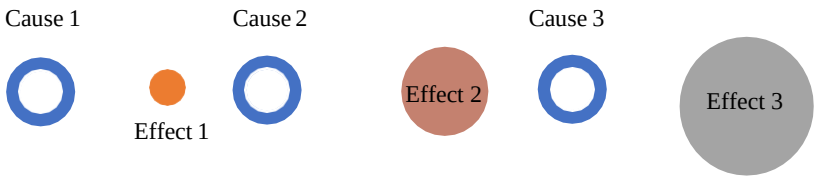

Fig. 1. Snowball Effect on Cause-and-Effect Relationship of Disputes

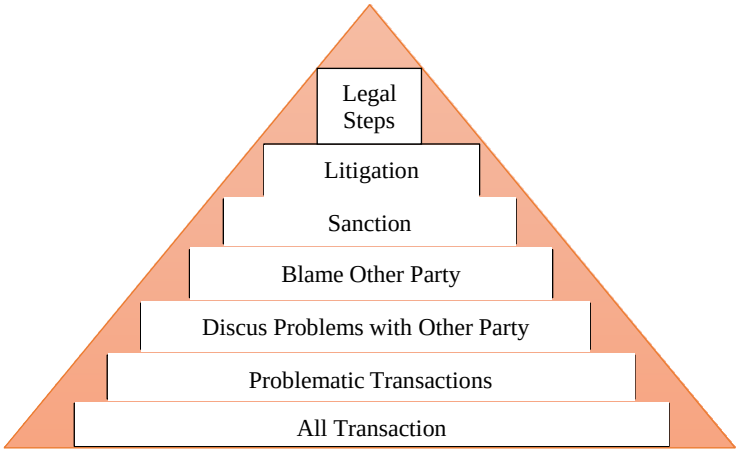

Fig. 2. The Pyramid of Series of Processes

2. Comparison of Industry and DOT Practices

Disputes on construction projects are a common occurrence. There have been times in the past, the 1980's for example, when the incident of disputes rose to an epidemic level. During that period, projects were wracked with disputes of all kinds, resulting in large financial losses, major disruptions and delays to work, and significant increases in risk associated with going forward with a project. Because of the complexity and technical nature of a typical construction dispute that often involves both design and construction considerations, litigation in the court system has proven inefficient and unreliable for resolving the controversy. Because of the volume and business of American trial courts, which are focused on the usual criminal and civil matters, but few construction disputes/contracts, the trial courts (and their civil juries) often lack the knowledge, experience, and expertise sufficient to render an equitable decision on a construction case. In the construction industry's eyes, the American judicial system does not work for the industry because it takes too long to reach a decision, the process costs too much, and the results are unreliable. The industry has recognized the limitations on litigation for resolving its disputes and has relied on binding arbitration as an alternative to litigation as its dispute resolution procedure of choice. The industry has also been employing non-binding strategies more recently to resolve disputes, including partnering, structured negotiations, dispute review boards, facilitated mediation, and other methods, with heavy preference towards facilitated mediation. Non-binding ADR has proven to effectively resolve construction disputes, short of arbitration or litigation on many occasions (AAA, 2015).

Industry form-contracts have adopted pairing a non-binding procedure in advance of arbitration as the preferred methodology for dispute resolution. By operation of the agreement, the parties to the dispute are obligated to first submit the dispute to mediation as a condition precedent to arbitration. If that fails, the argument is presented to arbitration for a binding decision. The specified process has proven effective for resolving construction disputes faster, more efficiently, and at a lesser cost than litigation. Most importantly, the arbitral decision is usually more consistent with the facts, circumstances, and governing law applicable to the project and dispute and is thus viewed as more equitable. The American Institute of

Architects ("AIA") family of contract documents have embraced the use of arbitration as the default binding dispute resolution procedure long ago. By operation of contract, when a dispute arose, by either the contractor or owner, it would first be referred to the project's architect for an "initial decision." More recently, to avoid complaints that the project's architect's initial decision was biased in favor of the Owner, the AIA now provides the option to appoint a neutral "Initial Decision Maker" to take the place of the project's architect for rendering the initial decision. If the parties accept the initial decision, the dispute is settled on its terms. If either party objects to the initial decision, the next step is to take the argument to non-binding facilitated mediation. If mediation fails to resolve the dispute, the parties are obligated to take the debate to arbitration. Recent revisions of the AIA contract documents allow the option to take the dispute to litigation instead of arbitration. Other industry-standard form-contract documents, such as thosepublished by the Engineer's Joint Contract Documents Committee ("EJCDC") and Consensus DOCS, havefollowed suit to recognize the value and effectiveness of non-binding mediation and binding arbitration. Historically, the industry trend for many years has been to avoid litigation because of its shortcomings, andto rely, instead, on non-binding procedures like mediation, followed by arbitration to achieve a binding resolution of the dispute (Shahbaznezhadfard et al., 2021).

Contrary to the long-standing industry use of mediation and arbitration, the state "DOT" have not followed the industry standards. Most state DOTs rely on their own internal policies and procedures, which they have established to resolve "contractor claims." The process typically consists of a review and decision on the claim at one or more steps, administered and conducted by the DOT, who serves as the "judge" deciding the claim. There is no provision for mediation (only informal negotiation at most). If it disagrees with the DOT's final decision, the contractor's only option is to litigate in the state's claims court. The contractor community has widely criticized the DOT process because it is unwieldy, excessively procedural, time-consuming, and biased in favor of the DOT. Thus, the resulting decision is viewed as being unreasonable and inequitable. The contractor's option to "appeal" the decision is no better, since the contractor's only option is to take the dispute to litigation in the claims court, which imposes further excessive cost and delay on resolving the claim, and comes with unpredictable results, often in favor of the DOT under the rebuttable presumption the DOT's decision on the claim was made in good faith. Considering the DOT claim policy, the process has been intentionally structured to be cumbersome, costly, time-consuming, and challenging to manage to discourage contractors from making claims. Thus, the issue presents, and this paper addresses, whether the parties to the transportation construction project would benefit from following the construction industry's lead by adopting a similar dispute resolution process consisting of non-binding mediation followed by arbitration to resolve disputes more efficiently and equitably.

3. Mediation and Arbitration

The most recognized industry dispute resolution processes are facilitative mediation and arbitration. Both procedures have been administered over the years by the American Arbitration Association ("AAA") under its Construction Industry Mediation and Arbitration Rules (the "Rules"). In general, the AAA's Rules provide for the submission of the dispute to AAA for administration. For mediation, a process where the mediator works with the parties to achieve a mutually agreeable settlement of the conflict, the Rules provide for the parties to select the mediator from the AAA's Panel of Construction Mediators; administration of the mediation process by the Mediator once selected; little or no formal pre-hearing discovery; and, if a settlement is reached, the entry of a settlement agreement – binding on the parties – which resolves the dispute (Cheng et al., 2021).

For arbitration, where the arbitrator sits as a judge receiving evidence offered by the parties, and making a binding decision called an Award, the Rules provide for the administration of the case by AAA; selection of the arbitrator(s) by the parties from the AAA's Panel of Construction Arbitrators; the administration of the process by the arbitrator, including limited discovery and hearing procedures; the submission of evidence; and at the end of the hearing when the submission of evidence is closed, the

arbitrator renders the award. Under federal and state law, the arbitrator's award can be confirmed as a judgment by a court of competent jurisdiction allowing the award to be enforced (Yuan et al., 2018).

Compared to DOT claims procedures and litigation, mediation and arbitration benefit from having the mediator and arbitrator selected from AAA's list of qualified Construction Mediators and Arbitrators consisting of pre-qualified persons familiar with the design and construction process. Panel members can include non-lawyer professionals, including architects, engineers, contractors and vendors/suppliers, and construction lawyers. AAA has a specialized Large Complex Case Arbitration Panel for significant complex cases to choose from. The obvious benefit to using the AAA system is selecting a qualified mediator or arbitrator who knows the industry. As one industry commentator has said, "in arbitration, we don't have to waste time educating the arbitrator on which end of the hammer to hold."

Under the AAA Arbitration Rules, further benefits include limited discovery and more streamlined procedures. Further, the arbitrator is dedicated to one case and does not have competing responsibilities for multiple issues as does a court. Thus, the arbitration case tends to proceed more directly, faster, and efficiently, and at the convenience of the parties as to time and date, without disruptions. Thus, in the end, the arbitration case typically proceeds more efficiently and at less cost and trouble than litigation and results in an award that is more representative of the circumstances surrounding the project and dispute (Oechler, et al., 2018).

Following graph of Figure 3 illustrates cost escalation based on actual project data as studied by DART. For all activity before mediation, the curve is flat, and it shows minimal cost or hassle with quality control, shop drawing review, etc. The angle then steps up for mediation and accelerates abruptly for arbitration and litigation.

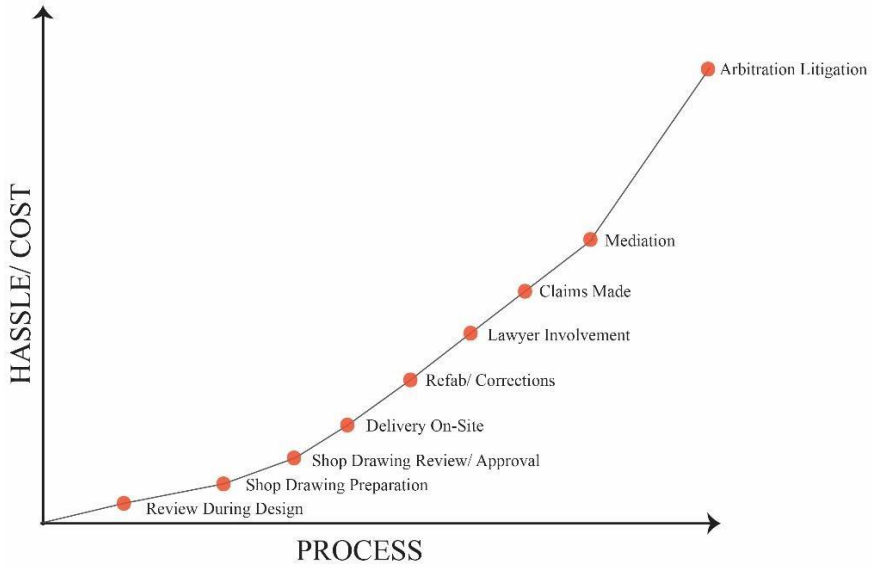

Fig. 3. Cost Escalation Graph for Dispute Resolution

4. Investigation of Different State Practices

The present research explores the current state laws on dispute resolution, mainly as they apply to DOT projects. In the study, standards from ten different states (Nevada, District of Columbia, Pennsylvania, Washington, Florida, Michigan, Illinois, New York, Ohio, and California) were investigated for a comparative understanding of the practices. Claims arise when there are disagreements between the owner and the contractor about the need for a change order and the cost. In Table 1, various practices from of those ten states are provided.

Table 1. Chronologic Orders in Legislations for the Selected States

Order	State	Legislation
1	Nevada	Nevada has been at the forefront of implementing forms of dispute resolution (DR) and continues to develop methods of resolving disputes without the cost of delay. The Dispute Resolution Program is a tool to assist stakeholders on NDOT projects to resolve conflicts at the lowest level possible.
2	District of Columbia	District of Columbia establishes and maintains dispute resolution procedures (DR) for transportation projects. The most common forms of DR are conciliation, mediation, arbitration, neutral evaluation, settlement conferences, and community dispute resolution programs.
3	Pennsylvania	In resolving disputes in the procurement, management, and administration, the Contracting Officer, at their discretion, may conduct a claim review meeting to attempt to settle and resolve a dispute or claim with the Contractor.
4	Washington	DR is a collaborative, consensual dispute resolution approach. It describes various problem-solving processes used instead of litigation or other adversarial proceedings to resolve disagreements. The Department of Transportation agrees that DR is voluntary, and there must be a mutual agreement to use it.
5	Florida	The Disputes Review Board (DRB), founded to be flexible to meet unexpected life circumstances during the project's life, runs the process for the dispute resolution. As referenced in this procedure, a Dispute is defined as a disagreement between the Florida Department of Transportation and the Contractor.
6	Michigan	When the Contractor disagrees with the engineer's decision regarding compensation for work performed and the time required to complete work operations, including requests for extension of time, action is initiated upon the Contractor filing a Notice of Intent to File Claim. At this time, the Contractor and the Engineer will work to resolve the potential claim issue before (if possible) the disputed work begins.
7	Illinois	IDOT advises and supports management by investigating the complaints, documenting the facts, presenting the findings, and making recommendations to resolve the dispute.
8	New York	Department of Transportation (DOT) provides interested parties with an opportunity to administratively resolve disputes, complaints, or inquiries related to work. Interested parties are encouraged to seek the resolution of conflicts through consultation with DOT staff. All such matters will be accorded complete, impartial, and timely consideration. Interested parties may also file a formal written dispute according to the DOT procedures.
9	Ohio	ODOT may choose to utilize a Dispute Resolution Board (DRB) process on massive projects instead of the standard dispute resolution process. If a DRB is utilized, Proposal Note 108 will be included in the Proposal, and an Item Special, Dispute Review Board, will be included as a pay item.

10	California	Dispute Resolution Process (DRP) is an appeal process for local agencies to use when they disagree with the decision, they receive from the district office concerning their local assistance funded project on or off the State Highway System (SHS).

Many states have "enabling legislation" that allows a contractor to claim a case/complaint. The legislation typically defines the type of claims brought and provides the procedure for doing so. In the absence of the enabling legislation, the state would enjoy the defense of governmental immunity to avoid the claim despite the law allowing the contractor to bring a claim as the exclusive remedy. Using Michigan as an example, Michigan law requires a contractor to sue its DOT ("MDOT") in the Michigan Court of Claims. It is not clear if while the Court of Claims has exclusive jurisdiction over the claim and is the only course for resolution, whether MDOT, by contract or policy, can separately agree to resolve claims against it by other binding alternative dispute resolution methods such as arbitration. MDOT does have a non-binding "Contractor Claims Procedure" that it has adopted by policy and contract term. The contractor must exhaust the Contractor Claims Procedure as a condition precedent to suing in the Michigan Court of Claims. The causes of disputes can be categorized as follows:

- The construction projects take a relatively long time to complete; the drawings and specifications are often revised because of changes in the owner's needs and requirements.
- Some architects, who prepare the drawings and specifications, do not have adequate know-how about installation details for successful application on the job site.
- Construction issues are generally not detected and solved at early stages of the design.
- Construction documents that regulate the contractor's on-site performance are faulty or do not have an adequate level of detail.

Claims arise when there are disagreements between the owner and the contractor about the need for a change order and the cost. Decisions and most of the pleadings on cases submitted to court are available for public view and evaluation. On the other hand, arbitration proceedings are confidential and are not reviewable unless the parties to the arbitration agree. The non-binding procedures, MDOT's Claims Procedure, mediation, and other procedures are personal. Thus, it is unclear if pleadings, orders and opinions, decisions, and additional information would be available for analysis when arbitrating and submitting the dispute under the non-binding procedure. Table 2 briefly discusses each practice (MDOT, 2012 and 2019; Mc Crary et al., 2010).

Table 2. Practices and Terms for Construction Projects with Explanations

Practices	**Definitions**
Design/Build (D/B)	Design/Build process with a single point of design and construction responsibility.
Build-Own-Operate-Transfer (BOOT)	A form of project delivery method for large-scale infrastructure projects.
Partnering (P)	A relationship between the owner and the contractor, including the elements of long-term commitment to achievements.
Performance Specifications (PS)	Project Performance-Related Specifications.

Prequalification (P)	A process for screening prospective contractors according to predetermined criteria of the project.
Subcontractor Approval (SA)	The owner approves the subcontractors of the project.
Guarantee (G)	An assurance by the contractor for the final product that meets the specifications for the project period.
Quality Assurance/Quality Control (QA/QC)	The contractor's control is to get the expected quality in the project.
Cost Plus Time (CPT)	The constructor is paid the cost of the materials and time, plus a flat fee on top of the costs.
Value engineering (VE)	A concept for alternate designs construction procedures in materials to be considered before the notice of bidding.
Quality Incentives (QI)	The owner provides the contractor with stipulations for the increased or decreased compensation.
Time Incentives (TI)	Time-based Incentives/Disincentives provide bonuses for attaining contract time objectives and deductions for not achieving those objectives.

5. Utilization and Outcomes of DR Methods

From a legal point of view, in the absence of enabling legislation that allows the claim to be presented, there would be an immunity development from the suit. Thus, legislation created the contractor claims from both federal and in the states that allow the claims to be presented and adjudicated by the contractor claims. In such cases, practices become more important to analyze to understand the outcomes. The Michigan Department of Transportation (MDOT) Construction Contractor Claims Procedure provides a formalized, tiered process for submitting and reviewing a contractor's claim. MDOT has been experimenting with a Dispute Review Board mechanism to resolve disputes. The claim review process involves a formalized administrative procedure. Most DRB, mediation, arbitration, and other forms of non-litigation dispute resolution procedures are typically considered "private and confidential." The goal of both processes is to resolve claims at the lowest possible level. The time durations within the guidelines are intended to be maximum timeframes with any request for an extension to the duration, whether by the contractor. The DOTs are obligated to allow access to case outcomes under their ADR procedure(s) – assuming they have an ADR procedure. Construction Field Services (CFS) and Region Construction Engineers will monitor all claims. The procedures for reporting of claims are as follows (MDOT, 2012 and 2019):

- A copy of all notices of intent to file claims (local agency) must be provided to TSC Managers and Region Construction Engineers as noted in the procedures.
- The Federal Highway Administration (FHWA) Area Engineer must be notified on all Projects of Division Interest (PODI) when a claim meeting is scheduled, or an issue is scheduled to be presented to a Dispute Review Board (DRB). A copy of the DRB claim package will be provided to the FHWA Area Engineer. FHWA participation in claim payment is not guaranteed. FHWA must be notified of the claim before settlement and have the opportunity to review claim documentation before settlement.
- All claim decision letters from the Region Office Review hearings are copied to both the Region Construction Engineer and the CFS Construction Contracts Engineer.

Only the US Court of Federal Claims can render a binding decision against the federal government by statute for construction claims involving the federal government. Since it is a crucial procedure,

arbitration is precluded by the law. Thus, any non-binding procedures, such as mediation, dispute review board, etc.

Because of the federal involvement with funding, most of the state DOT projects and the federal rules and regulations that come with the money, the states have adopted a claims/disputes procedure that's somewhat similar to the Contract Disputes Act of 1978, 41 USC 7101 et seq., ("CDA") and the applicable code of Federal Acquisition Regulations (FAR 52.233-1). Claims made by contractors working directly for the federal government on federally funded projects are regulated by the CDA and FARs. The DOTs have adopted similar, but, when comparing MDOT to the CDA and FAR 52.233-1 for example, MDOT's process is different from the federal procedure.

6. Conclusions

The overall objective of this research project is to provide a comprehensive investigation of Dispute Resolution methods in different states, including processes that DOTs use for the resolution of construction disputes. The study also investigates the other processes' rules and analyzes the contract provisions in binding dispute process decisions. The result of this research facilitates a deeper understanding of:

1) The various current state laws on Dispute Resolution and identify the best practices among them as well as any existing conflicts between such laws.
2) The current utilization of various dispute resolution methods and whether there is a correlation to different resolution outcomes.
3) The utilization of arbitration vs. litigation and the factors that may influence arbitration rulings (mainly contract terms, following precedence, and evidentiary standards).

On the other hand, arbitration became a popular method to resolve transportation agencies' construction disputes. Arbitration has many advantages over litigation. Arbitration is also ideal for resolving construction disputes. One is its ability to be customized by the agency putting out the contract. The benefits outweigh the disadvantages and, with some customization, address the public entities' concerns.

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