Design-Build 101
Part 2 of 2

Alternative Delivery Division

Rev. 01
Release Date: 04/30/2024

Design-Build 101 Part 2 of 2

This is a self-directed overview of Design-Build contracting based on Version 6.0 of the Programmatic Documents.

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References

Contract Reference Documents

Design-Build Agreement (DBA)

Includes DB specific and traditional contract language. Allows flexibility for district specific language.

Design-Build General Conditions (DB GC)

Items 1-9 of the DB Specifications are the Design–Build General Conditions and provide the static terms and conditions for Design–Build contracts.

Design-Build Specifications Items 10-28 (DBS)

Includes DB specific and traditional contract language. Allows flexibility for district specific language.

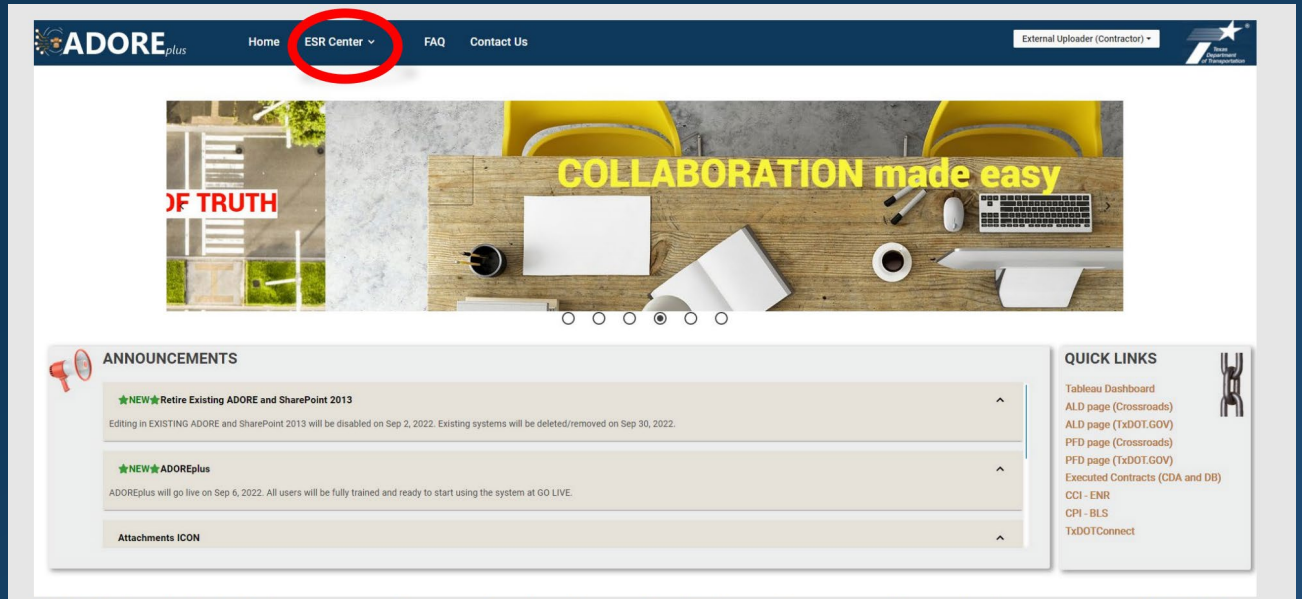
Capital Maintenance Agreement General Conditions (CMA GC)

Items 1-8 of the CAM Specifications are the CMA General Conditions and provide the static terms and conditions for Design–Build contracts.

Includes provisions for maintenance during construction & options for maintenance after substantial completion. The CMA Specifications are included in item 9

These and other resources can be found at:
https://ftp.txdot.gov/pub/txdot/atd/programmatic-docs/

ADOREplus is the official document repository for the Alternate Delivery Program



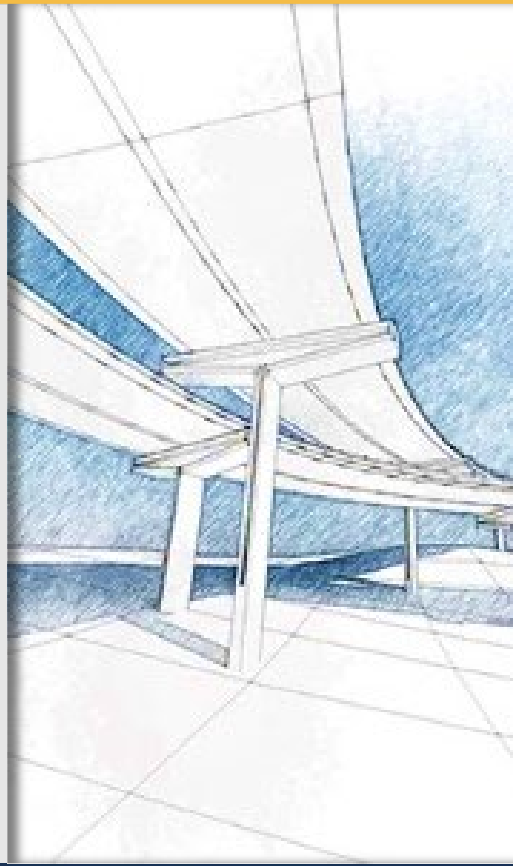
ADOREplus is TxDOT's system of record for the Alternative Delivery Program. From the homepage of ADOREplus, all DB Contractor/Developers will have access to the ESR Center - External Submission and Receipt Center

Design Management

Quality Management System (QMS)

Outlined in the Quality Management Plans (PSQMP & CQMP) QMS processes are used to manage

- Control of documents
- Control of records
- Quality training
- Process auditing
- Control of nonconformance
- Corrective and preventative action
- Opportunities for improvement

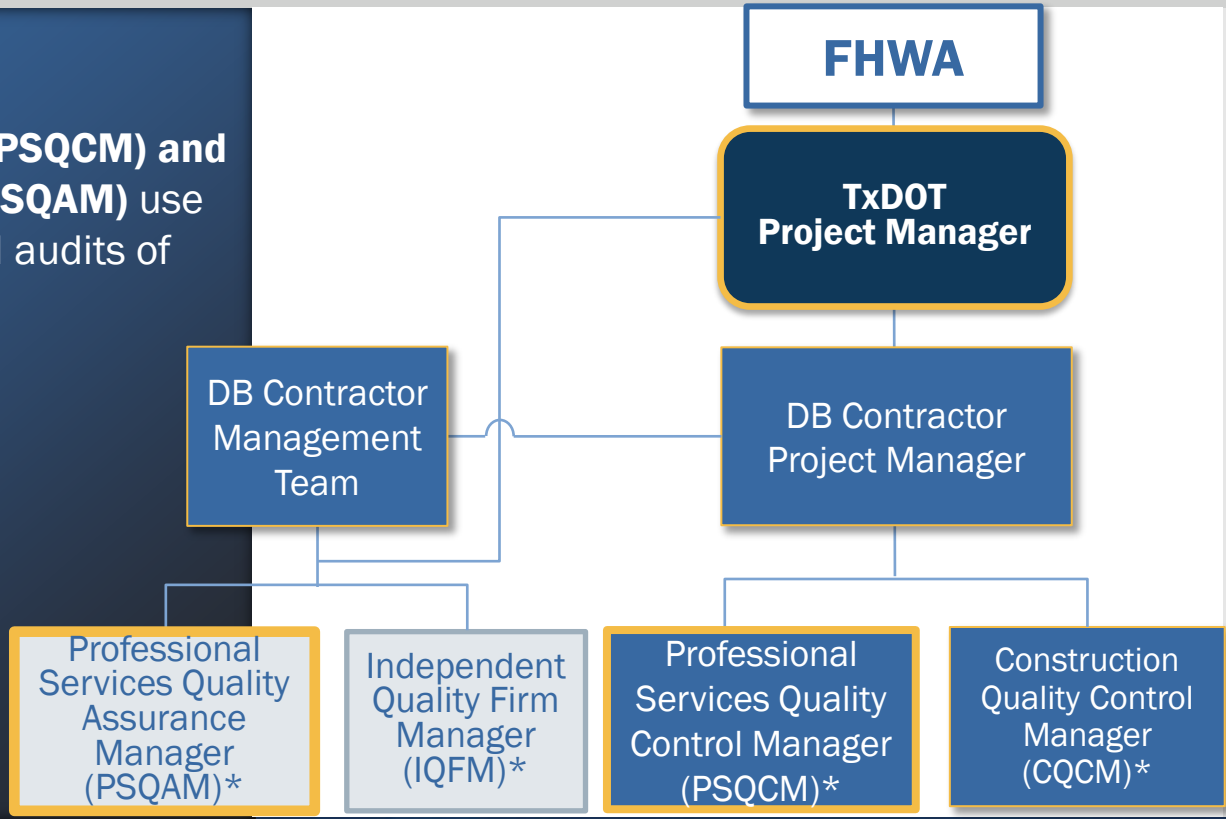


Professional Services Quality Management

CONTRACT REFERENCE
DB GC, Attach 4-1, **Item 4**

CONTRACT REFERENCE
DB GC, Attach 4-2, **Item 4**

- The **PS Quality Control Manager (PSQCM) and PS Quality Assurance Manager (PSQAM)** use the QMS to implement reviews and audits of
  - Quality Control
  - Quality Assurance
  - Completeness
  - Consistency
  - Compliance with QMP
- PSQCM and PSQAM certify Design Packages and other submittals



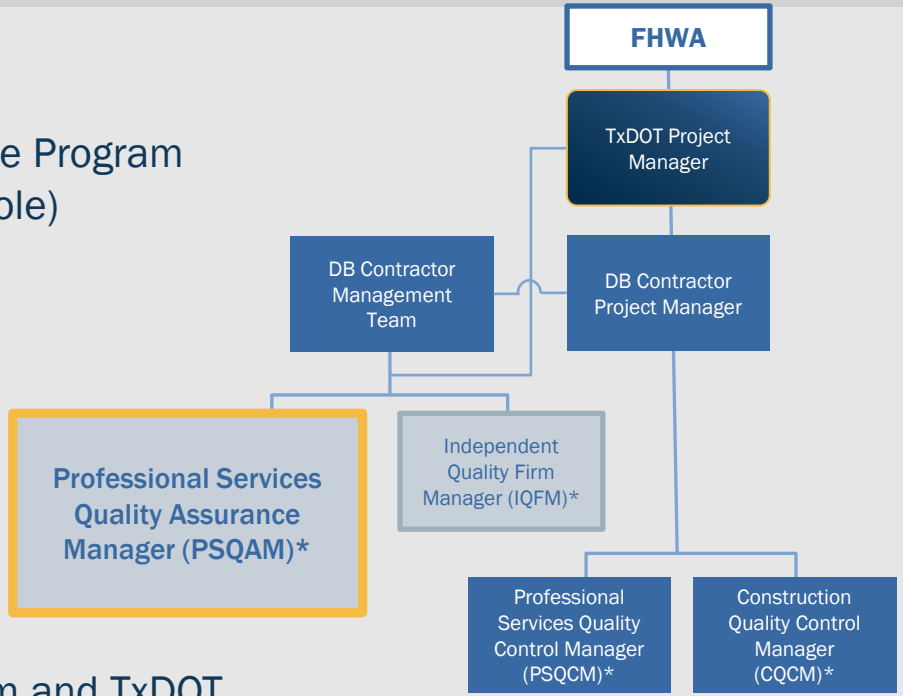
CONTRACT REFERENCE
DB GC, Attach 4-1, **Item 4**

CONTRACT REFERENCE
DB GC, Attach 4-2, **Item 4**

Professional Services Independent Quality Assurance

PSQAM Role and Responsibility

- Management of the Independent Quality Assurance Program (see DB QAP for expanded description of PSQAM role)
- Organizes and tracks submittals and performs quality assurance reviews (not a TxDOT function – TxDOT is oversight of the process)
- Certifies that
  - DB Contractor's submittal complies with the PSQMP
  - Submittal has been certified by the PSQCM
  - All responses to all comments have been addressed and incorporated into the Submittal
- Reports jointly to DB Contractor Management Team and TxDOT
- Performs independent quality audits



* DB GC Item 4 Attachments 4-1 & 4-2 give authority to stop Work

TxDOT's Review Role

- Check for compliance with DBA
- Comments do not reflect TxDOT or personal preferences

- Does not direct solutions
- Does not shift risk to TxDOT
- Compliance Review
- Not a QC or QA review

- TxDOT may reject incomplete or inaccurate submittals

TxDOT Review Levels

Four Categories of Review

Partial DB GC Table 4-3: QMP Submittals to TxDOT

Submittal	Timing	Review	Reference
Design Exceptions and design standards deviations	Prior to Final Design Submittal	Approval	4.1.2.2.4, Attachment 4-1
Design Manager's certification	With RFC Documents	Concurrence	Attachment 4-1
Final Design Submittal	As agreed upon with TxDOT	Review and comment	Attachment 4-1
RFC Documents	As agreed upon with TxDOT	Concurrence	Attachment 4-1
Requests for Information and copies of Engineer of Record's determination of NDC	As necessary, Access to TxDOT prior to implementation	For Information	Attachment 4-1
Early Start of Construction procedures	Prior to Work	Approval	Attachment 4-1
List of proposed ESOC Submittal packages	Prior to submittal of the Design Submittal Packaging Plan	Approval	Attachment 4-1
ESOC Submittal packages	No later than 180 days after NTP2	Review and Comment	Attachment 4-1
Record Documents	Prior to Final Acceptance	For Information	Attachment 4-1

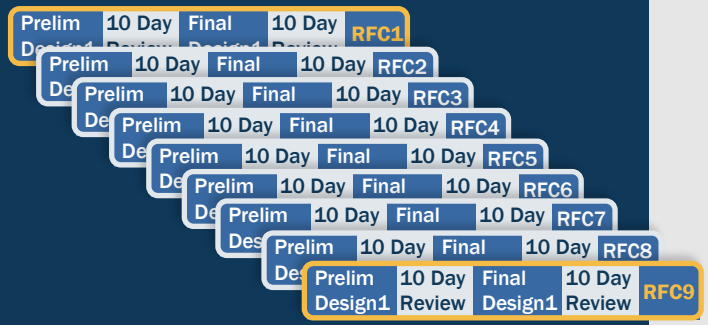
DBB vs DB Design Process

Design-Bid-Build Plan Development – Full Plan Set

Final Plans

30% Design — *30 Day Review* — 60% Design — *30 Day Review* — 90% Design — *30 Day Review*

Design-Build Plan Development – Multiple Plan Packages designed to form one plan set when completed



- Design/construction overlap = multiple design submittals (Plan Packages)
- TxDOT may limit the number of Packages under review at the same time
- Typically, packages require 3 submittals & 2 reviews but can have 4 submittals and 3 reviews
- Review times are shorter than Design-Bid-Build (DBB)
  - Review times are 10 business days unless otherwise specified

Professional Services Quality Management

- In addition to design packages there are numerous design and construction submittals with differing
  - levels of DB Contractor QC/QA reviews and certifications
  - levels and timing of TxDOT review
- A full list of submittals and corresponding certifications and review times are found in the QMP
- “Days” in the Programmatic Documents and Project documents are Calendar Days unless specified otherwise

Design Submittal & Review

Coordination and communication between the DB Contractor and the agency is essential for project success

Team Coordination & Communication Addresses Challenges

- Coordination of multiple packages with the team
- Comments may impact multiple submittals
- ATCs and optimizations could impact related design elements
- Follow through may be needed with IAJR, Environmental Committments
- Documenting and conveying proposed changes to design or schedule
- Short & overlapping review times
- Timely comments & resolution of comments
- Non-compliant and incomplete submittals create project delay
- Packages developed to advance construction before design completion
- Decisions and plan concurrence are final

Over the Shoulder Design Reviews

Partnering to Advance the Project

- Help reviewers understand the issues more quickly
- Provides the opportunity for quick informal comment with dialogue and context, and presentation of progress prior to submitting for formal TxDOT review
- Speeds up the formal review and comment process
- Keeps the Project moving forward
- Works best when TxDOT and DB Contractor are co-located

Comment Resolution Meeting (CRM)

- Typical DB Contractor's responses to review comments are:
  - **Agree** – Need not be discussed in Comment Resolution Meeting (CRM)
  - **Disagree (or Rejected)** – Should be discussed in CRM
  - **Need Further Clarification** – Should be discussed in CRM
  - **Deferred (to next design submittal)** – Should be discussed in CRM

- Hold Comment Resolution Meetings (CRM) and attend fully prepared
- Discuss sensitive comments with TxDOT in advance of CRM

Quality Assurance in Construction

Quality Assurance Reference Documents

FHWA	TxDOT
23 CFR 637 Part B Quality Assurance Procedures for Construction	Guide Schedule for Sampling and Testing
FHWA Technical Advisory T 6120.3 "Use of Contractor Test Results in the Acceptance Decision, Recommended Quality Measures, and the Identification of Contractor/Department Risks"	Quality Assurance Program for CDA / Design Build Projects (DB QAP)
FHWA Publication No. FHWA-HRT-12-039 "Construction Quality Assurance for Design Build Highway Projects"	Programmatic Documents including DB GC Item 4, Attachments 4-1 and 4-2, and DBS Attachment 27-2

U.S. Department of Transportation
Federal Highway Administration

Texas Department of Transportation

Quality Organization – Roles/Responsibilities

FHWA

- Federal Sampling and Testing Requirements
- Federal Oversight & Quarterly Audits
- Approval of TxDOT Quality Assurance Program (QAP)

TxDOT

- Develop Quality Assurance Program (QAP) Requirements
- Owner Verification Testing and Inspection Plan and execution (OVTI)
- Independent Assurance (IA)
- State Oversight & Auditing

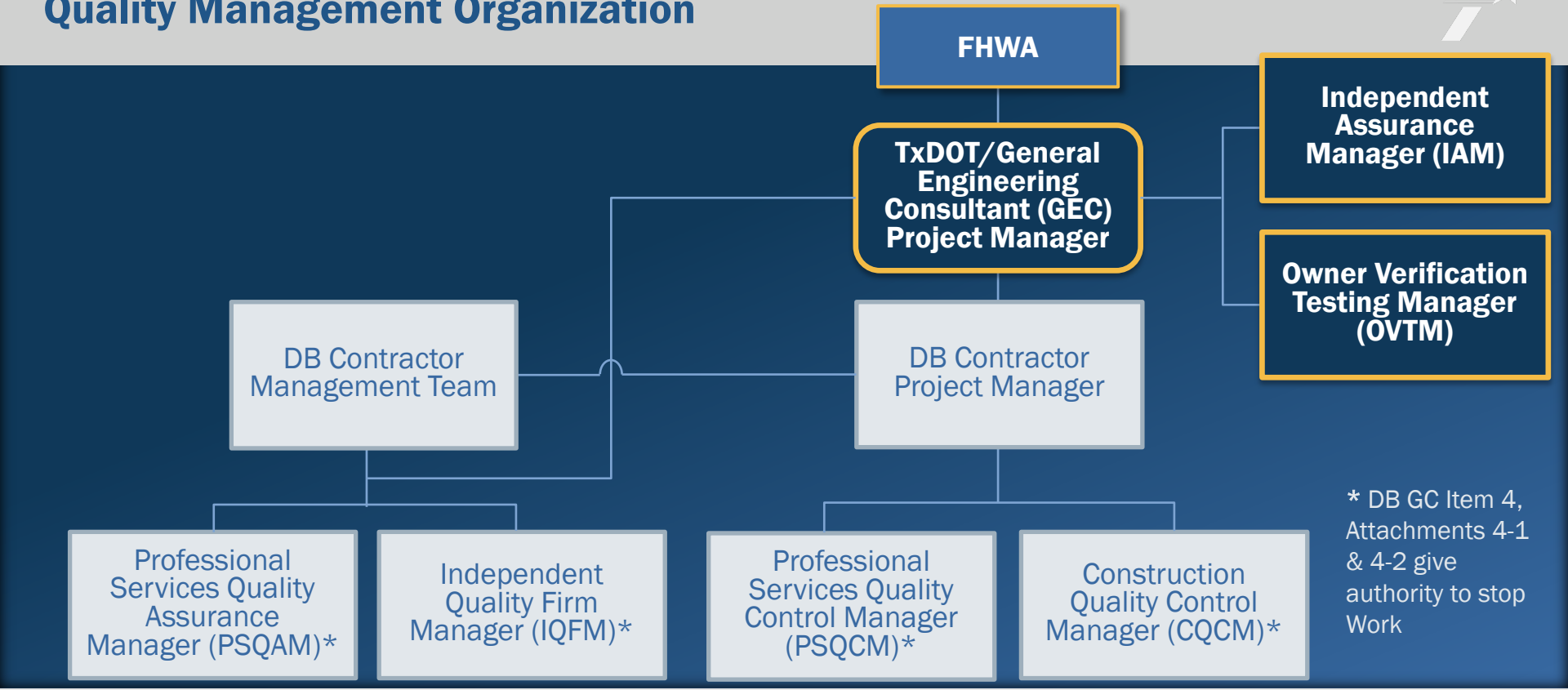
DB Contractor

- Quality Management Plan
- Construction Quality Control
  - Processes and testing to assure work is per contract and CQMP
- Construction Quality Assurance
  - IQF Independent inspection, testing and monitoring CQMP compliance

U.S. Department of Transportation Federal Highway Administration

Texas Department of Transportation

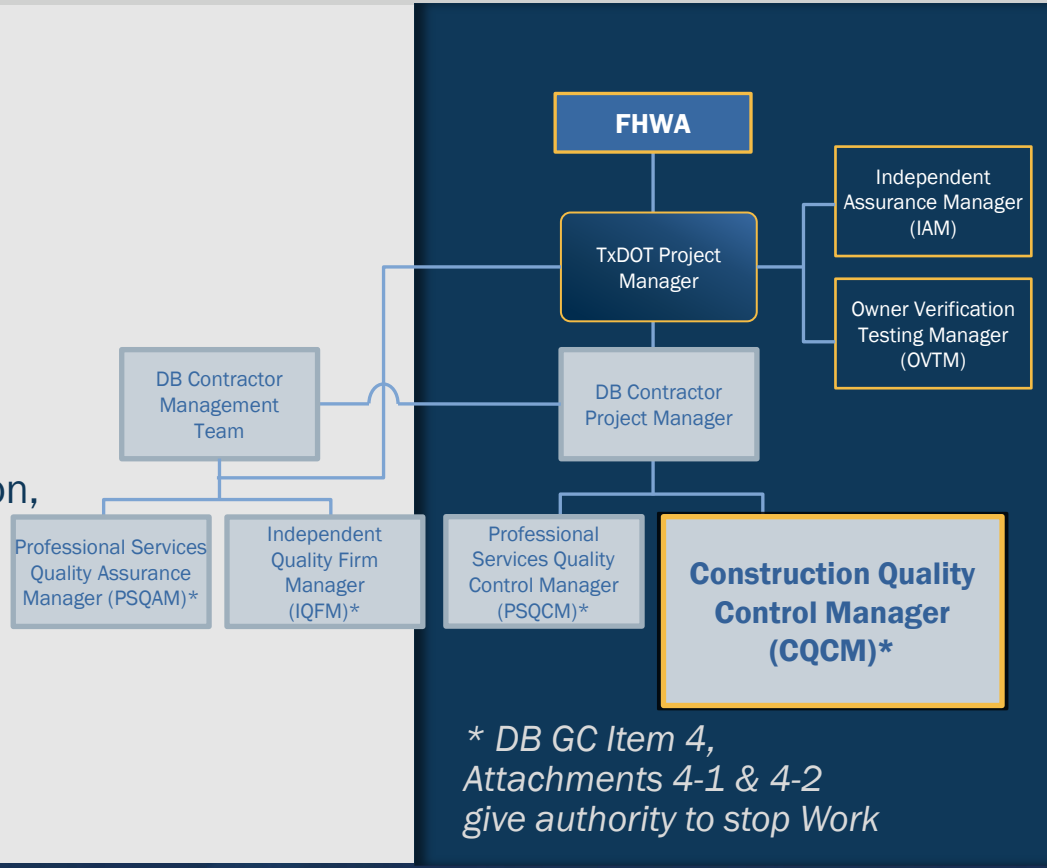
Quality Management Organization



Legend: TxDOT/GEC Oversight | FHWA | DB Contactor

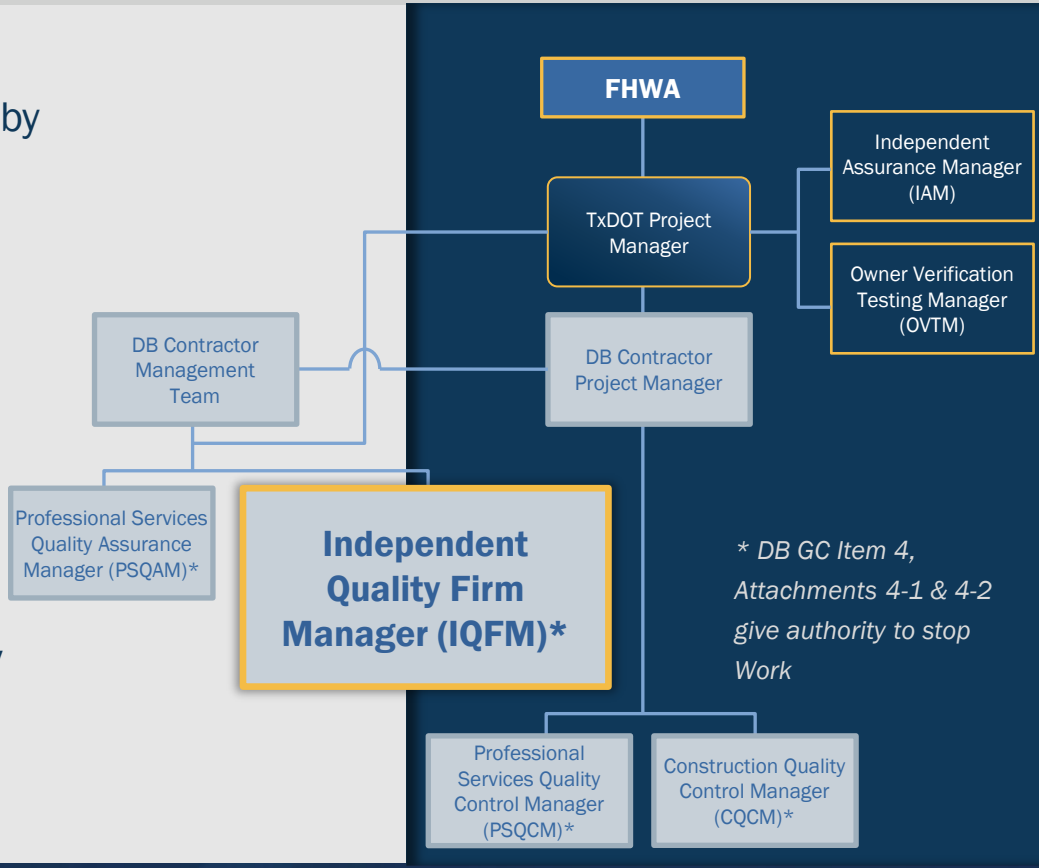
Construction Quality Control Manager

- **CQCM Role and Responsibility**
  - Ensure CQMP methods and procedures are followed and documented in the performance of Work
  - Manage the QC inspection and material sampling/testing staff
  - Provide quality training
  - Ensure the receiving, handling, inspection, documentation and storage of materials compliant with the CQMP
  - Provide nonconformance reporting including corrective measures and development of preventive action



Independent Quality Firm Manager (IQFM)

- **IQFM Role and Responsibility**
  - Oversee the implementation of the CQMP by the DB Contractor
  - Manage the Independent Quality Program
  - Manage the IQF inspection and material sampling/testing staff
  - Prepare a monthly report documenting inspections and testing performed and results
  - Perform audits as described in the CQMP
  - Certify that the record drawings accurately depict the work
  - Report jointly to the DB Contractor Management Team and TxDOT



Quality Assurance Program

Reference:
Quality Assurance Program for Comprehensive Development Agreement (CDA)/Design-Build Projects (DB QAP)

Section 2 – Quality Control Program
Describes the requirements for the DB Contractor's Construction Quality Management Plan (CQMP)

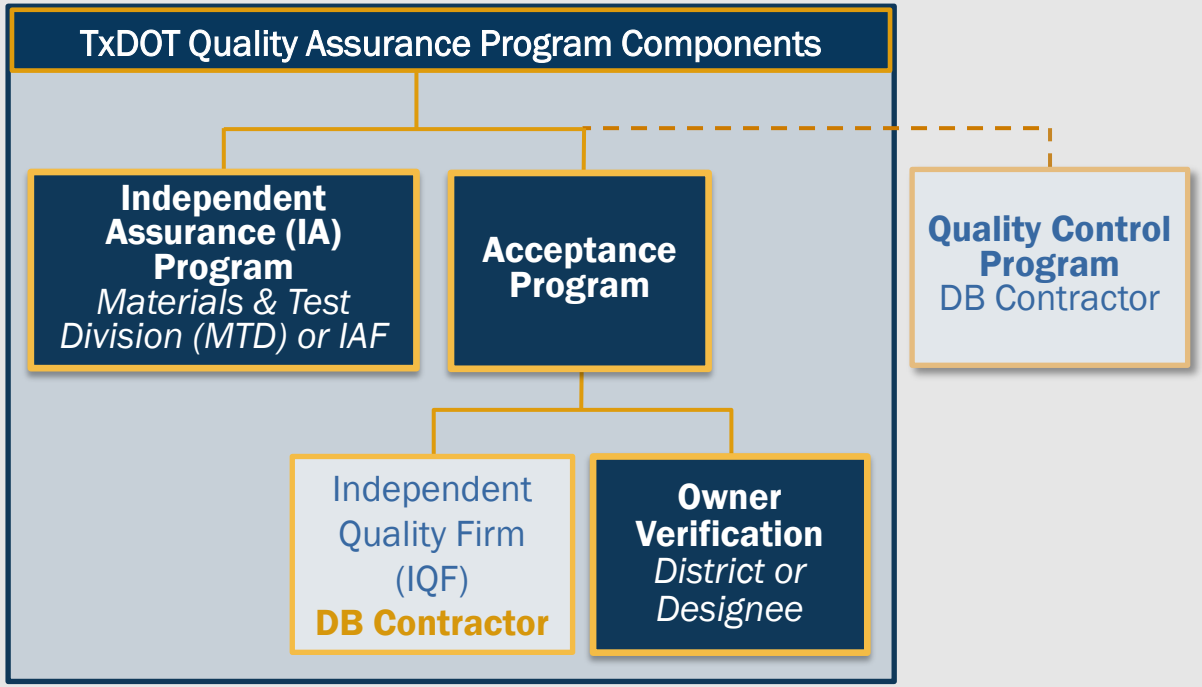
Section 3 – Acceptance Program
Describes the requirements for the IQF section of the DB Contractor's CQMP and for Owner Verification

Section 4 – Independent Assurance Program
Describes the requirements for the Independent Assurance Quality Plan including Personnel and Laboratory Qualifications

Also see:

CONTRACT REFERENCE
DBA GC
Attachment 4-2

TxDOT DB QAP Components and Relationship



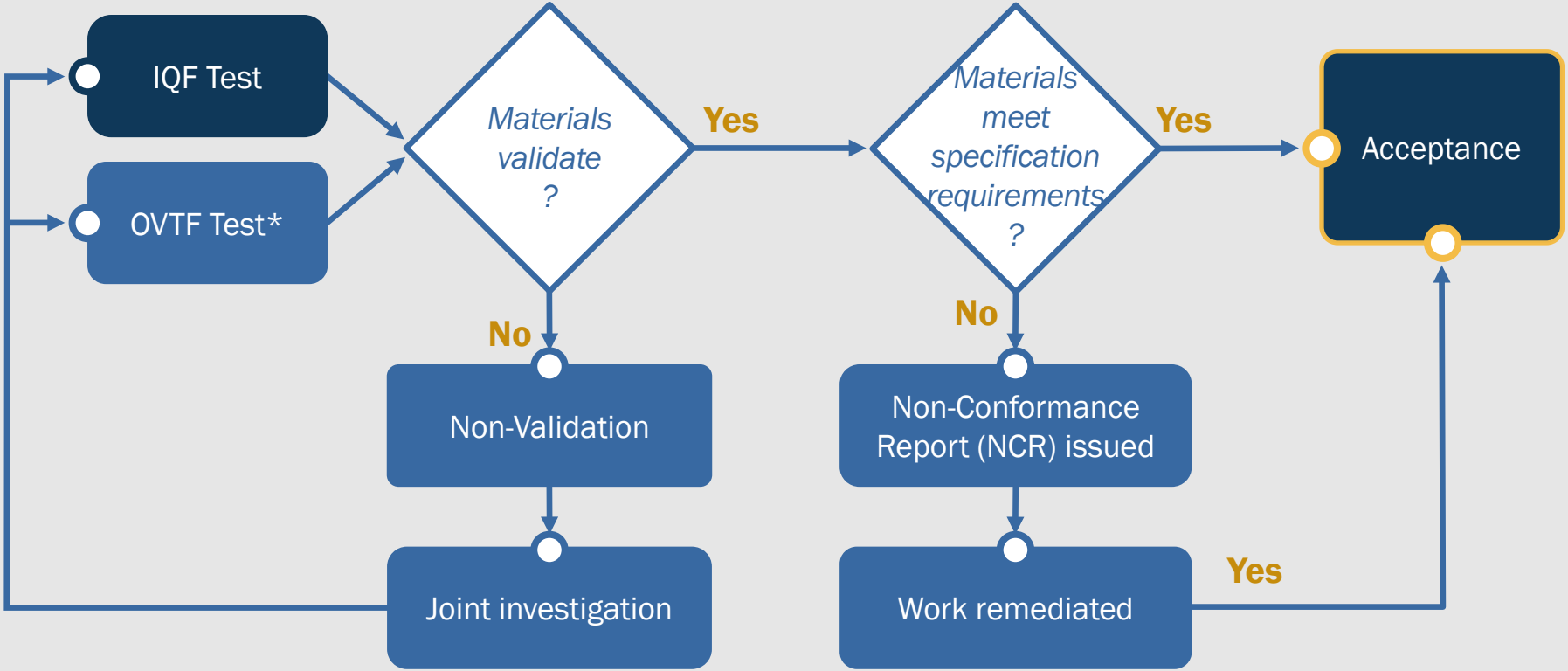
Legend: TxDOT/GEC Oversight | DB Contractor

- **3 Component Programs**
  - Quality Control (DB Contractor)
  - Acceptance (TxDOT)
  - Independent Assurance (TxDOT)
- **Acceptance**

  Independent Quality Program
  +
  Owner Verification

  (Owner Verification Firm (OVF) or TxDOT writes and implements an Owner Verification Testing and Inspection Plan (OVTIP) that meets the requirements of the TXDOT QAP for Design-Build)

Material Acceptance Flowchart



* Levels of Owner Verification are found in the QAP and determine the rate of IQF vs OVTF testing

Non-conforming Work and Construction Deficiencies

- **Non-conforming Work and Construction Deficiencies**
  - Shall be documented by the DB Contractor per the QMP and QMS in a Nonconformance Report (NCR)
  - Included in the NCR are options for the work
    - Accepted as is
    - Repaired
    - Reworked
    - Replaced

Acceptance Program Reporting

- **On-going**
  - Inspection reports/forms
  - Materials Test Results (IQF)
  - Owner Verification reporting (OVTI)
  - Nonconformance and Construction Deficiency Reports

- **Periodic**
  - Monthly Material Certification
  - FHWA Quarterly Report
    - Statistical Analysis Results
    - Non-Validation Investigations
    - Nonconformance Log
    - Engineering Judgment Log
    - Construction Certifications
  - Audit reports
  - IA Lab Annual Report
- **Final**
  - Final Statistical Analysis Report
  - Final Material Certification

Compliance Audits

DB Contractor uses QMS processes to audit

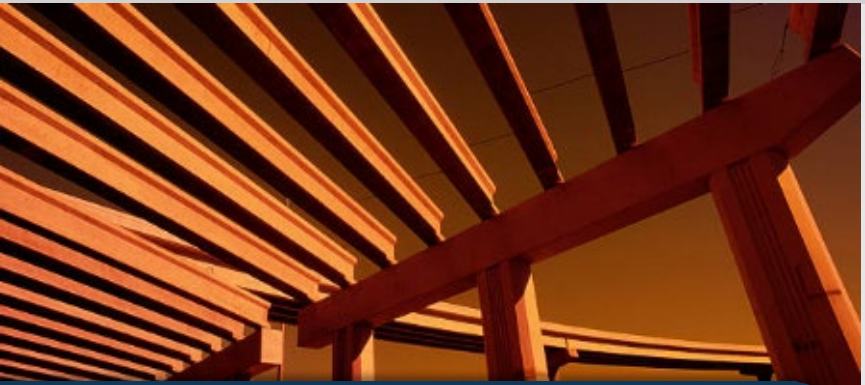
- Compliance with QMP
- Sample audited/reviewed activities
  - Construction safety
  - Construction QC
  - Documentation
  - Sampling and testing
  - Inspection Reports
  - Nonconformance resolution

TxDOT Internal Audits

- Compliance with Owner Verification Testing and Inspection Plan (OVTIP)
- Sample audited/reviewed activities
  - OV sampling/testing procedures
  - OV testing frequency
  - Timeliness of OV activities
  - Sufficiency of non-validation investigations

Draw Requests and Schedule Updates

Monthly Progress Submittals



Progress Submittals precede and support the monthly Draw Request

- Work progress in the last month
- % complete on deliverables
- DB Contractor & TxDOT may meet and discuss & resolve comments before Draw Request

DB GC Table 8-1: Submittals to TxDOT

Submittal	Timing	Review
Schedule of Values	Submitted with Project Baseline Schedule PBS2 and updated whenever a Change Order is agreed	Approval
Project Baseline Schedule (PBS2)	Prior to issuance of NTP2	Approval
Project Baseline Schedule (PBS2)	Prior to Commencement of Construction	Approval
Progress Submittal	**On the first day of each month after NTP1 and as part of the Draw Request**	**Approval**
Project Schedule Updates	Monthly after initial pBS2 and PBS3 submittals	Acceptance
Project Schedule Revisions	As necessary	Approval
Change Order Revisions	As necessary	Approval
Time Impact Analysis	As necessary; within 15 days of reveiving the request from TxDOT	Approval
As-Built Schedule	Prior to Final Acceptance	Approval

Progress Submittal and Draw Request Timeline

Legend:

- DB Contractor preparation time
- TxDOT Review Time
- TxDOT Payment
- Data Date
- Approval
- Submittal
- Payment

Progress Submittal

24 25 26 27 28 29 30 **1** 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted by the 1st of every month following NTP1

Prep Time | *TxDOT Review Time 10 business days* | TxDOT Schedule Approval

Draw Request

24 25 26 27 28 29 30 **1** 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted on or about the 5th day of the month

Prep Time | *TxDOT Review Time 10 business days* | *5 business days*

Project Schedule Update

24 25 26 27 28 29 30 **1** 2 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Submitted within 5 days of a Draw Request

Prep Time | *TxDOT Review Time 10 days* | *Resolve TxDOT Comments*

Progress Payment

Work Completed + **Materials on Hand**

– Deductions

- TxDOT or Third-Party loss due to DB Contractor
- Liquidated Damages (LD)s
  - Delay
  - Key Personnel unavailability or change
  - Lane Rental
  - Other Qualifying Delay Late Fees
- Nonconforming work deductions
- Withholding for failure to pay subs, vendors, others
- Fines or reimbursements
  - QMP or documents deficiency
  - Failure to maintain schedule
  - Comments not addressed
- Other - per DB GC 9.4.1

= **PROGRESS PAYMENT**

Draw Request

Draw Requests Include:

- Progress schedule
- Draw request data sheet showing the to-date percentage completion of Payment Activities in a format approved by TxDOT
- Certification by DB Contractor and PSQAF and/or IQF as appropriate
  - All work checked or inspected per QMP
  - All work is performed and conforms to contract
  - % work complete is accurate
  - Any unit price payments are accurate

Draw Request Data Sheet

	Progress Activity	Approved Price	Current Period Earned Value	Period % Complete	To-Date Earned Value	To-Date % Complete
1.1.1	Mobilization	$ 8,800,800	$ -	0%	$ 8,800,800	100%
1.1.2	Submittals and Permitting	$ 324,430	$ 714	0.22%	$ 324,430	100%
1.1.3	Insurance Premiums	$ 9,000,000	$ -	0.00%	$ 5,302,946	59%
1.1	**Subtotal Admin**	**$ 18,125,230**	**$ 714**	**0.00%**	**$ 14,428,176**	**80%**
1.2.1	Acquisition	$ 43,549,138	$ 59,590	0%	$ 43,541,470	100%
1.2	**Subtotal RW Acquisition**	**$ 43,549,138**	**$ 59,590**	**0.14%**	**$ 43,541,470**	**100%**
1.3.1	Utility Coordination	$ 11,274,830	$ 25,289	0%	$ 11,057,648	98%
1.3.2	Utility Relocation	$ 250,083,125	$ 199,183,934	79.65%	$ 249,560,123	100%
1.3	**Subtotal Utility Adjustments**	**$ 261,357,955**	**$ 199,209,223**	**76.22%**	**$ 260,617,771**	**100%**
1.4.1	Gen Act and Field Work	$ 29,525,101	$ 375,000	1%	$ 24,512,343	83%
1.4.2	Roadway Design	$ 10,445,805	$ 625,897	5.99%	$ 8,569,239	82%
1.4.3	Drainage Design	$ 6,773,562	$ 2,369,807	34.99%	$ 6,258,975	92%
1.4.4	Bridge Design	$ 37,872,640	$ 3,852,692	10%	$ 9,516,324	25%
1.4.5	Retaining Wall Design	$ 7,512,599	$ 2,358,479	31.39%	$ 4,596,241	61%
1.4.6	Traffic Management	$ 1,464,768	$ 259,420	17.71%	$ 378,925	26%
1.4	**Subtotal Design**	**$ 93,594,475**	**$ 9,841,295**	**10.51%**	**$ 53,832,047**	**58%**
1.5.1	Traffic Control	$ 9,852,060	$ -	0%	$ 2,914,237	30%
1.5.2	Environmental Mitigation	$ 3,873,235	$ 206,514	5.33%	$ 2,893,846	75%
1.5.3	Earthwork	$ 100,914,435	$ 7,802,312	7.73%	$ 45,740,954	45%
1.5	**Subtotal Construction**	**$ 114,639,730**	**$ 8,008,826**	**6.99%**	**$ 51,549,037**	**45%**
	Original Contract Earned	**$ 531,266,528**	**$ 217,119,648**	**40.87%**	**$ 423,968,501**	**80%**
1.6	**Change Orders**	**$ 1,896,917**	**$ 790,156**	**41.65%**	**$ 1,546,231**	**82%**
	Total Price	**$ 533,163,445**	**$ 217,909,804**	**40.87%**	**$ 425,514,732**	**80%**

Draw Request Submittal

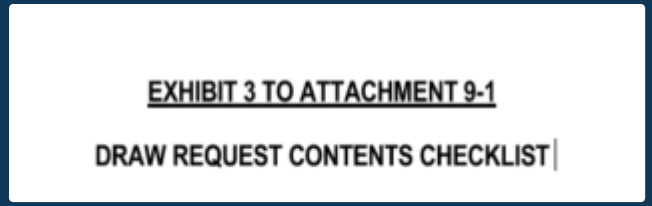


EXHIBIT 3 TO ATTACHMENT 9-1

DRAW REQUEST CONTENTS CHECKLIST

- DB GC 9.3.1 and Attachment 9-1 Exhibits 1-3 provide a complete list of Draw Request requirements which includes updated cash flow curves
- Remember Progress Payments cannot exceed the Maximum Payment Schedule

DB GC Attachment 9-1 Exhibits

Exhibit 1 – Form of Draw Request and Certificate

Appendix 1 to Exhibit 1 – Materials on Hand Summary

Appendix 2 to Exhibit 1 – Deductions Summary

Exhibit 2 – Draw Request Certifications

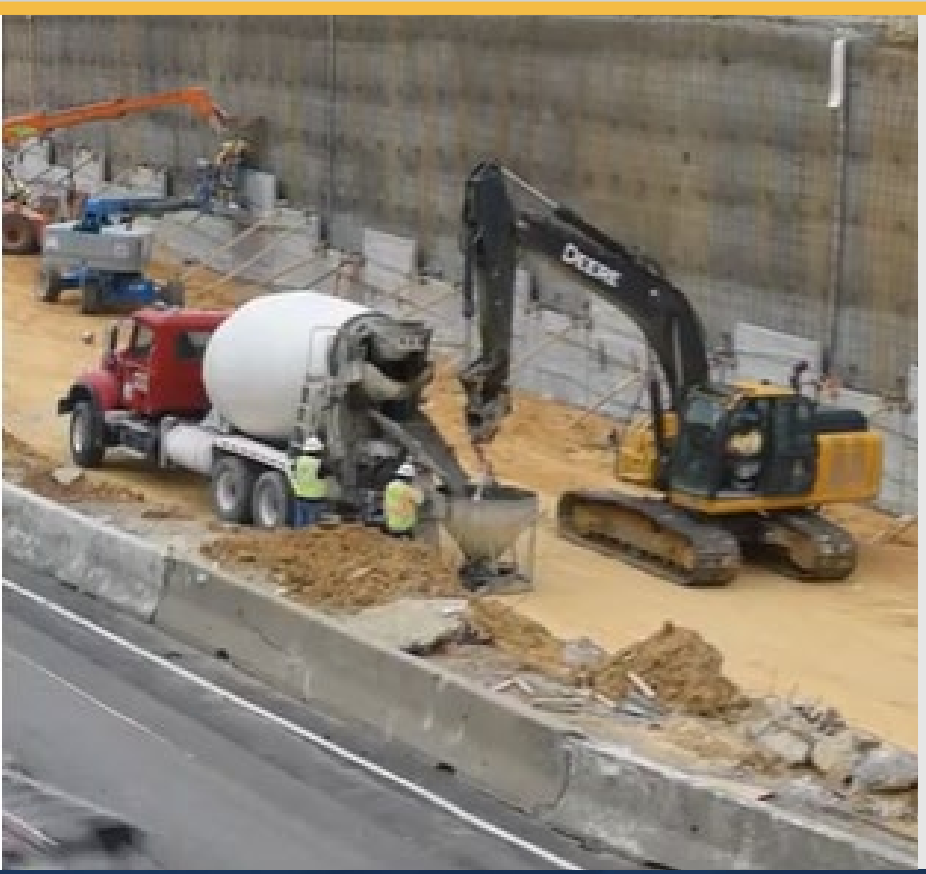
Exhibit 3 – Draw Request Contents Checklist

Project Schedule Update

- Includes updated schedule in Primavera.xer and a narrative report

- **Narrative Report**
  - Critical Path changes
  - Work scheduled vs work completed
  - Table of completion dates & milestones
  - Planned Project resources vs actual Project resources
  - Potential Project schedule issues and DB Contractors plan to mitigate, avoid, or resolve
  - One month look-ahead
  - Maintenance changes

Project Schedule Revisions



- Maintenance changes made in the Project Schedule Update
  - Logic changes to out-of-sequence work
  - Split activities for payment purposes
  - Minor adjustments to WBS or activities with more than 60 days float
- Changes requiring a Revision Schedule Approved by TxDOT
  - Activity durations
  - Calendar assignments
  - Relationships

Project Schedule Revisions

- Two types of Revisions
  - Change order revisions
  - Recovery schedule revisions
- Revision report
  - Requires narrative of the scope of changes and the impact
  - Comparison plots and comparison analysis before and after change(s)

Recovery Schedule

Delay > **30** days
Or,
5% of the days remaining

And,
the delay to the completion date has not been remedied to the satisfaction of TxDOT through a Project Schedule Revision for 3 consecutive months

Or,
DB Contractor fails to address comments on a Project Schedule Revision regarding delay for 3 consecutive months

- **Recovery Schedule is required**
  - Narrative describing the recovery plan to achieve Completion Deadlines
    - Reason
    - Proposed changes
    - Impact to Completion Dates
  - Comparison plots and analysis before and after change

Change Management

Change Management Terms

Change Order

A change made to the DBA in the scope, schedule or price of work

Deviation

An exception from DB Specifications

Ex: Material specification

Allowance

A budget limit or cap established by TxDOT to limit expenditures and to offset potential risks

Ex: Aesthetics budget

Amendment

A modification to or correction of any term of a contract by the consent of both parties

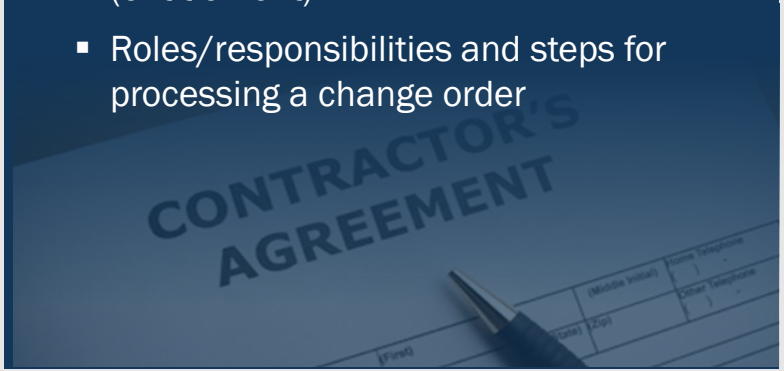
Change Orders

Change order – The term “Change Order” means a written amendment to the terms and conditions of the Contract Documents issued in accordance with **GC Section 4.6**

CONTRACT REFERENCE
DBA GC
Section 4.6

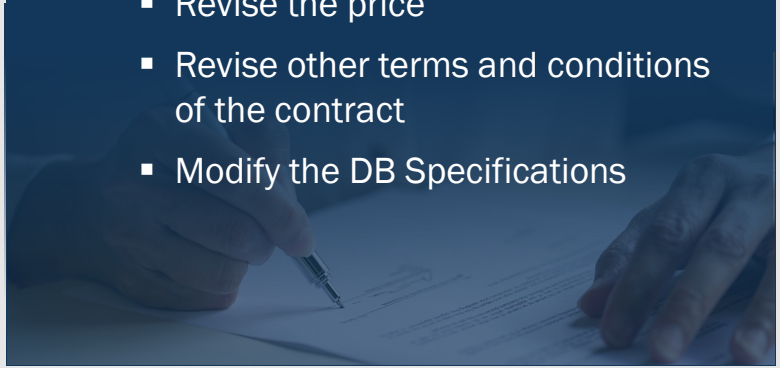
Design-Build Contract Documents Define

- What constitutes a change
- What is/is not eligible for a change order (entitlement)
- Roles/responsibilities and steps for processing a change order



General Reasons for DB Contract CO

- Modify the scope of work
- Revise a completion deadline
- Revise the price
- Revise other terms and conditions of the contract
- Modify the DB Specifications



Change Order Preferences

Change Orders to Consider

- Value-added concepts
- Deleting work that is no longer required
- Extending deadlines due to TxDOT delays
- Innovation to reduce cost, time, or impacts
- Required to maintain the project goals

Change Orders to Avoid

- Impacting other projects
- Precedence setting/third party initiated
- Unnecessary change to risk allocation
- Reduction in quality
- Changes that conflict with existing TxDOT agreements or financing covenants

Key to change management in design-build – speed of decision-making

Change Order – Examples

Key Terms Used in Change Order Process	Use	Example/Reason
Directive Letter	Issued by TxDOT for any matter for which a change order could be issued or in the event of claim or dispute related to work required by the DBA documents. DB Contractor required to proceed with work as directed.	Removal of Culvert
Request for Change Proposal	A written notice issued by TxDOT to the DB Contractor advising that TxDOT may issue a TxDOT-directed change. Also initiates a process to develop and negotiate the change order.	New Interchange Configuration
Unilateral Change Order	Issued by TxDOT at any time, regardless of whether a request for change proposal has been transmitted. If appropriate, DB Contractor is entitled to compensation for additional work and can request extension of the completion deadlines.	Unsuitable Materials
Potential Change Order Notice	A written notice delivered by the DB Contractor stating that an event or situation has occurred that could result in a change order.	Delay in ROW Access provided by TxDOT
Request for Change Order	A written notice issued by the DB Contractor advising TxDOT that they request a change order.	3rd Party Delays
Partnering	Voluntarily initiated formal partnering discussions if a potential change order or dispute is anticipated.	Unidentified Utility

Risk Sharing

CONTRACT REFERENCE
DB GC, **Section 4.5 & 4.6**

CONTRACT REFERENCE
DBA GC, **Section 6.9**

Contractual Risk Sharing

- The DB GC sections above and project specific clauses in the DBA reflect Project risk assignments
  - Delay and Project overhead costs of certain events are shared in a tiered relief system

- **Deductibles** – where the DB Contractor is entitled to no schedule relief or project overhead
- **Relief Days** – where delay days and/or costs are shared
- **Caps** – after a certain number of days DB Contractor is entitled to extension of the Contract Completion date for delay days on the critical path and entitled to project overhead

- The DB Contractor has responsibility and incentive to manage and mitigate risks

Six Qualifying Delays

Qualifying Delays

1. Uncooperative Utility Delay
2. Utility Owner Delay
3. Unidentified Utility Delay
4. Differing Site Condition Delay
5. Force Majeure Delay
6. Eminent Domain Delay

Qualifying Delay Late Fee

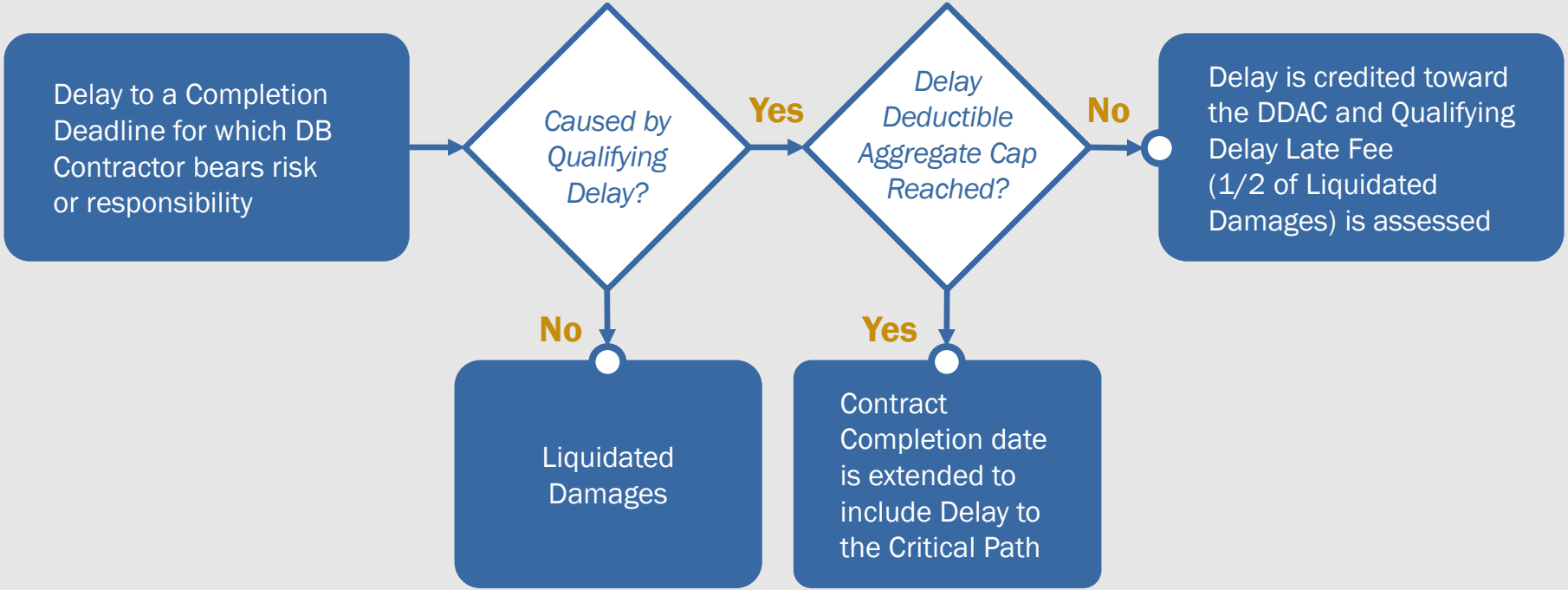
- For Qualifying Delays the DB Contractor pays a Qualifying Delay Late Fee (QDLF) instead of Liquidated Damages
- The QDLF = ½ the cost of Liquidated Damages

Delay Deductible Aggregate Cap

- Only Qualifying Delays are applied toward the Delay Deductible Aggregate Cap (DDAC) after which TxDOT bears all risk
  - Found in the DBA
  - Between 10-25% of the days from NTP1 to Substantial Completion
  - Once all Qualifying Delays combined reach the DDAC the DB Contractor gets schedule relief and Project overhead

Delay Deductible Aggregate Cap & Qualifying Delay Late Fee

The DB Contractor must request a Delay Deductible Determination from TxDOT in writing using the form in DBA Exhibit 14 to have any Qualifying Delay count toward the Delay Deductible Aggregate Cap



Potential Change Order (PCO) with Time Impact Analysis (TIA)

DB Contractor submits PCO/RCO

- The DB Contractor initiates the Delay Deductible Determination with a Potential Change Order (PCO) Notice which includes a Time Impact Analysis (TIA)
- May be followed up with a Request for Change Order (RCO) including the scope and cost of the change with TIA & other supporting documentation
- DB Contractor must submit a TIA within 15 days of a request from TxDOT

Step 1

Status Prior to Impact

Using the latest Project Schedule before the impact

Step 2

Prediction of Impact duration

- Float
- Milestones
- Completion

Step 3

Track and Mitigate

Incorporate into the Project Schedule

Step 4

Status After Impact

Within 30 days after completion of impact

CONTRACT REFERENCE
DB GC, **Section 4.6.9.3.1**

Example 1 of Risk Sharing

This example applies to the Qualifying Delay – **Force Majeure Event Delay**

DB Contractor Risk	Risk Sharing	TxDOT Risk
DB Contractor Deductible Days	Shared Relief	TxDOT Relief
First 30 cumulative days	Cumulative Days 31 - 90	Cumulative Days over 90
DB Contractor has no entitlement to time or money	DB Contractor will have ½ the approved days added to the schedule DB Contractor is entitled to Project Overhead for ½ the approved days	DB Contractor will have all the approved days added to the schedule DB Contractor is entitled to Project Overhead for all the approved days

CONTRACT REFERENCE
DB GC, **Section 4.5.5.1**

Example 2 of Risk Sharing

This example applies to the Qualifying Delay – **Uncooperative Utility Delay**

DB Contractor Risk	Risk Sharing	TxDOT Risk
DB Contractor Deductible Days	Shared Relief	TxDOT Relief

First 60 cumulative days	Cumulative Days 60 - 120	Cumulative Days 120 - 180	Cumulative Days over - 180
DB Contractor has no entitlement to a time extension or Project Overhead	DB Contractor is entitled to a time extension	DB Contractor will have ½ the days added to the schedule	DB Contractor will have all the days added to the schedule
	DB Contractor is not entitled to Project Overhead.	DB Contractor is entitled to Project Overhead for the days added to the schedule	DB Contractor is entitled to Project Overhead for all the days

Days will be included in Delay Deductible Aggregate Cap

Days will not be included in Delay Deductible Aggregate Cap

Summary of Six Qualifying Delays

	DB Contractor - 100% Risk	Risk Sharing		TxDOT -100% Risk
Qualifying Delay	**DB Contractor Deductible**	**Relief Days - Costs Shared**		**TxDOT bears all costs**
Uncooperative Utility Delay	Cumulative Days First 60	Cumulative Days 61 - 120	Cumulative Days 121 - 180	Cumulative Days over - 180
Utility Owner Delay	Cumulative Days First 60	Cumulative Days 61 - 120	Cumulative Days 121 - 180	Cumulative Days over - 180
Unidentified Utility Delay	Cumulative Days First 60	Cumulative Days 61 - 120		Cumulative Days over - 120
Differing Site Condition Delay	Cumulative Days First 15	Cumulative Days 16 - 30		Cumulative Days over - 30
Force Majeure Delay	Cumulative Days First 30	Cumulative Days 31 - 90		Cumulative Days over - 90
Eminent Domain Delay	Not Applicable	Cumulative Days 100		Cumulative Days over - 100

Tiered Relief for Non-Qualifying Delays

- Non-qualifying delays do not qualify for the Delay Deductible Aggregate Cap or the Qualifying Delay Late Fee
- The non-qualifying delays specified in the Programmatic Documents as having tiered relief are
  - Hazardous Material Delay
  - Supply Chain Disruption Delay
  - Karst Plan Delay

New Risk Sharing – Non-Qualifying Delays

	DB Contractor - 100% Risk	Risk Sharing	TxDOT -100% Risk
Qualifying Delay	**DB Contractor Deductible**	**Relief Days - Costs Shared**	**TxDOT bears all costs**
Hazardous Material Delay	Up to 30 Days*	Not Applicable	Delay over 30 Days*
Supply Chain Disruption Delay	Cumulative Days First 30	Cumulative Days 31 – 90‡	Cumulative Days over - 90
Karst Plan Delay	Up to 35 Days†	Not Applicable	Delay over 35 Days†

(*) Per location and up to an aggregate amount of 120 days for all locations on the Project, then the risk of Hazardous Materials Delay in excess of 120 days shall be borne by TxDOT

(‡) DB Contractor and TxDOT shall share equally the risk

(†) Per individual unknown Karst Feature and up to a cumulative total of 180 days for all unknown Karst Feature locations, then the risk of Karst Plan Delays in excess of 180 days shall be borne by TxDOT

Disputes Review Panel

The Case for Disputes Review Panels

Resolution Focused

- Avoiding dispute escalation
- Proactive Panel motivates greater cooperation between parties

Cost Effective

- Cost-effective preventative measure
- Costs of DRP < cost & time of formal disputes

Quick & Informed Opinions

- Impartial highway construction experts are engaged and available at the project level

Disputes Review Panel (DRP)

Either Party can request an Advisory Opinion after a written protest is filed

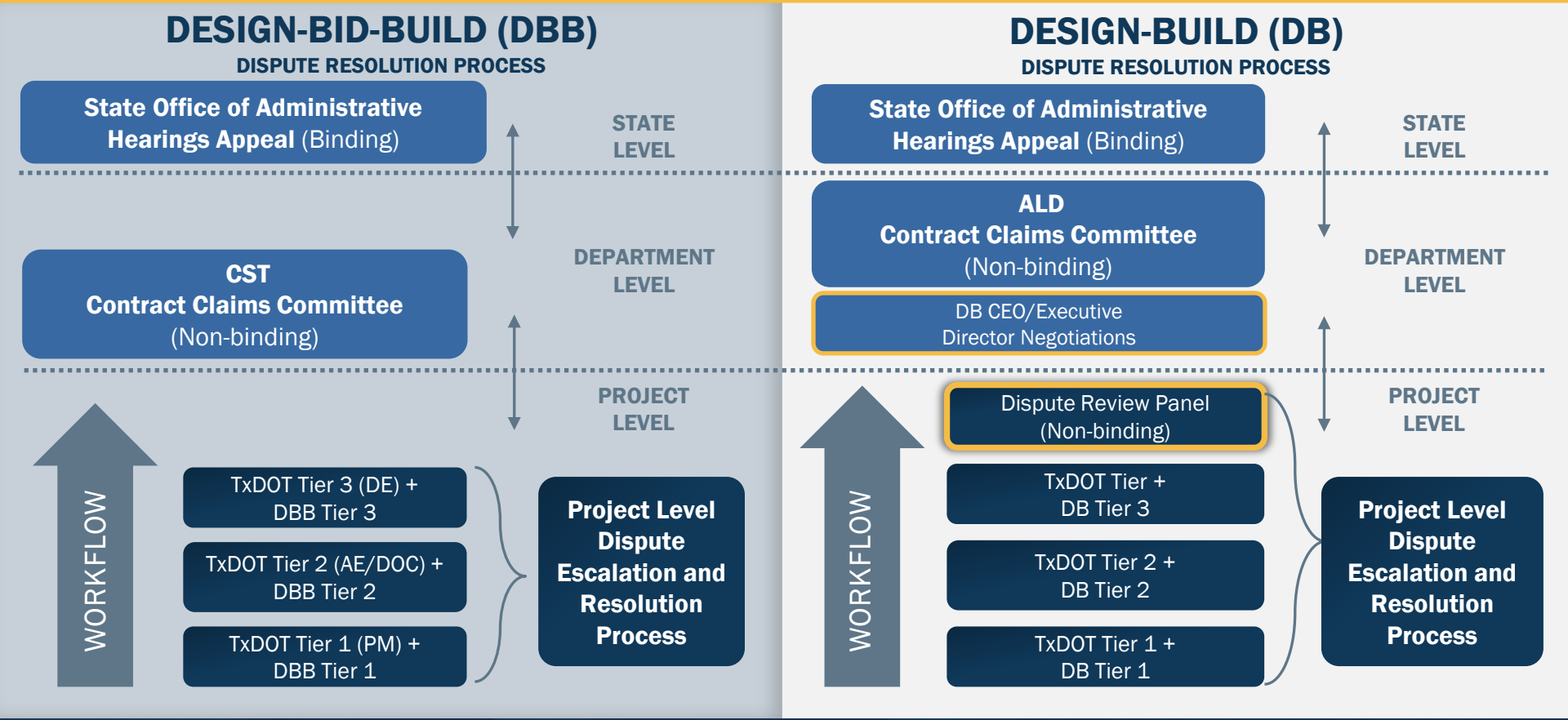
Summary positions (3-page max) are shared at regularly scheduled DRP meetings

The Panel provides a verbal Advisory Opinion at the same meeting

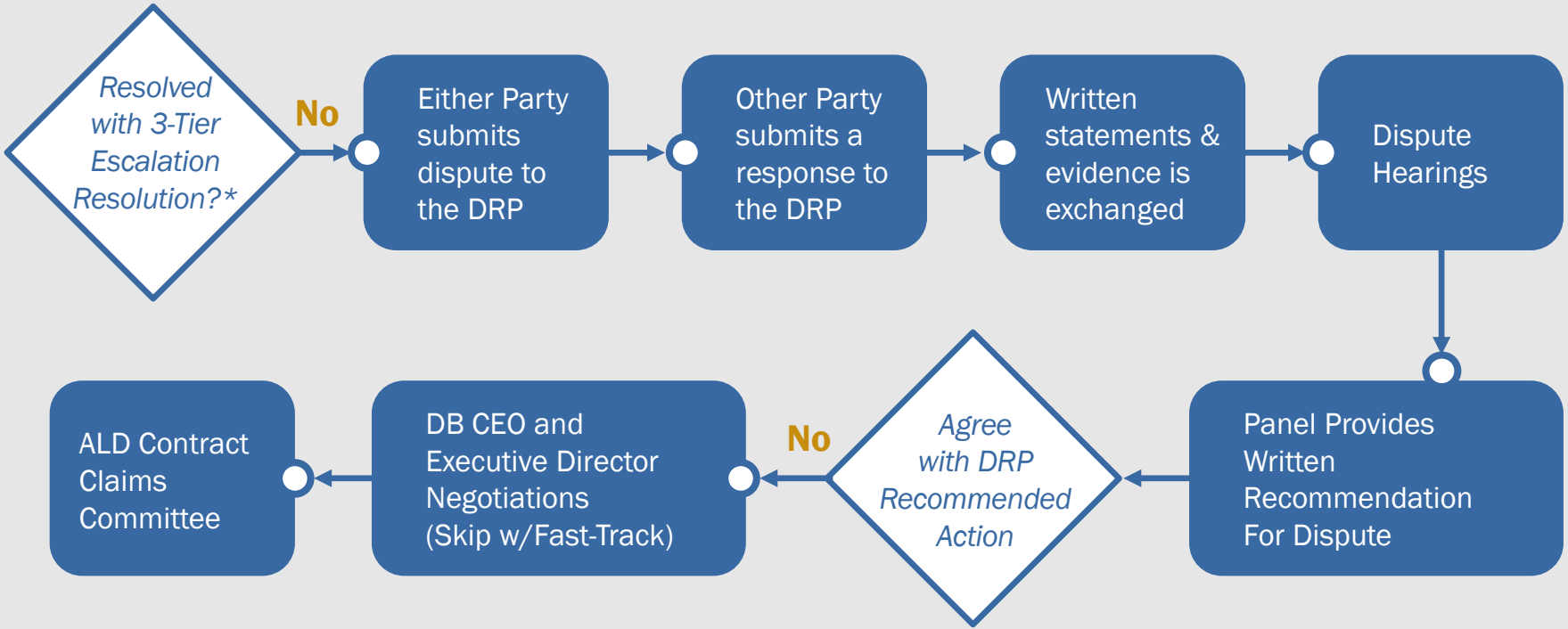
- DRP Members are
  - **Aware** of issues as they arise
    - Meet regularly with TxDOT project team & DB Contractor (quarterly or as agreed)
    - Receive schedule update submittals
    - Know the contract
  - **Experienced** with DB transportation projects and trained in mediation
- **Advisory Opinions** from the DRP give quick, informal feedback on the contractual merits of Party positions

Dispute Resolution Workflow DBB vs DB

Step Unique to DB



Dispute Review Panel – Process Flowchart



***Disputes Escalation Required Prior to Referring to DRP**

Dispute Review Panel – Position Papers

Overview

- Issue description
- Background
- Timelines
- Relevant Documents

Entitlement

- The Time Extension Decision (Excusable or Non-Excusable)
- The Money Decision (Compensable or Non-Compensable)

Impact Analysis

- Crew Impacts
- Project Delay
- Time Impact Analysis

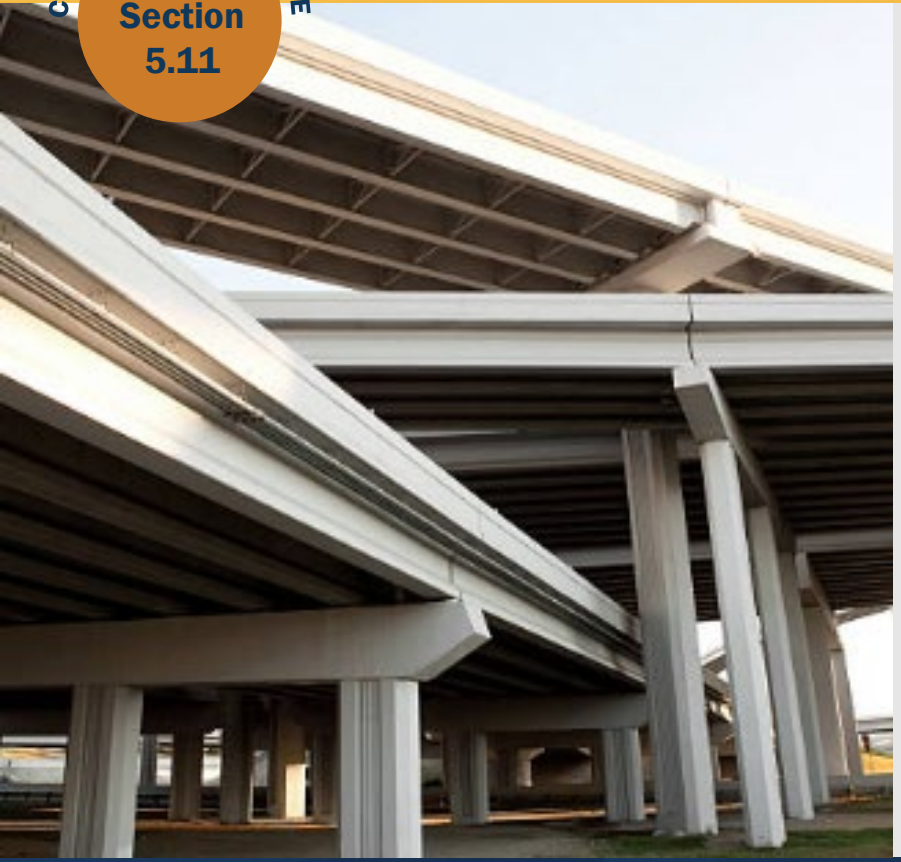
Cost Analysis

- Direct Crew Costs
- Indirect Overhead Costs

Completion & Acceptance

CONTRACT REFERENCE
DB GC, **Section 5.11**

Substantial Completion (SC)

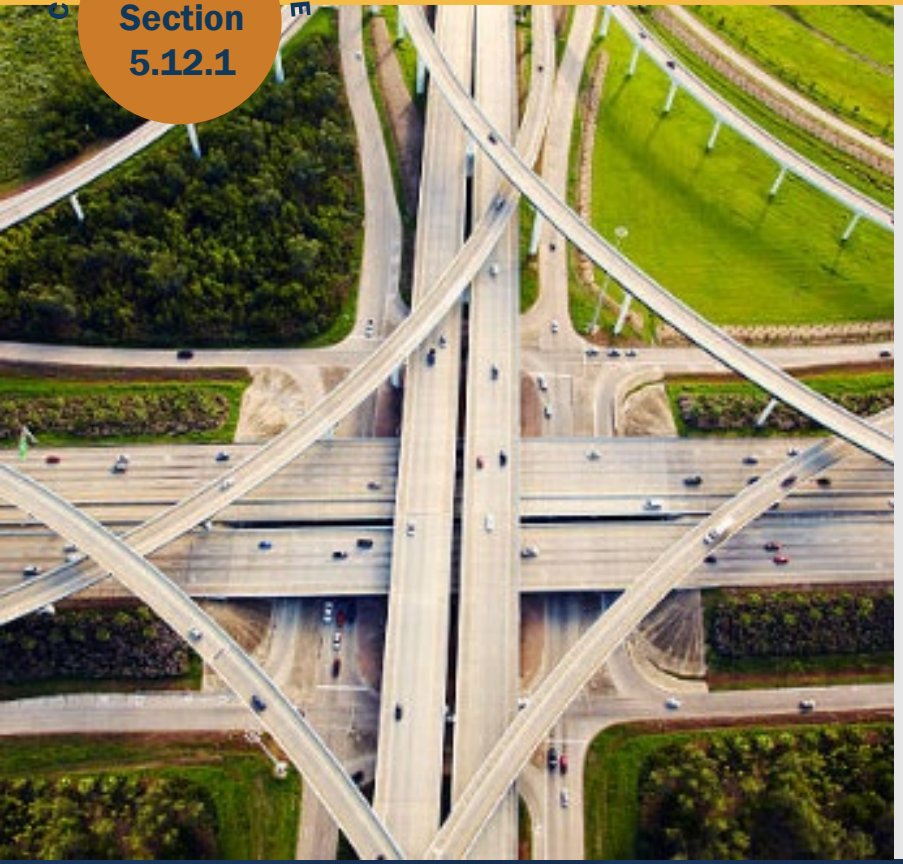


- SC Requirements
  - All traffic lanes are in their final configuration and available for public use
  - All major safety features are installed and functional
  - A full list is in the DB GC 5.11
  - Contract requirements (DBA) for SC are met
  - Certificate of SC is requested by DB Contractor and issued by TxDOT

- Punch List is prepared (finalized after SC)

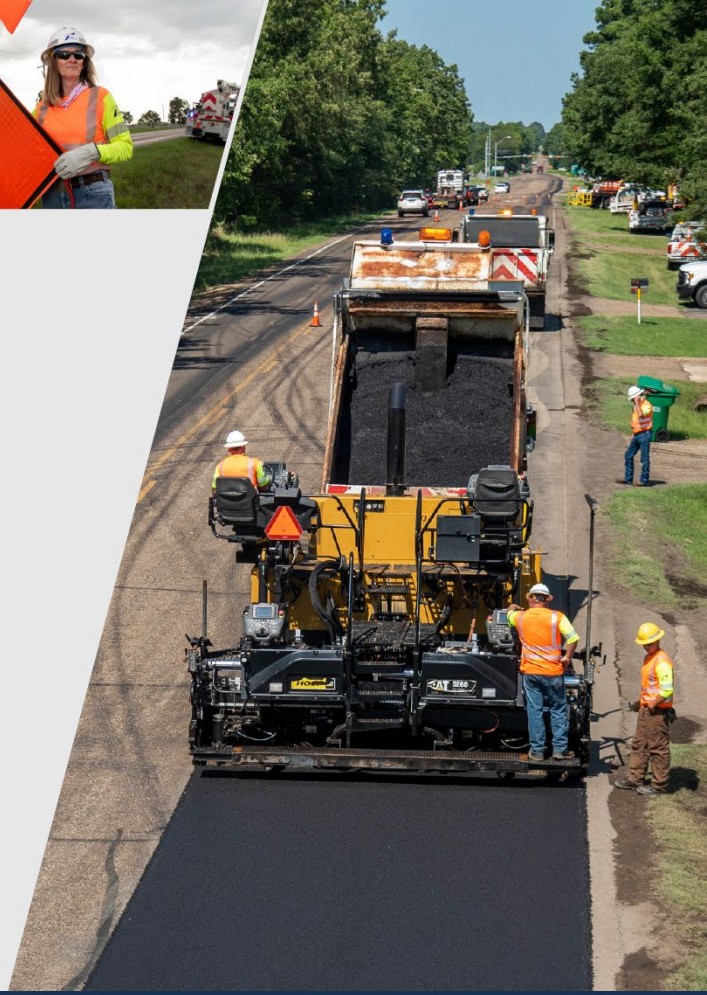
CONTRACT REFERENCE
DB GC, **Section 5.12.1**

Final Acceptance (FA)



- FA Requirements
  - All contract work is complete, and the site is in good condition and working order
  - Punch List items completed & accepted
  - Third parties have accepted work
  - As-Builts / Record Docs / Reports delivered
  - All Financial Responsibilities fulfilled with no outstanding damages, fees or claims
  - Project Close-out Checklist completed
  - A full list is in the DB GC 5.12.1
  - Written notification given by DB Contractor and Certificate of Completion issued by TxDOT

Operations & Maintenance



DB Contractor Maintenance

- Keep ownership of **lifecycle risks** with the party who can best mitigate and manage the risk by constructing quality Work
- DBAs include
  - A 1-year General Warranty, **and**

A 5-year Performance Warranty

Or

A separate Capital Maintenance Agreement executed along with the DBA

CONTRACT REFERENCE
DB GC, **Section 3.8**

CONTRACT REFERENCE
DBA, **Section 11**

Protection from Defects

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

- **One year design and construction Warranty (All DBAs)**
  - Guarantees quality of work, materials and equipment for one year
  - DB Contractor-responsible for design & construction related defect repairs
  - Warranty cost included in DB Contract Price

CONTRACT REFERENCE
DBA, **Exhibit 4**

CONTRACT REFERENCE
DBS, **Attach 32-1**

Protection from Defects

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

- **Five Year Performance Based Warranty**
  - Guarantees durability of the Capital Assets (5 years), Non-Capital Assets (2 years)
  - Mandates minimum levels of performance – skid, ride, rutting, settlements, etc. (see Design-Build Specifications Items 10-28 (DBS) Attachment 32-1)
  - Warranty Action for Warranty Defect repairs is part of the DB Contract Price, however,
  - An annual Warranty Payment is made from TxDOT to the DB Contractor for satisfactory performance

CONTRACT REFERENCE
CMA GC, **Items 1-8**

CONTRACT REFERENCE
CMA Specs, **Item 9**

Protection from Defects

1-Year Materials and Workmanship Warranty	5-Year Performance Based Warranty	3x5-Year Capital Maintenance Agreement
General Warranty	Extended Warranty w/ Performance thresholds	Long-Term obligation w/ Performance Thresholds
Guarantees quality Standard in DBB & DB	Guarantees durability of the Capital Assets in the initial 5 years	Guarantees the durability of the Capital Assets for up to 15 years

- **15-Year Capital Maintenance Agreement (CMA)**
  - Three renewable 5-year terms
  - Performs all maintenance of Capital Assets to mandated Performance Standards
  - Includes preventative maintenance (overlays, rehabilitation, crack sealing)
  - CMC costs are priced separately from DB Contract Price through a separate agreement that is simultaneously executed w/ DB Agreement
  - References: CMA, Capital Maintenance Agreement General Conditions Items 1-8 & Capital Maintenance Agreement Specifications Item 9

CMA - Maintenance Terms

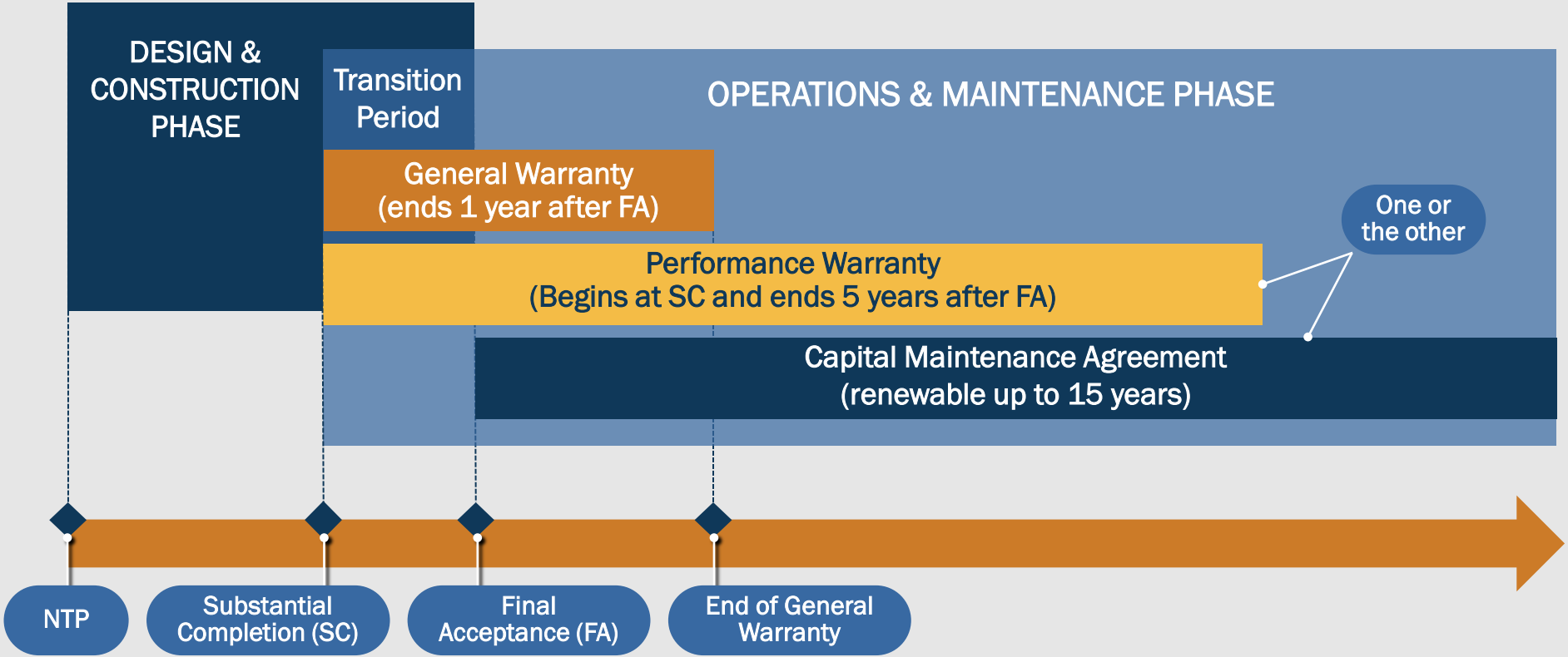
- TxDOT retains the option to extend the second and third term of the CMA by issuing Maintenance NTP 90 days before the expiration of the prior term.

Initial Maintenance Term
(5 years)
(begins at Final Acceptance)

Second Maintenance Term
(5 years)
(begins after the expiration of the prior term)

Third Maintenance Term
(5 years)
(begins after the expiration of the prior term)

Timeline of CMAs and Warranties



Capital Maintenance Agreements

Purpose of CMA

- Encourages DB Contractor to integrate quality construction

- TxDOT protection from defects

- DB Contractor responsibility for durability over many years

DB Contractor vs TxDOT Maintenance Responsibilities in CMA

CMA Features

- DB Contractor furnishes maintenance work including preventative maintenance (overlay, rehab) of the Maintained Elements
- TxDOT responsibilities include operations and maintenance of all other elements (roadside, incidents, mowing, litter, sweeping)
- DB Contractor must monitor asset performance
- Joint Periodic (Monthly or Quarterly) and Final Inspections

Scope Element	DB Contractor	TxDOT
Pavement	X	
Drainage (District Choice)	X	
Structures	X	
Earthworks, Embankments	X	
Pavement Markers		X
Curbs, Guardrail		X
Traffic Signs		X
Traffic Signals		X
Lighting		X
Fences, Walls		X
Roadside Management		X
Snow & Ice Control		X
Emergency Response		X

TxDOT's Contract Administration Tools

- TxDOT may remedy or cure DB Contractor's Nonconforming Work and deduct costs from the amounts due to DB Contractor
- TxDOT has step-in rights but not the obligation to cure the DB Contractor's default

- TxDOT may withhold or deduct portions of the General Maintenance Payment or Work Payments similar to the Deductions taken from Progress Payments for LDs, fees and/or fines

- TxDOT can suspend or terminate the CMA if DB Contractor's default is not cured


HELP
#EndTheStreakTX
End the streak of daily deaths on Texas roadways.
TxDOT.gov (Keyword: #EndTheStreakTX)
#EndTheStreakTX Toolkit