



Deficient and Nonconforming Work

Alternative Delivery Program

Deficient and Nonconforming Work

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



This symbol when shown on a slide provides reference to the Section of the Design-Build Contract (DBC) Programmatic Documents



Sample



Training Goals:



- 1 Become familiar with the construction deficiency and nonconforming work processes.
- 2 Review the procedure requirements for controlling deficiencies and nonconformances.
- 3 Learn about the process tools used for tracking and reporting deficiencies and nonconformances.

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1. Definitions

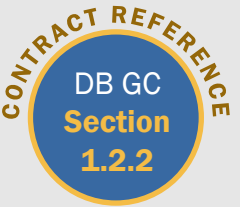




Nonconforming Work



Work that does not conform to the requirements of the Contract Documents, the Governmental Approvals, applicable Law or the Released for Construction Documents.



Engineer of Record (EOR)



The engineer in responsible charge of each item, element, or phase of the Work and will be personally responsible for directly supervising the Work.

Nonconforming Report (NCR)



A report documenting Nonconforming Work and the ultimate disposition of such Nonconforming Work, including the efforts undertaken to repair, replace, or otherwise remediate.



Construction Deficiency Item

Work feature that is typically still “work in progress”, that does not require a design change, and can be reworked in the field to be in compliance with the original requirements.

Engineering Judgment



Determination as to whether a material failing to meet specification requirements and not within applicable tolerances should be accepted, or not accepted.

Construction Deficiency Report (CDR)

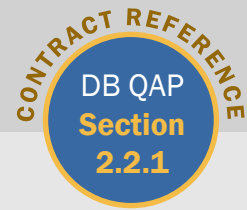
A report of how Construction Deficiency Items have been documented and resolved.



2. Overview and Procedures



Nonconforming Work Overview



- **Nonconforming Work means materials, equipment, or elements of the Work that does not conform to :**
 - Contract requirements
 - Governmental approvals
 - Applicable law
 - Released for Construction Documents
- **Nonconforming Work can occur in Professional Services and/or Construction activities**



The DB Contractor's and Subcontractor's design and construction workforce are all considered to be members of the DB Contractor's QC staff, as each member is responsible for the quality of the Work.



The DB Contractor is responsible for establishing a robust Quality Management system that strives to eliminate the occurrence of Nonconforming Work.



The DB Contractor QC program should be sufficient in scope to pre-empt and avoid repeated discoveries by TxDOT, PSQAF, IQF personnel, or DB Contractor's QC staff of Nonconforming Work.

Quality Procedures



DB Contractor's CQMP describes the policies and procedures to manage and ensure the quality of the Construction Work (including that of subcontractors)

CQMP includes construction QC and IQF activities and materials acceptance procedures in accordance with TxDOT's QAP for DB Projects.



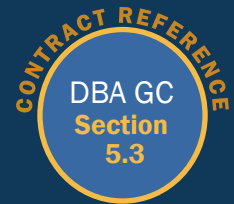
DB Contractor's PSQMP describes the policies, procedures and staffing to manage and ensure the quality of the Professional Services Work (including that of Subcontractors)



Nonconforming Work in Professional Services is typically identified by the PSQAM



Construction Nonconforming Work may be identified by TxDOT, OVF, IQF, or Supplier's QC staff



Control Procedures



Ensure that nonconforming materials, equipment, and elements are not used or installed in the Work.



Ensure DB Contractor does not proceed at risk with Work identified as nonconforming beyond the current hold point if a resolution has not been proposed and accepted by TxDOT.



Ensure conditions adverse to quality are promptly identified and corrected.



Construction Quality Management Plan procedures must be International Organization for Standardization (ISO) 9001-2015-compliant (or most current version) for quality systems, quality plans, and quality audits.

Independent Quality Procedures



The procedures address the following requirements for prefabricated product fabrication plants



Procedures to document and track any identified nonconformance fabrication processes or products.



Procedures for reviewing the Supplier's NCRs per the applicable DMS for accuracy and completeness of content for submission to TxDOT.



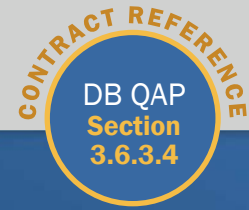
Independent Quality procedures include procedures to document and track the disposition of any identified nonconformance with the plans and specifications and include clearly defined processes for communicating identified nonconformances to TxDOT and DB Contractor.



3. Reports, Logs, and Workflow



Deficient Construction Work Report



Construction Deficiency Report (CDR)

CDRs are used for workmanship deficiencies that do not require an engineering decision by the EOR.

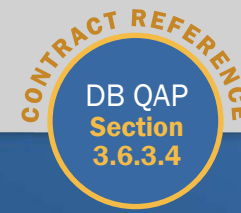


- 1 Construction deficiencies can be addressed through rework in the field to comply with the original requirements.
- 2 The CDR records how Construction Deficiency Items have been documented and resolved.
- 3 Construction deficiencies must be noted in the daily inspection report.
- 4 Corrected deficiencies will be re-inspected by construction QC and IQF staff for compliance.

*Examples include:
Re-working earthwork,
re-tying steel, etc.*



Nonconforming Work Report



Nonconformance Report (NCR)


Within 24 hours of identifying

Nonconforming Work,

the DB Contractor must notify TxDOT in writing and copy the EOR and the IQF.

Any affected third parties or governmental entities must also be notified.



- 
- 1 NCR describes the element of Work that is nonconforming and the reason for the nonconformance.
 - 2 EOR evaluates the effect of the nonconformance on the performance, safety, durability, and effect of the long-term maintenance.
 - 3 EOR determines remedial actions, if any.
 - 4 Actions resulting in changes to the original calculations or design must include the stamp of the EOR or the qualified licensed professional engineer from the same firm, and TxDOT approval.
 - 5 Any NCR resolution involving materials should be based on acceptance procedures in the construction plans and specifications, and random testing by IQF with OVF verification using test methods qualified by IA.



Construction Deficiency Report Log

Nonconformance Report Log

- DB Contractor maintains logs of all NCRs and CDRs and submits the logs to TxDOT and the IQF bi-weekly.
- Each CDR and NCR is numbered sequentially.
- DB Contractor provides a brief description, status and an expected date for closure, if not closed.
- DB Contractor tracks the actual duration for each step of the process for each initiated NCR/CDR as directed by TxDOT.



Note that QC, IQF or TxDOT may identify material or workmanship nonconformance and initiate an CDR or NCR.



- **Appendix M** provides a template with the required minimum fields to be included on the NCR log.
- The NCR log should include TxDOT's decision for each NCR.

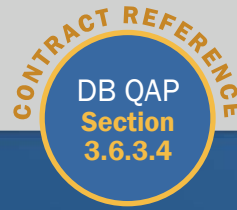


NON-CONFORMANCE LOG
[PROJECT NAME]

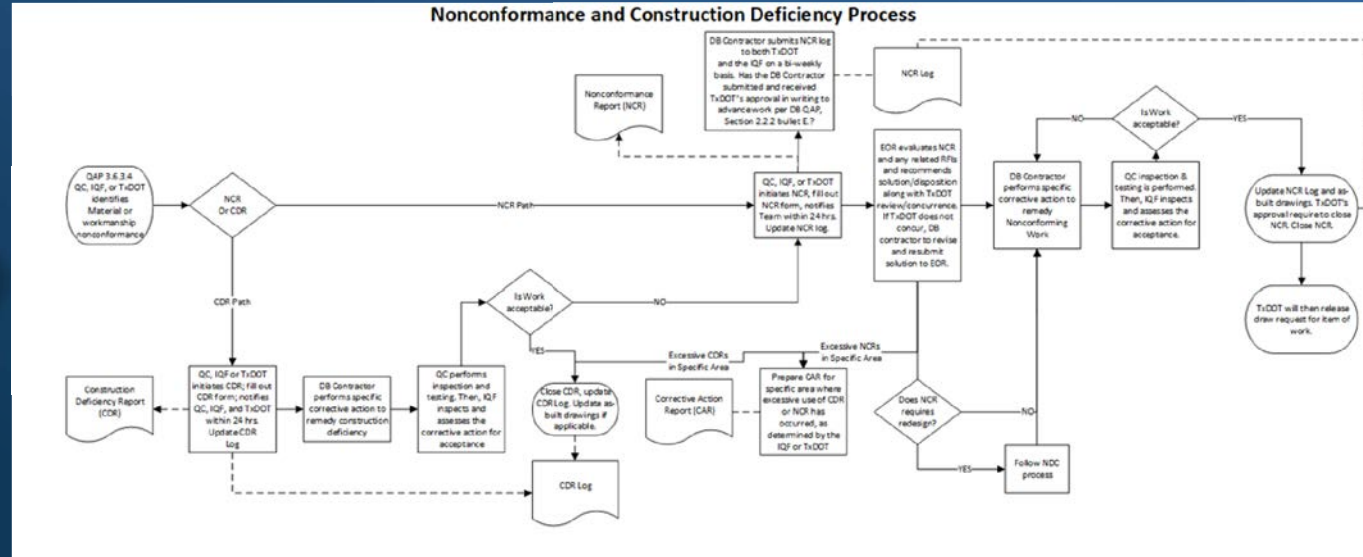
20##, Quarter #

NCR No.	Date Issued	Discipline	Originator	Description of NCR	Location	Description of Solution to the NCR	Disposition	EOR Review/ Approval Date	TxDOT Concurrence Date	Corrective Action Complete Date	Status (Open / Closed)	Date Closed	Non-Compliance Points Assessed (Yes/No)

Deficient and Nonconforming Work Workflow



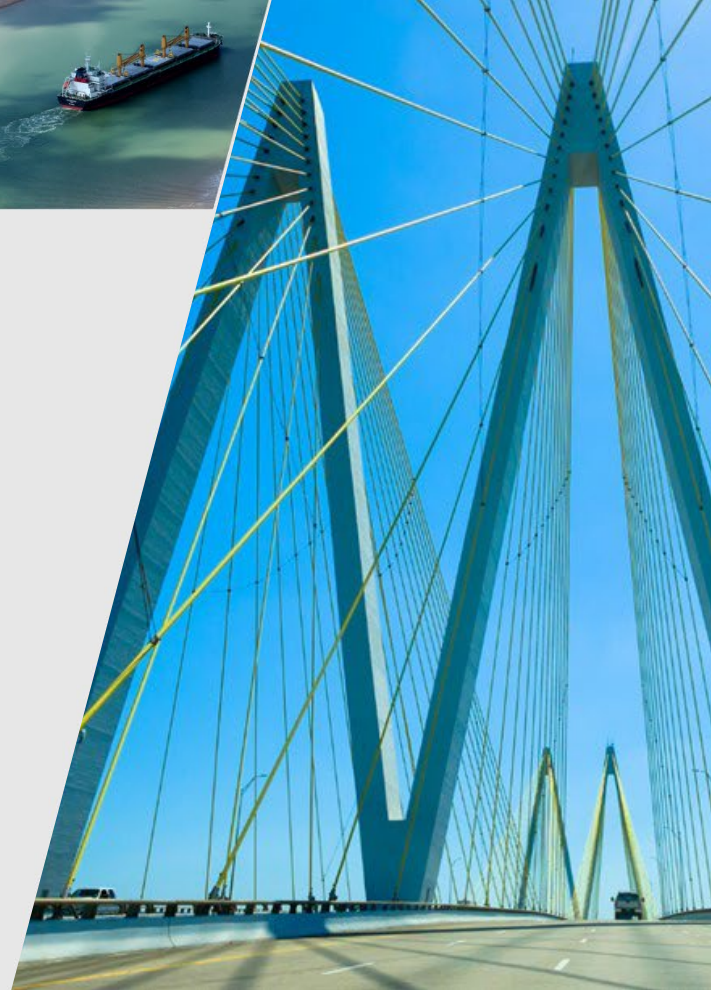
DB Contractor must follow the steps of the NCR and CDR flow chart process in Appendix O.



DB Contractor is required to track the duration of time for each step of the NCR resolution process.



4. Resolution Process





TxDOT has two options for addressing Nonconforming Work:

- Option 1:

Rejection: Removal and Replacement of Nonconforming Work

- Option 2:

Acceptance: Agree to accept Nonconforming Work without requiring it to be fully corrected



- Corrections are to be made within 10 days
- Or within 10 days
 - Provide TxDOT a correction schedule.
 - Begin the correction
 - Diligently prosecute correction per approved schedule.
- If DB Contractor does not comply within 10 days, then TxDOT may cause the Nonconforming Work to be remedied or removed and replaced.
- Removal and replacement of the Nonconforming Work will be at DB Contractor's cost and without any adjustment to the Price or any Completion Deadline or any other relief.



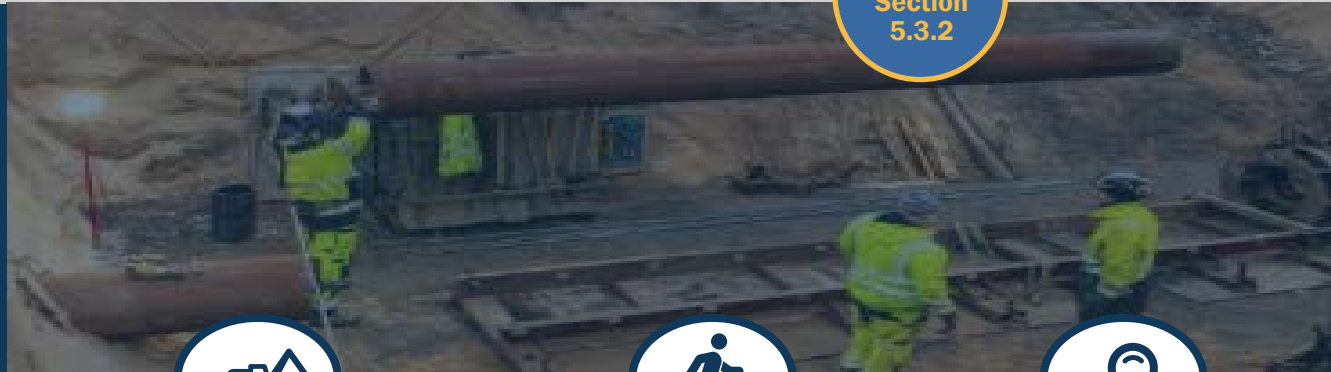
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- Option 1:

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- Option 2:

Acceptance: Agree to accept Nonconforming Work without requiring it to be fully corrected



- With this option, TxDOT is entitled to reimbursement from the DB Contractor based on TxDOT's selection from two options:

- 1) The amount deemed appropriate by TxDOT as compensation for all impacts relating to the Nonconforming Work.

- 2) The amount reasonably allocated to the work had it been performed in accordance with the Contract Documents.

DB Contractor's Responsibilities



CONTRACT REFERENCE
DBA GC
Attachment
4-2 Table 2
QCP-10

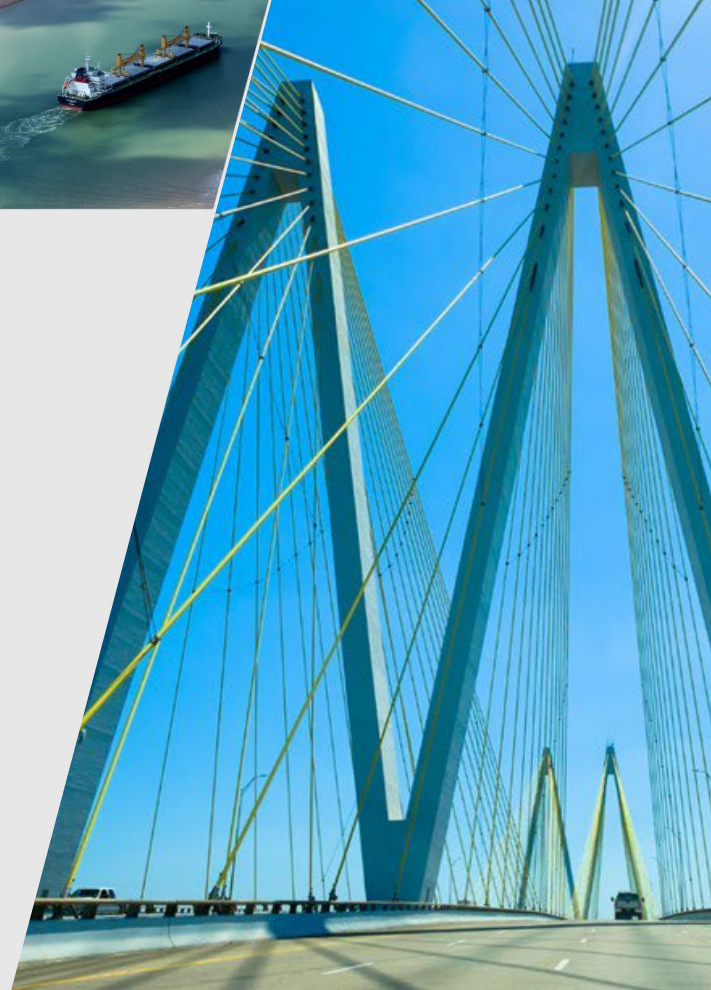
CONTRACT REFERENCE
DB QAP
Section
3.6.3.4

CONTRACT REFERENCE
23 CFR
637B

- DB Contractor is solely responsible for the resolution to Nonconforming Work and closing out all NCRs, including obtaining the required approvals.
- If DB Contractor proceeds with Work without closing out any NCRs, DB Contractor is responsible for all costs and delays associated with uncovering, repairing, replacing, and/or recovering the Work.
- Excessive use of NCR and CDR in any specific area, as determined by the IQF or TxDOT, will require a Corrective Action Report (CAR) by the DB Contractor.
- DB Contractor is responsible for resolving and closing all NCRs with the signature of the EOR and TxDOT's approval.
- Any NCR resolution involving materials should be based on the approved acceptance procedures, otherwise such resolutions will not be consistent with 23 CFR 637B potentially resulting in non-participation by FHWA.

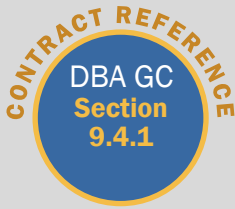


5. Payment Deductions





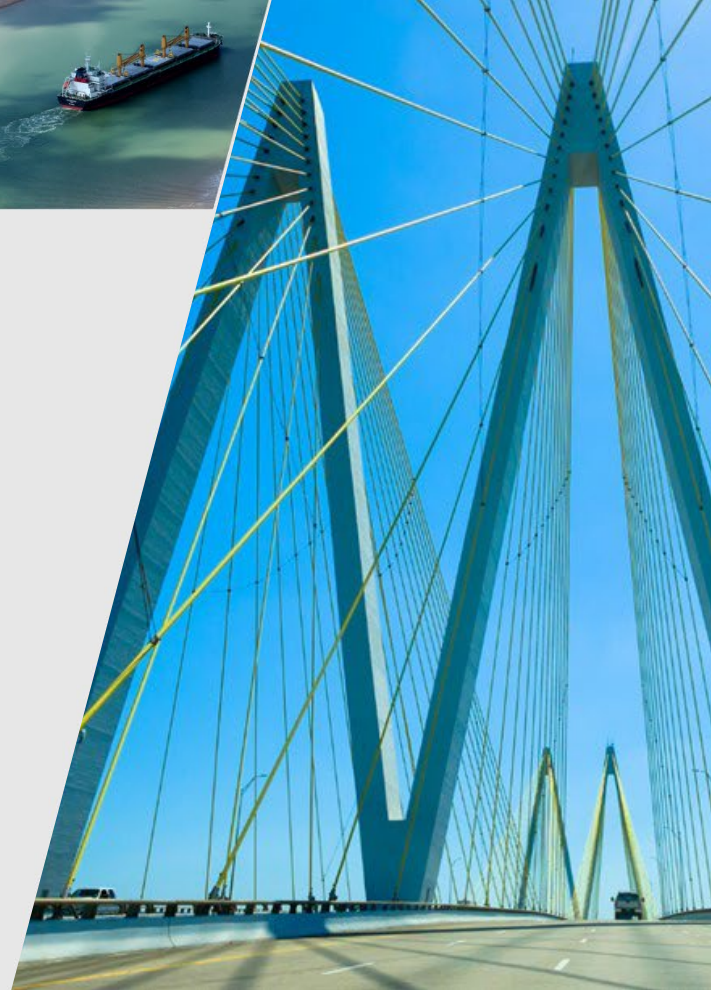
$$\text{Work Completed} + \text{Materials on Hand} - \text{Deductions} = \text{Monthly Progress Payment}$$



- Nonconforming work deductions for any NCR that is not resolved and closed out at the time of the Draw Request.
- Amounts are withheld until such time as the NCR is resolved and closed out to TxDOT's satisfaction.
- A Nonconformance Report and NCR log is required with each draw request.



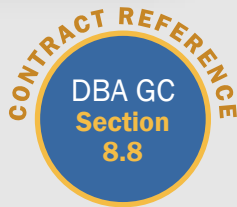
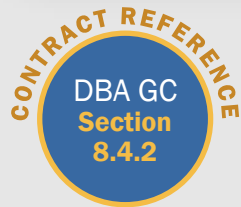
6. Suspension and Default





Suspension

TxDOT has the right and authority to suspend for cause any affected portion of the Work by written order to DB Contractor due to failures related to Nonconforming Work



Default of DB Contractor

DB Contractor shall be in breach of DB Contract if DB Contractor fails to perform the Work in accordance with the Contract Documents, including refusing to comply with any of the requirements in respect to the uncovering of Nonconforming Work, or with respect to the correction, removal and replacement of Nonconforming Work.

Notice and Opportunity to Cure

DB Contractor has 15 days cure period after TxDOT delivers to DB Contractor written notice of DB Contractor Default due to Nonconforming Work to effect cure.

If the condition is not cured within the cure period, TxDOT may declare that an “Event of Default”, which could lead to termination

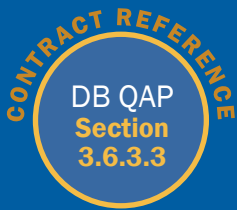


7. Engineering Judgment





EJ may be to accept materials or work that are subject to an NCR because they did not meet the minimum specification requirements but may be adequate for their intended use.



TxDOT allows the IQF to exercise EJ

IQF Agrees to Exercise EJ

IQF Does not Agree to Exercise EJ

- Notify TxDOT of EJ within 24 hours
- EJs decisions shall be made as soon as test results are available
- Document in the EJ log within 7 days
- Submit the EJ log to TxDOT monthly

- The failing materials or work may still be accepted through the NCR process:
 - Repaired if approved
 - Brought into conformance with specifications
 - Removed



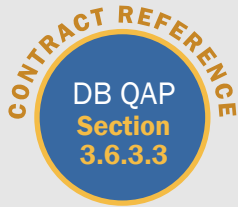
TxDOT, OVF, EORs, QC and the IQF meet and discuss situations that may arise during construction with respect to the specification items anticipated to be used on the project.

- The parties agree on:
- whether the IQF will be allowed to use EJ.
 - how much latitude could be applied under what circumstances.

TxDOT transmits a finalized project-specific Agreement.

The EJ Agreement includes situations where judgment may and may not be used.

The EJ Agreement is a living document and may be changed at any time.





The DB QAP includes 14 conditions that need to be met for the IQF to exercise EJ.

Four of the conditions are described below:



F) Failed results of material tests may be accepted only for individual tests. Patterns of failure will not be accepted and will be considered a breakdown in QC activities.

J) TxDOT may, at any time, remove EJ authority from the IQFM in part or in whole.

L) The IQF is encouraged but not required to consult with TxDOT before making acceptance decisions.

N) Excessive use of EJ in any specific area will require a CAR by the DB Contractor which will include a RCA.



8. 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

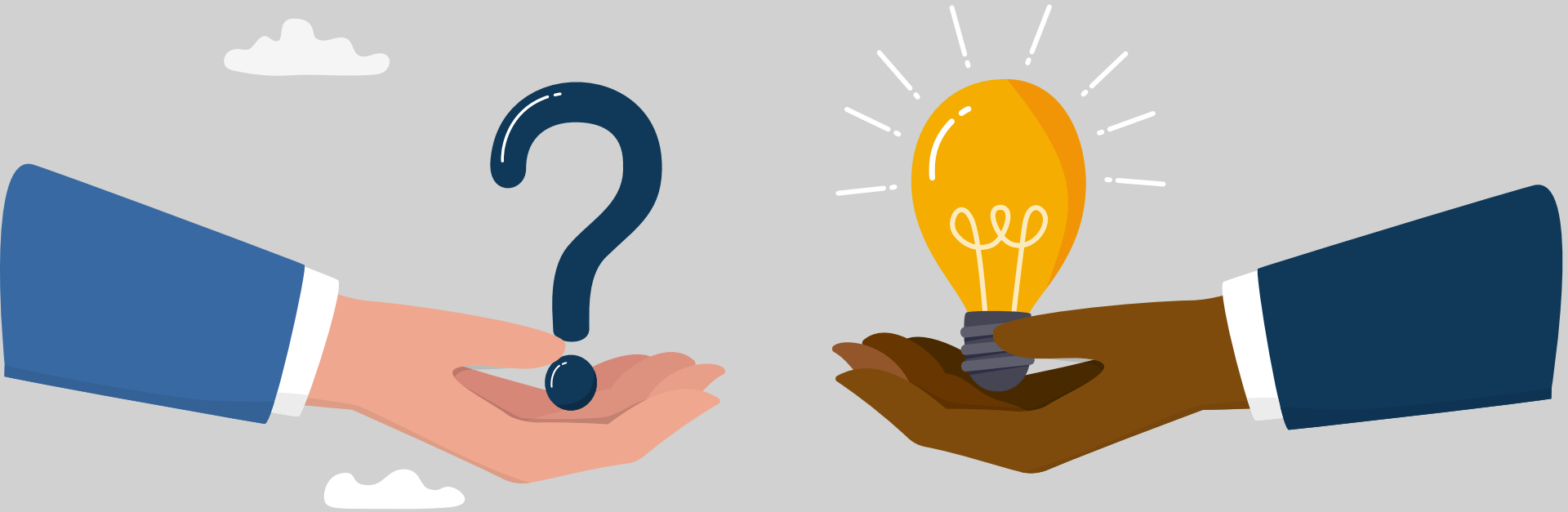


These and other resources can be found at:

<https://ftp.txdot.gov/pub/txdot/atd/programmatic-docs/>



Questions & Discussion





HELP #EndTheStreakTX

End the streak of daily deaths on Texas roadways.

TxDOT.gov (Keyword: #EndTheStreakTX)



#EndTheStreakTX Toolkit

