



# Texas Department of Transportation

## DESIGN-BUILD SPECIAL SPECIFICATIONS

### Item 50

November 7, 2018

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# Item 50

## Design-Build Special Specification

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### Attachments

| Attachment      | Title   |
|-----------------|---|
| Attachment 50-1 | Performance and Measurement Table                             |
| Attachment 50-2 | Maintenance Management Plan Template                          |
| Attachment 50-3 | Function Codes, Descriptions and Allocation of Responsibility |

50.1

## General Requirements

50.1.1

### General Maintenance Obligation

Throughout the Maintenance Period, DB Contractor shall be responsible for and shall carry out Maintenance Services for the Maintained Elements within the Maintenance Limits. DB Contractor shall establish and maintain an organization that effectively manages all Maintenance Services in a manner set forth in the approved Maintenance Management Plan (MMP) and consistent with the requirements of the CMC Documents. DB Contractor shall:

- conduct inspections at the specified frequency within the Maintenance Limits, providing TxDOT the opportunity to attend;
- identify and record from inspections and all other available sources, conditions that are unsafe or have the potential to become unsafe or conditions that could adversely affect the Maintained Elements;
- develop, maintain and implement a Maintenance Management System (MMS) to record the category, status, intended action and remedy for all Defects in Maintained Elements;
- facilitate access to such system by TxDOT to allow the notification and categorization by TxDOT of Defects that TxDOT identifies in the course of its maintenance inspections;
- mitigate hazards and permanently remedy or permanently repair all Defects, including those identified by TxDOT, the DB Contractor and third parties within the specified remedy periods;
- minimize delay and inconvenience to Users when performing the Maintenance Services;
- minimize the risk of damage, disturbance, or destruction of third-party property during the performance of Maintenance Services;
- report to TxDOT the status of its Maintenance Services including Nonconforming Work; and
- perform all other obligations identified in this Item 50 and the CMC Documents.

50.1.2

### Scope of Maintenance Services and Interfaces with TxDOT and Third Parties

The Maintenance Services shall apply to the Maintained Elements as identified in Exhibit 15 to the CMA (Maintained Elements). TxDOT or applicable Governmental Entity shall retain maintenance responsibilities for Non-Maintained Elements. A detailed breakdown of responsibility for individual maintenance activities between TxDOT, third parties and the DB Contractor is shown in Attachment 50-3 (Function Codes, Descriptions and Allocation of Responsibility). Notwithstanding the description of activities and allocation of responsibilities by Function Code identified in Attachment 50-3, DB Contractor is responsible for the performance of all activities necessary to comply with Targets in Attachment 50-1 (Performance and Measurement Table) for all the Maintained Elements as further described in Section 50.3.

Where TxDOT, other Governmental Entities or Utilities have maintenance jurisdiction within the Maintenance Limits or on adjacent facilities, DB Contractor shall coordinate its Traffic Management Plan with the traffic management to be performed by all such entities to minimize disruption to Users. DB Contractor shall coordinate directly with such entities. Additional coordination requirements with railroads are described in Section 50.7.8.

DB Contractor shall perform all necessary Maintenance Services to keep the Maintained Elements in compliance with the Performance Requirements.

Whenever an activity by DB Contractor disturbs, alters, removes or changes any Non-Maintained Element, DB Contractor shall restore the affected Non-Maintained Element to a condition no less favorable than its original condition before it was disturbed, altered, removed or changed. If the Maintenance Services associated with pavement repair requires removal of or causes damage to adjacent Non-Maintained Elements such as pavement markings, guardrail or signs, DB Contractor shall reinstate such Non-maintained Elements to as-new condition.

No later than 24 hours after DB Contractor becomes aware of any of the following circumstances, DB Contractor shall notify TxDOT and provide information that will facilitate repair or other action by TxDOT or third party:

- a Defect in a Maintained Element that DB Contractor considers it is not required to repair, with an explanation why DB Contractor considers such repair to be the responsibility of another party;

- any activity by TxDOT or a third party that DB Contractor considers may have adversely affected or has the potential to adversely affect a Maintained Element;
- any activity that DB Contractor considers should be performed by TxDOT or a third party, with an explanation of any adverse effect on a Maintained Element that may be avoided or mitigated by the maintenance activity; or
- any defect in a Non-Maintained Element that, in the opinion of DB Contractor, represents an immediate or imminent health or safety hazard to Users or road workers.

Additional defect identification, recording and categorization requirements are described in Section 50.4.

50.1.3

**Maintenance Limits**

DB Contractor shall prepare and submit updated Maintenance Limits drawings consistent with the DB Contractor's Final Design as part of the MMP. The Maintenance Limits drawings shall be consistent with the principles and extents shown in Exhibit 16 to the CMA (Maintenance Limits). DB Contractor shall periodically validate that the Maintenance Limits are correctly and clearly identified by physical delineation and shall liaise with TxDOT and Governmental Entities as necessary to review the Maintenance Limits, identify any jurisdictional gaps or inefficiencies and recommend solutions.

50.2

**Maintenance Management**

50.2.1

**Maintenance Management Plan**

The Maintenance Management Plan (MMP) is an umbrella document that describes DB Contractor's managerial approach, strategy, and quality procedures for the Maintenance Services to achieve all requirements of the CMC Documents. The MMP shall be consistent with the general maintenance obligations described in Section 50.1.1. The requirements for the MMP are set forth in Attachment 50-2 (Maintenance Management Plan Template).

In accordance with Section 4.2 of the CMA General Conditions, no later than 60 days after issuance of Maintenance NTP1, DB Contractor shall submit the MMP for TxDOT's discretionary approval. DB Contractor shall update the MMP as required, or at least annually, and shall submit the MMP for TxDOT's discretionary approval no later than 60 days prior to each anniversary of the Initial Maintenance Term Commencement Date.

50.2.2

**Maintenance Quality Management Plan**

As part of the MMP, DB Contractor shall develop, implement and maintain a quality management system describing the system, policies, and procedures for the Maintenance Services. DB Contractor's approach to quality management shall be described in a Maintenance Quality Management Plan (MQMP), which shall be in effect until conclusion of the Warranty Period or earlier termination of the Capital Maintenance Contract. For delivery of the Maintenance Services the MQMP shall comply with Section 4.3 of the DB General Conditions; provided however, that references to "Work" shall mean "Maintenance Services". Whenever Renewal Work is undertaken that requires design work or construction work the MQMP shall also include a Professional Services Quality Management Plan (PSQMP) complying with Section 4.3.6 of the DB General Conditions (Professional Services Quality Management Plan) and a Construction Quality Management Plan (CQMP) complying with Section 4.3.7 of the DB General Conditions (Construction Quality Management Plan).

50.2.3

**Maintenance Personnel**

50.2.3.1

**Maintenance Manager**

DB Contractor shall assign a Maintenance Manager as the sole point of contact with TxDOT throughout the Maintenance Period who shall be responsible for:

- implementing the maintenance obligations in this Item 50 and the MMP;
- causing the Maintenance Services to be performed in accordance with the CMC Documents;
- causing all maintenance personnel and resources performing Maintenance Services to be available and properly trained; and
- the health and safety of personnel delivering the Maintenance Services and the general public affected by the Project.

The Maintenance Manager shall meet or exceed the qualifications and experience established in the Proposal Commitments (Exhibit 2 to the CMA) and the following requirements:

- must be a Professional Engineer licensed in the State of Texas or become licensed in the State of Texas prior to execution of the CMA;
- must have experience on maintenance projects; and
- must have managerial experience in design, construction, or maintenance on any road project of similar size, scope, and complexity.

The Maintenance Manager shall attend all General Inspections, quarterly meetings and Audit Inspections and shall be available whenever any Renewal Work is undertaken.

#### 50.2.3.2

##### **Maintenance Quality Manager**

DB Contractor shall employ a Maintenance Quality Manager (MQM) throughout the Maintenance Period who shall be responsible for:

- independently overseeing and performing all quality responsibilities for the Maintenance Services in accordance with the MQMP;
- ensuring that the methods and procedures contained in approved MQMP are implemented and followed by DB Contractor and Subcontractors in the performance of the Maintenance Services; and
- the quality and accuracy of all Maintenance Records and Submittals.

The MQM shall be functionally independent from DB Contractor's staff responsible for implementation of the Maintenance Services, and shall report directly to DB Contractor's principals, rather than to the Maintenance Manager.

The MQM shall meet or exceed the qualifications and experience established in the Proposal Commitments (Exhibit 2 to the CMA) and the following requirements:

- must have experience in quality management including preparation and implementation of quality plans and procedures.

In addition to the MQM, TxDOT may require the employment by the DB Contractor of quality management personnel in connection with Renewal Work in accordance with [Section 50.2.2](#) to be responsible for design, construction and materials quality.

#### 50.2.3.3

##### **Maintenance Safety Manager**

DB Contractor shall employ a Maintenance Safety Manager who shall be responsible for carrying out the Maintenance Safety Plan and all safety-related activities, including training and enforcement of safety operations.

The Maintenance Safety Manager shall be in attendance at the work site or located within the Maintenance Limits whenever required by the Maintenance Safety Plan and as needed to ensure the safety of the public and personnel employed by the DB Contractor or TxDOT. The position may be fulfilled by another employee of the DB Contractor upon TxDOT's approval, provided the employee meets all qualification requirements. The Maintenance Safety Manager shall have the authority to stop the Maintenance Services. The minimum required qualifications and experience for the Maintenance Safety Manager are:

- roadway construction and safety enforcement experience;
- progressive construction or operations and maintenance safety management experience;
- designation, at or before the Effective Date, as a Construction Health and Safety Technician® (CHST) by the Board of Certified Safety Professionals (BCSP), or designation as a Certified Safety & Health Official (CSHO), either of which may be substituted for two years of safety management experience;
- completion of the OSHA #500 course – Trainer Course in OSHA Standards for Construction;
- completion of training and current certification for CPR and first aid; and
- completion of the following training sponsored by an accredited agency:
  - work zone traffic control; and

- flaggers in work zones.

### 50.3 Performance Requirements

#### 50.3.1 Performance Sections

As part of the MMP, DB Contractor shall prepare drawings identifying the Performance Sections and shall submit and update these plans with the applicable part of the MMP. The drawings shall identify the boundaries of each Performance Section and shall cross reference to an inventory describing each Maintained Element of the Project contained within each Performance Section.

DB Contractor shall implement the Texas Reference Marker (TRM) System used by TxDOT to establish Performance Sections. DB Contractor shall use the existing TRM System established on existing sections of the Project. DB Contractor shall coordinate with TxDOT prior to submittal of the MMP to establish the TRM System on newly constructed sections of roadway.

#### 50.3.2 Performance and Measurement Table

DB Contractor's performance of the Maintenance Services shall be measured by Performance Section and governed by the Performance and Measurement Table as may be updated in accordance with Section 50.3.3. The Performance and Measurement Table shows for each Maintained Element:

- a performance objective that each Maintained Element is required to meet or exceed;
- the Defect Remedy Periods for each category of Defect;
- inspection and measurement methods that DB Contractor shall use to determine compliance;
- measurement records that DB Contractor shall establish and maintain based upon inspections and measurements; and
- targets.

For each measurement record DB Contractor is required to achieve the stated Target, otherwise a Defect exists that shall be remedied or repaired as further described in this Item 50.

The Defect Remedy Period set forth in the Performance and Measurement Table shall commence upon the earlier of: (i) the date and time DB Contractor became aware of the Defect; or (ii) the date and time DB Contractor should have known of the Defect.

#### 50.3.3 Performance and Measurement Table Update

DB Contractor may propose changes to the Performance and Measurement Table for TxDOT approval. In its annual update of the MMP, DB Contractor shall propose for TxDOT's approval such amendments to the "Inspection and Measurement Method" and "Measurement Record" as are necessary to cause these to comply with Good Industry Practice and this Item 50. TxDOT may, at any time, require DB Contractor to adopt amendments to the columns with the headings "Inspection and Measurement Method" and "Measurement Record" in the Performance and Measurement Table where such updates are required to comply with then current Good Industry Practice. In this case, the new "Inspection and Measurement Method" or "Measurement Record" shall be determined using the principle that it shall achieve no less than the standard of Maintenance Services that would have been achieved through DB Contractor's compliance with the original "Inspection and Measurement Method", "Measurement Record", and Target.

DB Contractor shall provide updates to the Performance and Measurement Table to take into consideration specific attributes of the Final Design (for example, where the Final Design incorporates a feature that is not included as a Maintained Element in the Performance and Measurement Table). Within this Item 50, reference to the Performance and Measurement Table means the latest approved version of the Performance and Measurement Table as included within DB Contractor's MMP.

### 50.4 Defect Identification, Recording and Categorization

#### 50.4.1 Definitions

In this Item 50 and as shown on the Performance and Measurement Table:

- hazard mitigation is an action taken by DB Contractor to mitigate a hazard to Users or imminent risk of damage or deterioration to property or the environment such that the Category 1 Defect no longer exists;

- permanent remedy is an action taken by DB Contractor to restore the condition of a Maintained Element following hazard mitigation of a Category 1 Defect; and
- permanent repair is an action taken by DB Contractor to restore the condition of a Maintained Element for which a Category 2 Defect has been recorded.

#### 50.4.2 Sources of Defects and Status

DB Contractor shall identify and record Defects through inspections described in [Section 50.5](#), notifications by TxDOT and reports or complaints by third parties. DB Contractor shall accurately record the status and categorization of Defects from all sources in the Maintenance Management System (MMS). Where multiple instances of Defects arise from the failure to achieve a given Target (for example, simultaneous failure to achieve a ride quality Target in multiple locations), a separate Defect shall be recorded for each Performance Section within which the Target is not achieved.

#### 50.4.3 Defects Identified by DB Contractor, TxDOT, or Third Party

Whenever DB Contractor identifies, becomes aware of, or is notified by TxDOT or a third party of a Defect, DB Contractor shall create within the MMS a Maintenance Record containing details of the associated Maintained Element, the nature and categorization of the Defect, and the proposed timing and details of hazard mitigation, permanent remedy, and permanent repair of the Defect. TxDOT may provide notification of a Defect verbally, in writing, or during the course of a joint inspection.

DB Contractor shall categorize each Defect, based upon its determination as to whether:

- it represents an immediate or imminent health or safety hazard to Users or road workers;
- there is a risk of immediate or imminent structural failure or deterioration;
- there is an immediate or imminent risk of damage to a third party's property; or
- there is an immediate or imminent risk of damage to the environment.

Should a Defect meet any of the above criteria, DB Contractor shall record it as a Category 1 Defect. Any other Defect not meeting the foregoing criteria shall be recorded as a Category 2 Defect. DB Contractor shall provide training to all relevant personnel on the categorization of Defects. DB Contractor shall maintain a record of the circumstances of the Defect and how it was categorized. DB Contractor shall facilitate the review by TxDOT of Maintenance Records in the MMS associated with DB Contractor-categorized Defects and shall enable TxDOT to flag any Defect where TxDOT disagrees with any attribute or categorization assigned by DB Contractor.

#### 50.4.4 Permanent Remedy and Permanent Repair of Defects

Permanent remedy and permanent repair of Defects shall comply with the applicable requirements for Renewal Work as set forth in [Section 50.7.6](#). DB Contractor's proposals for permanent remedy and permanent repair of a Defect shall be submitted for TxDOT's approval within a Renewal Work Submittal no later than 30 days before the DB Contractor plans to perform the Renewal Work. All permanent remedy and permanent repair shall address the root cause of the Defect and shall be sufficient in extent to avoid recurrence of the same Defect within the Performance Section or adjacent Performance Sections where the Defect occurred.

Where action is proposed to remedy or repair any Defect, DB Contractor shall promptly create a Maintenance Record that identifies the nature of the proposed remedy or repair and shall update the Maintenance Record with as-built details of the actual remedy or repair no later than 7 days after completion. DB Contractor shall include with the updated Maintenance Record verification that the remedy or repair meets the Performance Requirements.

DB Contractor shall take necessary action to avoid any Category 2 Defect from becoming a Category 1 Defect. DB Contractor shall monitor Category 2 Defects to verify the condition of the affected Maintained Element prior to permanent repair and shall inform TxDOT immediately should any such Defect deteriorate to a Category 1 Defect.

For Category 2 Defects, DB Contractor shall undertake the permanent repair within the period specified in the column with the heading "Category 2 Permanent Repair" in the Performance and Measurement Table unless an earlier permanent repair is required to prevent deterioration to a Category 1 Defect. Within 28 days after completion of the permanent repair, DB Contractor shall perform necessary tests and inspections to verify that each Defect has been satisfactorily repaired and that each applicable Target is achieved

throughout each Performance Section within which a Defect was recorded. DB Contractor shall submit evidence to TxDOT and conduct joint inspections as approved by TxDOT to verify that the permanent repair of each Defect meets the above requirements. Such evidence shall include, where applicable, Specialist Inspections performed in accordance with Section 50.5.3.

If DB Contractor proposes a permanent repair that includes diamond grinding of the pavement surface, DB Contractor shall submit a work plan with the Renewal Work Submittal that provides information regarding equipment and work methods equivalent in detail to that provided in TxDOT Specification Item 585 (Ride Quality for Pavement Surfaces). The maximum cumulative depth of grinding of any pavement surface shall be 1/4" and DB Contractor shall, at TxDOT's discretion, provide evidence that this requirement has been achieved by coring of the pavement. Diamond grinding shall not be permitted as a repair method for defects in flexible pavement.

The existence of a Defect Remedy Period for Category 2 Defects is the maximum period permitted for repair and shall not excuse DB Contractor from completing the repair of all Defects within the Maintenance Period. DB Contractor shall perform the Maintenance Services so that every Defect, including any Defect first identified within the final six months of the Maintenance Period, has been permanently repaired before the end of the Maintenance Period.

#### 50.4.5 **Hazard Mitigation of Category 1 Defects**

DB Contractor shall immediately implement hazard mitigation of any Category 1 Defect in a Maintained Element of which it is aware through its own inspections, from a third party or through notification by TxDOT to DB Contractor that TxDOT requires the DB Contractor to perform hazard mitigation for a Category 1 Defect.

For Category 1 Defects, DB Contractor shall take necessary action such that any hazard to Users is mitigated within the Defect Remedy Period specified in the column with the heading "Category 1 Hazard Mitigation" in the Performance and Measurement Table and shall permanently remedy the Defect within the period identified in the column with the heading "Category 1 Permanent Remedy" in the Performance and Measurement Table. DB Contractor shall continue hazard mitigation until a permanent remedy has been completed.

TxDOT may at its discretion perform with its own forces the hazard mitigation of a Category 1 Defect affecting a Maintained Element and may notify DB Contractor that it intends to perform or that it has performed the hazard mitigation. If TxDOT provides such notification, DB Contractor will be relieved of its responsibility to perform hazard mitigation, but only for the Defect covered by the notification. In such cases, unless otherwise instructed by TxDOT, DB Contractor shall remain responsible for the permanent remedy of the Category 1 Defect.

#### 50.5 **Inspections**

##### 50.5.1 **General Inspections by DB Contractor**

DB Contractor shall cause General Inspections of the Maintained Elements to be conducted by trained staff. The results of these inspections shall be used to:

- identify and categorize newly identified Defects;
- plan permanent remedy and permanent repair of Defects;
- develop programs of Renewal Work;
- update Maintenance Records to show condition and status of Maintained Elements;
- develop and update the Renewal Work Submittal; and
- confirm the adequacy of permanent remedy and permanent repair of previously identified Defects.

DB Contractor shall invite TxDOT to participate in all such inspections with a minimum of seven days' notice and shall provide transportation and safety equipment for up to two TxDOT personnel.

DB Contractor shall conduct General Inspections at least monthly. The type, frequency, and level of detail of General Inspections shall be contained in an inspection plan which shall be submitted to TxDOT no later than 7 days before the inspection date. At a minimum, DB Contractor shall conduct road speed inspection of all Maintained Elements. DB Contractor shall include more detailed visual or hands-on inspection of selected Maintained Elements when any of the following occur:



- deterioration trends such as an increase in pattern and frequency of previously identified Defects has been identified by either party;
- Defects have been identified in a Specialist Inspection, General Inspection or Audit Inspection that need to be monitored because there is a risk of their deterioration;
- extreme weather events or Incidents have occurred and TxDOT has notified the DB Contractor that these may have affected Maintained Elements; or
- reports or complaints have been received from a third party.

Where a more detailed visual or hands-on inspection is required, DB Contractor shall cause personnel performing or attending inspections of road pavements and structures to be certified as inspectors and/or raters in accordance with TxDOT's PMIS program or applicable certifying agency for the type of inspection being performed, capable of accurately identifying, categorizing and recording Defects in accordance with the requirements of [Section 50.4.3](#).

The type, frequency, and level of detail of General Inspections shall be adjusted as necessary to take into consideration asset condition information from all sources. DB Contractor shall record details of the manner of inspection (e.g., center Lane Closure or shoulder), the weather conditions and any other unusual features of the inspection in Maintenance Records.

50.5.2

**Audit Inspections**

DB Contractor shall undertake Audit Inspections annually on Performance Sections selected by TxDOT. DB Contractor shall invite TxDOT to participate in all such inspections with a minimum of seven days' notice and shall provide transportation and safety equipment for up to two TxDOT personnel.

Audit Inspections shall be conducted on a minimum of 20% of the available Performance Sections each year such that over a period of no more than 60 months the Audit Inspections provide coverage of up to 100% of the Project. DB Contractor shall assess the condition of each Maintained Element using the inspection and measurement methods set forth in the column entitled "Inspection and Measurement Method" in the Performance and Measurement Table.

DB Contractor shall conform at a minimum to the inspection standards set forth for the Maintained Element in the column entitled "Inspection and Measurement Method" in the Performance and Measurement Table.

DB Contractor shall record in the Audit Inspection all Defects identified during General Inspections undertaken over the 12 month period prior to the Audit Inspection, unless such Defects have been repaired. DB Contractor shall create a new Maintenance Record for each Maintained Element physically inspected during each Audit Inspection in accordance with the column entitled "Measurement Record" on the Performance and Measurement Table.

50.5.2.1

**Asset Condition Score**

Within ten days following each Audit Inspection, DB Contractor shall report to TxDOT in the Maintenance Services Report a Maintained Element Asset Condition Score for each Maintained Element and a Mean Asset Condition Score for each Maintained Element Category, to include all of the Performance Sections inspected in the most recent Audit Inspection. DB Contractor shall calculate the Maintained Element Asset Condition Scores according to the measurement criteria set forth in [Table 1](#).

**Table 1 – Maintained Element Asset Condition Score Criteria**

| Score | Criteria  |
|-------|---|
| 5     | <ul style="list-style-type: none"> <li>✓ Targets for individual Maintained Elements are almost entirely met (90% to 100% compliance with the relevant Targets for each Maintained Element within each Performance Section), and</li> <li>✓ Is fully functional and in nearly new condition, meeting or exceeding Performance Requirement.</li> </ul>      |
| 4     | <ul style="list-style-type: none"> <li>✓ Targets for individual Maintained Elements are substantially met (less than 90% compliance and 80% or greater compliance with the relevant Targets for each Maintained Element within each Performance Section), and</li> <li>✓ Is functional and in good condition, meeting Performance Requirement.</li> </ul> |

| Score | Criteria   |
|-------|--|
| 3     | <ul style="list-style-type: none"> <li>✓ Targets for individual Maintained Elements are mostly met (less than 80% compliance and 70% or greater compliance with the relevant Targets for each Maintained Element within each Performance Section), and</li> <li>✓ Is in fair condition, but suggesting need for early replacement, renewal or repair of individual Maintained Element and/or maintenance or operation improvement action to meet Performance Requirement.</li> </ul> |
| 2     | <ul style="list-style-type: none"> <li>✓ Targets for individual Maintained Elements are barely met (less than 70% compliance and 60% or greater compliance with the relevant Targets for each Maintained Element within each Performance Section), or</li> <li>✓ In poor condition demonstrating need for immediate replacement, renewal or repair of individual Maintained Element and/or immediate change to MMP.</li> </ul>   |
| 1     | <ul style="list-style-type: none"> <li>✓ Targets for individual Maintained Elements are not met (less than 60% compliance with the relevant Targets for each Maintained Element within each Performance Section), or</li> <li>✓ In very poor condition demonstrating need for immediate replacement, renewal or repair of individual Maintained Element and/or immediate change to MMP.</li> </ul>   |

Notes to [Table 1](#):

- the calculation of Maintained Element Asset Condition Score for a Maintained Element is demonstrated by the following example:
  - assume there are 520 Performance Sections, of these 10%, or 52 are audited. There are four Targets to be assessed for Maintained Element “ride quality.” There are therefore,  $4 \times 52 = 208$  “Measurement Records” for ride quality. If 180 of these “Measurement Records” meet the Target, there would be 87% compliance and a Maintained Element Asset Condition Score of four assigned for that Maintained Element.
- a Mean Asset Condition Score for each Maintained Element Category shall be calculated to 1 decimal point.
- “Mean” in this context shall be the arithmetic mean of each of the Maintained Element Asset Conditions Scores within the Maintained Element Category.
- where a “Measurement Record” relates to a Maintained Element that is not represented in more than 25% of Performance Sections then the Maintained Element Asset Condition Score will be based on a measurement of overall Performance Sections and not a 10% random sample.
- the Maintained Element Asset Condition Score is a mechanism to benchmark the performance of the Project against the performance of other similar facilities and TxDOT may, during the Maintenance Period, alter the Maintained Element Asset Condition Score criteria to reflect Good Industry Practice.

Where specific measurement criteria are not provided in the Performance and Measurement Table, DB Contractor shall use Good Industry Practice to assess the Maintained Element Asset Condition Score against the general criteria stated in [Table 1](#).

### 50.5.3

#### **Specialist Inspections**

#### 50.5.3.1

#### **Types and Responsibility for Specialist Inspections**

Specialist Inspections and the responsibility for performing them are shown for Maintained Elements in [Table 2](#).

**Table 2 – Specialist Inspections**

| Maintained Element   | Specialist Inspection   | Responsibility |
|--|---|----------------|
| Maintained Elements Ref. 1 (Pavement), 1a (Asphalt Pavement), 1b (CRCP Pavement) in the Maintained Element Category 'Pavement' in the Performance and Measurement Table      | Annual survey of pavement condition for every lane of the entire Project, including main lanes, ramps, frontage roads, and cross streets for ride quality, rutting and pavement surface distresses according to the "Inspection and Measurement Method" set forth in the Performance and Measurement Table. | TxDOT          |
| Maintained Elements Ref. 2.1, 2.2, 2.4 in the Element Category 'Drainage' and Element Ref. 3.2 in the Element Category 'Structures' in the Performance and Measurement Table | Biennial inspections of drainage Elements, including headwalls, wingwalls, junctions, manholes, energy dissipaters pipes and non-bridge class culverts in accordance with Good Industry Practice and FHWA's Culvert Inspection Manual.  | DB Contractor  |
| All Maintained Elements Ref. 3.1 and 3.3 in the Maintained Element Category 'Structures' in the Performance and Measurement Table  | Routine biennial inspections, to the extent required, for all structures within the Maintenance Limits in compliance with the latest FHWA / NBIS and TxDOT requirements.  | TxDOT          |

50.5.3.2 **Requirements for DB Contractor-Performed Specialist Inspections**

Not Used

50.5.3.3 **Use of Specialist Inspection Data**

No later than 14 days after receipt of Specialist Inspection data, DB Contractor shall:

- submit for TxDOT's approval a Specialist Inspection analysis report showing the number and type of Defects within each Performance Section for each line item in the Performance and Measurement Table;
- establish a Maintenance Record of all Defects within each Performance Section established by the inspections and enter these Defects in the MMS with the appropriate Defect Remedy Period and other information required by [Section 50.4.3](#);
- use the Specialist Inspections to prioritize Maintenance Services and update the Renewal Work Submittal;
- use the routine biennial inspections provided by TxDOT and other available sources to determine the condition of all Maintained Elements of the Structures within the Maintenance Limits and identify structural and non-structural deficiencies that require repair; and
- use the Specialist Inspection data together with the most recent Audit Inspections, as a basis for the calculation of the Maintained Element Asset Condition Score.

50.5.3.4 **Joint Review of Specialist Inspection Data**

Where DB Contractor identifies Specialist Inspection data that, in DB Contractor's opinion requires further investigation, DB Contractor shall be entitled to flag these Specialist Inspection data for review within the Specialist Inspection analysis report. DB Contractor shall promptly schedule a detailed visual or hands on inspection with TxDOT to resolve any specialist inspection data that DB Contractor has flagged for review. This shall follow the procedure for General Inspections set forth in [Section 50.5.1](#) (General Inspection). Failure by DB Contractor to follow the processes in this [Section 50.5.3.4](#) shall be deemed acceptance by DB Contractor of the Specialist Inspection data.

#### 50.5.4 **Construction Inspections by DB Contractor**

DB Contractor shall cause all construction work and materials in connection with Renewal Work to be inspected at the frequencies required in compliance with Section 5.10 of the DB General Conditions.

#### 50.6 **Maintenance Management System (MMS)**

##### 50.6.1 **MMS Attributes**

DB Contractor shall implement a computer-based MMS to store all Maintenance Records and record the following attributes of the Maintained Elements:

- asset inventory, description, location, condition, date of installation and repair history;
- description, date-time of identification and categorization of Defects;
- planned actions and date-time for the hazard mitigation and permanent remedy of Category 1 Defects;
- planned actions and date-time for the permanent repair of Category 2 Defects;
- date-time and types of inspections performed; and
- details including date-time of actual repairs performed, reported by Function Code as shown in Attachment 50-3 (Function Codes, Descriptions and Allocation of Responsibility).

Horizontal and vertical locational accuracy of Maintenance Records shall meet or exceed Good Industry Practice. Maintenance Records shall be located using the posted TRM reference marker number, Geographic Information System (GIS) data and control number for bridge class structures.

##### 50.6.2 **Noncompliance Reporting through MMS**

DB Contractor shall record within the MMS all required information in connection with Noncompliance Events in accordance with the CMC Documents. Additionally, DB Contractor shall include within the MMS a feature that automatically triggers a Noncompliance Event whenever an appropriate hazard mitigation, permanent remedy or permanent repair of a Defect has not been completed within the Defect Remedy Period.

##### 50.6.3 **Recording of Complaints within MMS**

DB Contractor shall immediately refer to TxDOT all complaints and reports received by the DB Contractor from third parties and shall record within the MMS:

- the date and time of the complaint;
- the location and nature of the problem;
- who made the complaint; and
- date and action taken to address the complaint.

##### 50.6.4 **Recording of Accidents and Incidents Related to Maintenance Services**

DB Contractor shall record within the MMS all accidents/Incidents involving Users, DB Contractor or Subcontractors that occurs in any of the following circumstances:

- as a result of the performance of the Maintenance Services;
- as a result of a Defect;
- as a result of a Lane Closure implemented by the DB Contractor; or
- within the work zone of a traffic control plan implemented by the DB Contractor.

DB Contractor shall record the following:

- date and time of the accident/Incident;
- location of the Incident;
- nature of the Incident;
- all parties involved in the Incident, including names, addresses, telephone numbers and their involvement (including witnesses);
- responsible party and insurance information;
- action taken to address the Incident; and

- documentation of traffic control in place at location.

#### 50.6.5 **MMS Functional and Timeliness Requirements**

The MMS shall facilitate the direct upload by DB Contractor personnel from handheld devices in the field of all applicable Defect information and attributes including description, date-time of identification and categorization. Any such upload of Defect information with Category 1 Defect status shall trigger immediate automatic e-mail notification of TxDOT and the Maintenance Manager.

When a Maintained Element is constructed, installed, maintained, inspected, modified, replaced or removed, DB Contractor shall update the MMS after completion of such work. Category 1 Defects shall be recorded in the MMS immediately upon the DB Contractor becoming aware of the Defect either by direct upload to the MMS by DB Contractor's inspection personnel in the field or by upload of the information to the MMS when Category 1 Defects are notified to DB Contractor by TxDOT or a third party. Category 2 Defects shall be recorded in the MMS after coming to the attention of DB Contractor. All other recording requirements shall be recorded on the MMS within 15 days of completion or occurrence of the relevant activity.

#### 50.6.6 **MMS Interfaces with TxDOT**

The MMS shall be fully populated and operational and DB Contractor shall demonstrate to TxDOT the functionality and use of the MMS and that it is fully compliant with the requirements of the CMC Documents. The MMS shall be kept updated and operational for the duration of the Maintenance Period.

From the date of the demonstration and throughout the Maintenance Period, DB Contractor shall provide equipment, facilities and training necessary to permit remote, real-time, dedicated high-speed access to the MMS, via one terminal each, for up to three TxDOT employees. DB Contractor shall repeat the training and demonstration annually and whenever system changes are implemented.

DB Contractor shall submit to TxDOT asset inventory, condition data, inspection history and repair history of the Maintained Elements (the "MMS transfer data") in a format compatible with the maintenance management system operated by TxDOT (the "TxDOT MMS"). TxDOT may at any time issue to the DB Contractor the required data structure, file format, naming protocols and other database requirements for the MMS transfer data ("the TxDOT MMS data structure"). Upon receipt, DB Contractor shall cause the next Submittal of the MMS transfer data to comply with the TxDOT MMS data structure. DB Contractor shall submit all available MMS transfer data to TxDOT when DB Contractor's MMS is fully operational before commencement of the Maintenance Services. DB Contractor shall submit the complete and updated MMS transfer data annually thereafter throughout the Maintenance Period.

DB Contractor shall handover the MMS and everything required for its operation to TxDOT, or other entity as directed by TxDOT, upon expiration of the Maintenance Period or earlier termination of the Capital Maintenance Contract.

Requirements for the storage, retention and transfer to TxDOT of Maintenance Records are provided in [Section 50.7.9](#).

#### 50.7 **Maintenance Obligations**

##### 50.7.1 **Incident and Emergency Response**

TxDOT will provide the response to Incidents and Emergencies. When instructed by TxDOT, DB Contractor shall repair any damage to Maintained Elements caused by an Incident or Emergency.

Where structural damage to structures is suspected, DB Contractor shall cause that a suitably qualified bridge engineer or specialist inspector is available to evaluate the structure and to advise on temporary repairs and shoring needed to provide safe clearance of the Incident or Emergency.

##### 50.7.2 **Snow and Ice Control Activities and Clean-up**

TxDOT will carry out preventive actions and the clearance of snow and ice accumulations within the Maintenance Limits generally in accordance with TxDOT's Snow and Ice Control Operations Manual as may be modified by local practice. DB Contractor shall perform the Maintenance Services in a manner that does not adversely impact TxDOT's snow and ice control operations.

Before a predicted snow and ice event, DB Contractor shall coordinate with TxDOT to understand the activities that TxDOT intends to perform and shall cooperate with TxDOT to facilitate TxDOT's snow and ice activities. This shall include at a minimum temporarily vacating active work zones, deferring planned

maintenance activities, and providing TxDOT access to storage areas and material stockpiles. DB Contractor shall provide other assistance as TxDOT may instruct.

Following the weather event, DB Contractor shall at a minimum be responsible for the clearance of accumulations of winter maintenance materials such as abrasives applied by TxDOT to the roadway from ditches and other drainage elements. DB Contractor shall perform activities such as flushing of de-icing materials from joints and other locations where the accumulation of these materials might cause adverse effects to the Maintained Elements.

50.7.3 **Maintenance Safety**

DB Contractor shall perform the Maintenance Services in compliance with the Maintenance Safety Plan (Section 6 of the MMP) to preserve the safety of Users, adjacent communities and transportation workers.

50.7.4 **Public Communications**

During the Maintenance Period, DB Contractor shall implement the requirements of the Public Information and Communications Plan (PICP).

50.7.5 **Environmental Compliance**

50.7.5.1 **Hazardous Materials Management**

DB Contractor shall handle Hazardous Materials encountered during the Maintenance Services in compliance with the requirements of Section 4.6 of the CMA General Conditions and the Hazardous Materials Management Plan (HMMP). DB Contractor shall follow the requirements of Section 4.2.4.4.1 of the DB General Conditions for the preparation of Investigative Work Plans and Site Investigation Reports. Where Hazardous Materials need to be handled as a result of an Incident (for example the clean-up of a spill that affects a Maintained Element), DB Contractor shall promptly perform Hazardous Materials Management upon instruction from TxDOT and shall cooperate with TxDOT in the agreement of a Change Order.

DB Contractor shall require: all personnel of DB Contractor-Related Entities handling Hazardous Materials to be trained and certified to a level equal to or greater than that established under OSHA 1910.120 (HAZWOPER Training); and all on-Site workers to have received awareness and recognition training on Hazardous Materials to which they may be exposed.

DB Contractor shall provide personal protective equipment to workers and all other personnel who may be exposed to Hazardous Materials within the Maintenance Limits.

50.7.5.2 **SW3P Implementation**

DB Contractor shall perform Maintenance Services in compliance with the TCEQ Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit, in accordance with the TxDOT Storm Water Management and Guidelines for Construction Activities Manual and in compliance with the Storm Water Pollution Prevention Plan (SW3P) requirements.

50.7.5.3 **Pollution Prevention Implementation**

DB Contractor shall perform Maintenance Services in compliance with the Texas Waste Reduction Policy Act and shall implement the Pollution Prevention (P2) Plan when applicable.

50.7.5.4 **Environmental Compliance and Mitigation**

DB Contractor shall implement the Environmental Compliance and Mitigation Plan (ECMP).

50.7.6 **Renewal Work Requirements**

50.7.6.1 **Obligation to perform Renewal Work**

DB Contractor shall promptly perform Renewal Work to renew, repair, or replace any Maintained Element when any of the following conditions occur:

- The Maintained Element is scheduled for replacement, rehabilitation or renewal in accordance with the Renewal Work Submittal;
- The condition of any Maintained Element is such that early replacement, rehabilitation or renewal is needed to enable Targets for each "Measurement Record" to be reliably achieved; or

- Defects have occurred or may be expected to occur on a frequent basis and there is a risk that DB Contractor will be unable to comply with its obligation to remedy and repair such Defects within the applicable Defect Remedy Period.

#### 50.7.6.2 **Technical Requirements for Renewal Work**

All Renewal Work shall follow the design and construction requirements within the Specification Items applicable to the original design, installation or construction unless superseded by an amendment to a Maintenance Standard as set forth in Appendix 5 of the MMP (Controlling Manuals, Guidelines and Specifications). For any new pavement construction within the Maintenance Limits (including new pavement construction performed as a permanent repair of a Defect), Item 16.5.2 of the DB Specifications (Smoothness Specification) shall apply and corrective action acceptable to TxDOT shall be performed, at DB Contractor's sole expense, for any 0.1-mile section that measures an average IRI in excess of 75 inches per mile for rigid pavements, in excess of 65 inches per mile for flexible pavements, or for correction of local roughness.

When a Maintained Element is renewed or replaced, and upon the first installation of the renewed or replaced Maintained Element into the Project, DB Contractor shall not have the benefit of any Defect Remedy Period and the Renewal Work shall not be considered complete until the Target for each affected Maintained Element is met or exceeded for each measurement record in the Performance and Measurement Table. Prior to the end of the Maintenance Period or earlier termination of the Capital Maintenance Contract, DB Contractor shall submit to TxDOT a complete set of Record Documents and supporting calculations and details that accurately show all Renewal Work and any other changes to the Project during the performance of the Maintenance Services.

#### 50.7.6.3 **Quality Requirements for Renewal Work**

Whenever Renewal Work is undertaken that requires Design Work or Construction Work as such terms are defined in the DBA, DB Contractor shall, unless otherwise approved by TxDOT, follow all the requirements of the DB General Conditions in connection with quality management. Depending upon the nature of the Renewal Work, TxDOT may waive any or all of the following requirements at its discretion:

- Submittal of design in stages of development (Section 4.3.6.3 of the DB General Conditions);
- Employment of one or more independent organization(s) complying with the requirements for the IQF and PSQF in accordance with Section 4.3 of the DB General Conditions;
- Employment of professional services personnel and staffing including the assignment of a PSQCM, Engineer of Record and a PSQAM (Section 4.3.6.2 of the DB General Conditions); or
- Employment of construction services personnel and staffing including the assignment of a CQCM and IQFM.

#### 50.7.6.4 **Renewal Work Submittal**

DB Contractor shall submit a Renewal Work Submittal for TxDOT review and approval. The Renewal Work Submittal shall include the Renewal Work Schedule. The Renewal Work Submittal shall include the timing, scope, and nature of Renewal Work that DB Contractor proposes for each year throughout the Maintenance Period with additional details of specific locations, maintenance types and scope of work provided for all planned Renewal Work covering the period to the end of the Third Maintenance Term of the Capital Maintenance Contract assuming TxDOT exercises all permitted option rights for term extensions.

DB Contractor shall include in the Renewal Work Submittal, by Maintained Element:

- The estimated Useful Life;
- The description of the Renewal Work anticipated to be performed at the end of the Maintained Element's Useful Life;
- A brief description of any Renewal Work anticipated to be performed before the end of the Maintained Element's Useful Life including reasons why this work should be performed at the proposed time; and
- The Renewal Work Schedule.

Not later than 30 days before each anniversary of the Initial Maintenance Term Commencement Date, DB Contractor shall prepare and submit, for TxDOT's review and approval, either: (a) a revised Renewal Work Submittal or (b) the then-existing Renewal Work Submittal, accompanied by a written statement that DB

Contractor intends to continue in effect the then-existing Renewal Work Submittal for each Maintained Element without revision for the upcoming year (in either case, referred to as the "updated Renewal Work Submittal").

DB Contractor shall make revisions as reasonably required by experience and then-existing conditions respecting the Project, changes in technology, changes in DB Contractor's planned means and methods of performing the Renewal Work, and other relevant factors. The updated Renewal Work Submittal shall show the revisions, if any, to the prior Renewal Work Submittal and include an explanation of reasons for revisions. If no revisions are proposed, DB Contractor shall include, for each Maintained Element, a justification as to why the prior Renewal Work Submittal still applies.

## 50.7.7 **Traffic Management Requirements**

### 50.7.7.1 **General Requirements**

Throughout the Maintenance Period, DB Contractor shall conform with the requirements set forth in this Section 50.7.7, and shall provide for the safe and efficient movement of people, goods, and services, through and around the Project, while minimizing negative impacts to Users, residents, and businesses.

While planning and carrying out Maintenance Services, DB Contractor shall take into account the requirements and restrictions set forth in Section 4.1.17.2 of the CMA General Conditions and shall coordinate its Traffic Management Plan (TMP) with the traffic management to be performed by others to minimize disruption to Users of the Project.

Refer to Exhibit 9 of the CMA for Lane Rental Charges and Lane Closure process that shall apply.

### 50.7.7.2 **Traffic Control**

During the Maintenance Period, DB Contractor shall implement the requirements of Design Build Standard Specification Item 26.2.1 (Traffic Control Plans) and Design Build Specification Item 26.2.2 (Traffic Control Plan Requirements and Restrictions).

DB Contractor shall implement the TMP and the standards of the TMUTCD to develop traffic control plans for Lane Closures.

## 50.7.8 **Coordination Related to Rail**

### 50.7.8.1 **Rail**

Where the Project crosses a railroad right of way owned by an operating railroad, DB Contractor shall coordinate the Maintenance Services with the operating railroad and shall be responsible for obtaining the required approvals, permits, and agreements as required for the Maintenance Services, including any railroad related maintenance activities.

Whenever an agreement for construction, maintenance and use of railroad right-of-way between the operating railroad and TxDOT is required, DB Contractor shall prepare all the documentation required to obtain the agreement, including preparation of the agreement application on behalf of TxDOT, the drawings and specifications, making necessary modifications as required, and preparation of the agreement. DB Contractor shall submit the draft agreement to TxDOT for transmittal to the operating railroad. After all comments have been incorporated or satisfactorily resolved by DB Contractor, railroad or TxDOT, DB Contractor shall submit a complete and final agreement to TxDOT for execution. DB Contractor shall comply with all construction requirements and specifications set forth in the agreement.

DB Contractor shall arrange with the operating railroad for railroad flagging as required. DB Contractor shall comply with the operating railroad's requirements for contractor safety training prior to performing Maintenance Services or other activities on the operating railroad's property.

DB Contractor shall cooperate and coordinate with all operating railroads for access by the operating railroad and/or their agents to the rail right-of-way as necessary for rail maintenance and operations activities.

DB Contractor shall procure and maintain, prior to working adjacent to and entry upon operating railroad property, insurance policies naming TxDOT, TxDOT's consultants, and railroad as additional insured. DB Contractor shall obtain insurance per Section 3.4 of the CMA General Conditions. All insurance policies shall be in a form acceptable to the operating railroad. Copies of all insurance policies shall be submitted to TxDOT prior to any entry by DB Contractor upon operating railroad property. DB Contractor shall be responsible for scheduling the work to be completed by operating railroad as well as the work to be



completed by its own forces. DB Contractor shall be responsible for all costs associated with the railroad/transit force account work.

50.7.9

#### **Maintenance Records**

For all Maintenance Records, DB Contractor shall establish an Electronic Content Management System (ECMS) and shall follow the document storage and retrieval requirements set forth in Section 4.2.1.2.1 of the DB General Conditions. DB Contractor's document management system shall be compatible with SharePoint®.

DB Contractor shall cause all Maintenance Records and Project-related documents to be stored along with accurate information on the location consistent with reference markers in accordance with the TRM, so that all data and records can be retrieved by reference marker and Performance Section.

Maintenance Records shall be kept throughout the Maintenance Period and shall be provided to TxDOT at the time the Project is delivered to TxDOT, at either the expiration of the Maintenance Period or earlier termination of the Capital Maintenance Contract. All records obtained during the Warranty Periods shall be kept and provided to TxDOT at the end of the last Warranty Period.

Unless otherwise directed by TxDOT, record retention shall comply with the requirements of the Texas State Records Retention Schedule.

50.7.10

#### **Maintenance Transition**

No later than 60 days before the end of the Maintenance Period DB Contractor shall submit a comprehensive transition plan ("Maintenance Transition Plan") to TxDOT which includes the following items:

- Maintenance Transition punch list;
- List and status of Warranties;
- Vendors' test reports;
- DB Contractor's test reports;
- Record Documents for Renewal Work;
- Maintenance Records; and
- Copies of Warranty and service contracts.

DB Contractor shall submit to TxDOT a complete set of Record Documents. The Record Documents and documentation shall be an organized, complete record of drawings and supporting calculations and details that accurately represent what DB Contractor constructed. DB Contractor shall ensure that the Record Documents reflect the actual condition of the Maintenance Services construction.

DB Contractor shall coordinate the identification of Maintenance Transition punch list items required to be completed by DB Contractor prior to maintenance transfer. Maintenance Transition punch list shall include (a) estimated completion dates, (b) responsible Party(s), and (c) items that must be completed prior to maintenance transfer.

DB Contractor shall be responsible to prepare (in conjunction with TxDOT), administer and complete all items on the Maintenance Transition punch list to the satisfaction of TxDOT prior to the transfer of maintenance responsibilities to TxDOT.

50.8

#### **Report Requirements**

50.8.1

##### **Meetings**

DB Contractor shall conduct regular status, progress and planning meetings with TxDOT at least once a quarter throughout the Maintenance Period. This frequency shall be increased to monthly during any periods where Renewal Work is being undertaken that requires a Lane Closure. In addition, TxDOT and DB Contractor, through their respective authorized representatives, shall meet from time to time at the other Party's request to discuss and resolve matters relating to the Maintenance Services or Project. DB Contractor shall schedule all meetings with TxDOT at a date, time and place reasonably convenient to both Parties and, except in the case of urgency, shall provide TxDOT with written notice and a meeting agenda at least three Business Days in advance of each meeting.

50.8.2

**Nonconforming Work**

DB Contractor shall submit to TxDOT non-conformance reports and shall notify TxDOT of Nonconforming Work within two days of discovering the Nonconforming Work. TxDOT will issue a non-conformance report if TxDOT discovers any Nonconforming Work. DB Contractor's responsibility to correct Nonconforming Work is set forth in Section 5.3 of the CMA General Conditions.

50.8.3

**Maintenance Services Report**

The Maintenance Services Report shall be submitted quarterly throughout the Maintenance Period. The Maintenance Services Report shall identify the Maintenance Services performed for the reporting period and confirmation that all Maintenance Services performed were in compliance with the MMP. DB Contractor shall organize the Maintenance Services Report using the report sections and section reporting requirements shown in Table 3.

**Table 3 – Maintenance Services Report Sections**

| <b>Report</b>         | <b>Reporting Requirements/Description</b>   |
|-----------------------|---|
| Project Status        | <p>Report a high-level summary of Project condition and operational status, which shall include at a minimum:</p> <ul style="list-style-type: none"> <li>✓ Summary of Maintained Element Asset Condition Score and Mean Asset Condition Score if available,</li> <li>✓ Tracking log of accidents and Incidents for Maintenance Services (<u>Section 50.6.4</u>),</li> <li>✓ Tracking log of Lane Closures,</li> <li>✓ Tracking log of public inquiries/complaints.</li> </ul>   |
| Operational Status    | <p>Report a summary of Project condition and operational status, which shall include at a minimum:</p> <ul style="list-style-type: none"> <li>✓ Defects including the location, the nature and cause of the Defect and the steps that will be, or have been, taken to address the Defects per <u>Section 50.4</u>,</li> <li>✓ Noncompliance Events Report submitted in accordance with Exhibit 10 of the CMA.</li> <li>✓ Inspection results for General Inspections and Audit Inspections per <u>Section 50.5</u>,</li> <li>✓ Any differences between DB Contractor and TxDOT in Defect status and categorization as referred to in <u>Section 50.4.5</u>, and</li> <li>✓ Workforce injuries and OSHA related accidents.</li> </ul> |
| Organizational Status | <p>Report a summary of DB Contractor's organizational status (or reference to the appropriate sections/attachments in the latest MMP for the information) for the items below.</p> <ul style="list-style-type: none"> <li>✓ List of personnel,</li> <li>✓ Log of all training activities undertaken and planned,</li> <li>✓ List of major equipment, and</li> <li>✓ Subcontractors.</li> </ul>  |
| Progress Report       | <p>Report a summary of DB Contractor's activity, which shall include at a minimum from the previous report:</p> <ul style="list-style-type: none"> <li>✓ A tracking log of completed action items with start and end dates and documentation supporting resolution,</li> <li>✓ A summary of the Maintenance Services performed including Renewal Work,</li> <li>✓ A summary of quality control activities and results,</li> <li>✓ List of any Nonconforming Work with explanation of non-conformance and associated risks, and</li> <li>✓ Meetings/correspondence logs.</li> </ul>  |

| Report             | Reporting Requirements/Description  |
|--------------------|---|
| Planned Activities | <p>Report a summary of DB Contractor's planned activity, which shall include at a minimum:</p> <ul style="list-style-type: none"> <li>✓ A tracking log of action items in progress with start and projected end dates with a description of proposed solutions,</li> <li>✓ Schedule of planned Maintenance Services including Renewal Work for the upcoming quarter,</li> <li>✓ Details of the next General Inspection in accordance with <u>Section 50.5.1</u>, including any areas targeted for detailed visual or hands-on inspection,</li> <li>✓ Future Lane Closures including location, duration and reason of each,</li> <li>✓ A 6-month look ahead schedule of planned Maintenance Services including Renewal Work, and</li> <li>✓ A 3-month look ahead for any future Submittals included in the Maintenance Services Submittal Schedule.</li> </ul> |

50.8.4

### Annual Report

DB Contractor shall submit an annual report to TxDOT. This annual report shall include the following elements:

- An assessment of the actual Maintenance Services achievements versus the planned goals established in the MMP, as well as corrective actions and measures to be taken in the ensuing year to ensure that any shortcomings are corrected.
- An assessment of compliance with the various traffic control requirements and limitations contained in Section 4.1.17 of the CMA General Conditions and the traffic control plans developed in accordance with Section 50.7.9, as well as any corrective measures taken to correct any breach or violation of such requirements and limitations and any corrective measures necessary to prevent such future breach or violation of such requirement and limitations.
- A report of the inspections and tests performed as part of the MMP and as required by the Performance and Measurement Table, the results of such inspections and tests, and occurrences and the measures taken to correct Nonconforming Work.
- Any exceptions taken by DB Contractor to the results of Specialist Inspections undertaken by TxDOT, together with DB Contractor's plan for additional inspections to resolve any such differences.
- A report of the Renewal Work performed in the immediately preceding year. The report shall describe: (i) by location, the Maintained Element, as listed in the Renewal Work Submittal, and any other Project component for which Renewal Work was performed; (ii) the type of Renewal Work performed; (iii) each specific item replaced; (iv) any warranty information associated with any replacement item; (v) the dates of commencement and completion of such Renewal Work; and (vi) such other information as is reasonably requested by TxDOT.

50.9

### Submittal

DB Contractor shall prepare a Maintenance Services Submittal Schedule as part of MMP. The Maintenance Services Submittal Schedule shall include a listing of all communication items, submittals or deliverables as called out in the CMC Documents. Submittal activity durations shall include specific durations for TxDOT review and/or approval of the DB Contractor's Submittals as called out elsewhere in the CMC Documents.

In updates to the MMP, DB Contractor shall update the Maintenance Services Submittal Schedule to reflect the current status of the Project, including approved Change Orders or provide a notification of no change to the current schedule. Each Maintenance Services Submittal Schedule update shall accurately reflect all activities as of the effective date of the updated schedule.

Table 4 lists submittals to TxDOT in this Item 50. Acceptable electronic formats include Microsoft Word, Microsoft Excel, or Adobe Acrobat files, unless otherwise required.

**Table 4: Key Submittals to TxDOT**

| Submittals  | Submittal Schedule  | Department Action  | Reference Section |
|---|---|--------------------|-------------------|
| MMP   | No later than 60 Days after issuance of Maintenance NTP1  | Approval           | 50.2.1            |
| MMP Update  | As required, or at least annually 60 Days prior to each anniversary of the Initial Maintenance Term Commencement Date                 | Approval           | 50.2.1            |
| General Inspection Plans                          | At least monthly, no later than seven days prior to inspection date   | For Information    | 50.5.1            |
| Renewal Work Submittal for Defect Repair          | No later than 30 Days before conducting a permanent remedy or permanent repair of any Defect.   | Approval           | 50.4.4            |
| Specialist Inspection Analysis Report             | No Later than 14 Days after receipt of Specialist Inspection data   | Approval           | 50.5.3.3          |
| Update of Renewal Work Submittal                  | Within 60 Days of Maintenance NTP1; No later than 31 Days prior to each anniversary of the Initial Maintenance Term Commencement Date | Approval           | 50.7.6.4          |
| ETCS equipment impact mitigation plan (as needed) | If applicable, at least 28 Days in advance of performing any such Maintenance Services  | For Approval       | 50.7.8.2.2        |
| Maintenance Transition Plan (when needed)         | At least 60 Days prior to the end of the Maintenance Period, or upon termination of the Capital Maintenance Contract                  | For Information    | 50.7.10           |
| Record Documents                                  | At least 60 Days prior to the end of the Maintenance Period   | For Information    | 50.7.10           |
| Notification of Nonconforming Work                | Within two Days of discovering the Nonconforming Work   | For Information    | 50.8.2            |
| Non-conformance reports                           | Within seven Days of issuance   | Review and comment | 50.8.2            |
| Maintenance Services Report                       | As required, or at least quarterly following the Initial Maintenance Term Commencement Date   | For Information    | 50.8.3            |
| Annual report                                     | Within 31 Days after each anniversary of the Initial Maintenance Term Commencement Date   | For Information    | 50.8.4            |