

EXHIBIT 2

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Attachments:

- Attachment 1 Performance and Measurement Table
- Attachment 2 Maintained Elements and Scope of Maintenance Services
- Attachment 3 Maintenance Limits
- Attachment 4 Maintenance Management Plan Contents
- Attachment 5 Not Used
- Attachment 6 Lane Closure Requirements
- Attachment 7 Function Codes, Descriptions, and Allocation of Responsibility

# 1 GENERAL

## 1.1 Maintenance Obligations

### 1.1.1 General Requirements

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 the requirements of the CMA Documents. DB Contractor shall:

- (a) conduct inspections at the specified frequency within the Maintenance Limits, providing TxDOT the opportunity to attend;
- (b) 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;
- (c) develop, maintain and implement a maintenance management system to record the category, status, intended action and remedy for all Defects in Maintained Elements;
- (d) 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;
- (e) 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;
- (f) minimize delay and inconvenience to Users when performing the Maintenance Services; and
- (g) minimize the risk of damage, disturbance, or destruction of third-party property during the performance of Maintenance Services.

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

The Maintenance Services shall apply to the Maintained Elements as identified in Attachment 2 to this Exhibit 2. TxDOT or applicable Governmental Entity retains maintenance responsibilities for Non-Maintained Elements and TxDOT will perform TxDOT-Retained Maintenance Activities within the Maintenance Limits.

Where TxDOT, other Governmental Entities, Utilities or the Systems Integrator have maintenance jurisdiction within the Maintenance Limits or on adjacent facilities, DB Contractor shall coordinate directly with such entities its Traffic Management Plan with the traffic management to be performed by all such entities to minimize disruption to Users.

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:

- (a) 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;
- (b) any TxDOT-Retained Maintenance Activity or activity by a third party that DB Contractor considers may have adversely affected or has the potential to adversely affect a Maintained Element;
- (c) any TxDOT-Retained Maintenance Activity that DB Contractor considers should be performed by TxDOT, with an explanation of any adverse effect on a Maintained Element that may be avoided or mitigated by the maintenance activity; or
- (d) 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.

### **1.1.3 Maintenance Limits**

The initial Maintenance Limits are provided in Attachment 3 to this Exhibit 2. 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 Attachment 3 to this Exhibit 2. 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 at least annually to review the Maintenance Limits, identify any jurisdictional gaps or inefficiencies and recommend solutions.

## **1.2 Maintenance Management**

### **1.2.1 Maintenance Management Plan**

The 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 CMA Documents. The MMP shall be consistent with the general maintenance obligations described in Section 1.1 of this Exhibit 2. The requirements and contents for the MMP are set forth in Section 4 of this Exhibit 2 and in Attachment 4 to this Exhibit 2.

In accordance with Section 5.5 of the CMA (Maintenance Management Plan), within 60 days after issuance of Maintenance NTP1, DB Contractor shall submit the MMP to TxDOT. DB Contractor shall update the MMP as required, or at least annually and shall submit to TxDOT's no later than 30 days prior to each anniversary of the Initial Maintenance Term Commencement Date.

### **1.2.2 Maintenance Services Quality Management Plan**

As part of the MMP, DB Contractor shall develop, implement and maintain a Quality Management System (QMS) that fulfills all requirements for Maintenance Services. The QMS shall be described in a Maintenance Services Quality Management Plan (MSQMP), which shall be in effect until conclusion of the Warranty Period.

The MSQMP shall comply with the requirements for the QMP set forth in Section 2.2 of the Technical Provisions. The MSQMP shall also include the procedures and responsibilities for:

- a) how DB Contractor will meet the Performance Requirements, including the necessary inspection procedures and frequencies to ensure compliance with Targets and the achievement of Defect Remedy Period to mitigate hazards, permanently remedy, and permanently repair Defects.
- b) inspection and test plans, including the timing and frequency of testing
- c) control of quality records
- d) validation of the accuracy of Maintenance Records
- e) management reviews
- f) measurement of customer satisfaction
- g) control of nonconforming products and services
- h) validation of the data, times, dates and other information entered into the Maintenance Management System (MMS) for Noncompliance Events
- i) verification of DB Contractor's compliance with the Performance Requirements including frequency of checks / audits
- j) accuracy of all Maintenance Records including frequency of checks / audits
- k) making all quality records immediately available to TxDOT for review

DB Contractor shall update the MSQMP as needed to ensure current versions of the following information are contained in said plan:

- a) the organizational chart that identifies all quality management personnel, their roles, authorities and line reporting relationships;
- b) descriptions of the roles and responsibilities of all quality management personnel and those who have the authority to stop activities;
- c) identification of testing agencies, including information on each agency's capability to provide the specific services required for the activities, certifications held, equipment, and location of laboratories; and resumes for all quality management personnel.

### **1.2.3 Maintenance Safety Plan**

As part of the MMP, DB Contractor shall prepare and submit a comprehensive safety plan ("Maintenance Safety Plan"). The Maintenance Safety Plan shall describe the DB Contractor's policies, plans, training programs, and work site controls to ensure the health and safety of personnel involved in the Project and the general public affected by the Project during the Maintenance Period. The Maintenance Safety Plan shall define when the Maintenance Safety Manager is required to be at the work site or within the Maintenance Limits. The Maintenance Safety Plan is designed to preserve the safety of Users, adjacent communities, transportation workers and Emergency Services.

### **1.2.4 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:

- (a) implementing the maintenance obligations in this Exhibit 2 and the MMP;
- (b) causing the Maintenance Services to be performed in accordance with the CMA Documents;

- (c) causing all maintenance personnel and resources performing Maintenance Services to be available and properly trained; and
- (d) the health and safety of personnel delivering the Maintenance Services and the general public affected by the Project.

The Maintenance Manager must have a minimum of five years of experience managing maintenance activities on projects of similar scope and complexity and as established in the Proposal Commitments (Exhibit 3 to the CMA).

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

### **1.2.5 Maintenance Services Quality Manager**

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

- (a) independently overseeing and performing all quality responsibilities for the Maintenance Services in accordance with the MSQMP;
- (b) ensuring that the methods and procedures contained in approved MSQMP are implemented and followed by DB Contractor and Subcontractors in the performance of the Maintenance Services; and
- (c) the quality and accuracy of all Maintenance Records and Submittals including the inspections (Section 1.4 of this Exhibit 2), the contents of the MMS, the Renewal Work Submittal (Section 2.5 of this Exhibit 2) and the DB Contractor's reports (Section 6 of this Exhibit 2).

The MSQM 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.

In addition to the MSQM, TxDOT may require the employment by the DB Contractor of quality management personnel in connection with Renewal Work in accordance with Section 2.2 of the Technical Provisions to be responsible for design, construction and materials quality.

### **1.2.6 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:

- (a) roadway construction and safety enforcement experience;
- (b) ten (10) years of progressive construction or operations and maintenance safety management experience;
- (c) 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;

- (d) completion of the OSHA #500 course – Trainer Course in OSHA Standards for Construction;
- (e) completion of training and current certification for CPR and first aid; and
- (f) completion of the following training sponsored by an accredited agency:
  - work zone traffic control; and
  - flaggers in work zones.

### **1.3 Performance Requirements**

#### **1.3.1 Performance and Measurement Table**

DB Contractor's performance of the Maintenance Services shall be governed by the Performance and Measurement Table as may be updated in accordance with Section 1.3.4. The Performance and Measurement Table shows for each Maintained Element:

- (a) a performance objective;
- (b) the Defect Remedy Periods for each category of Defect;
- (c) inspection and measurement methods;
- (d) measurement records; and
- (e) 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 Exhibit 2.

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.

#### **1.3.2 Defect Identification, Recording and Categorization**

##### **1.3.2.1 Definitions**

In this Exhibit 2 and as shown on the Performance and Measurement Table:

- (a) 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;
- (b) 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;
- (c) 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.

##### **1.3.2.2 Sources of Defects and Status**

DB Contractor shall identify and record Defects through inspections described in Section 1.4, 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 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.

### **1.3.2.3 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:

- (a) it represents an immediate or imminent health or safety hazard to Users or road workers;
- (b) there is a risk of immediate or imminent structural failure or deterioration;
- (c) there is an immediate or imminent risk of damage to a third party's property; or
- (d) 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 assigned 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 the DB Contractor.

### **1.3.3 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 2 (Renewal Work Requirements).

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. Immediately upon 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 Auditable Section within which a Defect was recorded. DB Contractor shall submit evidence to 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 1.4.4. 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  $\frac{3}{4}$ " and DB Contractor shall, at TxDOT's sole discretion, provide evidence that this requirement has been achieved by coring of the 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 6 months of the Maintenance Period, has been permanently repaired before the end of the Maintenance Period.

### **1.3.4 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.

### **1.3.5 Performance and Measurement Table Update**

DB Contractor shall 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 Exhibit 2. TxDOT may, at any time, require DB Contractor to adopt amendments to the columns with the headings "Measurement Record" and "Inspection and Measurement Method" in the Performance and Measurement Table where such updates are required to comply with then current Good Industry Practice.

TxDOT shall require the adoption of a new "Inspection and Measurement Method" or "Measurement Record" only when required because the current "Inspection and Measurement Method" or "Measurement Record" no longer complies with 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 Exhibit 2, 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.

## 1.4 Inspections

### 1.4.1 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:

- (a) identify and categorize newly identified Defects;
- (b) plan permanent remedy and permanent repair of Defects;
- (c) develop programs of Renewal Work;
- (d) update Maintenance Records to show condition and status of Maintained Elements;
- (e) develop and update the Renewal Work Submittal; and
- (f) 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 7 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. The inspection plan may be submitted as part of the monthly report if it meets this deadline. 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:

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

Where a more detailed visual or hands-on inspection is required as a result of items (i)-(iii) above, 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 1.3.

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.

### 1.4.2 Audit Inspections

DB Contractor shall undertake Audit Inspections every 6 months on Performance Sections randomly selected by TxDOT. DB Contractor shall invite TxDOT to participate in all such

inspections with a minimum of 7 days' notice and shall provide transportation and safety equipment for up to two TxDOT personnel.

Audit Inspections shall be conducted on a minimum of 10% of the available Performance Sections such that over a period of no more than 60 months the Audit Inspections provide coverage of 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 cause personnel performing Audit 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. Inspections, reviews, and testing conducted as part of Maintenance Services shall be performed only by personnel with appropriate training and qualifications, using appropriate equipment that is accurately calibrated and maintained in good operating condition at an AMRL (AASHTO R18, "Establishing and Implementing a Quality System for Construction Materials Testing Laboratories") accredited facility, or at a facility with comparable certification (e.g., ISO 17025, "General requirements for the competence of testing and Calibration laboratories").

DB Contractor shall record in the Audit Inspection all Defects identified during General Inspections undertaken over the 6 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.

**1.4.3 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 2.2 of the Technical Provisions.

**1.4.4 Specialist Inspections**

**1.4.4.1 Types and Responsibility**

The responsibility for performing Specialist Inspections for specified Maintained Elements is defined in Table 1.

**Table 1 – Specialist Inspections**

<b>Maintained Element</b>	<b>Specialist Inspection</b>	<b>Responsibility</b>
Maintained Elements Ref. 1.1, and 1.2 in the Maintained Element Category 'Pavement' in the Performance and Measurement Table	Annual survey of pavement condition for the entire Project, including main lanes, ramps, cross streets and frontage roads, undertaken using automated condition survey equipment to measure ruts, and ride quality according to the "Inspection and Measurement Method" set forth in the Performance and Measurement Table. Surveys shall also be undertaken immediately upon the completion of permanent repairs to verify that permanent repairs of Defects meet	DB Contractor

	specified ride quality requirements.	
Maintained Elements Ref. 3.1 and 3.2 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

#### 1.4.4.2 Requirements for DB Contractor-Performed Specialist Inspections

DB Contractor shall ensure that personnel performing inspections of road pavements and structures are certified as inspectors and/or raters in accordance with TxDOT's PMIS program or applicable certifying agency for the type of inspection being performed. Inspections, reviews, and testing shall only be performed by personnel with appropriate training and qualifications, using appropriate equipment that is accurately calibrated and maintained in good operating condition at an AMRL (AASHTO R18, "Establishing and Implementing a Quality System for Construction Materials Testing Laboratories") accredited facility, or at a facility with comparable certification (e.g., ISO 17025, "General requirements for the competence of testing and Calibration laboratories".)

Pavement automated condition surveys shall be subject to quality assurance by DB Contractor to verify the validity of all test data, either by causing the performance of independent testing on no less than 10% of the Performance Sections inspected or by validation against the results of the most recent annual automated condition inspections of the same type undertaken by TxDOT. TxDOT's annual automated condition survey results will be made available upon request by DB Contractor. DB Contractor shall submit all automated condition survey measurements and quality assurance results to TxDOT in electronic data files. Ride quality data shall use the format specified in TxDOT's Test Procedure for Operating Inertial Profilers and Evaluation Pavement Profiles (Tex-1001-S). DB Contractor's ride quality results will be acceptable provided that the IRI difference between DB Contractor's inertial profiler measurements (average IRI measured within each Performance Section) as compared to the quality assurance measurements or TxDOT-provided measurements is 6.0 in/mile or less.

#### 1.4.4.3 Use of Specialist Inspection Results

Upon receipt of Specialist Inspection results, DB Contractor shall:

- (a) immediately identify all Defects within each Performance Section established by the inspections and enter these Defects in the MMS with the appropriate Defect Remedy Period;
- (b) use the results of Specialist Inspections to prioritize Maintenance Services and update the Renewal Work Submittal;
- (c) identify any results of the Specialist Inspections that require further investigation and flag these for review within the next inspection plan;
- (d) as part of the General Inspections, conduct a detailed visual or hands on inspection with TxDOT at the earliest opportunity to resolve any differences in interpretation of the Specialist Inspection results;
- (e) use the routine biennial inspections 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

- (f) use the most recent Audit Inspections, supplemented by the Specialist Inspections, as a basis for the calculation of the Asset Condition Score.

## 1.5 Asset Condition Score

### 1.5.1 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.

### 1.5.2 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 2.

**Table 2 – 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>
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</li> </ul>

	<p>each Performance Section), or</p> <ul style="list-style-type: none"> <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>
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Notes to Table 2:

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.

2. A Mean Asset Condition Score for each Maintained Element Category shall be calculated to 1 decimal point.
3. “Mean” in this context shall be the arithmetic mean of each of the Maintained Element Asset Conditions Scores within the Maintained Element Category.
4. 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.
5. 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 2.

## 1.6 Maintenance Management System (MMS)

### 1.6.1 MMS Attributes

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

- (a) asset inventory, description, location, condition, date of installation and repair history;
- (b) description, date-time of identification and categorization of Defects;
- (c) planned actions and date-time for the hazard mitigation and permanent remedy of Category 1 Defects;
- (d) planned actions and date-time for the permanent repair of Category 2 Defects;
- (e) details including date-time of actual repairs performed, reported by Function Code as shown in Attachment 7 to this Exhibit 2; and
- (f) date-time and types of inspections performed.

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.

#### **1.6.2 Noncompliance Reporting through MMS**

DB Contractor shall record within the MMS all required information in connection with Noncompliance Events in accordance with Section 19.2 of the CMA. 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.

#### **1.6.3 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:

- (a) the date and time of the complaint;
- (b) the location and nature of the problem;
- (c) who made the complaint; and
- (d) date and action taken to address the complaint.

#### **1.6.4 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:

- (a) as a result of the performance of the Maintenance Services;
- (b) as a result of a Defect;
- (c) as a result of a Lane Closure implemented by the DB Contractor; or
- (d) within the work zone of a Traffic Control Plan implemented by the DB Contractor.

DB Contractor shall record the following:

- (i) date and time of the accident/Incident;
- (ii) location of the Incident;
- (iii) nature of the Incident;
- (iv) all parties involved in the Incident, including names, addresses, telephone numbers and their involvement (including witnesses);
- (v) responsible party and insurance information;
- (vi) action taken to address the Incident; and
- (vii) documentation of traffic control in place at location.

#### **1.6.5 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 no later than three days 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 no later than 3 days 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.

#### **1.6.6 MMS Interfaces with TxDOT**

90 days prior to the Initial Maintenance Term Commencement Date, 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 CMA 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"). Compatibility shall mean that TxDOT may from time to 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") and 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 CMA.

## **2 RENEWAL WORK REQUIREMENTS**

### **2.1 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:

- (a) the Maintained Element is scheduled for replacement, rehabilitation or renewal in accordance with the Renewal Work Submittal;
- (b) 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



- (c) 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.

## **2.2 Technical Requirements for Renewal Work**

All Renewal Work shall follow the design and construction requirements within the Technical Provisions applicable to the original design, installation or construction unless superseded by an amendment to a Maintenance Standard. For any new pavement construction within the Maintenance Limits (including new pavement construction performed as a permanent repair of a Defect), Section 8.3.2 of the Technical Provisions (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 CMA, DB Contractor shall submit to TxDOT a complete set of Record Drawings 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.

## **2.3 Quality Requirements for Renewal work**

Whenever Renewal Work is undertaken that requires design work or construction work, DB Contractor shall, unless otherwise approved by TxDOT, follow all the requirements of Section 2 of the Technical Provisions 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 sole discretion:

- (a) submittal of design in stages of development (Section 2.2.7 of the Technical Provisions);
- (b) employment of one or more independent organization(s) complying with the requirements for the CQAF in accordance with Section 2.2 of the Technical Provisions;
- (c) employment of professional services personnel and staffing including the assignment of a Design Quality Manager and the Engineer of Record (Section 2.2.7.4 of the Technical Provisions); or
- (d) employment of construction services personnel and staffing including the assignment of a CQM and CQAM (Section 2.2.8 of the Technical Provisions).

## **2.4 Nonconforming Work**

DB Contractor shall submit to TxDOT non-conformance reports within seven Days of issuance 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 5.9 of the CMA.

## **2.5 Renewal Work Submittal**

Within 60 days after issuance of Maintenance NTP1, DB Contractor shall submit the Renewal Work Submittal for TxDOT review and approval. 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 in the five year period following the Submittal.

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

- (a) the estimated Useful Life;
- (b) the description of the Renewal Work anticipated to be performed at the end of the Maintained Element's Useful Life;
- (c) 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
- (d) 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.

## **3 MAINTENANCE SERVICES DELIVERABLE SCHEDULE**

As part of the MMP, DB Contractor shall prepare a Maintenance Services Deliverable Schedule.

The Maintenance Services Deliverable Schedule shall include a listing of all Submittals or deliverables as called out in the CMA 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 CMA Documents.

In updates to the MMP, DB Contractor shall update the Maintenance Services Deliverable 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 Deliverable Schedule update shall accurately reflect all activities as of the effective date of the updated schedule.

## **4 MAINTENANCE OBLIGATIONS**

### **4.1 Maintenance Safety**

DB Contractor shall provide the Maintenance Services in compliance with the Maintenance Safety Plan to preserve the safety of Users, adjacent communities and transportation workers.

## 4.2 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.

## 4.3 Environmental Compliance

### 4.3.1 Hazardous Materials Management Plan

DB Contractor shall handle Hazardous Materials encountered during the Maintenance Services in compliance with the requirements of Section 3.8 of the CMA and the Hazardous Materials Management Plan (HMMP). DB Contractor shall follow the requirements of Section 4.3.5 of the Technical Provisions for the preparation of Investigative Work Plans and Site Investigation Reports. Whenever the DB Contractor is required to handle Hazardous Materials as part of the Maintenance Services, TxDOT shall be entitled to require that, at its sole discretion, DB Contractor employ a Hazardous Materials Manager complying with Section 4.4.7 of the Technical Provisions. 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.

As part of the MMP, DB Contractor shall prepare and submit a HMMP for the safe handling, storage, treatment and/or disposal of Hazardous Materials, whether encountered at or brought onto the Project by DB Contractor, encountered or brought onto the Project by a third party, or otherwise, during the Maintenance Period.

The HMMP shall include the identification and contact information for designated responsible individuals in the management of Hazardous Materials and the HMMP and procedures compliant with all applicable Environmental Laws, which at a minimum include:

- a) Updated materials safety data sheets, per OSHA requirements, for all chemicals used in connection with the Maintenance Services;
- b) identification and documentation of potential contaminated sites which might impact Users or the performance of the Maintenance Services;
- c) mitigation of contamination encountered during the Maintenance Services;
- d) a project-specific spill response plan including the prevention, control, and mitigation of fugitive noxious or toxic vapors or particulate matter (dust), contaminated soil, and contaminated groundwater during disturbance of noxious or hazardous materials and media;

- e) training of personnel for responding to and mitigating Incidents involving contamination or waste including a Hazardous Materials training module and worker training awareness so that workers recognize the potential Hazardous Materials to which they may be exposed;
- f) provisions for appropriate storage and disposal of all waste encountered or disposed of on the Project;
- g) an Investigative Work Plan (IWP) and Site Investigative Report (SIR) in the event that Hazardous Materials are discovered during Maintenance Services; and
- h) a list of all personal protection equipment available to protect workers from exposure in connection with the Maintenance Services.

#### **4.3.2 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. As part of the MMP, DB Contractor shall prepare procedures for a SW3P including criteria determining the types of Maintenance Services for which SW3P requirements shall be followed.

#### **4.3.3 Pollution Prevention Plan**

As part of the MMP, DB Contractor shall prepare and submit a Pollution Prevention (P2) Plan when applicable in accordance with the Texas Waste Reduction Policy Act. The following items shall be included in the P2 Plan, at a minimum:

- a) large and small quantity generators of hazardous waste;
- b) toxics release inventory (TRI);
- c) list of all hazardous wastes and TRI chemicals;
- d) activities that generate the waste or TRI chemical;
- e) explanation of P2 projects;
- f) implementation schedule;
- g) measurable P2 goals;
- h) personnel awareness program; and
- i) P2 Plan Executive Summary.

#### **4.3.4 Environmental Compliance and Mitigation Plan**

DB Contractor shall meet the environmental requirements of Section 4 of the Technical Provisions during the performance of the Maintenance Services and shall implement the Environmental Compliance and Mitigation Plan (ECMP).

As part of the MMP, the ECMP shall include procedures and responsibilities for:

- a) maintaining the Environmental Commitments for all Maintenance Services including Project-specific identification of significant Environmental Commitments that will require monitoring after Substantial Completion;

- b) verification that any discharge from the Project into a sanitary sewer system complies with appropriate codes and standards of the sanitary sewer owner;
- c) identification and mitigation of any potential traffic noise caused by Maintenance Services;
- d) environmental monitoring within the Project area and submittal of all necessary environmental documentation and monitoring reports to the appropriate Governmental Entities and, when applicable, to TxDOT, to the extent necessary to maintain compliance with applicable Environmental Approvals; and
- e) training personnel to avoid or take appropriate action to minimize environmental impacts caused by Maintenance Services.

#### **4.4 Maintenance Records**

For all Maintenance Records, DB Contractor shall follow the document storage and retrieval requirements set forth in Section 2.1.2.1 of the Technical Provisions. 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 CMA. 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.

#### **4.5 Maintenance Communications Plan**

As part of the MMP, DB Contractor shall prepare and submit a comprehensive communications plan ("Maintenance Communications Plan").

The Maintenance Communications Plan shall describe the processes and procedures for communication of Project information between the DB Contractor's organization and TxDOT, other Governmental Entities, Utilities, and third parties. The Maintenance Communications Plan shall describe how the DB Contractor's organization will respond to unexpected requests for information, communicate changes or revisions to necessary DB Contractor personnel, and notify TxDOT before and after changes are made to the CMA Documents.

During the Maintenance Period, DB Contractor shall implement the requirements of the Section 3.2.9 of the Technical Provisions for Lane Closure notification and Section 3.2.10 of the Technical Provisions for Emergency event communication.

#### **4.6 Maintenance Transition Plan**

At sixty (60) days prior to the end of the Maintenance Period, or upon earlier termination of the CMA, DB Contractor shall submit a comprehensive transition plan ("Maintenance Transition Plan") to TxDOT which includes the following items:

- (a) Maintenance Transition punch list;
- (b) list and status of Warranties;

- (c) vendors' test reports;
- (d) DB Contractor's test reports;
- (e) Record Drawings for Renewal Work;
- (f) Maintenance Records; and
- (g) copies of Warranty and service contracts.

At sixty (60) days prior to the end of the Maintenance Period, DB Contractor shall submit to TxDOT a complete set of Record Drawings. The Record Drawings 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 Drawings 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.

## **5 TRAFFIC MANAGEMENT REQUIREMENTS**

### **5.1 General Requirements**

Throughout the Maintenance Period, DB Contractor shall conform with the requirements set forth in this Section 5 of this Exhibit 2, 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 restrictions set forth in Attachment 6 to this Exhibit 2 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.

DB Contractor shall produce a traffic control plan for each and every phase of every planned Maintenance Services activity that impacts traffic and involves traffic control details and shall coordinate with appropriate Governmental Entities on the development of the plan. DB Contractor is responsible for obtaining all necessary permits from such local entities to implement the plans.

Refer to Section 12.5 of the CMA for Lane Rental Charges that shall apply for Lane Closures.

### **5.2 Traffic Management Plan**

As part of the MMP, DB Contractor shall prepare and submit a comprehensive TMP to be used throughout the Maintenance Period that includes the following contents:

- (a) obtaining acceptance of detours, road and Lane Closures and other traffic pattern modifications from applicable Governmental Entities, and implementing, maintaining and removing those modifications;
- (b) obtaining approval of Lane Closure and traffic control plan from TxDOT;

- (c) installation, maintenance and removal of interim signing and the corresponding handling of permanent signing during maintenance work
- (d) installation, maintenance, replacement and removal of traffic control devices, including pavement markings and traffic barriers, if used
- (e) safe ingress and egress of construction vehicles in the work zone;
- (f) continuous access to established truck routes and Hazardous Material (HazMat) routes, and to provide suitable detour routes, including obtaining any approvals required by the appropriate Governmental Entities for these uses. (Refer to Section 3.1 Hazardous Material Management Plan of the MMP)
- (g) comprehensive traffic control strategy to be implemented at the work site including an evaluation of the work operation, traffic conditions, safe ingress and egress of construction vehicles
- (h) modification of plans as needed to adapt to changing Project circumstances;
- (i) communication of TMP information to DB Contractor's public information personnel and notify the public of maintenance of traffic issues; and
- (j) contingency plan of how traffic congestion can be alleviated.

### **5.3 Traffic Control Plan**

DB Contractor shall provide traffic control plans to TxDOT for review no later than 10 days before implementation for Partial Lane Closures and no later than 14 days before implementation for Full Lane Closures.

- (a) DB Contractor shall use the procedures in the TMP, TxDOT standard drawings, and TMUTCD requirements to develop detailed traffic control plans which provide for all construction stages and phasing, as well as all required switching procedures.
- (b) The traffic control plan shall include details for all detours, traffic control devices, striping, and signage applicable to each phase of construction. Information included in the traffic control plans shall be of sufficient detail to allow verification of design criteria and safety requirements, including typical sections, alignment, striping layout, drop off conditions, and temporary drainage. The traffic control plans shall clearly designate all temporary reductions in speed limits. Changes to posted speed limits will not be allowed unless specific prior approval is granted by TxDOT.
- (c) DB Contractor shall keep the number of Lane Closures to an absolute minimum and shall keep each Lane Closure to the shortest time and extent necessary for safe and efficient operations and in accordance with Attachment 6 to this Exhibit 2.
- (d) DB Contractor shall ensure that opposing traffic on a normally divided roadway shall be separated with appropriate traffic control devices, shall maintain signing continuity within the Project and intersecting streets at all times, and shall ensure all streets and intersections remain open to traffic to the greatest extent possible.
- (e) DB Contractor shall maintain access to all adjacent streets and shall provide for ingress and egress to public and private properties at all times.
- (f) If at any time the traffic queue resulting from the Maintenance Services cannot be dispersed within 10 minutes, DB Contractor shall immediately undertake modifications to alleviate the traffic congestion. A contingency plan of how traffic congestion can be alleviated should be included with the traffic control plan.

- (g) DB Contractor shall maintain signing continuity on all active roadways within or intersecting the Project at all times.
- (h) DB Contractor shall prepare public information notices, in coordination with Section 3 of the Technical Provisions, in advance of the implementation of any Lane Closures or traffic switches. These notices shall be referred to as traffic advisories.

## 6 REPORTING REQUIREMENTS

### 6.1 Monthly Maintenance Services Report

The Maintenance Services Report shall be submitted monthly throughout the Maintenance Period in accordance with Section 5.6 of the CMA. The Maintenance Services Report shall identify all of the Maintenance Services for the reporting period, the actual 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**

Report Sections	Reporting Requirements/Description
Project Status	Report a high-level summary of Project condition and operational status, which shall include at a minimum: <ul style="list-style-type: none"> <li>i) summary of Maintained Element Asset Condition Score and Mean Asset Condition Score if available,</li> <li>ii) tracking log of accidents and Incidents for Maintenance Services (<u>Section 1.6.4</u> of this Exhibit 2),</li> <li>iii) tracking log of Lane Closures,</li> <li>iv) tracking log of public inquiries/complaints.</li> </ul>
Operational Status	Report a summary of Project condition and operational status, which shall include at a minimum: <ul style="list-style-type: none"> <li>i) 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 1.3.1</u> of this Exhibit 2,</li> <li>ii) Noncompliance Events Report submitted in accordance with <u>Section 18.2.1.3 of the CMA</u> and containing the information required in <u>Section 19.2.4.1 of the CMA</u>.</li> <li>iii) inspection results for General Inspections and Audit Inspections per <u>Section 1.4</u> and <u>Section 1.5.2</u> of this Exhibit 2,</li> <li>iv) any differences between DB Contractor and TxDOT in Defect status and categorization as referred to in <u>Section 1.3.2</u>, and</li> <li>v) workforce injuries and OSHA related accidents.</li> </ul>
Organizational Status	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. <ul style="list-style-type: none"> <li>i) list of personnel,</li> <li>ii) log of all training activities undertaken and planned,</li> <li>iii) list of major equipment, and</li> <li>iv) Subcontractors.</li> </ul>
Progress Report	Report a summary of DB Contractor’s activity, which shall include at a minimum from the previous month: <ul style="list-style-type: none"> <li>i) a tracking log of completed action items with start and end dates and</li> </ul>



Report Sections	Reporting Requirements/Description
	documentation supporting resolution, ii) a summary of the Maintenance Services performed including Renewal Work, iii) a summary of quality control activities and results, iv) list of any Nonconforming Work with explanation of non-conformance and associated risks, and v) meetings/correspondence logs.
Planned Activities	Report a summary of DB Contractor's planned activity, which shall include at a minimum: i) a tracking log of action items in progress with start and projected end dates with a description of proposed solutions, ii) schedule of planned Maintenance Services including Renewal Work for the upcoming month, iii) Details of the next General Inspection in accordance with <u>Section 1.4.1</u> , including any areas targeted for detailed visual or hands-on inspection, iv) future Lane Closures including location, duration and reason of each, v) a 3-month look ahead schedule of planned Maintenance Services including Renewal Work, and vi) a 1-month look ahead for any future Submittals included in the Maintenance Services Deliverable Schedule.

## 6.2 Annual Report

DB Contractor shall submit an annual report to TxDOT within 30 days after each anniversary of the Initial Maintenance Term Commencement Date. 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 3.4 of the CMA and the traffic control plans developed in accordance with Section 5.2 of this Exhibit 2, 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: (a) by location, the Maintained Element, as listed in the Renewal Work Submittal, and any other Project component for which Renewal Work was performed; (b) the type of Renewal Work performed; (c) each specific item replaced; (d) any warranty information associated with any replacement item; (e) the dates of commencement and

completion of such Renewal Work; and (f) such other information as is reasonably requested by TxDOT.

### **6.3 Meetings**

DB Contractor shall conduct regular status, progress and planning meetings with TxDOT at least once a month throughout the Maintenance Period. In addition, TxDOT and DB Contractor 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.

## **7 ADDITIONAL REQUIREMENTS**

### **7.1 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, and pay for 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 the railroad(s) as additional insured. DB Contractor shall obtain insurance per Exhibit 10 of the CMA. All insurance policies shall be in a form acceptable to the operating railroad(s). 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(s) 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.

### **7.2 Toll Interface**

#### **7.2.1 Maintenance Services affecting Tolling**

DB Contractor shall notify TxDOT with a copy to the TxDOT Statewide System Integrator (SI) no later than 2 hours following DB Contractor’s first awareness of any Maintenance Services that is adversely affecting or has the potential to adversely affect power, communications, or structures supporting Electronic Toll Collection System (ETCS) equipment.

### 7.2.2 Maintenance Services affecting ETCS

Whenever DB Contractor plans to undertake Maintenance Services that may adversely affect the performance of the ETCS equipment, could cause loss of toll revenue to TxDOT, or could adversely affect vehicle movement on mainlanes or ramps, DB Contractor shall inform TxDOT, in writing, 28 days in advance of performing any such Maintenance Services. DB Contractor shall avoid any adverse impact on ETCS equipment wherever possible and shall comply with any restrictions and requirements applicable to the Maintenance Services that may be imposed by TxDOT in its sole discretion.

Where adverse impact on ETCS equipment as a result of Maintenance Services is unavoidable, DB Contractor shall prepare and submit an ETCS equipment impact mitigation plan, no later than 28 days in advance of the planned Maintenance Services, for TxDOT’s approval in its sole discretion that shall identify the nature and duration of the potential impacts associated with the Maintenance Services and the mitigation measures DB Contractor proposes. Upon approval by TxDOT of the mitigation plan and completion of the Maintenance Services, DB Contractor shall provide safe access to TxDOT and the SI for the purpose of re-installation and/or re-calibration of affected ETCS equipment. DB Contractor shall be solely responsible for the provision of safe access to TxDOT and the SI including all necessary traffic control to facilitate and enable the SI to re-install and/or re-calibrate ETCS equipment (as needed).

## 8 DELIVERABLES

All Deliverables shall be in accordance with the schedule and for the purpose (approval, review and comment, for information) set forth on Table 4. Acceptable electronic formats include Microsoft Word, Microsoft Excel, or Adobe Acrobat files, unless otherwise required.

**Table 4: Deliverables to the Department**

Deliverables	Deliverable Schedule	Department Action	Reference Section
MMP	Within 60 days after issuance of Maintenance NTP1	Approval	CMA Ex 2 1.2.1
MMP Update	As required, or at least annually 30 Days prior to each anniversary of the Initial Maintenance Term Commencement Date	Approval	CMA Ex 2 1.2.1
General Inspection Plans	At least monthly, no later than 7 days prior to inspection date	For Information	CMA Ex 2 1.4.1
Maintenance Management System (MMS) Demonstration	At least 90 days prior to the Initial Maintenance Term Commencement Date	For Information	CMA Ex 2 1.6.6

**Table 4: Deliverables to the Department**

Deliverables	Deliverable Schedule	Department Action	Reference Section
MMS Training	As required, or at least annually prior to each anniversary of the Initial Maintenance Term Commencement Date	For Information	CMA Ex 2 1.6.6
Notification of Nonconforming Work	Within two Days of discovering the Nonconforming Work	For Information	CMA Ex 2 2.4
Non-conformance Report	Within seven Days of notification issuance	Review and comment	CMA Ex 2 2.4
Update of Renewal Work Submittal	Within 60 Days of Maintenance NTP1; No later than 30 Days prior to each anniversary of the Initial Maintenance Term Commencement Date	Approval	CMA Ex 2 2.5
Maintenance Transition Plan	At least 60 Days prior to the end of the Maintenance Period, or upon termination of the CMA	For Information	CMA Ex 2 4.7
Record Drawings	At least 60 Days prior to the end of the Maintenance Period	For Information	CMA Ex 2 4.7
Maintenance Services Report	As required, or at least monthly following the Initial Maintenance Term Commencement Date	For Information	CMA Ex 2 6.1
Annual Report	Within 30 days after each anniversary of the Initial Maintenance Term Commencement Date	For Information	CMA Ex 2 6.2